

Corporate Environmental Affairs

**Shenandoah Road Groundwater Contamination
Superfund Site
Institutional Controls Implementation and Assurance Plan**

Prepared for:

**IBM Corporation
Corporate Environmental Affairs
Somers, New York**

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Unless otherwise expressly provided in this Plan, terms used in this Plan shall have the meanings assigned to them in the Consent Decree. In the event of a conflict of meanings between this Work Plan and the Consent Decree, the meanings in the Consent Decree shall control.

AOC:	Administrative Order on Consent
“best efforts”:	as defined in paragraph 25 of the Consent Decree for Remedial Design / Remedial Action <i>United States v. International Business Machines Corporation</i> , 14 Civ. 0936.
bgs:	below ground surface
c-12DCE:	cis-1,2 dichloroethene
CD:	Consent Decree for Remedial Design / Remedial Action <i>United States v. International Business Machines Corporation</i> , 14 Civ. 0936.
CERCLA:	Comprehensive Environmental Response, Compensation, and Liability Act
CLP:	Contract Laboratory Program
COCs:	Constituents of Concern
DNAPL:	Dense Non-Aqueous Phase Liquid
EE:	Environmental Easement
EHCR7:	7 East Hook Cross Road is the street address of the property on which releases of hazardous substances are alleged to have occurred from a parts cleaning operation in a building located at this address. It is one of two parcels on which contaminated soil removal was performed and one of three parcels on which components of the SETS have been installed and it is included in the definition of the “Facility.”
EHCR11:	11 East Hook Cross Road is one of two parcels on which contaminated soil removal was performed and one of three parcels on which components of the SETS have been installed and it is included in the definition of the “Facility.”
EPA:	United States Environmental Protection Agency Region 2
Facility	For the purposes of Remedial Action Activities, the Facility is defined in the Consent Decree and includes the properties at EHCR7 and EHCR11 and STN47 on which components of the SETS have been installed.
FS:	feasibility study
GAC:	granular activated carbon
GC/MS	gas chromatography/mass spectroscopy

GRP:	Green Remediation Plan
GSC:	Groundwater Sciences Corporation
GSPC:	Groundwater Sciences, P.C.
GTF:	Groundwater Treatment Facility
IBM:	International Business Machines Corporation
ICIAP:	Institutional Controls Implementation and Assurance Plan
MCL:	maximum contaminant level
MNA:	monitored natural attenuation
NCP	National Contingency Plan
NYSDEC:	New York State Department of Environmental Conservation
NYSDOH:	New York State Department of Health
PCE:	tetrachloroethene
POET (systems):	Point of Entry Treatment (systems)
QAPP:	Quality Assurance Project Plan
RAOs:	remedial action objectives
RD/RA Work Plan:	Remedial Design/Remedial Action Work Plan
RI:	remedial investigation
RI/FS:	Remedial Investigation/Feasibility Study
ROD:	Record of Decision
RSCOs:	Recommended Soil Cleanup Objectives
SETS:	Source Extraction and Treatment System
Site:	The Site boundary is defined in the Consent Decree and is bound by the limits of site-related contaminants detected in groundwater above the New York State Groundwater Standard, which encompasses an area of approximately 225 acres.
SOW:	Statement of Work
STN47:	47 Stone Ridge Lane is one of three parcels on which components of the SETS have been installed and it is included in the definition of the “Facility.”
STWD	Shenandoah Town Water District
TAGM:	Technical and Administrative Guidance Memorandum
TAL:	target analyte list
TCE:	trichloroethene
TCL:	target compound list
ug/L:	micrograms per Liter
VOCs:	volatile organic compounds

1 INTRODUCTION

This Institutional Controls Implementation and Assurance Plan (ICIAP) for the Shenandoah Road Groundwater Contamination Superfund Site (the Site) in the Town of East Fishkill, Dutchess County, New York has been prepared by Groundwater Sciences Corporation (GSC) and Groundwater Sciences, P.C. (GSPC) at the request of the International Business Machines Corporation (IBM). Documentation for the selection of this remedy is provided in the EPA *Record of Decision for the Shenandoah Road Groundwater Contamination Superfund Site* (EPA, September 30, 2012) (ROD). The primary remedy selected for this Site is Monitored Natural Attenuation (MNA) for the Groundwater Plume and Source Extraction and Treatment. As discussed in the ROD, the selected remedy also includes both governmental and proprietary institutional controls (ICs) to insure that the remedy is protective of human health and to protect the remedial action elements from possible damage or obstruction.

