DECISION DOCUMENT

NM - Clinton Street - Schenectady MGP
Operable Unit Number 02: Offsite Impacts
Voluntary Cleanup Program
Schenectady, Schenectady County
Site No. V00474
August 2015

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

DECLARATION STATEMENT - DECISION DOCUMENT

NM - Clinton Street - Schenectady MGP
Operable Unit Number: 02
Voluntary Cleanup Program
Schenectady, Schenectady County
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Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 02: Offsite Impacts of the NM - Clinton Street - Schenectady MGP site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 02 of the NM - Clinton Street - Schenectady MGP site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the remedy are as follows:

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

The elements of the proposed remedy for each specific area of concern are presented below:

2. For OU2 North – Including the Postage Stamp and Associated Area
a) Excavation and off-site disposal of contaminant source areas in the "Postage Stamp" area to an approximate depth of 15 feet, including:
• grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
• soil containing visual coal tar or non-aqueous phase liquid; and
• soil containing total PAHs exceeding 500 ppm.
Approximately 8,450 cubic yards of soil will be removed from the site. Excavated soil which does not exceed SCOs for commercial use of the site and/or the protection of groundwater may be used to backfill the bottom of the excavation.
The area will be re-graded to accommodate installation of a cover system as described in remedy element 2(b). Soil derived from the re-grading not exceeding the soil cleanup objectives for commercial use of the site and/or the protection of groundwater may be used to backfill the excavation.

b) A site cover will be required to allow for commercial use of the north portion of OU-2. The cover will consist either of the existing structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). A cover currently exists and includes a large paved parking lot and commercial buildings and will be maintained. Where the soil cover is required it will be a minimum of one foot of soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial 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).

3. For OU2 South
Installation and operation of additional coal tar recovery wells along the western edge of Broadway to enhance the existing recovery program and address deeper impacts and non-accessible areas. The number, depth, type and spacing of the recovery wells will be determined during the design phase of the remedy.

4. For both OU2 North and OU2 South, 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 affected area and details the steps and media-specific requirements necessary to ensure the following institutional and engineering controls remain in place and effective:
i. Institutional Controls:
• an agreement with the property owners to implement any necessary future site management plan on the off-site properties.
ii. Engineering Controls: the cover system described in remedial element 2(b) and the coal tar recovery system described in remedial element 3.

This plan includes, but may not be limited to:
• an Excavation Plan which details the provisions for management of future excavations in areas

of remaining contamination;
• a provision for evaluation of the potential for soil vapor intrusion as defined in the site management plan for any buildings developed on the affected properties, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
• provisions for the management and inspection of the identified engineering controls;
• maintaining site access controls and Department notification; and
• the steps necessary for the periodic reviews and certification of the institutional and engineering controls.
b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
• monitoring of groundwater to assess the performance and effectiveness of the remedy;
• a schedule of monitoring and frequency for submittals to the Department;
• monitoring for vapor intrusion for any buildings developed on the affected properties, as may be required by the Institutional and Engineering Control Plan discussed above.
c) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
• compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
• maintaining site access controls and Department notification; and
• providing the Department access to the site and O&M records.

Declaration

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

August 31, 2015
Date

George Heitzman, Director
Remedial Bureau C

DECISION DOCUMENT

NM - Clinton Street - Schenectady MGP
Schenectady, Schenectady County
Site No. V00474
August 2015

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 Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." 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:

Schenectady Public Library
99 Clinton St.
Schenectady, NY 12305
Phone: (518) 388-4500

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, 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 the corner of Broadway and Clinton Streets in the downtown area of the City of Schenectady.

On-Site and Off-Site Features: The on-site area is the location of the former manufactured gas plant (MGP). This area consists of property currently owned by the Schenectady Municipal Housing Authority and property owned by the Schenectady Urban Renewal Authority. On-site features include a seven-story public housing building and an adjacent parking lot. The site is bounded by Broadway to the west. Across Broadway is the off-site area, which is characterized by several paved parking lots and four commercial buildings. A railroad embankment with an active railroad is present at the western boundary of the off-site area. An undeveloped lot, which is referred to as the "Postage Stamp" area, is present at the toe of the embankment.

