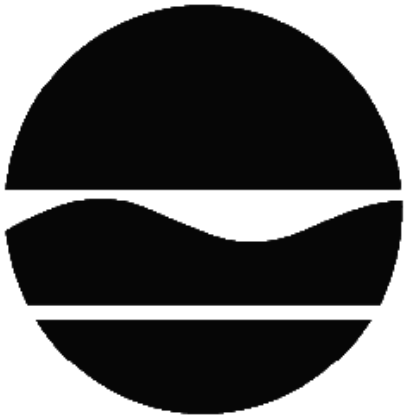
RECORD OF DECISION

1030 East Dominick Street
Environmental Restoration Project
Rome, Oneida County
Site No. E633064
March 2018



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

DECLARATION STATEMENT - RECORD OF DECISION

1030 East Dominick Street
Environmental Restoration Project
Rome, Oneida County
Site No. E633064
March 2018

Statement of Purpose and Basis

This document presents the remedy for the 1030 East Dominick Street site, an environmental restoration 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 1030 East Dominick Street site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

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. Specifically, a pre-remedial design investigation program will be developed if any of the existing on-site structures are demolished, to more fully characterize subsurface soils. 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Site Cover

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). The site cover may consist of paved surface parking areas, sidewalks, or a soil cover. 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 as set forth in 6 NYCRR Part 375-6.7(d). In areas where building foundations or building slabs preclude contact with the soil, the requirements for a site cover will be deferred until such time that they are removed.

3. Excavation

Excavation and off-site disposal of contaminant source areas described above, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- non-aqueous phase liquids; and
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Approximately 2,500 cubic yards of contaminated soil will be removed from the central portion of the site and disposed off-site. The estimated depth of the excavation is from 11 to 17 feet below grade. The excavation will include the removal of any underground storage tanks (USTs), underground piping and other structures associated with the source of contamination. Because the seasonal changes of the water level in the Erie Canal (located 1,200 feet south the site), alters the groundwater level on the site, the excavation will be performed after the Erie Canal is lowered in the fall to limit the amount of dewatering.

On-site soil which does not exceed the above excavation criteria and complies with the commercial SCOs may be used above the groundwater table and below the cover system described in remedy element 2 to backfill the excavation to the extent that a sufficient volume of on-site soil is available.

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

4. Institutional Control

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

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

5. 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 4 above.
Engineering Controls: The cover system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations on the controlled property;

- a provision for evaluation of the potential for soil vapor intrusion should the occupants of the current site building no longer use site related contaminants of concern, and if any new buildings are developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)

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

- provisions for the management and inspection of the soil cover;

- maintaining site access controls and Department notification;

- the steps necessary for the periodic reviews and certification of the institutional 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 ground water to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department;
- monitoring for vapor intrusion should the occupants of the current site building no longer use site-related contaminants of concern, and if any new buildings are developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

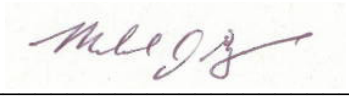
New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 28, 2018
Date



Michael J. Ryan, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

1030 East Dominick Street
Rome, Oneida County
Site No. E633064
March 2018

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 remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

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 repositories:

Jervis Public Library
613 North Washington Street
Rome, NY 13440
Phone: 315-336-4570

City of Rome
Attn: Diana Samuels
198 North Washington Street
Rome, NY 13440
Phone: 315-339-7646

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the alternatives analyses (AA) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

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 site is located at 1030 East Dominick Street in the City of Rome, Oneida County. The site is situated on the south side of East Dominick Street, opposite Carey Street.

Site Features: The site is an approximately 0.90 acre parcel. The site contains a 2,200 square foot, single story concrete block structure with a slab on grade foundation. The site is relatively flat, with a gentle slope to the north. A steep slope exists along the southern portion of the site. The site is currently not fenced. The western and southern portions of the site are vegetated, while the northern portion of the site is paved. Immediately south of the site are railroad tracks and the Erie Canal is located further south of the railroad tracks.

Current Zoning/Use: The site is located in an urban area in the City of Rome and is currently zoned E-3 (general industrial). The site is presently being used as an automobile maintenance and repair shop. The surrounding parcels are used for commercial, residential and industrial uses.

Past Use of the Site: Previously, the site was used as a gasoline station dating back to the 1950s. The three underground storage tanks (USTs) were removed in 1999 and since that time the site has operated as an automobile maintenance and repair facility.

Site Geology and Hydrology: The site's subsurface soil consists of sand and gravel fill from the surface to approximately 12 feet below grade. Below 12 feet the fill generally turns into native fine to coarse sand and gravel. Bedrock was not encountered during the subsurface investigation. Groundwater is encountered at depths of 12 to 16 feet below grade and generally flows from north to south across the site towards the Erie Canal approximately 1,200 feet from the site.

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 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 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 included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

No PRPs have been documented to date.

The City of Rome entered into a State Assistance Contract with the Department in 2007. The contract obligates the City to investigate the site and implement a remedy.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. City of Rome will assist the state in its efforts by providing all information to the state which identifies PRPs. City of Rome will also not enter into any agreement regarding response costs without the approval of the Department.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field

activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

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. The tables found in Exhibit A list the applicable SCGs in the footnotes. 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 in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benzo(b)fluoranthene
benzo[k]fluoranthene
benzo(a)anthracene
chrysene

ethylbenzene	lead
isopropylbenzene	trichloroethene (TCE)
toluene	copper
xylene (mixed)	tetrachloroethene (PCE)
naphthalene	trichloromonofluoromethane

As illustrated in Exhibit A, 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 Record of Decision.

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.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Nature and Extent of Contamination:

Based on the investigation conducted at the site, the primary contaminants of concern include volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs) derived from the historic use of the site as a gas station and a vehicle maintenance facility.

Soil: A total of eight shallow soil samples were collected from beneath the root zone from 4 - 8 inches below the surface to the south, southeast and southwest of the building structure, and analyzed for VOCs, SVOCs, metals, and polychlorinated biphenyls (PCBs). The results indicate that shallow soils at the site exceed the unrestricted soil cleanup objectives (SCO) for SVOCs and inorganics. Copper was noted in one sample at 342 parts per million (ppm) which slightly exceeded commercial soil cleanup objective (SCO) of 270 ppm southeast of the building. The same sample also exceeded the commercial SCO for benzo(a)anthracene at 6.1 ppm (SCO 5.6 ppm), benzo(a)pyrene at 5.4 ppm (SCO 1.0 ppm), and benzo(b)fluoranthene at 5.7 ppm, (SCO 5.6 ppm) There were no exceedances of commercial SCOs for VOCs or PCBs in shallow soils.

Twenty-eight soil borings were performed, with samples collected from depths of 6 to 23 feet below grade. Subsurface soil samples were analyzed for the same compounds as shallow soil

samples. One boring (SB-21) was installed off-site, south of the railroad tracks. Visual signs of petroleum impacts (staining, odor and elevated field instrument readings) were observed in all but two on-site borings, and in the one off-site soil boring at a depth ranging from 11 to 17 feet below ground surface (bgs). Separate phase petroleum product was observed at a depth of 13 to 14 feet bgs in soil boring MW-04 located along the southern site boundary. Real time sampling for VOCs using a field instrument noted readings of 0.1 to 1,500 ppm. The highest reading was observed at SB-04 at 16 feet bgs located east of the building. Soil samples were collected based on the field screening results. There were no exceedances of commercial SCOs for VOCs, SVOCs, PCBs or metals. The maximum ethylbenzene and xylene concentrations in subsurface soil were 2.1 and 11 ppm, which exceeded unrestricted SCOs of 1ppm and 0.26 ppm, respectively. A PCB concentration of 0.26 ppm was measured in one subsurface soil sample, slightly exceeding the unrestricted SCO of 0.1 ppm. Chromium exceeded the unrestricted SCOs of 1.0 ppm in most of the subsurface soil samples, with a maximum concentration of 12.9 ppm. Chromium did not exceed the commercial SCO.