Actions to implement the selected remedy are being conducted pursuant to the Consent Decree for Remedial Design/Remedial Action (CD) between IBM and the United States Environmental Protection Agency Region 2 (EPA) in the matter styled *United States v. International Business Machines Corporation*, 14 Civ. 0936.

All but one of the components of the selected remedy described have already been designed and approved by EPA and constructed by IBM and its contractors. There is, therefore, no remedial design step necessary to implement them. Detailed descriptions of these activities are provided in the *Remedial Design/Remedial Action Work Plan* (RD/RA Work Plan), dated September 25, 2013. The only element of the selected remedy that has not been designed is the ICs, which is the subject of this ICIAP.

Figure 1-1 shows the location of the Site in the Town of East Fishkill (Town), Dutchess County (County), based on an outline of the plume area. Also shown is the location of the 7 East Hook Cross Road (EHCR7) property near the northern tip of Shenandoah Mountain at which releases of hazardous substances are alleged to have occurred. Figure 1-2 shows a plot plan that includes the EHCR7 property and surrounding parcels. Three of these parcels, EHCR7 and 11 East Hook Cross Road (EHCR11) and 47 Stone Ridge Lane (STN47), are defined in the CD as the “Facility” and referred to as such herein. The parcels at EHCR7 and EHCR11 are included in the Facility for three reasons:

- 1) contaminated soil was removed from these two parcels (see outline on Figure 1-2);
- 2) groundwater data collected during the remedial investigation (RI) infer that source concentrations of hazardous substances are present in bedrock beneath these two parcels; and
- 3) remedial action elements, including extraction and monitoring wells and conveyance and discharge piping, have been installed on these two parcels as shown on Figure 1-2.

The parcel at STN47 is included in the Facility because conveyance and discharge piping and a groundwater treatment facility (GTF) have been installed on this parcel as shown on Figure 1-2. As a component of the ICs required in the ROD, all three of these properties are subject to environmental easements and restrictive covenants to ensure access and non-interference with existing remedial components, including the source extraction and treatment system.

(Note: Previously in the administrative orders on consent governing removal actions and the remedial investigation/feasibility study (RI/FS) and related documents, the “Facility” was defined solely as the EHCR7 parcel because this property was the location of the building in which parts cleaning operations were performed and from which hazardous substances were allegedly discharged to the environment.)

The remainder of this ICIAP is divided into six sections, as follows:

- Section 2 provides a project description, including background information and a summary description of the selected remedy.
- Section 3 describes remedial design activities associated with the ICs.
- Section 4 provides a description of the implementation, inspection and assurance of ICs.
- Section 5 provides a schedule for the project.
- Section 6 includes information on management, implementation and reporting.
- Section 7 lists relevant references.

2 PROJECT DESCRIPTION

This section provides a brief background of the events that led to the issuance of the ROD and the need for the groundwater plume response and continued operation of the source extraction and treatment system (SETS) constructed from December 2011 to March 2012 under EPA's Non-Time-Critical Source Removal Action (NTCSRA).

2.1 Site History and Background

The United States Environmental Protection Agency Region 2 (EPA) and the New York State Department of Environmental Conservation (NYSDEC) together with the New York State Department of Health (NYSDOH) began a residential well sampling program in June 2000 in response to the detection of tetrachloroethene (PCE) in homeowner wells in the Shenandoah area of the Town (Figure 1-1). These measures were undertaken as a federal removal action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA). Subsequently, EPA installed Point of Entry Treatment (POET) systems at 57 residences where PCE concentrations exceeded the federal Maximum Contaminant Level (MCL) of 5 ug/L. The total number of POET systems installed by the end of 2000 was 60.