Current Zoning/Use: The current zoning for the site is multi-family residential, a restricted-residential use, and the site is used for public housing serving the elderly and disabled. There are no anticipated future changes to the current zoning. The current zoning for the off-site area is commercial.

Past Use of the Site: The site manufactured gas from coal from approximately 1851 to 1906. In the 1960s the current on-site building was constructed. For a period of time in between, the site was used for the storage and distribution of agricultural products. The foundations of two gas holders remain in the subsurface.

Operable Units:
Two operable units have been identified. An operable unit represents a portion of a remedial program for a site that for technical or administration reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release, or exposure pathway resulting from the site contamination.

Operable Unit 1 is the on-site area which was the location of the former manufactured gas plant (MGP). This area consists of property owned by the Schenectady Municipal Housing Authority and property owned by the Schenectady Urban Renewal Authority described above. Operable Unit 2 is the off-site area impacted by contamination emanating from the former MGP. A portion of Operable Unit 2 includes the 312 Broadway Environmental Restoration Project Site (Site number E447035). The off-site impacted area is characterized by a large paved parking lot and commercial buildings in an urban setting.

Water is publicly supplied to both Operable Unit 1 and Operable Unit 2.

Site Geology and Hydrogeology: Fill material containing sand with silt, cobbles, brick fragments, broken concrete and ash is present from the ground surface to an approximate depth of 10 feet. Below the fill is an alluvial unit consisting of sand and silty sand with occasional gravel. The alluvium is about 70 feet thick. Beneath the alluvium is a glacial till unit comprised of dense clayey

silt mixed with gravel. The groundwater table is approximately 10 feet below ground. Groundwater flows from east to west.

Operable Unit (OU) Number 02 is the subject of this document.

A Decision Document was issued previously for OU 01.

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, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

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 voluntary cleanup agreement is with a responsible party. The agreement requires the party to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

The Department and Niagara Mohawk Power Corporation entered into a Consent Order on January 25, 2002. The Order obligates Niagara Mohawk, doing business as National Grid, to implement a full remedial program for this and 23 other former MGP sites. Contamination unrelated to the former MGP activities identified during the environmental investigations are being addressed separately by the Department.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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

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

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater

and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Results

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

coal tar
polycyclic aromatic hydrocarbons (PAHS), total
cyanides(soluble cyanide salts)
benzo(a)pyrene
benzene, toluene, ethylbenzene and xylenes (BTEX)

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

- groundwater
- soil

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.

6.2: Interim Remedial Measures

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

Soil Removal Project

In 2012, soil underneath the City of Schenectady parking lot between Clinton Street Extension and Hamilton Street that was contaminated with coal tar, or which exceeded 500ppm total PAHs or the commercial use soil cleanup objectives for benzene, toluene, ethylbenzene and xylene, was removed to a depth of 15 feet and treated off-site via low temperature thermal desorption. Excavated areas were backfilled with imported stone and covered with an asphalt cover. Approximately 5,400 cubic yards of material were removed.

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.

OU1: On-Site Area

OU1 soils: The primary contaminants of concern for OU1 included benzene, toluene, ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), and coal tar. No coal tar was observed within the subsurface remains of the gas holder foundations, however coal tar was found to the exterior of the foundations. Where coal tar is present in an area of about 1.7 acres, the soil cleanup objectives for these contaminants were generally exceeded for BTEX and PAHs.

Coal tar was found in localized areas of the subsurface at OU1 from depths of approximately 15 to 55 feet below ground surface, generally within the footprint of the former process area, which is currently the area of the Schenectady Municipal Housing Authority parking lot.

OU1 Groundwater: Groundwater at OU1 has been impacted by MGP contaminants over approximately 1.8 acres. Benzene was detected as high as 39,000 parts per billion (ppb), exceeding the Class GA standard of 1 ppb.

OU1 Soil Vapor: Analysis of sub-slab soil vapor samples collected from beneath the Schenectady Municipal Housing Authority Building foundation slab showed elevated levels of xylenes associated with MGP waste, however, no associated indoor air impacts were identified.

