

# DECISION DOCUMENT

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NM - Canastota MGP  
Manufactured Gas Plant Project  
Canastota, Madison County  
Site No. 727014  
September 2021



**Department of  
Environmental  
Conservation**

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

# DECLARATION STATEMENT - DECISION DOCUMENT

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NM - Canastota MGP  
Manufactured Gas Plant Project  
Canastota, Madison County  
Site No. 727014  
September 2021

## **Statement of Purpose and Basis**

This document presents the remedy for the NM - Canastota Manufactured Gas Plant (MGP) 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the NM - Canastota MGP site and the public's input to the proposed remedy presented by the Department.

## **Description of Selected Remedy**

The elements of the selected remedy are as follows:

### 1. Remedial Design

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

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

- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

## 2. Excavation

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

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- non-aqueous phase liquids;
- soil with visual waste material or non-aqueous phase liquid;
- soil containing total SVOCs exceeding 500 ppm;
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

Subsurface former MGP structures including the tar well/separator and hot well will be excavated and removed. Approximately 6,900 cubic yards of contaminated soil will be removed from the site.

## 3. In-Situ Solidification

In-situ solidification (ISS) will be implemented within portions of the excavation bottom, as described in element #2, to a depth of approximately 15 feet below the existing site grades where the remaining soil exceeds the Commercial Use SCOs. ISS is a process that binds the soil particles in place creating a low permeability mass. The contaminated soil will be mixed in place together with solidifying agents (typically Portland cement) or other binding agents using an excavator or augers. The soil and binding agents are mixed to produce a solidified mass resulting in a low permeability monolith. The solidified mass will then be covered with clean backfill as described in element #4 and a cover system as described in element #5 to prevent direct exposure to the solidified mass. The resulting solid matrix reduces or eliminates mobility of contamination and reduces or eliminates the matrix as a source of groundwater contamination.

## 4. Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated material and establish the designed grades at the site. On-site soil which does not exceed the above excavation criteria may also be used below the cover system described in element 5 to backfill the excavation. The thickness of the clean fill will be, at a minimum, four feet to ensure the ISS mass, as described in element 3, remains below the frost line and would not be subject to freeze thaw effects.

## 5. Cover System

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

soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs. Where the soil cover is required over the ISS treatment area, it will consist of a minimum of four feet of soil meeting the SCOs for commercial use. For areas where solidified material underlies the cover, the solidified material itself will serve as the demarcation layer due to the nature of the material.

## 6. Natural Attenuation with Monitoring

Groundwater contamination (remaining after the active remediation) will be addressed through natural attenuation with monitoring. Groundwater will be monitored for site related contamination and also for monitored natural attenuation indicators which will provide an understanding of the biological activity breaking down the contamination. It is anticipated that contamination will decrease by an order of magnitude in a reasonable period of time as determined by the Department. Reports of the attenuation will be provided every five years, and active remediation will be proposed if it appears that natural processes alone will not address the contamination. The contingency remedial action will depend on data trends in monitoring data collected during site management. It is currently anticipated that an enhanced bioremediation technology would be the expected contingency remedial action, if appropriate, based on monitoring data.

## 7. Institutional Control

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

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

## 8. 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 element 7 above.

Engineering Controls: The solidified mass, backfill, and site cover discussed in elements 3 and 5 above.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
  - o a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for additional remediation, a work plan will be developed to include removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the Department of Public Works garage and Salt Storage Shed;
  - o descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
  - o a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
  - o a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in element 5 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs)
  - o provisions for the management and inspection of the identified engineering controls;
  - o maintaining site access controls and Department notification; and
  - o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- a. monitoring of groundwater to assess the performance and effectiveness of the remedy; and
  - b. a schedule of monitoring and frequency of submittals to the Department.
  - c. monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

### **Declaration**

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

9/30/2021

\_\_\_\_\_  
Date

  
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Janet Brown, Director  
Remedial Bureau C

# DECISION DOCUMENT

NM - Canastota MGP  
Canastota, Madison County  
Site No. 727014  
September 2021

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## **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.