In the fall of 2000, EPA determined the source of this contamination to be historical operations in a building located at EHCR7 as shown on Figure 1-1. EPA began a removal action for contaminated soil which continued through May 2001. The Site was added to the Superfund National Priorities List on June 14, 2001 (Superfund Identification Number: NYSFN0204269). The Site is also currently listed as a Class 2 Site (Site # 314104) in New York State Registry of Inactive Hazardous Waste Disposal Site.

2.1.1 Physical Setting

As shown on Figure 1-1, the Site is located in the Town just north of the boundary separating Dutchess County from Putnam County, New York. Topographically, the Site is situated at the northern edge of the Hudson Highlands represented on Figure 1-1 by the presence of four prominent mountains that rise above the adjacent valley of Fishkill Creek: Honness Mountain; Round Mountain; Shenandoah Mountain and; Hosner Mountain.

Plate 2 presents a topographic map of the Shenandoah area. For reference, the extent of the plume is shown on this plate by an orange line that circumscribes all aqueous phase detections of Site-related constituents of concern (COCs) exceeding NYS drinking water and groundwater standards. As shown on this plate, the area of this plume is drained by three unnamed streams and contains two prominent mapped wetlands. The valley to the east of Shenandoah Mountain is drained by Unnamed Stream No. 1 and contains a large wetland area identified on Plate 2 as NYSDEC Wetland HJ-59. Unnamed Stream No. 2 originates in a former sand and gravel pit. Unnamed Stream No. 3 rises in a broad flat valley north of I-84 and east of Shenandoah Road and is fed by a large wetland identified on Plate 2 as NYSDEC Wetland HJ-54. Along the southern edge of this wetland and just north of Townsend Road, Plate 2 shows a constructed pond adjacent to the southern edge of this large wetland.

Existing geologic mapping indicates Shenandoah Mountain is underlain by Precambrian gneiss and the adjacent valleys are underlain by carbonate rocks and, to a much lesser extent, quartzite and shale. Bedrock in the valleys is generally covered by a veneer of glacial sediments including bouldery till and ice-contact deposits ranging from coarse sand and gravel to fine-textured silt and clay. Till also partially fills the small valley present on the EHCR7 and EHCR11 parcels to depths as great as 40 feet.

Land use along virtually all roads within the plume area is characterized by residential development where the slope of the land and the limits of wetlands will permit. At the time the plume was discovered each of these houses was served by a domestic water supply well and an on-lot sewage disposal system. Subsequently, a public water supply was provided by IBM as described below.

2.1.2 Removal Actions Implemented by IBM

To authorize IBM's participation in removal actions at this Site, EPA Administrative Order on Consent for Removal Action, Index Number: CERCLA-02-2001-2020 (Removal AOC) was executed by IBM and EPA with an effective date of May 16, 2001. Together with EPA, IBM completed the removal action for the removal of more than 10,000 tons of contaminated soil at the EHCR7 and EHCR11 parcels. Figure 1-2 shows the 0.25-acre area from which contaminated soil was removed. As shown on this figure, this area occurs primarily on the parcel at EHCR7, but also includes a small area on the adjacent parcel located at EHCR11.

In addition to this soil removal activity, other actions undertaken by IBM pursuant to the Removal AOC included:

- Installation of an additional 43 POET systems and operation, maintenance and monitoring of all 103 POET systems for a period of approximately nine years.
- Installation of a permanent public water supply to replace the use of individual residential supply wells, including a water source from the Town of Fishkill municipal system; a water main extending 7.5 miles to the Shenandoah Town Water District (STWD), and a distribution system serving 157 properties within the STWD (Figure 2-1), including 142 occupied residential lots and 15 vacant lots. Active services were provided to a total of 134 customers after owners of eight occupied lots declined service. Curb stops have been installed to facilitate future connections at the 15 vacant lots and three of the eight occupied lots that declined service. The other five occupied lots where service was declined had some combination of a curb stop with a service connection that was not activated.
- Installation, operation, maintenance and monitoring of the SETS at the Facility under the NTCSRA for the purpose of controlling groundwater chemical flux from the remaining concentrated source in bedrock and to reduce mass contained in this source over time.