Additionally, eight test pits were performed as a part of the remedial investigation. Minor stains were observed at an approximate depth of 2 to 2.5 feet below grade in three test pits. However, no odor or PID detections were noted. No soil samples were collected from the test pits.

Groundwater: A total of eight groundwater monitoring wells were installed as part of the investigation. Groundwater samples were analyzed for VOCs, SVOCs, metals, and PCBs. Trichloroethene (TCE) was found at 10 parts per billion (ppb) just north of the building, and at 11 ppb just southeast of the building, which exceeded the New York State ambient groundwater standard of 5 ppb. Several VOCs related to petroleum contamination exceeded their respective groundwater standards. The maximum concentrations of ethylbenzene (130 ppb), isopropylbenzene (60 ppb), and xylene (770 ppb) were observed in well MW-07, just south of the building, exceeding their groundwater standards of 5 ppb. Naphthalene concentrations of 60 ppb and 97 ppb were also observed in wells MW-04 and MW-07 respectively, exceeding the groundwater standard of 10 ppb. One well (MW-08) was installed off-site to the south of the railroad tracks, which did not identify contamination in excess of ground water quality standards.

Several SVOCs, including 4-nitroaniline at 6.7 ppb in MW-05 (standard 5 ppb), benzo(a)anthracene at 0.7 ppb and chrysene at 0.57 ppb (standard 0.002 ppb) exceeded their respective groundwater standards. The bis(2-ethylhexyl) phthalate concentration of 9.6 ppb in well MW-04 exceeded the groundwater standard of 5 ppb.

Several inorganics exceeded their respective groundwater standards. Lead was found in downgradient wells at a level about twice the upgradient level. The maximum lead concentration of 72 ppb (standard 25 ppb) was found in MW-03, located in the southwest corner of the site. Arsenic, chromium, iron, magnesium, manganese and sodium exceeded their respective groundwater standards in several monitoring wells. However, these inorganics were also noted in upgradient monitoring wells at similar concentrations. These exceedances represent background groundwater conditions in the area surrounding the site and are not related to the site.

Soil Vapor: Six subsurface soil vapor samples were collected from directly west and south of the on-site building. TCE was detected in four of the six samples ranging from 10 to 0.76 ug/m3. Tetrachloroethene (PCE) was detected in two of the six samples (ranging from 42 to 6.7 ug/m3). Trichlorofloromethane was detected in 5 out of 6 samples (ranging from 380 to 19 ug/m3). Several petroleum related contaminants were noted in the soil vapor samples including toluene (ranging from 2 to 13 ug/m3), xylene (0.9 to 48 ug/m3) and naphthalene (ND to 260 ug/m3).

6.4: Summary of Human Exposure Pathways

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

The site is not fenced and persons who enter the site could contact contaminants in the soil by walking on the soil, digging or otherwise disturbing the soil. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater 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. An evaluation of the potential for soil vapor intrusion to occur in the on-site building is recommended when the same volatile organic chemicals present in groundwater and soil vapor are no longer being used in the on-site building. Environmental sampling indicates soil vapor intrusion is not a concern at off-site structures.

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

- 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: SUMMARY OF THE SELECTED REMEDY

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the alternatives analysis (AA) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's remedy is set forth at Exhibit D.

The selected remedy is referred to as the Source Material Excavation, Site Cover, Natural Attenuation and Site Management remedy.

The estimated present worth cost to implement the remedy is $1,212,500. The cost to construct the remedy is estimated to be $1,152,000 and the estimated average annual cost is $12,650.

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. Specifically, a pre-remedial design investigation program will be developed if any of the existing on-site structures are demolished, to more fully characterize subsurface soils. 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Site Cover

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). The site cover may consist of paved surface parking areas, sidewalks, or a soil cover. 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 as set forth in 6 NYCRR Part 375-6.7(d). In areas where building foundations or building slabs preclude contact with the soil, the requirements for a site cover will be deferred until such time that they are removed.

3. Excavation

Excavation and off-site disposal of contaminant source areas described above, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- non-aqueous phase liquids; and
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Approximately 2,500 cubic yards of contaminated soil will be removed from the central portion of the site and disposed off-site. The estimated depth of the excavation is from 11 to 17 feet below grade. The excavation will include the removal of any underground storage tanks (USTs), underground piping and other structures associated with the source of contamination. Because the seasonal changes of the water level in the Erie Canal (located 1,200 feet south the site), alters the groundwater level on the site, the excavation will be performed after the Erie Canal is lowered in the fall to limit the amount of dewatering.

On-site soil which does not exceed the above excavation criteria and complies with the commercial SCOs may be used above the groundwater table and below the cover system described in remedy element 2 to backfill the excavation to the extent that a sufficient volume of on-site soil is available.

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

4. Institutional Control

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

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

5. 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 4 above.
Engineering Controls: The cover system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations on the controlled property;

- a provision for evaluation of the potential for soil vapor intrusion should the occupants of the current site building no longer use site related contaminants of concern, and if any new buildings are developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs)

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

- provisions for the management and inspection of the soil cover;

- maintaining site access controls and Department notification;

- the steps necessary for the periodic reviews and certification of the institutional 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 ground water to assess the performance and effectiveness of the remedy;

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

- monitoring for vapor intrusion should the occupants of the current site building no longer use site-related contaminants of concern, and if any new buildings are developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation (RI) for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site which. The contaminants are arranged into four categories: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals). For comparison purposes, the Standards, Criteria and Guidance (SCGs) are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater, and subsurface soil.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium.

Waste and source areas were identified in the central portion of the site adjacent to and possibly below the on-site building. During the investigation, there were visual signs of petroleum contamination including non-aqueous phase liquid (NAPL), sheen, stained soil, odor and elevated levels on a hand held photoionization detector (PID). Elevated PID readings were observed in most soil boring locations at depths of 11 to 17 feet below the ground surface (bgs). The highest PID reading was observed in the soil boring located adjacent to and east of the building (SB-04) at 1,500 ppm. It is estimated that there is approximately 2,500 cubic yard of grossly contaminated soil present in the subsurface at the site.

The waste/source areas identified will be addressed in the remedy selection process.

Groundwater

Groundwater samples were collected from seven overburden monitoring wells (MWs), including one well located off-site, beyond the railroad tracks to the south of the site. The samples were collected and analyzed for VOCs, SVOCs, metals and PCBs to assess groundwater conditions on site. The results indicate that petroleum-related contamination in shallow groundwater at the site exceeds ambient groundwater quality standards for VOCs, SVOCs and inorganics. Ethylbenzene, isopropylbenzene, toluene, xylene and naphthalene exceeded their respective standards in MW-07 and MW-04 located south of the building. Benzo(a)anthracene and chrysene exceeded their respective standards in well MW-04. No exceedances of VOCs and SVOCs were observed in the off-site downgradient monitoring well located south of the site across the railroad tracks, indicating attenuation of the groundwater plume as it travels south. Tricholorethene (TCE) exceeded SCGs at MW-01 (an up gradient

well located to the north of the building) and in MW-05 (a down gradient well southeast of the building). TCE appears to be coming onto the site from an upgradient source, and is not considered to be related to the site. Bis(2-ethylhexyl) phthalate was noted slightly above SCG in one monitoring well. Bis(2-ethylhexyl) phthalate is a common laboratory contaminant and is not considered to be site-related. Lead was found in groundwater above SCGs at about twice the level found in the upgradient well. Lead was also found in the off-site downgradient well south of the railroad tracks, but at a lower concentration than the site's upgradient well. The site may be contributing to lead levels in groundwater but there appears to be a background level of lead in groundwater near the site. Arsenic, chromium and copper exceeded their respective SCG in several on-site monitoring wells but these inorganics were also noted in upgradient well MW-01, located north of the building. Arsenic, chromium and copper appear to be related to background groundwater conditions in the area surrounding the site and are not considered to be related to the site.