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

## **SECTION 2: CITIZEN PARTICIPATION**

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

DECInfo Locator - Web Application/On-line repository  
<https://www.dec.ny.gov/data/DecDocs/727014/> and  
<https://www.dec.ny.gov/data/DecDocs/V00477/>

Canastota Public Library  
102 West Center Street  
Canastota, NY 13032  
Phone: 315-697-7030

### **Receive Site Citizen Participation Information By Email**

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular

county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

### **SECTION 3: SITE DESCRIPTION AND HISTORY**

#### Location:

The NM - Canastota MGP is an approximate 6.34-acre site located on the Village of Canastota Department of Public Works (DPW) property located at 424 East North (E.N.) Canal Street, Canastota.

#### Site Features:

The site has a topographic high at the central portion of the site and gradually decreases towards the northwest. The site includes the village DPW office and garage, salt shed, storage and maintenance structures. The DPW office and garage are generally occupied for up to 8 hours per day by DPW personnel, while the remaining structures have only intermittent occupation. Asphalt paved areas are present adjacent to the east side of the DPW garage building. Gravel areas are located in the central portion of the property. Grassed and wooded areas are located on the northern portion and perimeter of the site. A concrete sidewalk is present on the site along E.N. Canal Street.

#### Current Zoning and Land Use:

The site is currently occupied by the village DPW. The site, as well as property bordering the site to the west, are zoned for industrial use. The surrounding parcels are currently used for a combination of commercial and residential land use. The Lenox Ambulance Company occupies the property to the west. Additional DPW property that is used for material storage and a fire training facility border the site to the north, with a portion of this parcel containing lightly wooded open space. A residence borders the site to the east. The Erie Canal is located to the south of the site on the opposite side of E.N. Canal Street.

#### Past Use of the Site:

MGP operation occurred at the site from approximately 1900 to 1926. MGP contamination at the site is likely the result of direct disposal or inadvertent releases of byproducts from process equipment during the operation.

#### Site Geology and Hydrogeology:

Three soil units are present at the site. The uppermost unit is fill. This unit ranges from 2 to 11 feet thick and consists of sand, gravel, brick fragments, glass, ash, asphalt, slag, and silt. Underlying the fill are native sand, silts, and clay that range from 2 to 26 feet thick. Lastly, this unit is underlain by a dense and relatively impermeable glacial till composed of silt, with lesser amounts of clay, sand, and gravel. Groundwater is approximately 5 feet below ground surface and flows northwest and south-southeast, on either side of a groundwater divide at the central portion of the site which coincides with the highest site elevation.

A site location map is attached as Figure 1. A site layout map is attached as Figure 2.

### **SECTION 4: LAND USE AND PHYSICAL SETTING**

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

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

## **SECTION 5: ENFORCEMENT STATUS**

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.

The PRPs for the site, documented to date, include:

Niagara Mohawk Power Corporation

The Department and Niagara Mohawk Power Corporation, doing business as National Grid, entered into a Consent Order on July 13, 2018. The Order obligates Niagara Mohawk Power Corporation to implement a full remedial program for MGP-related contamination both on and off the site.

## **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
- indoor air

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

benzene	naphthalene
toluene	phenanthrene
ethylbenzene	benzo(g,h,i)perylene
xylene (mixed)	pyrene
coal tar	acenaphthene
polycyclic aromatic hydrocarbons (PAHS), total	fluoranthene

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

- groundwater
- soil

### **6.2: Interim Remedial Measures**

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

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

### **6.3: Summary of Environmental Assessment**

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

#### Nature and Extent of Contamination:

Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and cyanide. Selected soil samples were also analyzed for polychlorinated biphenyls (PCBs) and pesticides. Groundwater was also analyzed for per- and polyfluoroalkyl substances (PFAS). Based upon the investigations to date, the primary contaminants of concern at the site are non-aqueous phase liquid (NAPL), in the form of coal tar, and polycyclic aromatic hydrocarbons (PAHs). Coal tar itself includes VOCs comprised primarily of benzene, toluene, ethylbenzene, and xylene (BTEX), as well as PAHs. Several inorganic compounds are also observed in exceedance of the commercial Soil Cleanup Objectives (SCOs) but, with the exception of cyanide, would not be considered primary constituents of concern for MGP sites.

