

36 Elm Street
CITY OF GLENS FALLS, WARREN COUNTY, NY

Site Management Plan

NYSDEC Site Number: E557019

Prepared for:
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1.0 Introduction and Description of Remedial Program

1.1 Introduction

This document is required as an element of the remedial program at 36 Elm Street (hereinafter referred to as the “Site”) under the New York State (NYS) Environmental Restoration Program (ERP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with State Assistance Contract (SAC) #C303163, which was executed on December 29, 2006. The Record of Decision (ROD) for the Site was issued on January 8, 2009.

1.1.1 General

The Greater Glens Falls Local Development Corporation (GGFLDC) entered into a SAC with the NYSDEC to conduct a site investigation and perform interim remedial measures (IRMs), as deemed necessary and appropriate, of a 0.14 acre property located in Glens Falls, New York. This SAC provided the GGFLDC with ninety percent (90%) reimbursement funding to investigate and, if necessary, remediate contaminated media at the site. The site location and boundaries of this 0.14 acre parcel are indicated in Figures 1 and 2, respectively. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement.

After completion of necessary interim remedial measure (IRM) activities, as described in the May 2008 Site Investigation Report prepared by Barton & Loguidice, P.C. (B&L), some contamination was left in the subsurface both on site and at an off-site location immediately adjacent to the site, which is hereafter referred to as ‘remaining contamination.’ This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by B&L, on behalf of the GGFLDC, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation,

dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) that are required by the Environmental Easement for the site.

1.1.2 Purpose

The site contains contamination left after the completion of several NYSDEC-approved IRM activities. ICs have been incorporated into the site remedy to control exposure to remaining contamination during the use of the site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Warren County Clerk, will require compliance with this SMP and all ICs placed on the site. The ICs place restrictions on site use, and mandates reporting measures for all ICs. This SMP specifies the methods necessary to ensure compliance with all ICs required by the Environmental Easement for contamination that remains at the site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site following completion of the IRM activities, including: (1) implementation and management of all Institutional Controls, and (2) performance of periodic inspections and submittal of Periodic Review Reports.

To address these needs, this SMP includes an Institutional Control Plan for implementation and management of ICs. This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the environmental easement, which is grounds for revocation of the Certificate of Completion (COC);

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- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375, and the SAC (Index # C303163; Site # E557019) for the site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP

1.2 Site Background

1.2.1 Site Location and Description

The 36 Elm Street site is located in the City of Glens Falls, County of Warren, New York, and is identified as 309.28-1-13 on the City of Glens Falls Tax Map. The 0.14-acre site is bordered to the northeast by Elm Street, and the properties located immediately across the street on the northeast side of Elm Street consist of a parking lot and a commercial food and drink establishment (Sandy's Clam Bar). A commercial building directly abuts the south wall of the building structure, while both commercial and residential buildings exist further to the south (see Figure 2). To the east, the Site is bordered by a three-story commercial building that contains retail shops on the first floor, with a combination of office space and apartments on the second and third floors. A narrow, locked alleyway separates the two buildings on the east side. To the northwest, the building structure is bordered by a single-story commercial building that is currently occupied by a Labor-Ready office. A driveway exists between the subject structure and the Labor-Ready office. The boundaries of the site are more fully described in Appendix A – Metes and Bounds.

1.2.2 Site History

Research into the history of the Site, which was obtained from the review of a January 2003 Phase I Environmental Site Assessment (ESA) Report of the Site prepared by Clough, Harbour & Associates (CHA) of Albany, New York, indicates that the subject property was used for residential purposes prior to the construction of the existing masonry building structure in the

early 1920s. According to the CHA Phase I ESA Report, the three-story structure was used from the early 1920s through the 1940s as a shirt factory, and then from the 1950s through the early 1970s for the manufacture of ladies garments. Based on the review of City of Glens Falls telephone directories, CHA was also able to determine that the McNaughton & Hughes Auto Repair facility occupied a portion of the structure during the 1930s. The Site was most recently used by ABC Equipment for the storage of restaurant supplies and equipment. Specifically, all three (3) floors of the building (including the basement area) were used for the storage of dishes, tables, chairs and stools, stainless steel sinks, appliances, and miscellaneous cleaning supplies. A history of the known Site ownership is presented below:

Site Ownership History	
Company Name	Date of Ownership
Greater Glens Falls LDC	2005 to present
U.J. Limited Partnership	July 1998 to 2005
Jack Lebowitz	July 1998
Jack and Philip Lebowitz	October 1971 to July 1998
Iser Realty Corporation	February 1956 to October 1971
Simon Milberg	April 1955 to February 1956
Milestone Undergarment Corporation	August 1952 to April 1955
Milestone Foundation	June 1948 to August 1952

The primary environmental concerns associated with the Site include: potential residual contaminants associated with the four (4) aboveground storage tanks (ASTs) and boiler tank that remained in the basement area; potential subsurface petroleum contamination associated with an outdoor underground storage tank (UST); the former use of the Site as an automobile repair facility in the 1930s; the presence of asbestos-containing material (ACM) and lead-based paint throughout the entire structure; the presence of potential polychlorinated biphenyl (PCB)-containing light ballasts in the building; and potential off-site impacts associated with the prior operation of automobile repair and gasoline station facilities in the immediate surrounding area. Specifically, the CHA Phase I ESA report states that during the 1950s and 1960s, a gasoline station existed across from the subject parcel at 37 Elm Street, and from the period of the 1920s through the 1960s, an automobile repair facility was located in the building directly abutting the south side of the structure.

1.2.2.1 Previous Investigations

Following the completion of the CHA Phase I ESA, a Phase II ESA report was issued by CHA in November 2003. A summary of the Phase II ESA findings are presented below:

- Based on the laboratory analysis of soil and groundwater samples collected from a soil boring/monitoring well (B-1/MW-1) located on the northeast side of the building in the sidewalk, and a soil boring (B-2) in the basement, there is no apparent evidence of subsurface soil or groundwater contamination related to previously identified on-site and off-site potential environmental concerns.
- The laboratory analysis of two (2) sand samples collected from the northeast side of the tank vault exhibited low level concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and PCBs. However, the detected concentrations were below the applicable NYSDEC Part 375 Commercial Use Soil Cleanup Objective (SCO) guidance values.
- Based on the collection and laboratory analysis of 17 suspect ACM samples, ACM was found to be present in the aircell-type pipe insulation present in the basement and second and third floors of the building, in the window glazing on the building's windows, and in the layered roof system underlying the rubber membrane roof.
- The laboratory analysis of three (3) paint chip samples collected from the first, second, and third floors of the building revealed that lead-based paint is present. Only the paint chip sample collected from the third floor contained greater than 0.5 percent (0.5%) lead by weight.

1.2.3 Geologic Conditions

The soils at the Site consist of Oakville loamy fine sand, according to the United States Department of Agriculture's (USDA) Soil Survey for Warren County. This soil type consists of deep, well-drained soils. The Site is located in the northern portion of the Hudson-Mohawk Lowlands Province, which is comprised of surficial geologic deposits that are associated with continental glaciation. The Hudson-Mohawk Lowlands became host area for a large glacial lake, Lake Albany, which extended north from an ice dam in the lower Hudson Valley. Lake Albany

expanded as the ice receded and eventually covered the land north to the Lake George/Lake Champlain area and west up the Mohawk Valley. The Site is located a quarter mile from the Hudson River, and the area is comprised of near-shore lacustrine sand deposits that are typically well-sorted and stratified (6 to 65 feet). Bedrock is mapped as Middle Ordovician Trenton and Black River Group Limestone Formations, which are overlain throughout the rest of Hudson-Mohawk Lowlands by Middle and Upper Ordovician shale, greywacke, siltstone, and sandstone. The Trenton and Black River Group Limestone Formations generally daylight along the northern boundary of the Hudson-Mohawk Lowlands at the Adirondack Foothills.

