

DECISION DOCUMENT

1440 Empire Boulevard
Brownfield Cleanup Program
Penfield, Monroe County
Site No. C828135
December 2012



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

DECLARATION STATEMENT - DECISION DOCUMENT

1440 Empire Boulevard
Brownfield Cleanup Program
Penfield, Monroe County
Site No. C828135
December 2012

Statement of Purpose and Basis

This document presents the remedy for the 1440 Empire Boulevard 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 1440 Empire Boulevard 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:

The alternatives developed for the site and 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 remedy proposed is a Track 4: Restricted use with site-specific soil cleanup objectives remedy. The elements of the proposed remedy, as shown in Figure 2, are as follows:

Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, 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;

1. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
2. Reducing direct and indirect greenhouse gas and other emissions;
3. Increasing energy efficiency and minimizing use of non-renewable energy;
4. Conserving and efficiently managing resources and materials;
5. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;

6. Maximizing habitat value and creating habitat when possible;
7. Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
8. Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

Excavation

On-site soils which exceed site-specific SCOs for PCBs and lead will be excavated and transported off-site for disposal. The site-specific SCOs are:

- Restricted Residential SCOs (400 ppm) for lead, as defined by 6 NYCRR Part 375-6.8 and;
- an acceptable presumptive remedy for Polychlorinated Biphenyls (PCBs) in soil, based on NYSDEC Policy CP-51 / Soil Cleanup Guidance, which includes a soil cleanup level for PCBs of 1 ppm in the surface soils (top two feet) and 10 ppm in the subsurface.

Following the removal of lead and PCB contaminated soils, the management of site soils will be coordinated with the site development. The remaining contaminated soils identified within the BCP site that are disturbed during excavation and grading for development will be stockpiled for use under the cover system described below or disposed of off-site.

Cover System

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

Environmental Easement

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

1. requires 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);
2. allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
3. restricts 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;
4. requires compliance with the Department approved 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: Environmental Easement discussed above.

Engineering Controls: The Cover System discussed above.

This plan includes, but may not be limited to:

1. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
2. descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
3. provisions for the management and inspection of the identified engineering controls;
4. maintaining site access controls and Department notification; and
5. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
6. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
 - a. maintaining site access controls and Department notification; and
 - b. 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.

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

1440 Empire Boulevard
Webster, Monroe County
Site No. C828135
December 2012

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:

Penfield Public Library
Attn: Pat Gough
1985 Baird Road
Penfield, NY 14526
Phone: 585-340-8720

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, Voluntary 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 1440 Empire Boulevard site is located in a suburban portion of Monroe County at 1440 Empire Boulevard (NYS Route 404) in the Town of Penfield. It is identified by County Tax ID Number 108-060-001-008.2.

Site Features: The site is approximately 4.4 acres in size which is part of a larger 16.7 acre parcel. The site is currently a combination of open area and dense brush.

Current Zoning/Use: The site is currently vacant and is located in the Lasalle's Landing Development District which current zoning permits moderate density residential development, as well as certain commercial, recreational and open space uses. Woods and vacant land border the site to the north and west. Empire Boulevard borders the site to the south and east. Commercial properties are primarily south and west of the site with residential properties to the east of Empire Boulevard. The east shore of Irondequoit Bay is approximately 700 feet west of the Site.

Historic Use: A portion of the site was used as a sand quarry and an unpermitted disposal area for construction and demolition debris from the late 1940s to the early 1980s, which appears to have led to the identified contamination at the site.

Site Geology and Hydrogeology: Groundwater has been found at approximately 30 feet below ground surface (bgs) on the east side of the site and 70 feet bgs on the west. Groundwater appears to have a gradient to the west-northwest toward Irondequoit Bay. Perched groundwater has also been found at 10 feet bgs and is assumed to be associated with the connection point between fill materials and native soils.