Soil - Soil was found to be impacted within the former MGP process area, specifically near the small gas holder and the tar well beneath the existing DPW buildings and site cover. NAPL, an oil like liquid which does not mix with water, was detected in soil, with most impacts found at depths less than 15 feet below ground surface (bgs). The highest concentrations of BTEX and PAHs were also observed at these depths. In particular, the maximum concentrations of benzene, toluene, ethylbenzene and xylene were 630 parts per million (ppm), 670 ppm, 200 ppm, and 810 ppm, respectively. The concentrations of benzene, toluene, and xylene each exceed its respective commercial use SCO of 44 ppm, 500 ppm, and 500 ppm. When compared to the SCO for protection of groundwater, all four BTEX compounds far exceed its respective SCO. Specifically, the protection of groundwater SCO for benzene, toluene, ethylbenzene and xylene are 0.06 ppm, 0.7 ppm, 1 ppm, and 1.6 ppm, respectively. Total PAH concentrations ranged from non-detect to 23,664 ppm. The highest individual PAH concentrations were naphthalene at 8,000 ppm, phenanthrene at 4,100 ppm, benzo[g,h,i]perylene at 2,400 ppm, and fluoranthene at 2,300 ppm. The commercial use SCO for naphthalene, phenanthrene, benzo[g,h,i]perylene, and fluoranthene are 500 ppm individually. The commercial use SCO for total PAHs is also 500 ppm. These compounds were also above their respective protection of groundwater SCOs. Specifically, the protection of groundwater SCOs for naphthalene, phenanthrene, benzo[g,h,i]perylene, and fluoranthene are 12 ppm, 1,000 ppm, 1,000 ppm, and 1,000 ppm, respectively.

Data does not indicate any off-site impacts in soil related to this site.

Groundwater - BTEX and PAHs were detected at concentrations that exceed groundwater standards at the site. Specifically, the maximum concentrations of benzene, toluene, ethylbenzene

and xylene was 6,500 parts per billion (ppb), 780 ppb, 1,000 ppb, and 550 ppb, respectively. The groundwater standard for benzene is 1 ppb. The groundwater standard for toluene, ethylbenzene and xylene individually is 5 ppb. Total PAHs were detected on-site at a maximum concentration of 3,655 ppb. The highest individual PAH concentrations were naphthalene at 3,500 ppb, phenanthrene at 240 ppb, acenaphthene at 120 ppb, and pyrene at 94 ppb. The guidance values for naphthalene, phenanthrene, acenaphthene, and pyrene are 10 ppb, 50 ppb, 20 ppb, and 50 ppb, respectively. This groundwater contamination begins near NAPL source areas, namely the tar well located along the east side of the DPW building and extends to the northwestern portion of the site. In addition, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were reported at concentrations of up to 39 and 22.2 parts per trillion (ppt), respectively, exceeding the Maximum Contaminant Level (drinking water standard) of 10 ppt in groundwater. However, per- and polyfluoroalkyl substances (PFAS) are not historically associated with MGP operations and are not considered related to the MGP.

Data indicates minor off-site impacts in groundwater related to this site. The distal zone of the groundwater plume extends northwest onto small portions of two neighboring properties before attenuating to non-detect levels.

Soil Vapor & Indoor Air - Soil vapor was not found to be impacted by MGP-related contamination. However, trichloroethene (TCE) and cis-1,2-Dichloroethene (cis-1,2-DCE) were detected in the indoor air of the DPW office at concentrations of 12 micrograms per cubic meter (ug/m<sup>3</sup>) and 7.4 ug/m<sup>3</sup>, respectively. An air sample of a crawlspace obtained beneath the DPW office to determine the source of compounds detected in the office contained TCE and cis-1,2-DCE at 0.66 ug/m<sup>3</sup> and non-detect, respectively. This suggests that the source of the indoor air impact is located within the building itself, and not vapor intrusion from the subsurface. These contaminants are potentially related to commercial products utilized in operations typical of a maintenance garage. Since this contamination is not associated with former MGP operations, actions to reduce indoor air related exposures for the DPW office have been recommended to the current property owner.