For OU2: Off-Site Area

MGP-impacts vary within OU2. To describe the nature of these impacts, OU2 was divided into three areas:

OU2 North – Parking Lot

Prior to the 2012 Interim Remedial Measure (IRM), tar with a gummy consistency was observed at depths of five to ten feet below ground surface in the southeast corner of the parking lot, near the intersection of Clinton Street Extension and Broadway. Benzene concentrations were found as high as 15 ppm, exceeding the unrestricted use value of 0.06 ppm, and total PAH concentrations were found as high as 25,092 ppm, exceeding the Department's subsurface soil guidance value of 500 ppm total PAHs for a restricted commercial use. No surface soil samples were collected as this area is a paved lot.

The 2012 IRM removed impacted soils exceeding commercial use SCOs to a depth of 15 feet below ground surface and the excavated area was backfilled with soil that satisfied the commercial use SCOs, and paved with asphalt to the pre-existing grade.

Groundwater exceeded standards for individual BTEX compounds in the southeast corner of the OU2 North parking lot. Benzene concentrations were found as high as 710 ppb, exceeding the standard of 1 ppb. Certain individual PAHs were found to exceed groundwater guidance values in the same area.

This area is included in the 312 Broadway Environmental Restoration Project and will be subject to an environmental easement as required by that project's Record of Decision.

OU2 North – Postage Stamp and Associated Area

Thin tar stringers were observed at depths of 10 to 15 feet below ground in certain borings drilled in the Postage Stamp and associated area. Total PAH concentrations in soil were highest at the 10 to 15 foot depth range. Total PAHs in the postage stamp and associated area ranged from not detected to 15,969 ppm. Benzene in soil ranged from not detected to 92 ppm, exceeding the unrestricted use SCO of 0.06 ppm. Higher BTEX concentrations were measured in the 10 to 16 foot depth range. Total cyanide exceeded the unrestricted SCO of 27 ppm at several sample locations at depths of generally three to five feet. The highest total cyanide concentration was 233 ppm. Free cyanide ranged from not detected to 3.6 ppm.

Polychlorinated biphenyls (PCBs) were found within the top five feet of soil in the Postage Stamp and associated area at concentrations exceeding the SCO for commercial use. In 2013, soil in the Postage Stamp area was removed to a depth of six feet, followed by the backfill of imported soil that satisfied the criteria for commercial use under an Environmental Restoration project. More information regarding the PCB soil removal is provided in the Department's Record of Decision for the 312 Broadway Site (#E447035). PCBs are not associated with the former manufactured gas plant.

In the Postage Stamp area, total cyanide in groundwater ranged from not detected to 1,530 ppb, exceeding the guidance value of 200 ppb; free cyanide was not detected. Benzene was detected in groundwater in concentrations up to 43 ppb, exceeding the Class GA standard of 1 ppb; among

other PAHs, naphthalene was detected in groundwater in concentrations up to 610 ppb, exceeding the guidance value of 10 ppb.

Certain surface soil samples collected in the Postage Stamp area exceeded the unrestricted use SCO for certain PAHs. Benzo(a)pyrene was found as high as 8.5 ppm, exceeding the unrestricted use SCO of 1 ppm. The 2013 soil removal mentioned above did not address all areas where PAHs exceed SCOs in surface soil.

OU2 South

The eastern area of OU2 South, adjacent to Broadway, is impacted by an approximate four-foot thick layer of coal tar at a depth of 40 feet. In one monitoring well in this area, the tar accumulated to a thickness of six feet prior to its removal from the well. Groundwater samples from monitoring wells screened at a depth shallower than 40 feet do not exceed standards and guidance values for the contaminants of concern. Where coal tar was present, soil samples collected at the 40 to 45 foot depth exceeded the unrestricted use SCO for certain MGP contaminants of concern. Soil samples collected from a depth of less than 15 feet did not exceed unrestricted use SCOs for the contaminants of concern. This area consists of buildings and pavement; no surface soil samples were collected for analysis.