Deposits encountered at the Site were described during the subsurface investigation as a well sorted medium to fine brown sand with trace medium to fine gravel. The borings were advanced to a maximum of 20 feet, and bedrock was not encountered on site. Groundwater was encountered at a depth of 10 to 12 feet below ground surface (bgs), and the predominant groundwater flow direction is from west to east at a gradient of 0.007 ft/ft to the east.

1.3 Summary of Site Investigation Findings

A Site Investigation (SI) was performed to characterize the nature and extent of contamination at the site. The SI was conducted between April of 2006 and May of 2008. The results of the SI are described in detail in the following reports:

“Site Investigation Report” prepared by Barton & Loguidice, P.C., May 2008

“Remedial Alternatives Report” prepared by Barton & Loguidice, P.C., May 2008

The following activities were conducted during the SI: site survey, asbestos and harmful/hazardous material survey, geophysical survey to identify buried structures, the installation of eight (8) soil borings, five (5) permanent monitoring wells, and three (3) temporary monitoring wells on or adjacent to the site, the installation of four (4) soil vapor and two (2) sub-slab vapor monitoring points, and the collection of soil, groundwater, basement standing water (considered groundwater) and vapor samples. Figure 3 depicts the eight (8) soil boring locations (designated as B&L-1 through B&L-8), while Figure 4 indicates the location of the previously installed CHA monitoring well (MW-1), and the five (5) newly installed permanent monitoring wells (designated as B&L-2 through B&L-6). Figure 4 also depicts the

location of the three (3) temporary monitoring wells (designated as B&L-1, B&L-7, and B&L-8) that were installed in the basement area. The locations of the four (4) soil vapor monitoring points (designated as SV-1 through SV-4) and the two (2) sub-slab monitoring points (designated as SS-1 and SS-2) are indicated on Figure 5, which also depicts the approximate extent of the area of standing water in the basement.

Generally, the results of the SI indicated the presence of residual petroleum-based contaminants in one (1) subsurface soil boring and groundwater sample (B&L-6), which is located off-site just beyond the south corner of the building perimeter. Some of the contaminants exceeded their respective NYSDEC Part 375 Recommended Soil Cleanup Objectives (SCOs) for Restricted Residential Use. However, because monitoring well B&L-6 is located off-site, the minor contamination encountered at this particular sampling location is not considered to be the result of on-site operations or conditions.

Several metals (antimony, iron, manganese, lead, selenium, and sodium) were also detected in groundwater samples from all monitoring wells. Levels for several of these metals exceeded NYSDEC Part 703 Groundwater Standards. Exceedances for total lead were present in monitoring wells B&L-6 (off-site) and B&L-7; however, given the observed turbidity present in the procured groundwater samples, it is likely that these results are due primarily to lead bound to sediment, and therefore are not representative of actual groundwater quality.

Below is a summary of site conditions when the SI was performed between April 2006 and May 2008:

1.3.1 Soil

1.3.1.1 Surface Soil

The building foot print takes the vast majority of the site; the remainder of the site is covered with asphalt or concrete surfaces. Consequently, no surface soil exists at the site location, and therefore no surface soil samples were collected as part of the SI.

1.3.1.2 Subsurface Soil

Soil samples collected during the subsurface soil boring program were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) Metals, PCBs, and Total Petroleum Hydrocarbons (TPH). Only one boring location, B&L-6 (located off site of the southern corner of the Site building, in the OTB parking lot), indicated SVOCs above the Part 375 SCOs for Restricted Residential Use. However, because soil boring B&L-6 is located off-site and exhibits concentrations of SVOC compounds that are not present at any of the on-site sampling points, the minor SVOC contamination is not considered to be a result of on-site operations or conditions. The array of polycyclic aromatic hydrocarbons (PAHs) detected in B&L-6 resembles a signature of weathered coal tar. As noted on Figure 3, elevated compounds include phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. Therefore, it is likely that the elevated detections are due to a weathered coal-tar residual.

Similarly, off-site boring B&L-6 reported a detection of TPH (4,100 mg/kg). According to the January 2003 Phase I ESA Report of 36 Elm Street prepared by CHA, the property abutting the Site to the southwest (where B&L-6 was installed) was previously used as an auto repair facility. Therefore, it is likely that the TPH detections are a result of the historical use of the neighboring property, rather than due to on-site operations or conditions. The minor PAH exceedances appear to be localized and of minimal environmental concern.

None of the soil boring samples indicated elevated levels of lead above typical background concentrations.

1.3.2 Groundwater

Groundwater samples were collected on May 30, 2007 from selected permanent and temporary monitoring wells installed on the Site. The groundwater samples were analyzed for the presence of VOCs, SVOCs, TAL metals, and PCBs. With the prior concurrence of Mr. Michael McLean of the NYSDEC, groundwater sampling and analysis activities were not performed on existing

monitoring well MW-1 that was previously installed by CHA. The following wells were sampled on May 30, 2007: B&L-2, B&L-3, B&L-4, B&L-5, B&L-6, and B&L-7.

No VOCs were detected above groundwater standards in any of the monitoring wells during the sampling event. As indicated on Figure 4, off-site monitoring well B&L-6 exhibited several SVOC detections exceeding groundwater standards. However, as indicated by the low solubility of these compounds in water, and as evidenced by the detected concentrations approaching or exceeding the solubility values, the results are likely a result of the compounds bound to suspended sediment and particulate matter, and are thus not representative of groundwater quality. This conclusion is further supported by the high turbidity value (1183.2 NTUs) exhibited by the groundwater sample collected from monitoring well B&L-6, and the fact that an unfiltered groundwater sample was submitted for laboratory analysis. Furthermore, as with the subsurface soil SVOCs, the groundwater SVOCs are located off-site and side gradient, and therefore are not considered to be related to prior activities at the Site.

Metals were detected above groundwater standards at all locations during the sample event (refer to Figure 4). Lead was detected at a concentration of 30.3 micrograms per liter (ug/L) at off-site monitoring well location B&L-6, and at a concentration of 50 ug/L at B&L-7, exceeding the applicable groundwater quality standard of 25 ug/L. As previously noted for the reported SVOC concentrations, due to the high turbidity encountered during sample collection (approximately 1190 NTUs), combined with the laboratory analysis of unfiltered groundwater quality samples, it is likely that the aforementioned lead results are influenced by lead bound to suspended sediment and particulate matter in the sample, and are thus not representative of groundwater quality conditions. Lead was detected below the applicable groundwater quality standard at monitoring wells B&L-2 and B&L-3, and was otherwise not detected during the groundwater sampling event.

With respect to the above noted SVOC and lead concentration exceedances, groundwater is not utilized on or near the Site location. However, an institutional control in the form of an environmental easement restricting the use of groundwater at the Site will be imposed.