Data does not indicate any off-site impacts in soil vapor related to this site.

#### **6.4: Summary of Human Exposure Pathways**

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

Persons who dig below the ground surface may come into contact with contaminants in subsurface soil. People are not drinking the contaminated groundwater because the area is served by a public water supply not affected by site contamination. However, rainwater and runoff has been found to pool in areas on site and may be impacted with site contamination. Volatile organic compounds in soil vapor (air spaces within the soil) may move into buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Environmental sampling showed some contaminants in indoor air that are believed to be related to use of products consistent with the current site use. The potential exists for indoor air impacts in any future buildings constructed on

site or should the use of the site change. Environmental sampling indicates soil vapor intrusion is not a concern for off-site buildings.

## **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 Feasibility Study. 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 Shallow Excavation and ISS of Subsurface Soil, including IC/ECs and MNA Program remedy.

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

### 1. Remedial Design

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

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

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contingency remedial action will depend on data trends in monitoring data collected during site management. It is currently anticipated that an enhanced bioremediation technology would be the expected contingency remedial action, if appropriate, based on monitoring data.

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- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
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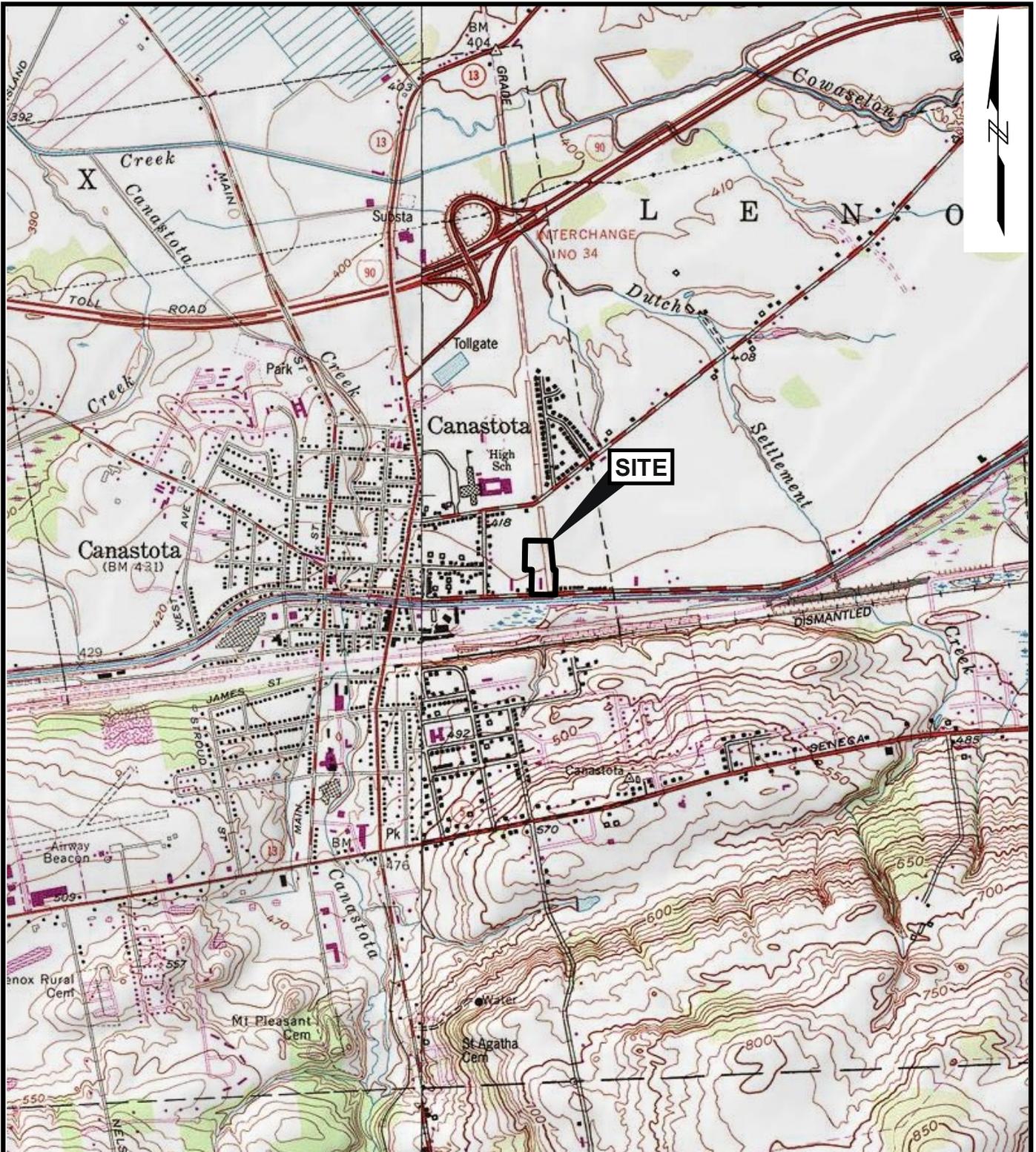
Institutional Controls: The Environmental Easement discussed in element 7 above.