Trace amounts of viscous non-aqueous phase liquid were found in two borings near Van Guysling Avenue between 12 and 13 feet below ground surface. PAH concentrations in subsurface soil ranged from not detected to 18,893 ppm. The Department's guidance value of 500 ppm total PAHs for a restricted commercial use was only exceeded at a depth greater than ten feet. No visual MGP impacts were observed in soil samples collected from a depth shallower than ten feet.

BTEX compounds were found in four monitoring wells in this area. Benzene concentrations ranged from not detected to 1,700 ppb.

Soil Vapor: Soil vapor samples were collected from three locations in OU2, along the west side of Broadway in the area of highest BTEX concentrations in groundwater. Certain volatile organic compounds were detected in the samples, but the concentrations of those compounds indicated that soil vapor intrusion is not a concern for existing OU2 buildings.

6.4: Summary of Human Exposure Pathways

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

People will not come into contact with contaminated soil unless they dig or disturb the soil. People are not drinking the contaminated groundwater since the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into 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. Environmental

sampling identified site related contamination in soil vapor beneath the on-site building, but no impacts were identified in indoor air quality. Soil vapor sampling conducted at off-site locations indicates that soil vapor intrusion is not a concern for existing off-site structures; however, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future off-site development.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- 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.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

The selected remedy is referred to as the Excavation remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

The elements of the proposed remedy for each specific area of concern are presented below:

2. For OU2 North – Including the Postage Stamp and Associated Area

a) Excavation and off-site disposal of contaminant source areas in the "Postage Stamp" area to an approximate depth of 15 feet, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soil containing visual coal tar or non-aqueous phase liquid; and
- soil containing total PAHs exceeding 500 ppm.

Approximately 8,450 cubic yards of soil will be removed from the site. Excavated soil which does not exceed SCOs for commercial use of the site and/or the protection of groundwater may be used to backfill the bottom of the excavation.

The area will be re-graded to accommodate installation of a cover system as described in remedy element 2(b). Soil derived from the re-grading not exceeding the soil cleanup objectives for commercial use of the site and/or the protection of groundwater may be used to backfill the excavation.

b) A site cover will be required to allow for commercial use of the north portion of OU-2. The cover will consist either of the existing structures such as buildings, pavement, sidewalks

comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). A cover currently exists and includes a large paved parking lot and commercial buildings and will be maintained. Where the soil cover is required it will be a minimum of one foot of soil meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial 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).