1.3.3 Standing Water (Groundwater) in Basement

The Site structure, which is currently unheated, was formerly heated by a fuel oil-fired boiler system that was located in the east corner of the basement. According to the CHA Phase I ESA report, the fuel burner component of the system had been removed from the basement, and a pit exists at the former location of the oil-fired furnace. This pit, which is situated 2-3 feet below the basement floor level, acts as a collection point for groundwater infiltrating into the basement. The true groundwater depth is 1-2 feet below the elevation of the standing water in the pit. In conjunction with the performance of an IRM in the spring of 2007, a sample of the standing water was collected and submitted for the laboratory analysis of VOCs, SVOCs, TAL metals, and PCBs. The standing water, which appeared to be stagnant and quite turbid, was sampled to determine if contamination was present.

No VOCs were detected in the analyzed sample of standing water (designated as SW-1); however, several low-level SVOCs were present in exceedance of groundwater standards. Specifically, SVOC parameters benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and indeno(1,2,3-cd)pyrene were detected at low level concentrations, in addition to five (5) inorganic parameters (arsenic, cadmium, lead, mercury, and selenium). However, a comparison of the detected SVOC parameter concentrations to their respective solubility limits indicates that these parameters are likely bound to suspended particulate matter and are not dissolved in water. Therefore, the sample was reanalyzed by the laboratory (designated as SW-1RE), and there were no detections of CVOCs at the laboratory minimum detection limits.

At the request of the NYSDEC, the standing water in the basement was re-sampled for the presence of SVOCs in March 2008. As noted on Figure 5, the analytical results for the March 2008 standing water sample indicate that no SVOC parameters were detected above the laboratory minimum detection limit. The elevated levels of many of the inorganics are considered background. The elevated level of lead is consistent with groundwater levels and may be related to site activities. The standing water/groundwater is not utilized at the Site, however at the recommendation of the NYSDEC, the pit was subsequently backfilled and covered with a layer of concrete that was installed flush with the elevation of the basement floor.

1.3.4 On-Site and Off-Site Soil Vapor

Soil vapor and sub-slab vapor samples were collected on May 25, 2007 from the soil vapor and sub-slab vapor monitoring points installed on Site (refer to Figure 5). The tubing was purged and leak checked, and vapor samples were collected in one-liter Summa canisters over a 2-hour time period. In addition, an ambient air sample was collected in the basement area and outside, along Elm Street. Indoor and outdoor vapor samples were collected concurrently. The vapor samples were submitted to Centek Laboratories, LLC for laboratory analysis of VOCs via EPA Method TO-15. No site-related vapor contamination of concern was identified during the SI.

1.3.5 Underground Structures

Four (4) ASTs were located in the basement of the site enclosed within a masonry block structure and situated on a concrete slab along the eastern wall of the basement (refer to Figure 3). Also depicted on Figure 3 is the location of a 1,000 gallon UST that was identified at the northeast corner of the site (outside the building under the existing sidewalk). The four (4) ASTs and related block enclosure was removed from the site as part of an IRM, and the UST outside the site was emptied and closed in place as part of the SI project.

1.4 Summary of Remedial Actions

The site was remediated in accordance with the NYSDEC-approved IRM Contract Bid Documents and Specifications prepared by B&L dated November 2006.

The following is a summary of the IRMs performed at the site:

1. Waste materials including asbestos, lead-based paint, underground and above ground tank liquids and sludge, fuel oil contaminated sand, containers of jars of commercial dishwashing liquids and chlorinated cleaning agents, PCB light ballasts, and refrigerant gas cylinders, were removed from the site.
2. Closure in place of one (1) 1,000 gallon UST located at the northeast corner of the site.
3. Removal of residual wastes and affected structures, including the four (4) ASTs in the basement, the block tank vault enclosure, sand back-fill material (approximately 5 tons),

the former boiler tank and associated piping, and 6.95 tons of soil excavated during the UST test pit and sampling activities.

The above listed IRM activities were completed at the site between February 2007 and July 2007.

After completion of the aforementioned IRMs, the NYSDEC recommended to the GGFLDC that the open pit in the basement area be remediated (i.e. back filled and covered with a layer of concrete) in order to eliminate the potential exposure pathway that existed with regards to dermal contact with the standing water. Therefore, B&L sent a letter to the GGFLDC dated January 22, 2009 which recommended the general procedures to be followed by a qualified contractor in the backfilling of the open pit and installation of a concrete slab. The GGFLDC subsequently retained the services of A.J. Catalfamo Construction Inc. of Hudson Falls, NY to provide the requested services, and the work was performed in February of 2009. Based on an inspection of the basement area by Mr. Stephen Le Fevre of B&L on January 8, 2013, the open pit in the basement has been backfilled and covered with a layer of concrete, and the area of standing water no longer exists.

1.4.1 Removal of Contaminated Materials from the Site

A significant volume of waste materials were identified and removed from the site. Wastes included asbestos and lead-based paint, underground and aboveground storage tank liquids and sludge, fuel oil contaminated sand, containers and jars of commercial dishwashing liquids and chlorinated cleaning agents, PCB light ballasts, and refrigerant gas cylinders.

In addition to the above, completed IRM activities resulted in the removal of residual wastes and affected structures, including the four (4) basement ASTs, concrete block tank vault and sand backfill material (5 tons), boiler tank and piping, and 6.95 tons of soil excavated during the UST test pitting activities.

1.4.2 Quality of Backfill Placed in Excavated Areas

With the prior consent and approval of Mr. Michael McLean of the NYSDEC, the open pit in the basement was backfilled with the same dirt material that was previously excavated from the

basement floor in conjunction with the removal of the oil-fired furnace. This excavated soil material was stockpiled in the basement and had never been removed from the structure. Therefore, this previously excavated soil was used back fill the open pit followed by the placement of a layer of concrete.

1.4.3 Remaining Contamination

Currently, there are no complete exposure pathways at the site. However, there are potential exposure pathways associated with groundwater at the site, and contaminated sub-surface soil near the existing site.

Groundwater at the site contains elevated inorganic compounds, including lead, iron, and manganese. Some inorganics, such as iron, may be naturally occurring and are not considered associated with former activities at the site. It is unclear if elevated lead levels in the groundwater are a result of former operations at the site, or if they represent local background and impacts from off-site properties. Regardless, groundwater could present a potential for exposure if a well was installed at the property for potable water use. However, this exposure pathway is unlikely since the site and surrounding properties are serviced with public water. Public drinking water is routinely tested, and must comply with federal and state drinking water standards.

The potential for contaminated vapors in soil to enter the building at the site (via soil vapor intrusion) was evaluated. Based on the results of the investigation, soil vapor intrusion does not present an exposure pathway of concern for future users of the site.

Sub-surface soil and groundwater immediately south of the Site are contaminated with SVOCs and are not considered site-related. A spill number has been assigned by the NYSDEC to the adjoining property.

Figure 3 summarizes the results of remaining soil impacts at the Site, as well as immediately off-site, that exceed the Restricted Residential Use SCOs following the completion of IRM activities. Similarly, Figure 4 summarizes the results of remaining groundwater impacts at the Site, as well as immediately off-site, that exceed the Part 702.5 groundwater standards following the completion of IRM activities.