Table 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
Ethylbenzene	94 - 130	5.0	2/7
Isopropylbenzene	32 - 60	5.0	2/7
Toluene	ND-5.2	5.0	1/7
Trichloroethene	3.2 - 11	5.0	2/7
Xylene	550 - 770	5.0	2/7
SVOCs			
4-Nitroaniline	2.3 - 6.7	5.0	1/7
Benzo(a)anthracene	ND-0.7	0.002	1/7
bis(2-Ethylhexyl)phthalate	1.8 - 9.6	5.0	1/7
Chrysene	ND-0.57	0.002	1/7
Naphthalene	61 – 97	10.0	2/7
Inorganics			
Arsenic	15.5 - 72.5	25	4/7
Chromium	4.6 - 92.1	50	2/7
Copper	13 - 270	200	2/7
Iron	4900 - 124000	300	7/7
Lead	3.7 - 71.2	25	5/7
Magnesium	11500 - 50300	35000	4/7
Manganese	2700 - 10500	300	7/7
Nickel	8.3 - 103	100	1/7

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
Sodium	82100 - 217000	20000	7/7

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

The primary groundwater contaminants are the VOCs ethylbenzene, isopropylbenzene, toluene, xylene, and the SVOCs naphthalene, benzo(a)anthracene and chrysene associated with operation of the former gas station.

Based on the findings of the RI, the past disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of groundwater to be addressed by the remedy selection process are: ethylbenzene, isopropylbenzene, toluene, xylene, naphthalene, benzo(a)anthracene, chrysene and lead.

Shallow Soil

A total of eight shallow soil samples were collected at the site during the RI. Shallow soil samples were collected beneath the root zone 4 – 8 inches bgs. The results indicate that shallow soils at the site exceed the unrestricted soil cleanup objectives (SCO) for SVOCs and inorganics. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and copper exceeded the commercial SCOs in one sample taken from the eastern portion of the site (SS-2).

Table 2 – Shallow Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Commercial Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG
SVOCs					
Benzo(a)anthracene	0.19 – 6.1	1.0	1/8	5.6	1/8
Benzo(a)pyrene	0.15 – 5.4	1.0	1/8	1.0	1/8
Benzo(b)fluoranthene	0.27 – 5.7	1.0	1/8	5.6	1/8
Benzo(k)fluoranthene	0.089 – 2.0	0.8	1/8	56	0/8
Chrysene	0.15 – 6.2	1.0	1/8	56	0/8
Indeno(1,2,3-cd)pyrene	0.11 – 3.0	0.5	1/8	5.6	0/8
Inorganics					
Chromium	11.6 – 12.9	1.0	4/4	400	0/4
Copper	77.2 - 342	50	4/4	270	1/4
Lead	49.3 - 241	63	3/4	1000	0/4

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Commercial Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG
Total Mercury	0.829 – 0.264	0.18	1/4	2.8	0/4
Zinc	126 - 251	109	4/4	10,000	0/4

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use, unless otherwise noted.

The primary soil contaminants are SVOCs associated with the former use of the site as a gas station.

Based on the findings of the Remedial Investigation, the past disposal of hazardous waste has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and copper.

Subsurface Soil

A total of 28 soil borings were performed at the site during the RI. Subsurface soil samples were collected from a depth of 6 – 23 feet bgs to assess soil contamination. The results indicate that subsurface soils at the site exceed the unrestricted SCOs for VOCs, inorganics, and total polychlorinated biphenyls (PCBs). There were no exceedances of commercial SCOs for any constituents in subsurface soils. However, maximum concentration of total VOC tentatively identified compounds (TICs) of 313 ppm was reported at MW-04, located along the southern property boundary. The maximum concentration of total SVOC TICs of 121.5 ppm was in boring SB-05 located immediately south of the building.

Additionally, eight shallow test pits were performed to assess the extent of visual contamination. Although no soil samples were collected, minor staining was observed in three test pits at depths of approximately 2 to 2.5 feet.

Table 3 – Sub-Surface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Proection of Groundwater SCG[c] (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Ethylbenzene	0.00037 – 2.1	1.0	1/27	1	1/27
Isopropylbenzene	ND – 2.8	NS	NA	2.3[d]	1/27
Xylene	0.00091– 11.0	0.26	3/27	1.6	2/27

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Proection of Groundwater SCG[c] (ppm)	Frequency Exceeding Restricted SCG
Inorganics					
Chromium	0.26 – 22.5	1.0	19/20	NS	NA
Copper	0.27 – 55.9	50	3/20	1720	0/19
Pesticides/PCBs					
Total Detectable PCBs	0.0073–0.259	0.1	1/20	3.2	0/19

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Restricted Residential Use, unless otherwise noted.
d – SCG: Commissioner Policy # 51

Although there were no exceedances of commercial SOCs in the subsurface soil, the remedial investigation revealed presence of source material in the central portion of the site, which will be addressed in the remedy selection process.

Soil Vapor

Six subsurface soil vapor samples were collected from directly west and south of the on-site building. Trichloroethylene (TCE) was detected in four out of the six samples, ranging from 0.76 to 10 ug/m3. Tetrachloroethene (PCE) was detected in two out of six samples, ranging from 6.7 to 42 ug/m3). Trichlorofluoromethane was detected in 5 out of 6 samples (ranging from 19 to 380 ug/m3). Several petroleum-related contaminants were noted in the soil vapor samples, including toluene (ranging from 2 to 13 ug/m3), xylene (0.9 to 48 ug/m3) and naphthalene (ND - 260 ug/m3).

Exhibit B

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2: Soil Removal to Unrestricted SCOs

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A and soil meets the unrestricted soil clean objectives listed in Part 375-6.8 (a). This alternative would include excavation of the all soil that exceeds the unrestricted SCO to a depth of 17 feet below ground surface (bgs) and off-site disposal of all soil/material. The excavation will be backfilled in the clean imported soil. This remedial alternative includes demolishing the on-site building when it becomes unoccupied.

Capital Cost:.....*$* 5,319,000

Alternative 3: Source Material Excavation, Site Cover, Natural Attenuation and Site Management

This alternative would include excavation and off-site disposal of approximately 2500 cubic yard of grossly contaminated soil as defined by 6 NYCRR Part 375-1.2(u) and Commissioners Policy #51 which is located in the central portion of the site from depths of 11 to 17 feet bgs. Clean on-site overburden soil and imported material will be used to backfill the excavation. This alternative also includes installation of one foot of soil cover over the entire site to allow for the commercial use of the site. Institutional controls in the form of an Environmental Easement, restricting land use, prohibiting use of the site ground water and requiring implementation of the Department approved Site Management Plan (SMP) will be required. The SMP will contain an excavation plan to manage contaminated soils underneath the cover if the cover is disturbed. The SMP will also contain a groundwater monitoring program to monitor natural attenuation of the groundwater contamination, and periodic inspection of the cover system. The SMP will also require a soil vapor intrusion evaluation of the existing building, if on-site use of contaminants present in soil vapor ceases, and for future buildings constructed on the site. Periodic certification of the institutional and engineering controls (IC/ECs) will be required. This remedial alternative includes demolishing the on-site building when it becomes unoccupied.