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

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:

POLYCHLORINATED	Chrysene
BIPHENYLS (PCB)	DIBENZ[A,H]ANTHRACENE
BENZO(A)PYRENE	indeno(1,2,3-cd)pyrene
BENZ(A)ANTHRACENE	LEAD
BENZO(B)FLUORANTHENE	ALPHA-BHC
BENZO[K]FLUORANTHENE	DELTA-BHC
DIELDRIN	

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.

Nature and Extent of Contamination:

Based on the investigations conducted to date the site contamination appears to have resulted from the disposal of construction and demolition debris and other fill. The primary contaminants of concern include petroleum-related semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs). These contaminants are primarily impacting surface soils, sub-surface soils, and groundwater at the site. Soil contaminant concentrations have been compared to the 6NYCRR Part 375-6.8 soil cleanup objectives (SCOs) for Restricted-Residential

use. Groundwater contaminant concentrations have been compared to 6NYCRR Part 703 groundwater standards.

The contaminants found to be exceeding SCOs were located primarily at the surface to eight (8) feet below the ground surface, within the extent of identified fill materials. Two areas of concern (AOCs) were identified on the site: AOC-1 covers approximately 84,600 square feet (approximately 2 acres) in the center of the Site, and encompasses the area where the 2002 and the 2009/2010 subsurface and surface soil sample results for SVOCs, PCBs, Pesticides and Metals exceeded the NYSDEC Part 375-6.8(a) Restricted Residential SCOs. AOC-2 surrounds AOC-1 and covers approximately 105,400 square feet (approximately 2.4 acres). AOC-2 encompasses the historic fill area. In AOC-2 the 2009/2010 subsurface and surface soil sample data and the 2002 soil data for SVOCs, PCBs, Pesticides, and Metals exceed the NYSDEC Part 375-6.8(a) Unrestricted Use SCOs, but not the Restricted Residential SCOs.

Volatile Organic Compounds (VOCs): Acetone was detected above the Part 375-6 protection of groundwater/unrestricted use SCOs in seven soil samples ranging from 0.02 to 0.42 parts per million (ppm). One test pit sample detected methylene chloride (0.17 ppm), ethylbenzene (3.24 ppm), and xylenes (15 ppm) above the protection of groundwater SCOs. No VOCs were detected above the NYSDEC Part 375-6.8(a) Restricted Use, Restricted Residential SCOs. Chlorobenzene was detected in two groundwater monitoring wells (5.06 and 5.35 ppb) above the 5 parts per billion (ppb) standard.

SVOCs: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene, are above the restricted-residential use SCOs at 8 sampling locations. Contaminant concentrations above this SCO ranged from 0.2 to 18.2 ppm. No SVOCs were detected above groundwater standards.

Pesticides: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, aldrin, alpha-chlordane, dieldrin, endrin, and heptachlor epoxide are above unrestricted use SCOs in nineteen samples. Dieldrin and heptachlor epoxide were detected above protection of groundwater SCOs in three samples. Dieldrin was detected above the restricted-residential SCOs in two samples. Two pesticides alpha and delta-BHC were detected above groundwater standards (0.01 ppb) in 3 monitoring wells at concentrations ranging from 0.054 to 0.076 ppb.

PCBs: Aroclor 1248 and 1254 are above the unrestricted use SCOs in ten soil samples. These Aroclors were above restricted-residential use SCOs at 5 sampling locations. Contaminant concentrations ranged from 1.15 to 18.1 ppm. Only Aroclor 1254 was detected above the protection of groundwater SCOs (3.2 ppm) in two samples (13.0 and 18.1 ppm). PCBs were not detected above groundwater standards.

Metals: Arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc were detected above the unrestricted SCOs. Cadmium, copper, lead, nickel, silver, and zinc were detected above the protection of groundwater SCOs in three samples. Cadmium exceeded the restricted-residential SCOs in two samples (4.69 and 72.4 ppm), chromium in one sample (302 ppm), copper in one sample (8870 ppm), and lead in three samples (1,060-3,450 ppm).