2.0 Institutional Control Plan

2.1 Introduction

2.1.1 General

Since contaminated groundwater exists beneath the site, Institutional Controls (ICs) are required to protect human health and the environment. This Institutional Control Plan describes the procedures for the implementation and management of all ICs at the site. The IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

The purpose of this Plan is to provide:

- A description of all ICs on the site;
- The basic operation and intended role of each implemented IC;
- A description of the key components of the ICs created as stated in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- Any other provisions necessary to identify or establish methods for implementing the ICs required by the site remedy, as determined by the NYSDEC.

2.2 Engineering Controls

There are no engineering controls required for implementation at the Site.

2.3 Institutional Controls

A series of Institutional Controls is required by the ROD to: (1) prevent use of the groundwater underlying the site without treatment rendering it safe for its intended purpose; and, (2) limit the use and development of the site to restricted residential use, which will also permit commercial

and industrial use;. Adherence to these Institutional Controls on the Site is required by the Environmental Easement, and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may be used for restricted residential, commercial, and industrial uses, provided that the long-term Institutional Controls included in this SMP are employed.
- The property may not be used for a less restrictive use, such as unrestricted residential use, without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for its intended purpose;
- Vegetable gardens on the property are prohibited;
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) institutional controls employed at the Controlled Property are unchanged from the previous certification, or that any changes to the institutional controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the institutional controls to protect public health and environment, or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the

continued maintenance of any and all institutional controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow, and will be made by an expert that the NYSDEC finds acceptable.

2.4 Inspections and Notifications

2.4.1 Periodic Inspections

A comprehensive site-wide inspection will be conducted annually by the property owner, regardless of the frequency of the Periodic Review Report. The annual inspection will determine and document the following:

- Compliance with requirements of this SMP and the Environmental Easement; and
- If site records are complete and up to date.

Inspections will be conducted using the Site-Wide Inspection Form included in Appendix B. The reporting requirements are outlined in the Reporting Plan (Section 2.5).

If an emergency, such as a natural disaster occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the Institutional Controls implemented at the site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notification will be submitted by the property owner to the NYSDEC, as needed, for the following reason:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the State Assistance Contract (SAC), 6NYCRR Part 375, and/or Environmental Conservation Law.

Any change in ownership of the site or the responsibility for implementing this SMP will include the following notifications:

-
- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the State Assistance Contract (SAC) and all approved work plans and reports, including this SMP.
 - Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing.

Notifications will be made to:

Mr. Michael P. McLean, P.E.
Environmental Engineer 2
New York State Department of Environmental Conservation
Office of Environmental Quality
1115 NYS Route 86
P.O. Box 296
Ray Brook, NY 12977

In the event that NYSDEC develops a centralized notification system, that system will be used instead.

2.4.3 Evaluation and Reporting

The results of the site inspection will be evaluated as part of the Institutional Control certification to confirm that the Institutional Controls are in place and remain effective.

2.5 Reporting Plan

2.5.1 Introduction

A Periodic Review Report will be submitted to the NYSDEC once every five (5) years after the Certificate of Completion is issued. The Periodic Review Report will be prepared in accordance with NYSDEC DER-10 "Technical Guidance for Site Investigation and Remediation". The frequency of submittal of the Periodic Review Report may be modified with the approval of the NYSDEC.

This report will include the following:

-
- Identification of all Institutional Controls required for the site;
 - An assessment of the effectiveness of all Institutional Controls for the site;
 - Results of the required annual site inspections and severe condition inspections, if any; and
 - Certification of the Institutional Controls.

2.5.2 Certification of Institutional Controls

Inspection of the Institutional Controls by the property owner will occur on an annual basis. At the end of each five (5) year period, a Qualified Environmental Professional or Professional Engineer licensed to practice in New York State will prepare a Periodic Review Report which certifies that:

- On-site Institutional Controls are unchanged from the previous certification;
- They remain in-place and are effective;
- Nothing has occurred that would impair the ability of the Institutional Controls to protect the public health and environment;
- Access is available to the site by NYSDEC and NYSDOH to evaluate continued performance of the Institutional Controls; and
- Site use is compliant with the environmental easement.

2.5.3 Periodic Review Report

A Periodic Review Report will be submitted every five (5) years after the Certificate of Completion is issued. The report will be submitted within 45 days of the end of each certification period. The report will include:

- Institutional Control certification;
- All applicable inspection forms and other records generated for the site during the reporting period;
- A site evaluation, which includes the following:

-
- The compliance of the remedy with the requirements of the site-specific ROD;
 - Recommendations regarding any necessary changes to the remedy; and
 - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Regional Office located closest to the site, and in electronic format to NYSDEC Central Office and the NYSDOH Bureau of Environmental Exposure Investigation.

3.0 Monitoring Plan

3.1 Introduction

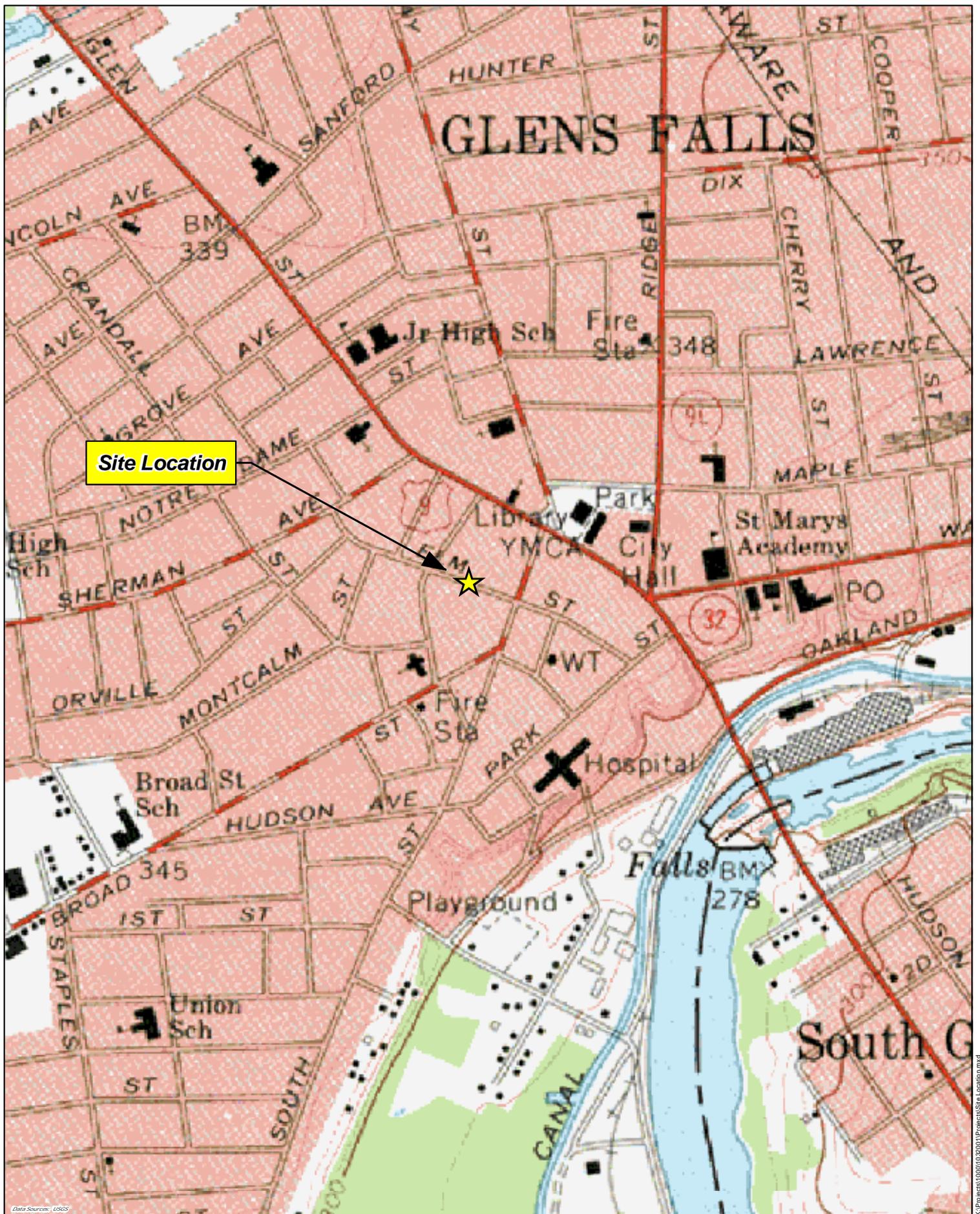
The purpose of the Monitoring Plan is to describe the measures for evaluating the performance and effectiveness of the implemented Engineering Controls to reduce or mitigate contamination at the site. However, since the site remedy does not require the use of Engineering Controls, there is no Monitoring Plan included in this SMP.