Present Worth:.....*$ 1,213,000*
Capital Cost:.....*$ 1,151,000*
Annual Costs:.....*$ 13,000*

Alternative 4: On-site Ex-situ Soil Turning, Site Cover, Natural Attenuation, and Site Management

This alternative would include, excavation of the grossly contaminated soils described in Alternative 3 above and on-site treatment in bio-piles that are turned periodically to enhance the biological breakdown of contaminants. Clean on-site overburden soil and treated soils from the bio-piles will be placed back into the excavation. Some clean imported soil is anticipated to be required to complete the backfill of the excavation. This alternative includes the installation of a one-foot cover to allow for the commercial use of the site. Institutional controls in the form of an Environmental Easement restricting land use, prohibiting use of the site ground water and requiring implementation of the Department approved Site Management Plan (SMP) will be required. The SMP will contain an excavation plan to manage soils underneath the cover if the cover is disturbed. The SMP will also contain a groundwater monitoring program to monitor natural attenuation of groundwater contamination, and periodic inspection of the cover system. The SMP will also require a soil vapor intrusion evaluation of the existing building, if on-site use of contaminants present in soil vapor ceases, and for future buildings constructed on the site. Periodic certification of the institutional and engineering controls (IC/ECs) will be required. This remedial alternative includes demolishing the on-site building when it becomes unoccupied.

Present Worth: ..... *$ 801,000*
Capital Cost: ..... *$ 740,000*
Annual Costs: ..... *$ 13,000*

Exhibit C

Remedial Alternative Costs

Remedial Alternative	Capital Cost ($)	Annual Costs ($)	Total Present Worth ($)
No Action	0	0	0
Soil Removal to Unrestricted SCOs	$ 5,319,000	0	$ 5,319,000
Source Material Excavation, Site Cover, Natural Attenuation and Site Management	$ 1,152,000	$ 13,000	$ 1,213,000
On-site Ex-situ Soil Turning, Site Cover, Natural Attenuation, and Site Management	$ 740,000	$ 13,000	$ 801,000

Exhibit D

SUMMARY OF THE SELECTED REMEDY

The Department is selecting Alternative 3, Source Material Excavation, Site Cover, Natural Attenuation and Site Management as the remedy for this site. Alternative 3 would achieve the remediation goals for the site by removing grossly contaminated source material, installing a site cover, remediating groundwater contamination by natural attenuation, and development of a Site Management Plan. The elements of this remedy are described in Section 7. The selected remedy is depicted in Figure 7.

Basis for Selection

The selected remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the Alternative Analysis Report and the Department's Alternatives Analysis Addendum dated September 20, 2017, which evaluate potential remedial alternatives for the site.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

Alternative 1 (No Action) does not address site contamination and does not protect human health. Therefore, Alternative 1 (No Action) does not meet the threshold criteria and will not be evaluated further.

The selected remedial Alternative 3 (Source Material Excavation, Site Cover, Natural Attenuation and Site Management) would satisfy this criterion by removing the source material and disposing it off-site. Alternative 3 addresses the source of the groundwater contamination. Alternative 2, by removing all soil contaminated above the unrestricted soil cleanup objective, meets the threshold criteria. Alternative 4 also complies with this criterion but to lesser degree than Alternative 2 and 3, since some residual contamination may be left in the treated soil to be placed back into the excavation hole.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternatives 2 (Soil Removal to Unrestricted SCOs), 3 (Source Material Excavation, Site Cover, Natural Attenuation and Site Management) and 4 (On-site Ex-situ Soil Turning, Site Cover, Natural Attenuation, and Site Management) all meet this criterion by either removing or treating soils that cause groundwater contamination and exposure resulting from soil vapor and placing a one foot soil cover to prevent direct exposure to surface soils. Alternative 3 complies with SCGs to the extent practicable. It addresses source areas of contamination and complies with the restricted use soil cleanup objectives at the surface through construction of a cover system. It also creates the conditions necessary to restore groundwater quality to the extent practicable. Alternatives 2 and 4 also comply with this criterion. Because Alternatives 2, 3, and 4 satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Long-term effectiveness is best accomplished by the two alternatives involving excavation and off-site disposal of contaminated soils (Alternatives 2 and 3). Alternative 2 (Soil Removal to Unrestricted SCOs) results in removal of all of the contamination at the site. Alternative 3 (Source Material Excavation, Site Cover, Natural Attenuation and Site Management) would result in the removal of the source material from the site, but requires an environmental easement and long-term monitoring. Alternative 4 (On-site Ex-situ Soil Turning, Site Cover, Natural Attenuation, and Site Management) complies with this criterion but to a lesser degree than Alternative 3, since there may to some untreated residual contamination especially the inorganics. However, the controls required for long-term effectiveness under Alternatives 3 and 4 are adequate and reliable.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternative 2 (Soil Removal to Unrestricted SCOs), significantly reduces the mobility of on-site waste by transferring the material to an approved off-site disposal facility. However, the toxicity and volume of the contaminated soil may or may not be reduced depending on whether any treatment is performed at the permitted off-site facility. Alternative 3 (Source Material Excavation, Site Cover, Natural Attenuation and Site Management) also reduces the mobility of the contamination but contamination will be left behind which will need to be managed under a Site Management Plan. Alternative 4, (On-site Ex-situ Soil Turning, Site Cover, Natural Attenuation, and Site Management) reduces toxicity, mobility and volume of contaminated soil by biological treatment. Remaining contamination, in particular inorganics, will be left behind which will need to be managed under the Site Management Plan. All three of the alternatives under consideration reduce the potential for mobility in the form of soil vapor intrusion by removing and/or treating the source.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

All the alternatives have short term impacts to the workers and surrounding community due to the construction activities associated with the building demolition and soil excavation. However, these impacts can be minimized using standard construction precautions. Implementing Alternative 2 will cause more tuck traffic than implementing Alternative 3 and 4. Implementing Alternative 4 will cause least amount of truck traffic. Alternative 2 will achieve all remedial goals quicker, as all contaminated soil will be removed from the site and clean backfill brought back to the site. Alternatives 3 and 4 will reach remedial goal through source removal and/or soil treatment, but will take longer to achieve effectiveness than Alternative 2 as limited petroleum soil contamination may remain on-site. Alternative 4 has the greatest degree of short term impacts because the soil will have to be treated in on-site bio-piles prior to being returned to the excavation. In addition, the excavation area will have to be protected and remain open during the treatment period, which is anticipated to be one year.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

All of the remaining alternatives are implementable. Alternative 2 is more difficult to implement than alternative 3 due to the greater volume of soil to be managed. Alternative 4 is also more difficult to implement than alternative 3 because of the on-site soil treatment requires frequent turning, maintenance, and monitoring of the on-site bio piles and protection of the excavation area during soil treatment.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

Alternative 2 has the highest cost, as all soil which exceeds the unrestricted SCOs are excavated and sent off-site for disposal. Further, Alternative 2's costs are higher as it requires the greatest volume of clean imported fill to be brought back to the site. However, there are no long term monitoring costs. For this additional cost the increased degree of protectiveness is limited. The cost of Alternative 3 and 4 are considerably less than alternative 2 since the volume of the soils to be managed and clean backfill to be imported are less. Alternative 4 has the lowest cost of the remaining alternatives because very little soil is sent off-site for disposal. Alternative 3 and 4 have similar long term monitoring costs.