Chromium exceeded groundwater standards in three monitoring wells (61 - 160 ppb). Lead (61 ppb), nickel (119 ppb), and selenium (14 ppb) exceeded groundwater standards in one monitoring well each. Iron, manganese, magnesium, and sodium exceeded groundwater standards in all wells.

Significant Threat: The site has been determined not to be a significant to public health or the environment.

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 will not come into contact with contaminated soils at the site because the soil contamination is under the surface and not accessible. Site-related contaminants have not impacted groundwater; however, public water serves the area.

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.

RAOs for Environmental Protection

- 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.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

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 2, are as follows:

The alternatives developed for the site and 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 remedy proposed is a Track 4: Restricted use with site-specific soil cleanup objectives remedy. The elements of the proposed remedy, as shown in Figure 2, are as follows:

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1. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
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Environmental Easement

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

1. requires 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);
2. allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
3. restricts 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;
4. requires compliance with the Department approved Site Management Plan.

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: Environmental Easement discussed above.

Engineering Controls: The Cover System discussed above.

This plan includes, but may not be limited to:

1. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
2. descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
3. provisions for the management and inspection of the identified engineering controls;
4. maintaining site access controls and Department notification; and
5. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
6. an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
 - a. maintaining site access controls and Department notification; and
 - b. providing the Department access to the site and O&M records.