4.0 Operation and Maintenance Plan

4.1 Introduction

The site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/ soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

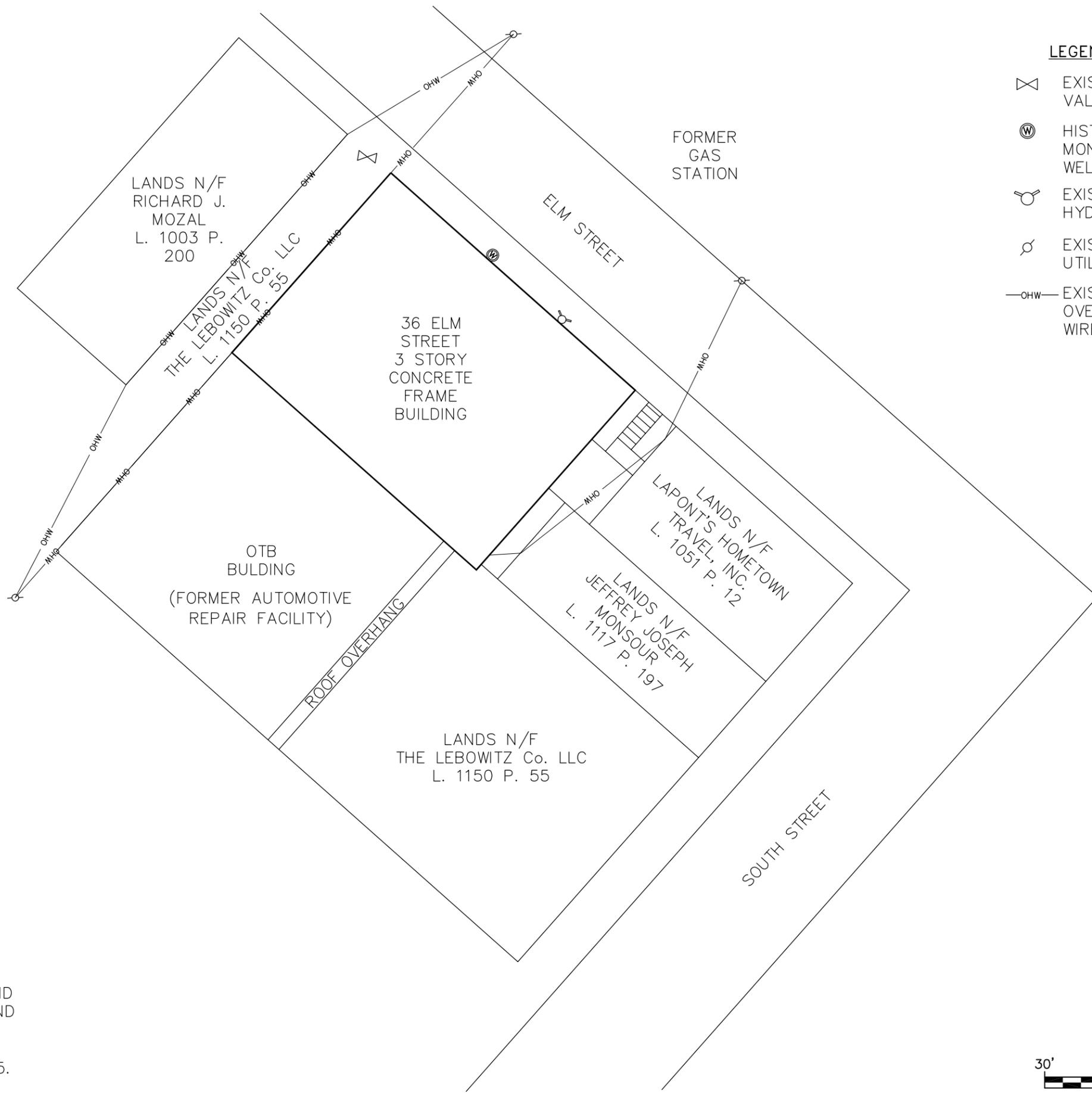
Figures



Data Source: USGS

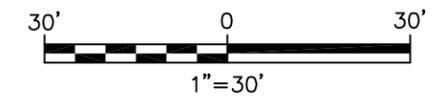


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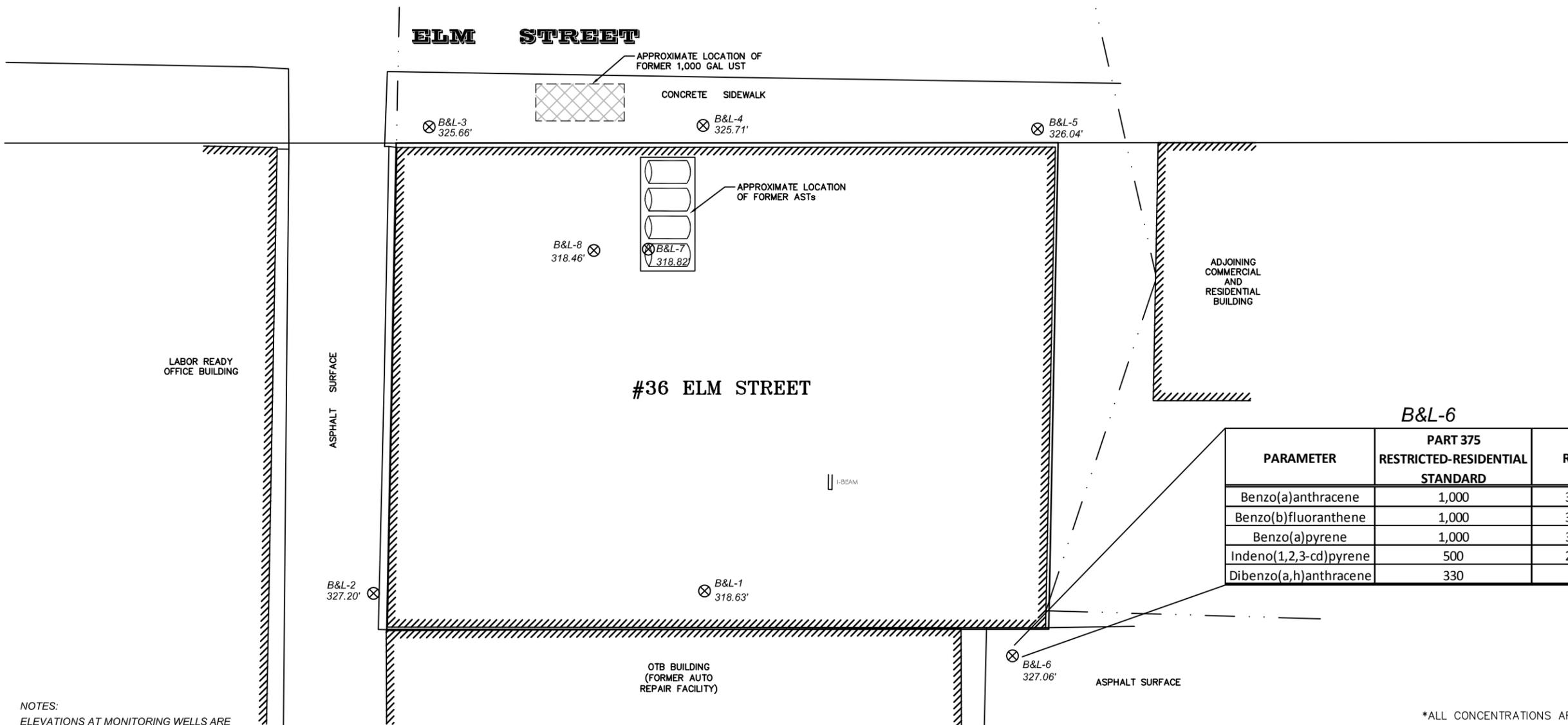
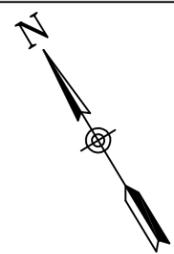
- LEGEND:**
- EXISTING GAS VALVE
 - HISTORIC MONITORING WELL
 - EXISTING HYDRANT
 - EXISTING UTILITY POLE
 - EXISTING OVERHEAD WIRE

MAP REFERENCE:
 MAP PROVIDED BY BOLSTER AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED GREATER GLENS FALLS DEVELOPMENT CORPORATION, DATED 10/12/05.



	GREATER GLENS FALLS LOCAL DEVELOPMENT CORPORATION (GGFLDC) 36 ELM STREET LOCATION PLAN CITY OF GLENS FALLS WARREN COUNTY, NEW YORK
Date JUNE, 2008	
Scale AS SHOWN	
Figure Number 2	
Project Number 1032.001	

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B&L-6

PARAMETER	PART 375 RESTRICTED-RESIDENTIAL STANDARD	RESULT
Benzo(a)anthracene	1,000	32,000
Benzo(b)fluoranthene	1,000	36,000
Benzo(a)pyrene	1,000	30,000