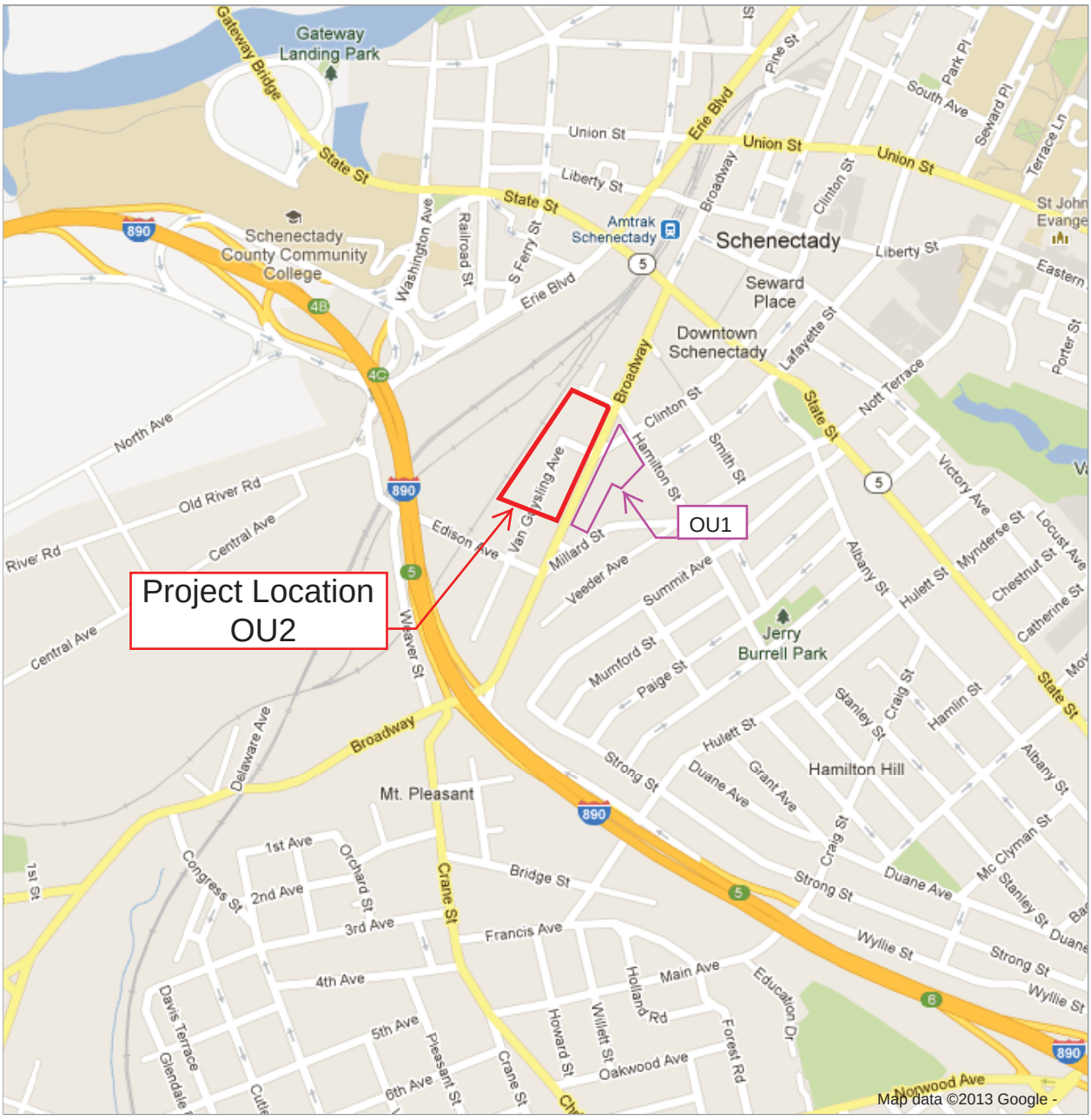
3. For OU2 South
Installation and operation of additional coal tar recovery wells along the western edge of Broadway to enhance the existing recovery program and address deeper impacts and non-accessible areas. The number, depth, type and spacing of the recovery wells will be determined during the design phase of the remedy.

4. For both OU2 North and OU2 South, 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 affected area and details the steps and media-specific requirements necessary to ensure the following institutional and engineering controls remain in place and effective:
i. Institutional Controls:
• an agreement with the property owners to implement any necessary future site management plan on the off-site properties.
ii. Engineering Controls: the cover system described in remedial element 2(b) and the coal tar recovery system described in remedial element 3.

This plan includes, but may not be limited to:
• an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
• a provision for evaluation of the potential for soil vapor intrusion as defined in the site management plan for any buildings developed on the affected properties, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
• provisions for the management and inspection of the identified engineering controls;
• maintaining site access controls and Department notification; and
• the steps necessary for the periodic reviews and certification of the institutional and engineering controls.
b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
• monitoring of groundwater to assess the performance and effectiveness of the remedy;
• a schedule of monitoring and frequency for submittals to the Department;
• monitoring for vapor intrusion for any buildings developed on the affected properties, as may be required by the Institutional and Engineering Control Plan discussed above.

c) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- maintaining site access controls and Department notification; and
- providing the Department access to the site and O&M records.