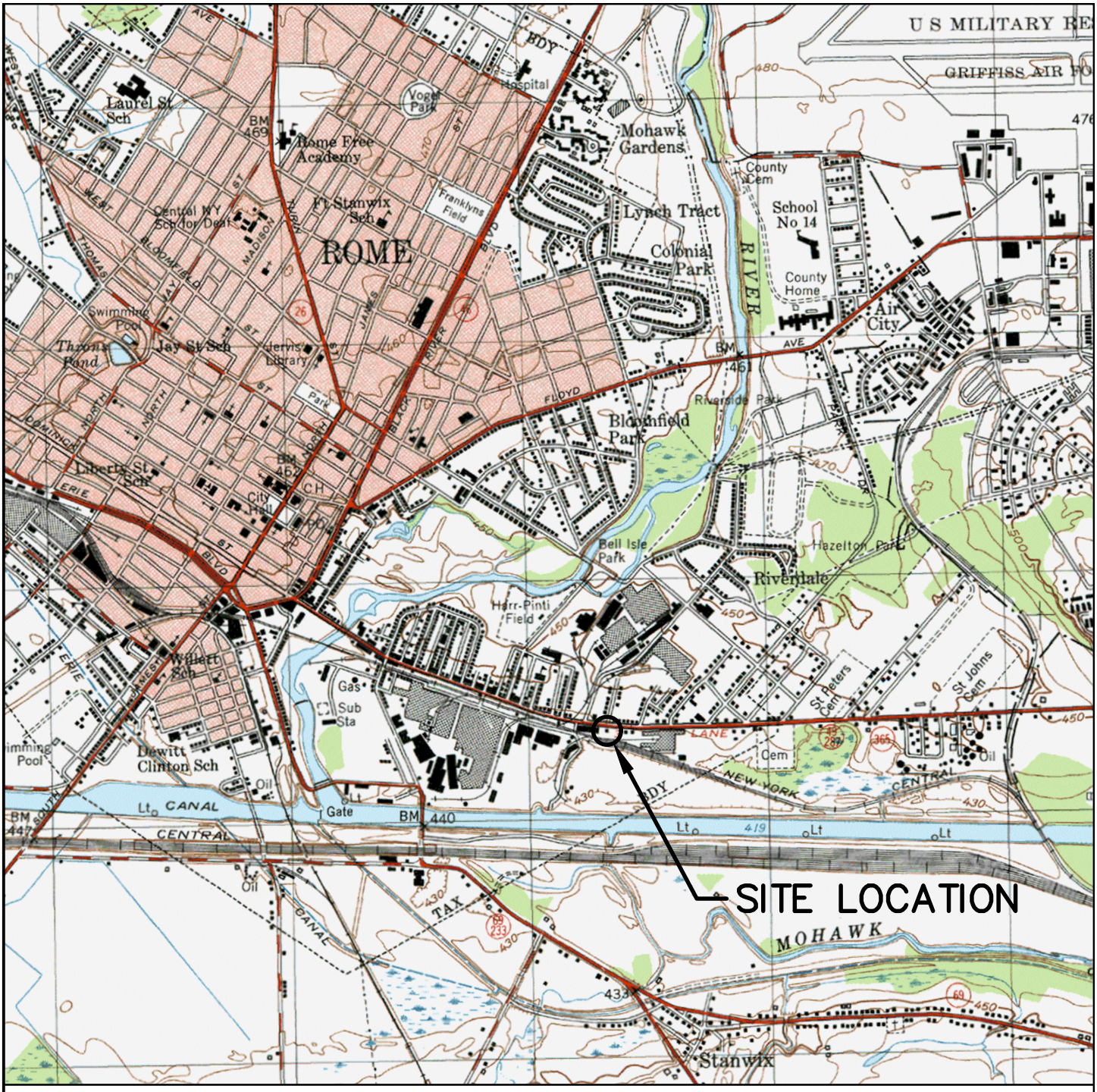
8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

With Alternative 2, all the soil exceeding unrestricted SCOs would be removed and there would be no need for land use restrictions. This provides the best flexibility for future land uses. Alternatives 3 and 4 will have contamination remaining on the site and will require land use controls. The remaining contamination will be managed by the Site Cover to protect public health and the Site Management Plan. The planned land use for the site is commercial, which is consistent with zoning and the surrounding area.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP were evaluated. A responsiveness summary has been prepared that describes public comments received and the manner in which the Department addressed the concerns raised.

Therefore, Alternative 3 (Source Material Excavation, Site Cover, Natural Attenuation and Site Management) has been selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.



SOURCE: ROME, NEW YORK U.S.G.S. QUADRANGLE MAPS, DATE 1984.

QUADRANGLE LOCATION

2000' 0 2000'

1"=2000'

N

Barton & Loguidice, D.P.C.

CITY OF ROME

1030 EAST DOMINICK STREET

SITE LOCATION MAP

CITY OF ROME ONEIDA COUNTY, NEW YORK

Date	Scale
JANUARY, 2017	1" = 2000'

Figure Number 1

Project Number 245.005

Plotted: Jan 17, 2017 - 1:46PM SYR By: jgs2
I:\Shared\200\245005-S\SIR FIGURES\1030 E DOM\Dec 2016 Report\245005_FIG 1.dwg

Plotted: Jan 17, 2017 – 1:47PM SYR By: jgs2
I:\Shared\200\245005-S\SR FIGURES\1030 E DOM\Dec 2016 Report\245005_FIG 2_SITE LOCATION PLAN1.dwg

Checked by ____ Drawn by JGS Designed by SBL In charge of SDN

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COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By ____ Date ____

Ck'd ____ Date ____

REVISIONS

CITY OF ROME

1030 EAST DOMINICK STREET

SITE LOCATION FIGURE

ONEIDEA COUNTY, NEW YORK

CITY OF ROME

Barton & Loguidice, D.P.C.

Date
JANUARY, 2017

Scale
1" = 20'

Sheet Number
2

File Number
245.005

Plotted: Jan 19, 2017 – 10:02AM By: jgs2
I:\Shared\2001\245005-S\SR FIGURES\1030 E DOM\Dec 2016 Report\245005_FIG 3 – GW Exceedances tables Rev 122016.dwg

Drawn by JGS Designed by ICT/SBL In charge of SDN

Checked by

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COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

CITY OF ROME

1030 EAST DOMINICK STREET

GROUNDWATER EXCEEDANCES OF PART 703.5 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE (AWQSG)

ONEIDA COUNTY, NEW YORK

CITY OF ROME

Barton & Loguidice, D.P.C.

Date
JANUARY, 2017

Scale
AS SHOWN

Figure Number
3

File Number
245.005

N

EAST DOMINICK STREET

CAREY STREET

EAST DOMINICK STREET

RIM:437.35

RIM:437.33

RIM:437.90

RIM:438.09

TG:437.74

TG:437.59

CP 1092
N: 1169678.43
E: 1125365.34
Z: 438.08

CP 24
MAG NAIL
N: 1169671.70
E: 1125251.33
Z: 437.4

CP 23
MAG NAIL
N: 1169667.62
E: 1125488.17
Z: 438.2

SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-10
SB-12
SB-13
SB-14
SB-15
SB-16
SB-17
SB-18
SB-19
SB-20
SB-21

MW-01
(PVC EL. 438.28'
GRND EL. 438.4')

MW-02
(PVC EL. 437.28'
GRND EL. 437.7')

MW-03
(PVC EL. 438.36'
GRND EL. 435.9')

MW-04
(PVC EL. 439.06'
GRND EL. 436.0')

MW-05
(PVC EL. 438.00'
GRND EL. 435.6')

MW-06
(PVC EL. 437.[illegible]'
GRND EL. 437.[illegible]')

MW-07

MW-08

TP-1
TP-2
TP-3
TP-4
TP-5
TP-6
TP-7
TP-8

SV-1
SV-2
SV-3
SV-4
SV-5
SV-6

SS-01
SS-02
SS-03
SS-04
SS-05
SS-06
SS-07
SS-08

EXISTING BUILDING

GRAVEL/DIRT AREA

DRIVEWAY

CON-RAIL CORP.
(reputed owner)