Indeno(1,2,3-cd)pyrene	500	20,000
Dibenzo(a,h)anthracene	330	7,300

NOTES:
 ELEVATIONS AT MONITORING WELLS ARE
 TOP OF PVC PIPE.
 ELEVATIONS AT SOIL VAPOR POINTS ARE
 GROUND NEAR TUBING.
 DATUM: U.S.G.S.

*ALL CONCENTRATIONS ARE REPORTED IN PPB.

LEGEND:
 ⊗ B&L-5 SOIL BORING LOCATIONS
 ○ UTILITY POLE
 --- UTILITY LINES



CITY OF GLENS FALLS
 36 ELM STREET

IRM/SUBSURFACE SOIL CONTAMINANTS

WARREN COUNTY, NEW YORK

CITY OF GLENS FALLS



Date
 JUNE, 2008

Scale
 AS SHOWN

Figure Number
 3

Project Number
 1032.001-A

*ALL CONCENTRATIONS ARE REPORTED IN PPB.

MODIFIER LEGEND:
 B - INDICATES THAT THE COMPOUND IS FOUND IN THE METHOD BLANK AND THE SAMPLE.
 J - ESTIMATED VALUE

B&L-3

PARAMETER	STANDARD	RESULT
Antimony	3	4.2B
Iron	300	1,390
Selenium	10	38
Sodium	20,000	160,000

B&L-4

PARAMETER	STANDARD	RESULT
Antimony	3	4.3B
Selenium	10	19.9B
Sodium	20,000	174,000

B&L-5

PARAMETER	STANDARD	RESULT
Antimony	3	10
Iron	300	3,980
Selenium	10	25.2B
Sodium	20,000	185,000

B&L-7

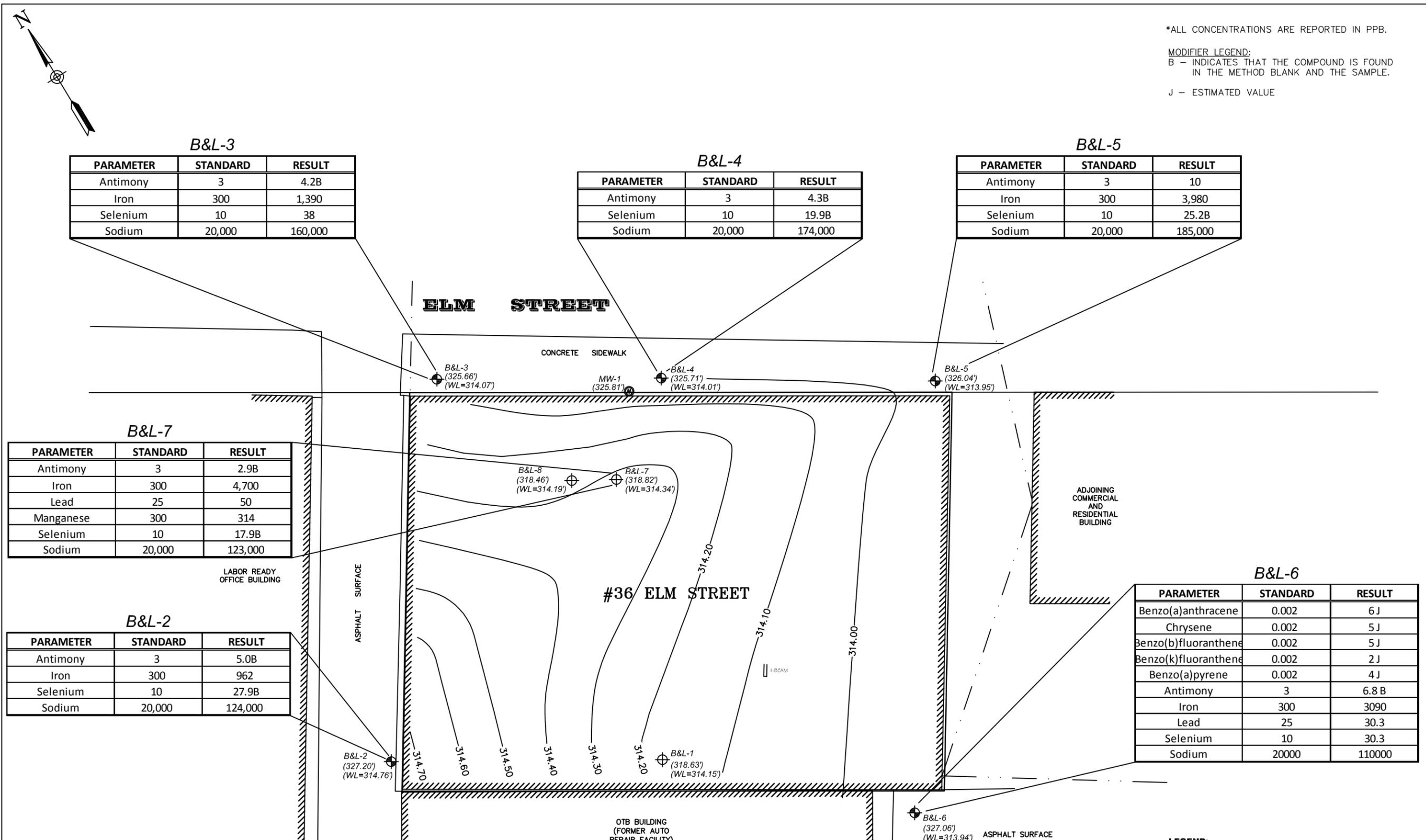
PARAMETER	STANDARD	RESULT
Antimony	3	2.9B
Iron	300	4,700
Lead	25	50
Manganese	300	314
Selenium	10	17.9B
Sodium	20,000	123,000