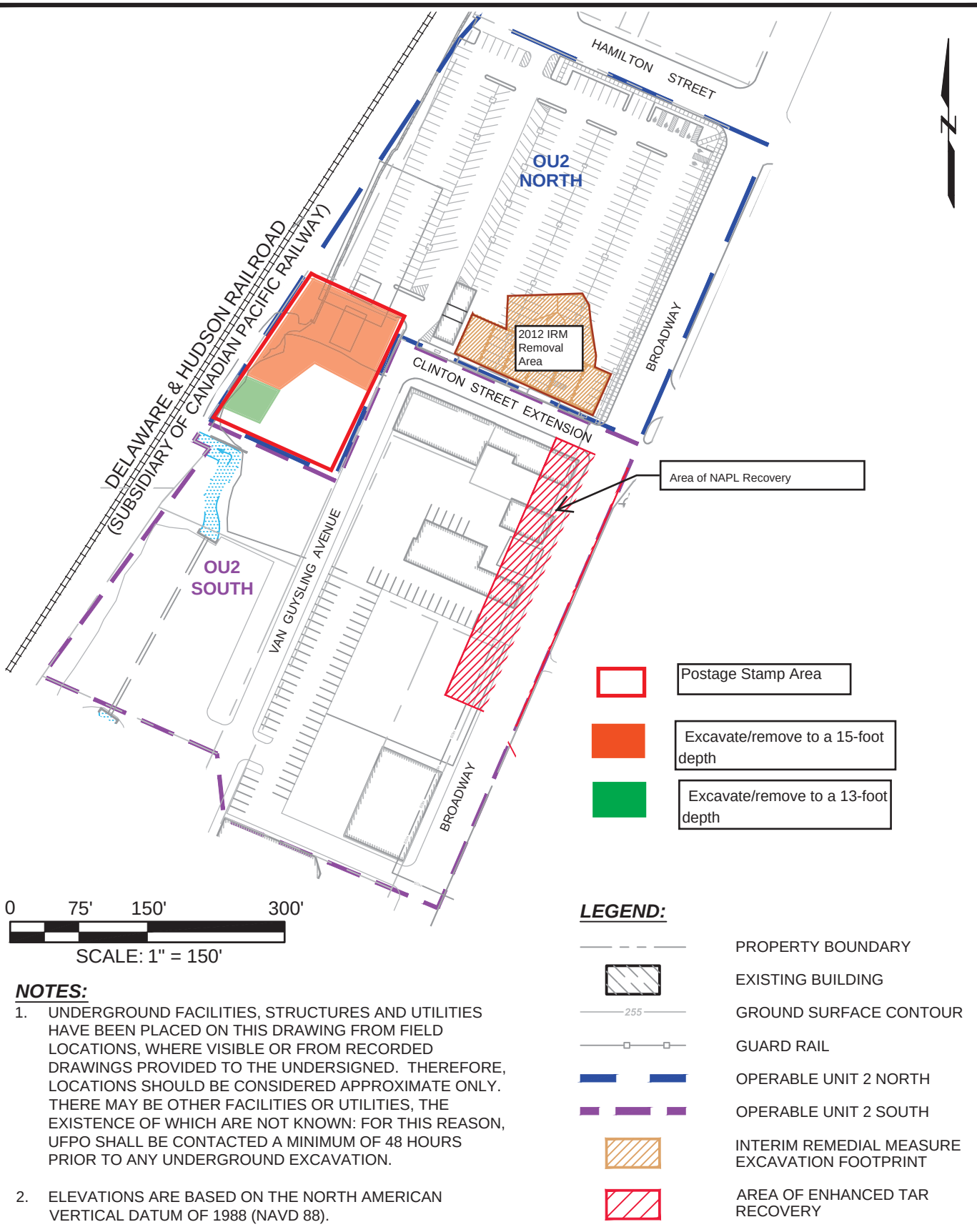
Project Location

Schenectady Clinton Street MGP Site

City of Schenectady

New York

Figure 1



NOTES:

1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLACED ON THIS DRAWING FROM FIELD LOCATIONS, WHERE VISIBLE OR FROM RECORDED DRAWINGS PROVIDED TO THE UNDERSIGNED. THEREFORE, LOCATIONS SHOULD BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES OR UTILITIES, THE EXISTENCE OF WHICH ARE NOT KNOWN: FOR THIS REASON, UFPO SHALL BE CONTACTED A MINIMUM OF 48 HOURS PRIOR TO ANY UNDERGROUND EXCAVATION.

2. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

Figure 2

Summary of Remedial Elements
Schenectady Clinton St. MGP Site, Operable Unit 2