LOCATION MAP

1440 Empire Blvd.
Town of Penfield, New York

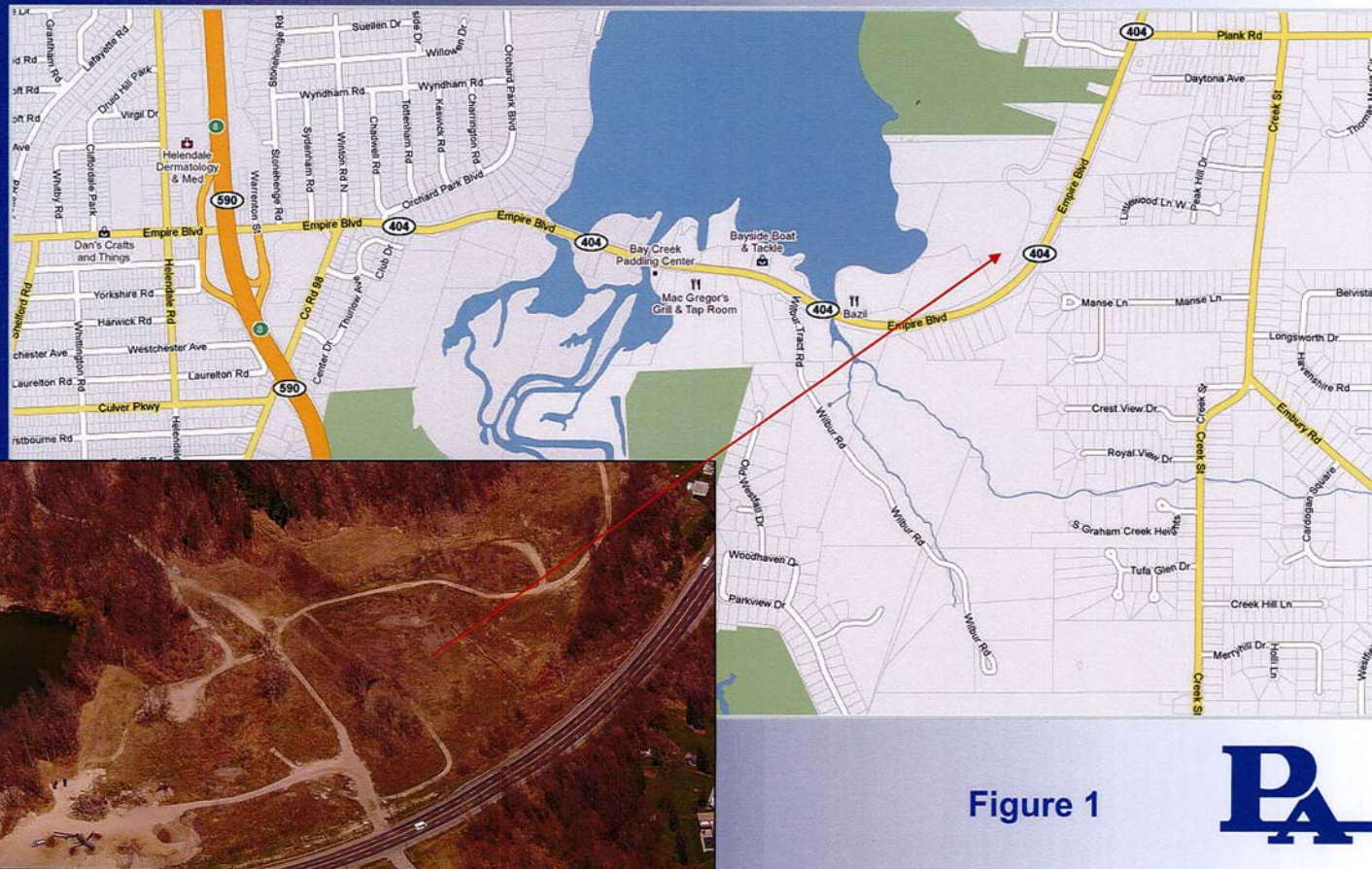
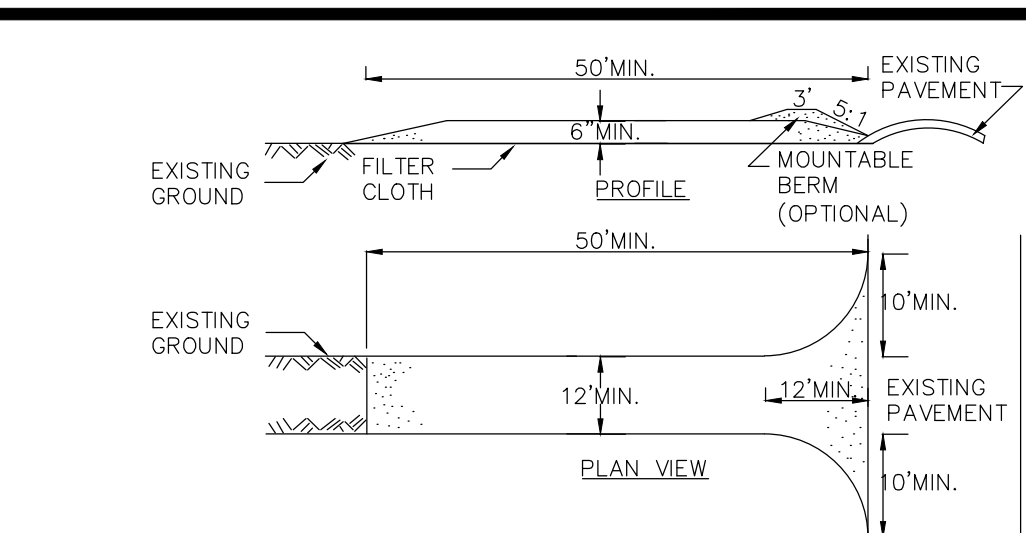
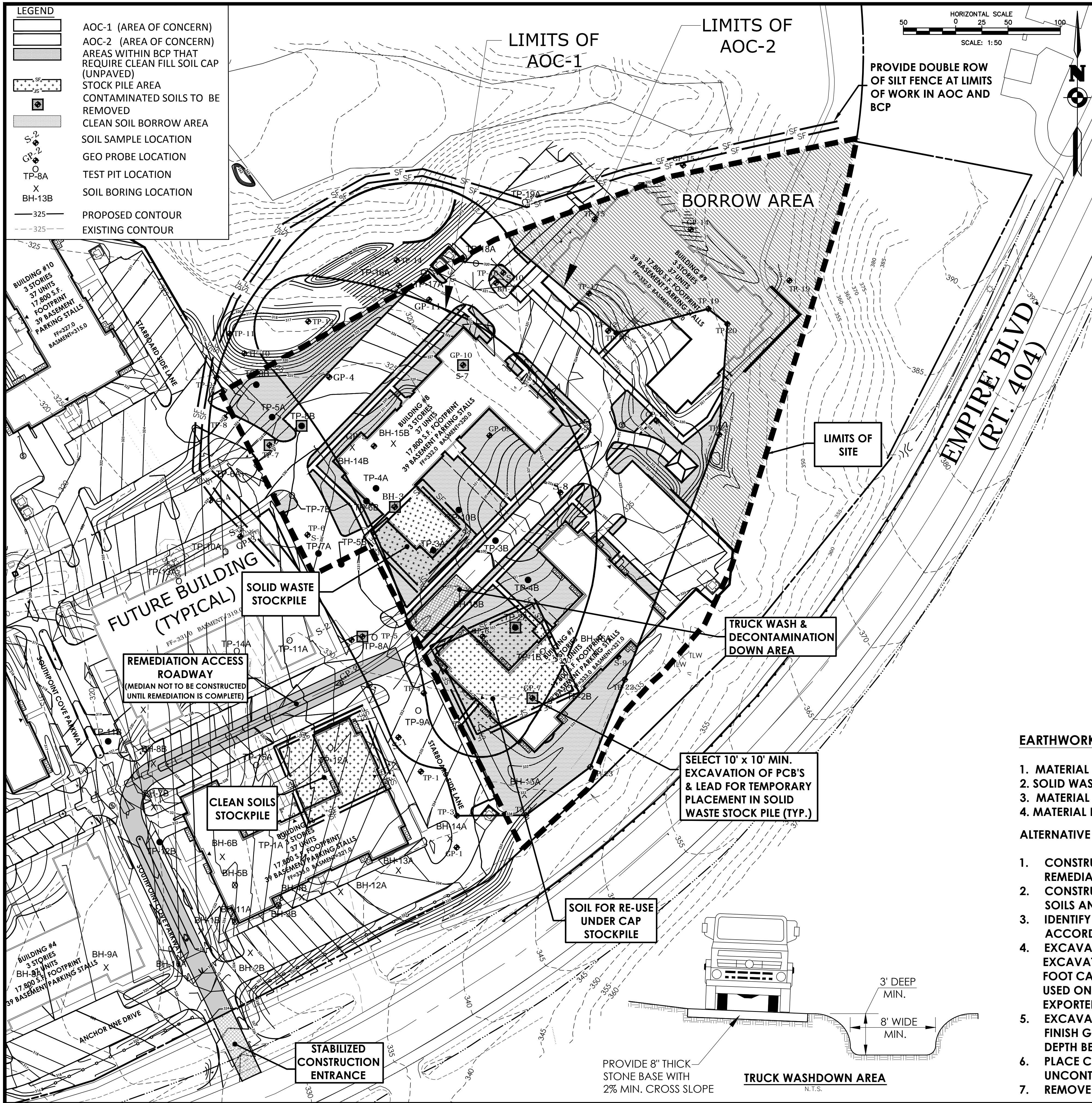


Figure 1





Passero Associates
Engineering • Architecture
www.passero.com

LOCATION SKETCH

Client: **Southpoint Cove LLC**
1170 Pittsford-Victor Road
P.O.Box 1660
Pittsford, NY 14534
Robert Morgan (585)419-9630

Passero Associates
100 Liberty Pole Way Rochester, New York 14604 (585) 325-1000 Fax: (585) 325-1601
Principal-in-Charge John F. Caruso, P.E.
Project Manager Jess D. Sudol, P.E.
Designed by Carole G. Harvey

Revisions

No.	Date	By	Description
1			

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REMEDIAL ACTION WORK PLAN ALTERNATIVE 4

Figure 2

SOUTHPOINT COVE APARTMENTS

Town/City: Penfield
County: Monroe State: New York

Project No. 20121461.01

Drawing No. Sheet No. 3 of 3

Scale: 1" = 50'

Date: OCTOBER, 2012