Engineering Controls: The solidified mass, backfill, and site cover discussed in elements 3 and 5 above.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- o a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for additional remediation, a work plan will be developed to include removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the Department of Public Works garage and Salt Storage Shed;
- o descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

- o a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
  - o a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in element 5 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs)
  - o provisions for the management and inspection of the identified engineering controls;
  - o maintaining site access controls and Department notification; and
  - o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- a. monitoring of groundwater to assess the performance and effectiveness of the remedy; and
  - b. a schedule of monitoring and frequency of submittals to the Department.
  - c. monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



**SOURCE:**

Map created with TOPO!® ©2001 National Geographic  
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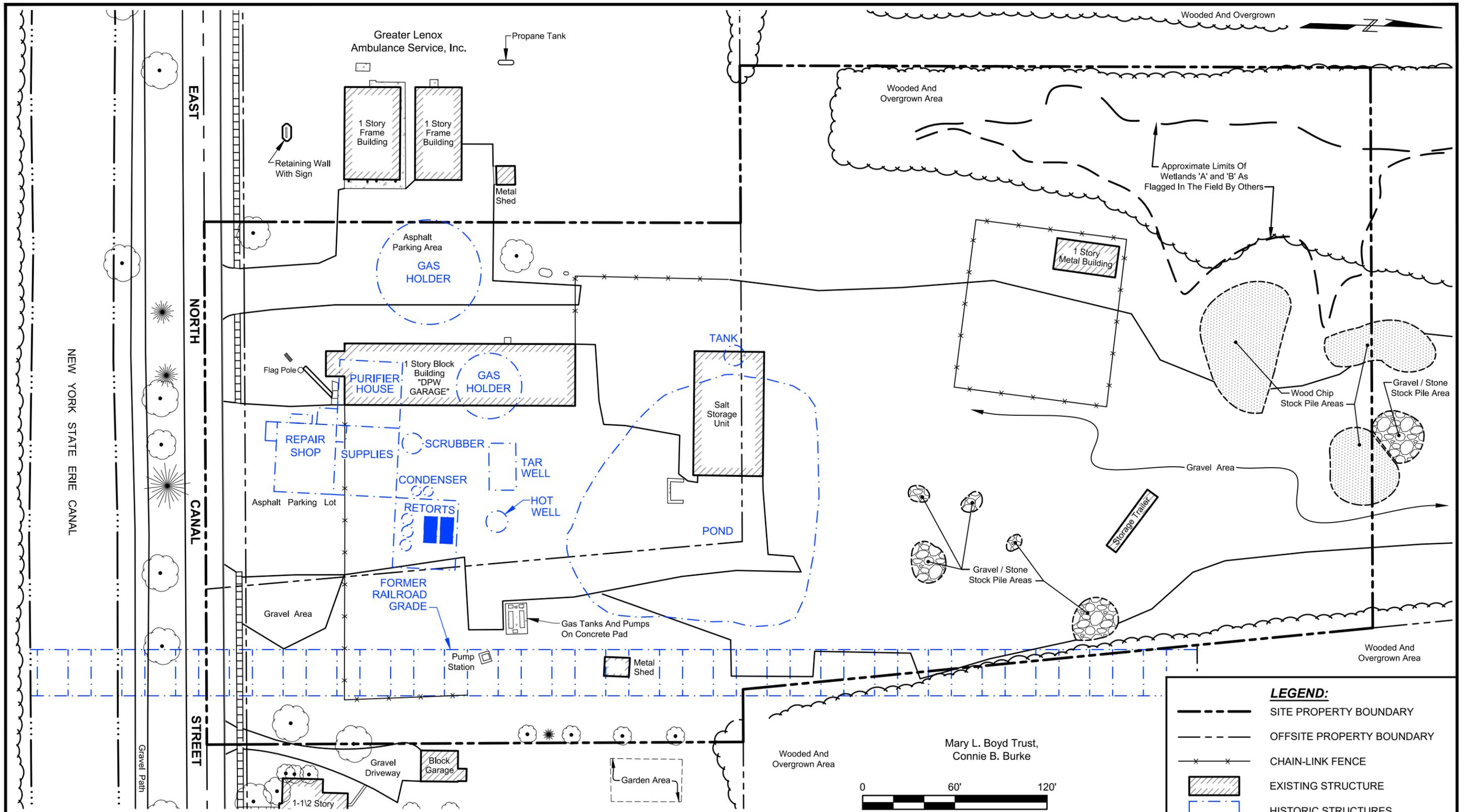