2.1.3 Remedial Investigation/Feasibility Study Activities Conducted by IBM

The Remedial Investigation (RI) / Feasibility Study (FS) was initiated to delineate the “nature” and extent of VOC contamination at the Site and evaluate remedial alternatives to address the contamination. RI/FS activities at the Site were performed by IBM under EPA Administrative Order on Consent for Remedial Investigation/Feasibility Study (RI/FS AOC) Index Number: CERCLA-02-2002-2025 (AOC-RI/FS), with an effective date of October 2, 2002.

2.1.3.1 Remedial Investigation

Under the RI/FS AOC, IBM completed an extensive RI for the Site to delineate the “nature” and extent of volatile organic compounds (VOCs) in groundwater, surface water and sediment at the Site. The Site-related COCs are PCE and its degradation products, trichloroethylene (TCE) and cis-1,2-dichloroethylene (cis-1,2-DCE). The results of the RI were presented in a remedial investigation report dated August 15, 2012 (GSC, August 15, 2012). The locations of groundwater, surface water and sediment sampling locations are shown on Plate 1.

2.1.3.1.1 Magnitude and Extent of Contamination

As circumscribed by the orange line on Plate 2, the maximum dimensions of the groundwater plume containing dissolved levels of PCE or one of its transformation products at a concentration greater than 5 ug/L are approximately 2,765 feet east to west by 5,580 feet north to south, covering a total area of approximately 225 acres or 0.35 square miles.

The identified source of this plume was historical operations involving VOC disposal in a building located on the 2.0-acre parcel at EHCR7, labeled on Plate 2 in the west central portion of the map area. The plume emanating from this source extends north and south along Shenandoah Mountain and into valleys north and east of this ridge that are drained by the three unnamed tributaries to Gayhead Creek shown on Plate 2 (Stream Nos. 1-3), that are, nonetheless, beyond the limits of the plume.

Prior to the soil removal action at EHCR7 and EHCR11 in 2000-2002, PCE occurred at a maximum concentration in soil beneath these parcels of 11,000 mg/kg and in shallow groundwater (pit water) at 9900 ug/L. When that action was completed, post-excavation samples indicated the soil was successfully remediated to meet the soil cleanup goal of 1400 ug/kg. However, the results of the RI indicate the maximum concentration of PCE observed at the Site in groundwater is 16,000 ug/L in a well that monitors shallow bedrock groundwater believed to be affected by separate phase PCE that penetrated into the bedrock below these two parcels.

Beyond these two parcels, the maximum concentration of PCE in the plume observed during residential well sampling is 2100 ug/L. Concentrations in the northwestern portion of the plume have declined in some cases by more than an order of magnitude since the soil removal action was completed in 2002. Characterization sampling of soil gas, surface water and sediments have all confirmed crossover contamination in these media from VOCs dissolved in groundwater. The maximum concentrations of PCE in each of these media are as follows:

Soil gas:	11,000 ug/m ³ ;
Surface Water:	60 ug/L in a groundwater seep discharge to the wetland north of I-84; and
Sediments:	3.7 ug/kg in sediments within that same wetland.

2.1.3.1.2 Chemical Fate and Transport

Groundwater chemistry data collected under the RI shows that transformation of PCE to its daughter products occurs primarily in the eastern portion of the plume. Figure 2-2 shows a division of the plume into separate areas characterized by high and low ratios of PCE to TCE, its principal transformation product at this Site. This figure also shows groundwater flow arrows and faults and shear zones in the bedrock. As demonstrated by this figure, groundwater flow from the source area on the EHCR7 and EHCR11 parcels is strongly controlled by the structural features in the bedrock, which results in the plume being elongated along a north-south axis, and broadening to the north. Based on this figure, it can be seen that the low PCE to TCE ratio portion of the plume attenuates in the vicinity of Jackson Road and Old Townsend Road, and the high ratio portion of the plume attenuates beneath Wetland HJ-54, both before reaching Stream No. 3.