Albert J. Tahan &
Bernadette A. Quenneville
Liber 2856 Page 362
TM #243.069-1-42

Benjamin D. Juliano
Instr. No. 2005-021643
TM #243.069-1-40

C.J. Associates
Liber 2348 Page 271
TM #243.070-1-46.2

CP 21
SPIKE w/ DH.
N: 1169445.88
E: 1125378.61
Z: 430.61

435

1030ED-SS-01
11/11/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	11.8
Copper	50	77.2
Zinc	109	154

1030ED-SS-03
11/11/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	12.9
Copper	50	142
Lead	63	72.6
Zinc	109	126

1030ED-SS-02
11/11/2009
SEMI-VOLATILE ORGANIC COMPOUNDS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Benzo(a)anthracene	1	6.1
Benzo(a)pyrene	1	5.4
Benzo(b)fluoranthene	1	5.7
Benzo(k)fluoranthene	0.8	2.0
Chrysene	1	6.2
Indeno(1,2,3-cd)pyrene	0.5	3.0

METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	11.6
Copper	50	342
Lead	63	157
Zinc	109	215

1030ED-SS-04
11/11/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	12.9
Copper	50	193
Lead	63	241
Total Mercury	0.18	0.264
Zinc	109	251

NOTE
SB LOCATIONS ARE APPROXIMATE.

LEGEND

- SITE BOUNDARY
- MW-# MONITORING WELL LOCATION
- SB-# SOIL BORING LOCATION
- SS-# SHALLOW SOIL SAMPLE LOCATION
- SV-# SOIL VAPOR SAMPLE LOCATION

20' 0 20' 40'
1"=20'

Plotted: Jan 17, 2017 - 1:52PM By: jgs2
I:\Shared\200\245005-S\SIR FIGURES\1030 E DOM\Dec 2016 Report\245005_FIG 4 Surface Soil Plan.dwg
Drawn by JCS Designed by RJM In charge of SDN
Checked by

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

CITY OF ROME
1030 EAST DOMINICK STREET

SHALLOW SOIL SAMPLING RESULTS EXCEEDANCES - UNRESTRICTED USE SCOS

ONEIDEA COUNTY, NEW YORK

CITY OF ROME

Barton Loguidice, D.P.C.

Date
JANUARY, 2017

Scale
AS SHOWN

Figure Number
4

File Number
245.005

N

EAST DOMINICK STREET

CAREY STREET

RIM:437.35

RIM:437.33

RIM:438

WV

LP

LTP

CP 24
MAG NAIL
N: 1169671.70
E: 1125251.33
Z: 437.4

CP 1092
N: 1169678.43
E: 1125365.34
Z: 438.09

CP 23
MAG NAIL Elev. 440.29
N: 1169667.62
E: 1125488.17
Z: 438.2

BM Beech Tree in Utility Pole

Albert J. Tahan & Bernadette A. Quenneville
Liber 2856 Page 362
TM #243.069-1-42

Benjamin D. Juliano
Instr. No. 2005-021643
TM #243.069-1-40

C.J. Associates
Liber 2348 Page 271
TM #243.070-1-46.2

CON-RAIL CORP.
(reputed owner)

EXISTING BUILDING

GRAVEL/DIRT AREA

DRIVEWAY

CP 21
SPIKE w/ DH.
N: 1169445.88
E: 1125378.61
Z: 430.61

MW-01 (PVC EL. 438.28' GRND EL. 438.4')
MW-02 (PVC EL. 437.28' GRND EL. 437.7')
MW-03 (PVC EL. 438.36' GRND EL. 435.9')
MW-04 (PVC EL. 439.06' GRND EL. 436.0')
MW-05 (PVC EL. 438.00' GRND EL. 435.6')
MW-06 (PVC EL. 437.6 GRND EL. 437.
MW-07
MW-08

SB-1 SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8 SB-9 SB-10 SB-12 SB-14 SB-15 SB-16 SB-17 SB-18 SB-19 SB-20 SB-21

SS-01 SS-02 SS-03 SS-04 SS-06 SS-07 SS-08

SV-1 SV-2 SV-3 SV-4 SV-5 SV-6

TP-1 TP-2 TP-3 TP-4 TP-5 TP-7

1030ED-MW-01 (12-16.2)
11/17/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	20.7

1030ED-MW-01 (21-22.9)
11/17/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	6.36

1030ED-SB-01 (12-16)
11/11/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	11.8

1030ED-SB-02 (12-15)
11/17/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	5.92

1030ED-MW-02 (8-13.9)
11/19/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	10.3

1030ED-SB-03 (12-16)
11/13/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	6.71

1030ED-SB-04 (12-17)
11/13/2009
VOLATILE ORGANIC COMPOUNDS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Acetone	0.05	0.12
Xylene	0.26	2.5

METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	6.52

1030ED-SB-10 (6-11.2)
11/12/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	11.6

1030ED-MW-06 (12-16)
11/11/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	22.5

1030ED-SB-09 (8-9.5)
11/12/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	14.4
Copper	50	54.3

1030ED-SB-12 (8-14.2)
11/12/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	11.8

1030ED-MW-03 (12-15.9)
11/13/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	6.84

1030ED-SB-05 (12-16.8)
11/16/2009
VOLATILE ORGANIC COMPOUNDS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Xylene	0.26	1.5

METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	8.98

PCBs

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Total PCBs	0.1	0.259

1030ED-SB-06 (12-16)
11/11/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	8.50

1030ED-SB-07 (8-12)
11/13/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	8.76
Copper	50	57.3

1030ED-SB-18 (8-14.2)
5/14/2014
VOLATILE ORGANIC COMPOUNDS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Ethylbenzene	1.0	1.1

1030ED-MW-04 (13-15)
11/19/2009
VOLATILE ORGANIC COMPOUNDS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Ethylbenzene	1.0	2.1
Xylene	0.26	11

METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	7.58

1030ED-SB-08 (14.5-17.7)
11/16/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	12.7

1030ED-SB-08 (22.5-26.5)
11/16/2009
SEMI-VOLATILE ORGANIC COMPOUNDS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)

METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	7.76

1030ED-MW-05 (8-12)
11/12/2009
METALS

Parameter	Part 375 Unrestricted (ppm)	Results (ppm)
Chromium	1	9.61
Copper	50	55.9

NOTE:
SB LOCATIONS ARE APPROXIMATE.

LEGEND

- SITE BOUNDARY
- MW-# MONITORING WELL LOCATION
- SB-# SOIL BORING LOCATION
- SS-# SHALLOW SOIL SAMPLE LOCATION
- SV-# SOIL VAPOR SAMPLE LOCATION
- AREA OF CONCERN

20' 0 20' 40'
1"=20'

Plotted: Jan 19, 2017 - 9:55AM By: jpz
I:\Shared\2005\245005-S\SIR FIGURES\1030 E DOM\Dec 2016 Report\245005_FIG 5 Subsurface Soil Plan.dwg