B&L-2

PARAMETER	STANDARD	RESULT
Antimony	3	5.0B
Iron	300	962
Selenium	10	27.9B
Sodium	20,000	124,000

B&L-6

PARAMETER	STANDARD	RESULT
Benzo(a)anthracene	0.002	6 J
Chrysene	0.002	5 J
Benzo(b)fluoranthene	0.002	5 J
Benzo(k)fluoranthene	0.002	2 J
Benzo(a)pyrene	0.002	4 J
Antimony	3	6.8 B
Iron	300	3090
Lead	25	30.3
Selenium	10	30.3
Sodium	20000	110000



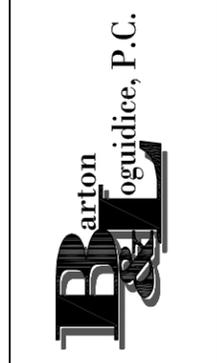
NOTES:
 ELEVATIONS AT MONITORING WELLS ARE TOP OF PVC PIPE.
 ELEVATIONS AT SOIL VAPOR POINTS ARE GROUND NEAR TUBING.
 DATUM: U.S.G.S.



- LEGEND:**
- MW-1 PREVIOUS MONITORING WELL INSTALLED BY CLOUGH, HARBOUR & ASSOCIATES
 - B&L-7 TEMPORARY WELLS INSTALLED BY BARTON & LOGUIDICE, P.C.
 - B&L-5 PERMANENT MONITORING WELLS INSTALLED BY BARTON & LOGUIDICE, P.C.
 - (326.04) ELEVATION OF TOP OF WELL RISER
 - (WL=315.50) MEASURED GROUNDWATER LEVEL
 - UTILITY POLE
 - UTILITY LINES

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CITY OF GLENS FALLS
 36 ELM STREET
 GROUNDWATER CONTAMINANTS WITH
 SEPTEMBER 20, 2007 GROUNDWATER LEVEL CONTOURS
 CITY OF GLENS FALLS
 WARREN COUNTY, NEW YORK



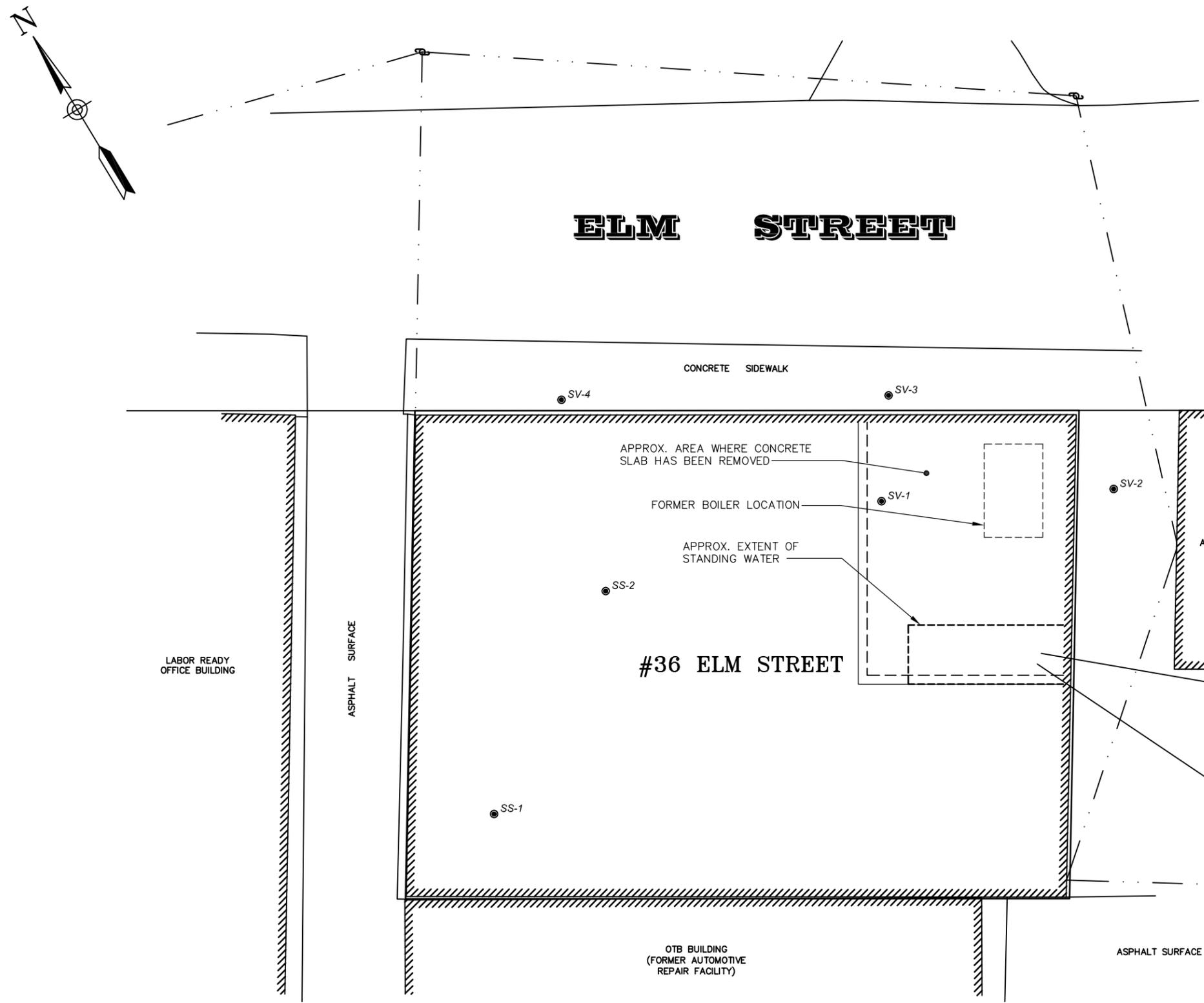
Date
 JUNE, 2008

Scale
 AS SHOWN

Figure Number
 4

Project Number
 1032.001-A

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- LEGEND:**
- SS-1 SUB-SLAB VAPOR POINTS INSTALLED BY BARTON & LOGUIDICE, P.C.
 - SV-3 SOIL VAPOR POINTS INSTALLED BY BARTON & LOGUIDICE, P.C.
 - ⊕ UTILITY POLE
 - - - UTILITY LINES

ELM STREET

#36 ELM STREET

STANDING WATER

PARAMETER	STANDARD (ug/L)	RESULT (ug/L)
Arsenic	25	62
Cadmium	5	25
Lead	25	680
Selenium	10	39
Mercury	0.7	0.78

- NOTES:**
- ELEVATIONS AT MONITORING WELLS ARE TOP OF PVC PIPE.
 - ELEVATIONS AT SOIL VAPOR POINTS ARE GROUND NEAR TUBING.
 - DATUM: U.S.G.S.
 - ELEVATION OF STANDING WATER IS APPROXIMATELY EQUAL TO STATIC WATER LEVEL IN MONITORING WELLS.