Plate 3 is a schematic conceptual site model (CSM) showing the principal transport pathway associated with the high ratio portion of the plume. This figure also shows callouts depicting a mechanism termed “matrix diffusion.” This process and a related process known as adsorption represent what is termed “secondary source factors,” which have the effect of extending the time necessary to reach groundwater concentrations that meet regulatory limits. At this Site, secondary sourcing is believed to be much more significant in the ice-contact deposits than in the bedrock aquifers.

Plate 3 depicts VOC transport within a vapor-phase component of VOC mass in the subsurface. With the removal of the DNAPL-contaminated soil from the source area, it is believed that the only remaining source of vapor phase transport is associated with volatilization from the water table as depicted on Plate 3.

Plate 3 also shows contaminated groundwater flux discharging to the wetland north of the plume, Wetland HJ-54. Where groundwater flux has discharged to surface water in Wetland HJ-54, data indicate that the concentrations in surface water are rapidly attenuated and decline to non-detect levels before reaching Stream No. 3. A screening level ecological risk assessment (discussed further below) has concluded that the resulting concentrations in the wetland do not constitute an unacceptable impact to ecological receptors (see below).

From the data collected under the RI, there is also substantial evidence of natural attenuation of the concentrations of Site-related COCs in groundwater. Overall, concentrations in the plume drop by at least an order of magnitude from the DNAPL source area (16,000 ug/L), to the nearby monitoring wells on Burbank Road (<1000 ug/L) and again by another order of magnitude as the plume crosses into the Paleozoic rocks and from there into the ice-contact deposits (<100 ug/L).

Although the plume covers an area of 225 acres and extends in places to depths greater than 400 feet below ground surface, Site-related COCs in the plume are attenuated by various mechanisms such that no evidence exists that any of these substances has impacted any of the three streams draining the entire area of the Site.

2.1.3.2 Risk Assessment

While the installation of the public water supply has eliminated the drinking water exposure to contaminated groundwater, it has not restored the aquifers at the Site to drinking water or groundwater standards. Furthermore, the RI produced evidence that contaminated groundwater is discharging to the wetland north of I-84 resulting in the presence of detectable concentrations of COCs in both surface water and sediments within this wetland. Therefore, both a baseline human health risk assessment (BHHRA) and a screening level ecological risk assessment (SLERA) were required at this Site.

2.1.3.2.1 Baseline Human Health Risk Assessment

A BHHRA was completed by GSC and HDR (GSC & HDR, August 7, 2012). Table 2.1 includes a summary of the BHHRA's risks and hazards exceeding EPA's criteria for residential exposure. Hazards and risks associated with other exposure pathways were within acceptable limits set by EPA.

Carcinogenic risks and noncancer hazards as a result of exposure to site chemicals are considered separately. Carcinogenic risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a carcinogen. The risk characterization identifies contamination with concentrations which exceed acceptable levels as an excess lifetime cancer risk greater than 1×10^{-4} to 1×10^{-6} or one in ten thousand to one in one million.

Noncancer risks are evaluated using a Hazard Index (HI). An HI greater than 1.0 indicates that the potential exists for noncarcinogenic health effects to occur as a result of site-related exposures, with the potential for health effects increasing as the HI increases.

Table 2.1: Summary of Hazards and Risks Exceeding EPA Criteria for Site-related COCs and Residential Receptors		
	Hazard	Risk
Resident		
<i>Adult</i>		
Dermal Exposure to Groundwater	8.4E-01	3.8E-06
Oral Exposure to Groundwater	6.7E+00	3.1E-05
Inhalation Exposure to Groundwater (Showering)	1.16E+01	4.1E-05
Total:	1.9E+01	7.6E-05
<i>Child</i>		
Dermal Exposure to Groundwater	1.3E+00	1.6E-06
Oral Exposure to Groundwater	1.5E+01	2.3E-05
Inhalation Exposure to Groundwater (Bathing)	4.3E-01	6.0E-07
Total:	1.7E+01	2.5E-05
Total Resident (Adult and Child Combined):	3.6E+01	1.0E-04
Shaded values do not exceed the EPA criteria but contribute to the total hazard or risk.		

Consistent with current EPA policy, the cancer and noncancer risks associated with exposures to individual contaminants are summed to indicate the potential risks and hazards associated with mixtures of potential carcinogens and noncarcinogens, respectively.