Drawn by JGS Designed by RJM In charge of SDN

Checked by SYR

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

CITY OF ROME

1030 EAST DOMINICK STREET

SUBSURFACE SOIL SAMPLING RESULTS EXCEEDANCES - UNRESTRICTED USE SCOS

CITY OF ROME ONEIDEA COUNTY, NEW YORK

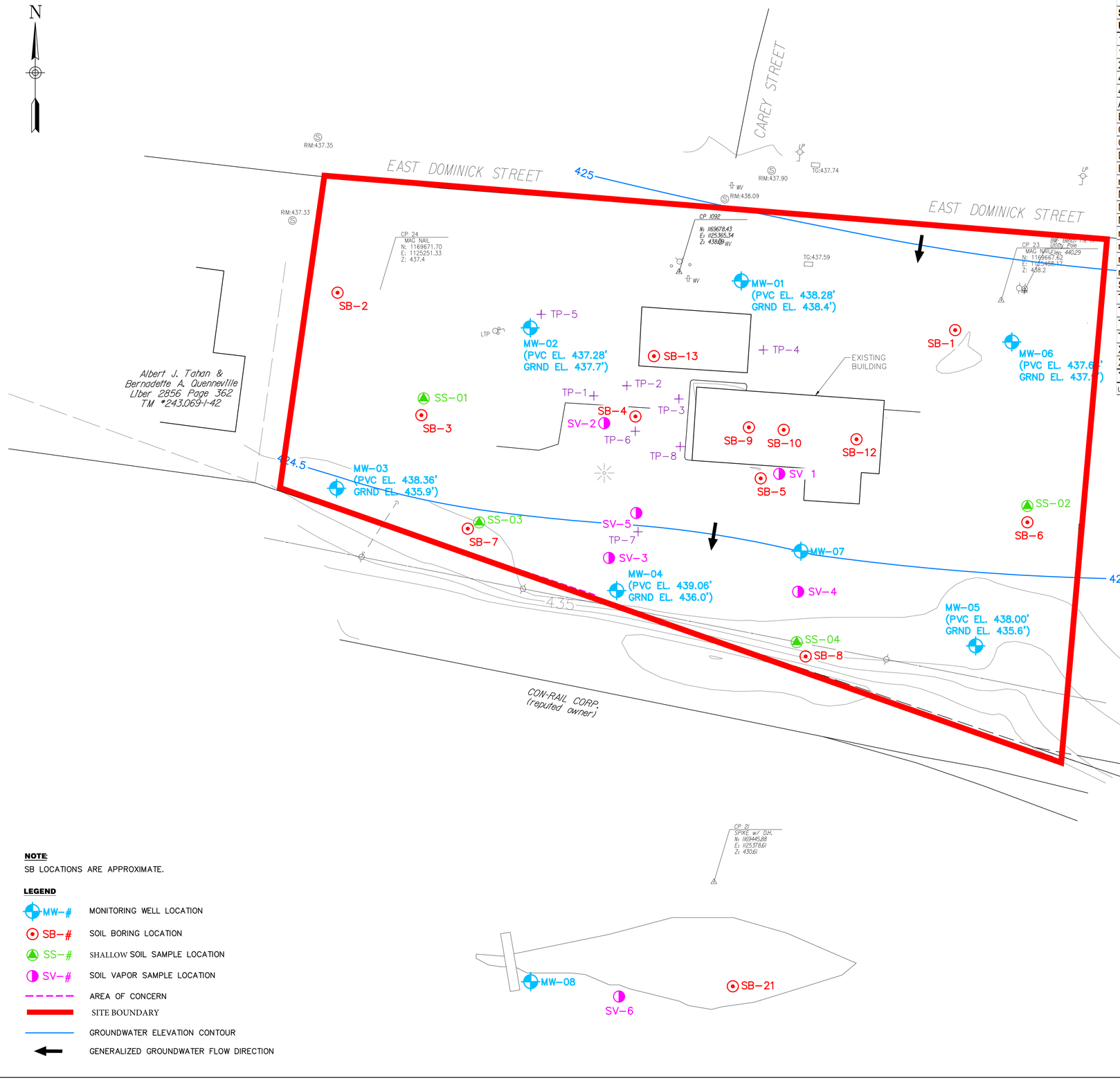
Barton & Loguidice, D.P.C.

Date
JANUARY, 2017

Scale
AS SHOWN

Figure Number
5

File Number
245.005



NOTE:
SB LOCATIONS ARE APPROXIMATE.

LEGEND

- MW-# — MONITORING WELL LOCATION
- SB-# — SOIL BORING LOCATION
- SS-# — SHALLOW SOIL SAMPLE LOCATION
- SV-# — SOIL VAPOR SAMPLE LOCATION
- AREA OF CONCERN
- SITE BOUNDARY
- GROUNDWATER ELEVATION CONTOUR
- GENERALIZED GROUNDWATER FLOW DIRECTION

	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6
Sampling Date	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014
Unit	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
1,2,4-Trimethylbenzene	1	0.98U	3.9U	0.98U	4.9U	39
1,3,5-Trimethylbenzene	0.98U	0.98U	3.9U	0.98U	4.9U	16
2-Chlorotoluene	1.0U	1.0U	4.1U	1.0U	5.2U	2.3
4-Ethyltoluene	0.98U	0.98U	3.9U	0.98U	4.9U	7.1
4-Isopropyltoluene	1.1U	1.1U	4.4U	1.1U	5.5U	3.5
Acetone	20	20	48U	86	240	25
Benzene	0.64U	0.64U	2.6U	0.64U	3.2U	1.1
Carbon disulfide	1.6U	1.6U	13U	1.6U	110	4.2
Cumene	0.98U	0.98U	3.9U	0.98U	4.9U	1.7
Dichlorodifluoromethane	37	21	160	38	440	3.7U
Ethylbenzene	0.87U	0.87U	3.5U	0.87U	7	7.5
m,p-Xylene	2.2U	2.2U	8.7U	2.2U	11U	35
Methyl Butyl Ketone (2-Hexanone)	2.0U	2.0U	8.2U	2.0U	43	3.1U
Methyl Ethyl Ketone	1.5U	2.3	5.9U	2.7	38	2.4
Naphthalene	2.6U	2.6U	10.0U	2.6U	13.0U	260
n-Butane	1.2U	1.2U	5.9	1.2U	5.9U	5.7
n-Butylbenzene	1.1U	1.1U	4.4U	1.1U	5.5U	2.6
n-Hexane	0.7U	0.7U	2.8U	0.7U	3.5U	1.2
n-Propylbenzene	0.98U	0.98U	3.9U	0.98U	4.9U	3.8
Styrene	0.85U	0.85U	3.4U	0.85U	4.3U	1.3
Tetrachloroethene	42	1.4U	5.4U	6.7	6.8U	2.0U
Toluene	2.4	2	3.8	0.75U	11	13
Trichloroethene	0.21U	0.21U	5.5	2.5	10	0.76
Trichlorofluoromethane	19	110	380	36	310	1.7U
Xylene, o-	0.87	0.87U	3.5U	0.87U	4.3U	13
Xylene (total)	0.87	0.87U	3.5U	0.87U	4.63U	48
Total Concentration	**123.14**	**155.3**	**569.6**	**171.9**	**1209**	**494.16**

U=Method Reporting Limit

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

CITY OF ROME
1030 EAST DOMINICK STREET
SOIL VAPOR DATA
ONEIDEA COUNTY, NEW YORK

Barton & Loguidice, D.P.C.