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**SITE LOCATION MAP**

July 2020

Fig. 1



**SOURCES:**

1. PLAN BASED ON SURVEY MAPS SHEETS 1 AND 2: LANDS OF VILLAGE OF CANASTOTA, NORTHEAST CANAL STREET AND ROBERTS STREET, BEING PART OF LOT # 86 OF THE CANASTOTA TRACT, VILLAGE OF CANASTOTA - MADISON COUNTY, STATE OF NEW YORK, PREPARED BY DELTA ENGINEERS, ARCHITECTS & LAND SURVEYORS, 4873 NEW YORK STATE ROUTE #5, VERNON, NY, SCALE: 1" = 30, DATE: 2/10/2010, LAST REVISED JANUARY 20, 2011.
2. 1911 SANBORN FIRE INSURANCE MAP.

**NOTES:**

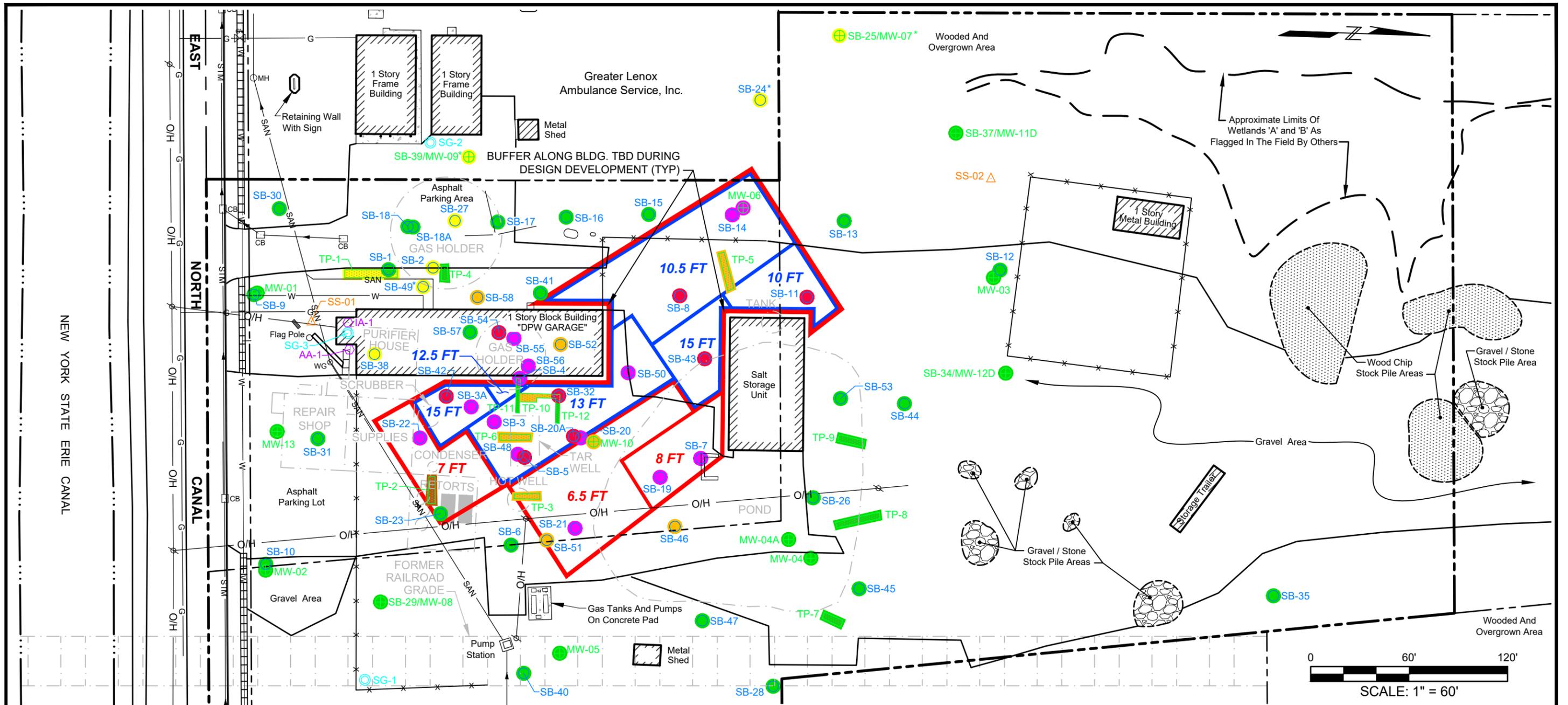
1. HORIZONTAL DATUM: NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, (NAD 83).
2. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
3. LOCATIONS OF SOME HISTORIC FEATURES ADJUSTED BASED ON FIELD OBSERVATIONS.

Mary L. Boyd Trust,  
Connie B. Burke

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<b>HISTORICAL SITE FEATURES</b>		Fig. 2



LEGEND:			
	SITE PROPERTY BOUNDARY		MW-01 MONITORING WELL
	OFFSITE PROPERTY BOUNDARY		SB-19 SOIL BORING
	CHAIN-LINK FENCE		SS-01 SOIL SAMPLE