SITE PLAN

SCALE: 1"=16'-0"

GREATER GLENS FALLS LOCAL DEVELOPMENT CORPORATION (GGFLDC)
 36 ELM STREET

STANDING WATER, SOIL VAPOR AND SUB-SLAB VAPOR MONITORING POINTS

CITY OF GLENS FALLS
 WARREN COUNTY, NEW YORK



Date
 JULY, 2008

Scale
 1" = 16'

Figure Number
 5

Project Number
 1032.001-A

Appendix A

Metes and Bounds

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

CERTIFICATION:

I HEREBY CERTIFY TO:

- 1) GREATER GLENS FALLS DEVELOPMENT CORPORATION
- 2) THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH THEIR COMMISSIONER OF THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- 3) CHICAGO TITLE INSURANCE COMPANY

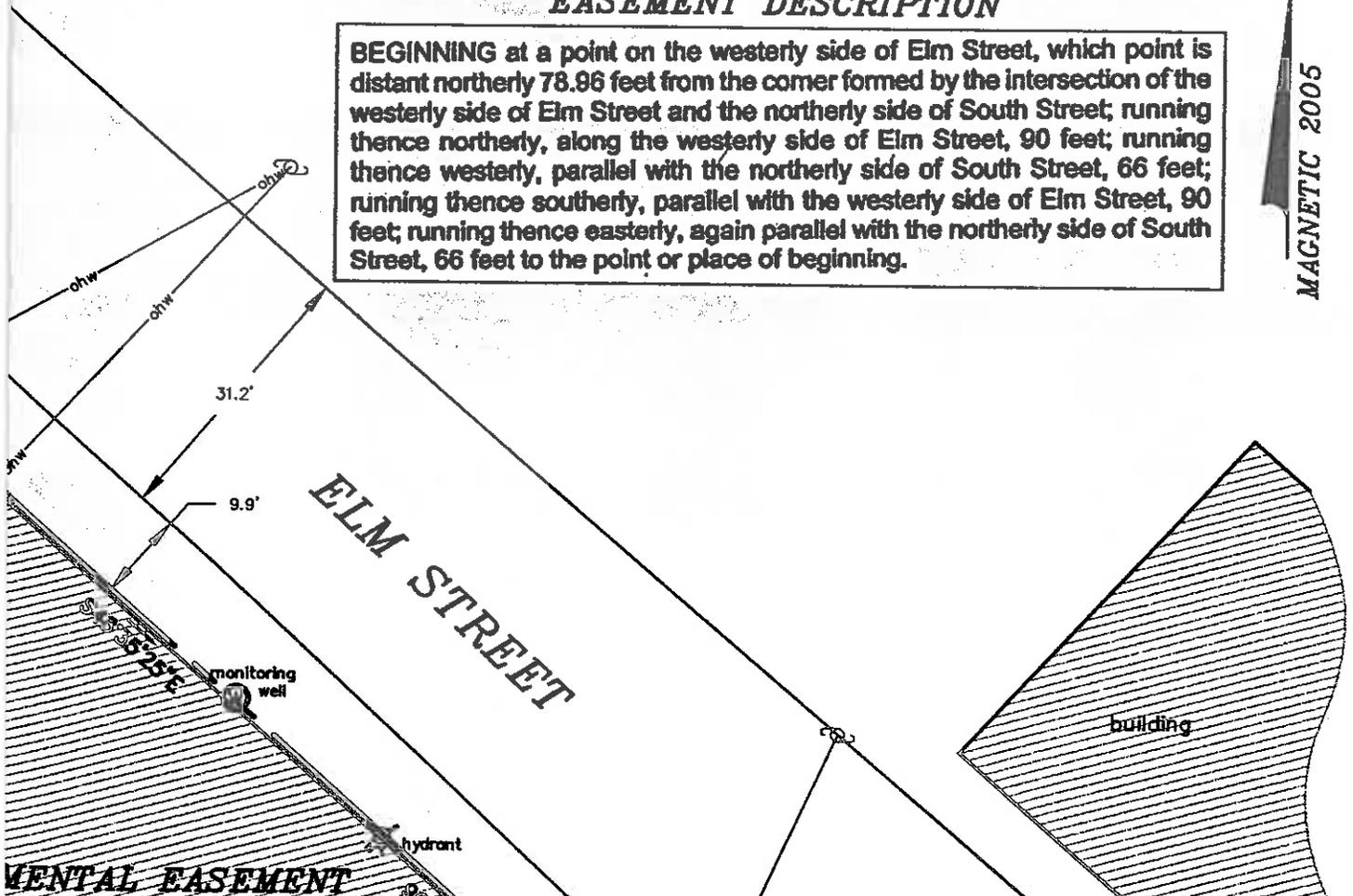
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2005 AND INCLUDES NO ITEMS OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, THE UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF NEW YORK, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

R E Howard

RUSSELL E. HOWARD
DATE : 11/01/11

PROPERTY / ENVIRONMENTAL EASEMENT DESCRIPTION

BEGINNING at a point on the westerly side of Elm Street, which point is distant northerly 78.96 feet from the corner formed by the intersection of the westerly side of Elm Street and the northerly side of South Street; running thence northerly, along the westerly side of Elm Street, 90 feet; running thence westerly, parallel with the northerly side of South Street, 66 feet; running thence southerly, parallel with the westerly side of Elm Street, 90 feet; running thence easterly, again parallel with the northerly side of South Street, 66 feet to the point or place of beginning.



Appendix B
Annual Site-Wide Inspection Form

**SITE MANAGEMENT PLAN
ANNUAL SITE-WIDE INSPECTION
TO BE COMPLETED BY OWNER ANNUALLY**

Site Name: 36 Elm Street

Site No.: E557019

Site Address: 36 Elm Street, Glens Falls, New York 12801

Owner: Greater Glens Falls Local Development Corp.

Owner Address: 42 Ridge Street, Glens Falls, New York 12801

Date: _____

Inspected By: _____

Inspector's Signature: _____

Inspector's Address: _____

Site Management Plan (SMP) Compliance	YES	NO	N/A	COMMENTS
Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?				
Has the Environmental Easement been upheld?				
Has the site-use restriction been upheld (restricted-residential, commercial, industrial)?				
Has the groundwater use restriction been upheld?				
Are all records related to the site maintained and up-to-date?				
Document the general site conditions at the time of the site inspection:				