Date
JANUARY, 2017

Scale
AS SHOWN

Figure Number
6

File Number
245.005

1"=20' 20' 0 20' 40'

Plotted: Jan 19, 2017 - 9:33AM By: jpg2
I:\Shared\2007\245005-5\SIR FIGURES\1030 E DOM\Dec 2016 Report\245005_FIG 6 - Soil Vapor.dwg

Drawn by JCS Designed by ICT/SBL In charge of SDN

Checked by

N

EAST DOMINICK STREET

CAREY STREET

EAST DOMINICK STREET

RIM:437.35

RIM:437.33

RIM:437.90

TG:437.74

RIM:438.09

TG:437.59

CP 1092
N: 1169678.43
E: 1125365.34
Z: 438.09

CP 24
MAG NAIL
N: 1169671.70
E: 1125251.33
Z: 437.4

CP 23
MAG NAIL Elev. 440.29
N: 1169667.62
E: 1125488.17
Z: 438.2

Albert J. Tahan &
Bernadette A. Quenneville
Liber 2856, Page 362
TM #243.069-1-42

Benjamin D. Juliano
Instr. No. 2005-021643
TM #243.069-1-40

C.J. Associates
Liber 2348, Page 271
TM #243.070-1-46.2

CON-RAIL CORP.
(reputed owner)

CP 21
SPIKE w/ DH.
N: 1169445.88
E: 1125378.61
Z: 430.61

MW-01
(PVC EL. 438.28'
GRND EL. 438.4')

MW-02
(PVC EL. 437.28'
GRND EL. 437.7')

MW-03
(PVC EL. 438.36'
GRND EL. 435.9')

MW-04
(PVC EL. 439.06'
GRND EL. 436.0')

MW-05
(PVC EL. 438.00'
GRND EL. 435.6')

MW-06
(PVC EL. 437.64'
GRND EL. 437.9')

MW-07

MW-08

SB-1 SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8 SB-9 SB-10 SB-12 SB-13 SB-14 SB-15 SB-17 SB-18 SB-19 SB-20 SB-21

SS-01 SS-02 SS-03 SS-04 SS-05 SS-06 SS-07 SS-08

SV-1 SV-2 SV-3 SV-4 SV-5 SV-6

TP-1 TP-2 TP-3 TP-4 TP-5 TP-6 TP-7 TP-8

EXTENT OF COVER

Approximate extent of excavation
Approximate Depth of excavation: 11' to 17'
Approximate volume of excavation: 2500 c.yd

LEGEND

- SITE BOUNDARY & EXTENT OF COVER
- MW-# MONITORING WELL LOCATION
- SB-# SOIL BORING LOCATION
- SS-# SHALLOW SOIL SAMPLE LOCATION
- SV-# SOIL VAPOR SAMPLE LOCATION

NOTE: SB LOCATIONS ARE APPROXIMATE.

20' 0 20' 40'
1"=20'

Plotted: May 18, 2016 - 3:03PM By: jps
I:\Shared\200\245005-S\SIR FIGURES\1030 E DOM\245005_FIG 2_SITE LOCATION PLAN.dwg

In charge of
Designed by
Drawn by
Checked by

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

CONCEPTUALIZED REMEDY

1030 EAST DOMINICK STREET
CITY OF ROME, ONEIDA COUNTY

Barton Loguidice, D.P.C.

Date

Scale

Sheet Number
7

File Number
245.005

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

1030 East Dominick Street
Environmental Restoration Project
City of Rome, Oneida County, New York
Site No. E633064

The Proposed Remedial Action Plan (PRAP) for the 1030 East Dominick Street site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on January 24, 2018. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater at the 1030 East Dominick Street site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 8, 2018, which included a presentation of the remedial investigation and alternative analysis (RI/AA) for the 1030 East Dominick Street site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 16, 2018.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Why weren't in-situ remedies such as soil vapor extraction (SVE), groundwater pump and treat or chemical oxidation (ISCO) evaluated in alternatives analysis? The contamination is predominantly at and below the water table, where in-situ remedies should be effective and could be implemented without removal of the on-site building.

RESPONSE 1: The remedial investigation noted a weathered petroleum in the subsurface at the site. The chemical constituents in the weathered petroleum do not contain significant concentrations of volatile organic compounds (VOCs) typically found in petroleum (i.e., benzene, ethylbenzene, toluene and xylene – BTEX). So comparing the soil chemistry to the soil cleanup objectives found in NYCRR Part 375 is misleading when describing the contamination. However, there were clear visual indications of the presence of weathered petroleum contamination in the form of separate phase petroleum tar-like product in the soil, stained soil, strong odor and elevated levels of vapors on field instruments. It has been the Department's experience that in-situ chemical oxidation and soil vapor extraction are not as effective at treating weathered petroleum, as this type of contamination tends to have more semi-volatile organic contamination (i.e. polyaromatic hydrocarbons-PAHs, tentatively identified compounds, and naphthalene) and tar-like petroleum materials. In the subsurface the weathered petroleum binds to the soil matrix which hinders the ability of the injected chemical to contact the contamination. Further, subsurface vapor extraction is limited as the weathered petroleum is not readily volatile.

Note that the City's Alternatives Analysis identified but screened out both ISCO and SVE, thus the two technologies were not subject to a detailed analysis. The Department concurs with this approach because ISCO would not be effective on weathered petroleum, and delivery of the chemicals would be inhibited by site conditions. As such, an uncertain number of injections would be necessary and effectiveness as discussed above, would be questionable. In addition, SVE may not be effective and may have to be operated for a long period of time.

Due to the minor exceedance of VOCs in groundwater, source groundwater pump and treat is not an effective or timely way to remediate groundwater. The system would be expensive to construct and operate and its effectiveness questionable.

Excavation is a more permanent and effective remedy.

COMMENT 2: Given the time has elapsed since the remedial investigation was performed, the soil contamination may have naturally attenuated.

RESPONSE 2: Under certain biological and hydrogeological conditions, BTEX and other petroleum related contaminants could attenuate. However, the Department's extensive experience is that weathered petroleum does not naturally attenuate rapidly. The site was used as the gas station from the 1950s to 1999, and as an automobile repair shop since from 1999 until the present. In 1999, three petroleum underground storage tanks were removed, during which petroleum impacted soil was encountered, suggesting that for some of the petroleum impacts observed during the subsequent Remedial Investigation, the releases had occurred well before 1999. The most recent investigation performed in 2014, found overwhelming visual indications of the petroleum impacts, confirming the Department's experience that natural attenuation of weathered petroleum would not be timely.

COMMENT 3: Why is a site-wide cover needed, when the excavation requires clean fill to be placed?

RESPONSE 3: The selected remedy requires excavation and off-site disposal of grossly contaminated soil from 11 to 17 feet, and backfill with clean fill to replace the excavated soil. This backfill will also serve as the cover material for the excavated area. In addition, exceedances of commercial use soil cleanup objectives (SCOs) were found in shallow soils located outside the areal extent of the excavation. As a result, the site cover is required to allow the property to be re-used for commercial purposes.

COMMENT 4: Can the City of Rome treat excavated grossly contaminated soils in piles by turning them periodically (similar to alternative 4) at another City of Rome ERP site or property and use the treated soil at that site or property?

RESPONSE 4: Although the selected remedy includes off-site disposal of excavated soil, the City of Rome may evaluate off-site treatment and re-use in the Remedial Action Work Plan. Such an evaluation must consider the requirements of DER-10, 6 NYCRR Parts 364 and 373, including but

not limited to seeking appropriate permits or approvals from the Department and other relevant governmental agencies.

COMMENT 5: How did the DEC derive the cost estimate for the building demolition?

RESPONSE 5: The building demolition cost is based on cost estimates provided for another ERP site in the City of Rome and the Department's experience. The site consists of a single story, 2,200-square foot structure which is being used as automobile repair shop. The cost estimate assumes the presence of subsurface structures typically associated with gas stations and auto repair shop such as hydraulic lift reservoirs, tanks, piping, etc. The $225,000 estimate to demolish the building includes the cost for performing lead and asbestos surveys and abatement, removing lifts and other waste/items present in the building, demolishing the building and slab, removing any subsurface structures encountered during slab removal, waste characterization, transportation and disposal costs. In Department's experience the $225,000 estimate is reasonable for this type of building.

APPENDIX B

Administrative Record

Administrative Record

1030 East Dominick Street
Environmental Restoration Project
City of Rome, Oneida County, New York
Site No. E633064

1. Proposed Remedial Action Plan January 2018, prepared by the Department.

2. Alternative Analysis Report (AAR), November 2015.

3. AAR Addendum, September 2017

4. Remedial Investigation Report (RIR), May 2016.

5. Site Investigation Work Plan, May 2008.

6. Citizen Participation Plan, May 2008.

7. State Assistance Contract, Contract No. C303406, May 31, 2007.