	EXISTING STRUCTURE		TP-1 TEST PIT
	HISTORIC STRUCTURE		IA-1 AIR SAMPLE
	PROPOSED EXCAVATION LIMITS: (TO DEPTH OF 6 FEET ATOP ISS AREAS)		SG-3 SOIL VAPOR SAMPLE POINT
	PROPOSED DEPTH OF ISS BELOW 6-FOOT EXCAVATION (IN FEET BGS)		GAS LINE
			SANITARY SEWER LINE
			STORM SEWER LINE
			WATER LINE
			UTILITY POLE
			CATCH BASIN
			GAS VALVE
			WATER VALVE
			TAR SATURATED
			COATED MATERIAL, LENSES
			HARDENED TAR
			BLEBS, GLOBS, SHEEN
			STAINING, ODOR
			NO PHYSICAL IMPACTS
			PETROLEUM IMPACTS SHEEN
			ONLY ODOR OBSERVED

**SOURCES:**

1. PLAN BASED ON SURVEY MAPS SHEETS 1 AND 2: LANDS OF VILLAGE OF CANASTOTA, NORTHEAST CANAL STREET AND ROBERTS STREET, BEING PART OF LOT # 86 OF THE CANASTOTA TRACT, VILLAGE OF CANASTOTA - MADISON COUNTY, STATE OF NEW YORK, PREPARED BY DELTA ENGINEERS, ARCHITECTS & LAND SURVEYORS, 4873 NEW YORK STATE ROUTE #5, VERNON, NY, SCALE: 1" = 30', DATE: 2/10/2010, LAST REVISED JANUARY 20, 2011.
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SELECTED REMEDY

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Fig. 3