As outlined in EPA's Record of Decision for the site, carcinogenic and noncarcinogenic risks for contaminant concentrations which exceeded acceptable levels were determined as 1) an excess lifetime cancer risk greater than 1×10^{-4} to 1×10^{-6} or one in ten thousand to one in one million and 2) an HI greater than 1.0. Contaminants at these concentrations are considered chemicals of concern and are typically those that will require remediation at the site.

The levels of hazard and risk noted in Table 2.1 are all related to the use of groundwater at the Site as a source of drinking water. The risk assessment was conducted to evaluate baseline conditions in the absence of remediation or treatment systems. While the total hazards and risks listed in Table 2.1 for this pathway are outside of EPA's acceptable levels, as noted above, a public water supply was put in place that has eliminated direct and indirect contact with contaminated groundwater for

residents. (No COCs were observed above the detection limit in samples collected from the wells at eight residences where the homeowners declined a connection to the public water supply.)

2.1.3.2.2 Screening Level Ecological Risk Assessment

Following the RI, a SLERA was prepared by HDR (HDR, August 6, 2012), the conclusions of the SLERA were:

- The ecological studies found the project area to have a diverse plant and animal community with the expected bird, mammal, fish, reptile, and amphibian species being represented. No contaminant-associated impairments to the biotic community were observed.
- The analytical data were compared with ecological screening values provided by USEPA Region 2. The maximum concentrations of the Site-related COCs were well below the screening values, indicating that the concentrations of Site-related compounds are below levels of ecological concern.

2.1.3.3 Identification of Remedial Action Objectives (RAOs)

The remedial action objectives (RAOs) identified in the FS Report and set forth in the ROD for the Site are based upon available information and standards such as applicable, relevant and appropriate requirements (ARARs) and risk-based levels established in the BHHRA (GSC and HDR, 2012).

The specific RAOs identified for the Site are listed below:

- To restore groundwater to Maximum Contaminant Levels (MCLs) consisting of NYS Groundwater Quality Class GA Standards (6 NYCRR Part 703) of 5 µg/L for PCE, TCE and cis-1,2 DCE.
- To reduce and to control the residual DNAPL source in fractured gneiss bedrock beneath the EHCR7 and EHCR11 parcels and to prevent migration to the groundwater.
- To reduce VOC concentrations in the source area until the aquifer is attenuating sufficiently to achieve NYS MCLs.
- To prevent ingestion/direct contact of residential human receptors with groundwater having a concentration of PCE, TCE or cis-1,2 DCE or their degradation products which exceed NYSDOH Drinking Water Standards (10 NYCRR, Part 5, Subpart 5-1) of 5 µg/L for principal organic contaminants and with vapors derived from these contaminants in groundwater that may come to be present at significant concentrations.

2.1.3.4 Feasibility Study

Based on the results of the RI, the BHHRA and the SLERA, a Feasibility Study (FS) was conducted to develop and evaluate remedial alternatives for Site groundwater that would reduce or eliminate unacceptable risks to human health and the environment from exposure to contaminated groundwater in the DNAPL source area and throughout the groundwater plume in bedrock and glacial-sediment aquifers.

Three remedial alternatives were evaluated in the FS Report as follows:

- **Alternative #1:** No further action.
- **Alternative #2:** MNA for the entire groundwater plume and source extraction and treatment.
- **Alternative #3:** Extraction and treatment of bedrock aquifer; MNA in glacial aquifer; and source extraction and treatment.

2.2 Summary Description of the Selected Remedy

In the ROD, EPA selected Alternative #2, MNA for the groundwater plume, and source extraction and treatment for the DNAPL source area to address the groundwater contamination at the Site. These remedial technologies are combined with ICs. As such the selected remedy includes the following six components:

- Continued operation, maintenance and monitoring of the existing SETS to address the DNAPL source area.
- Natural attenuation of the groundwater plume through the processes of dispersion, dilution, degradation and sorption of VOCs in the groundwater plume in order to reduce VOC concentrations to federal and more stringent state MCLs or standards.
- Comprehensive monitoring of groundwater, surface water and sediments.
- Maintenance of the four existing vapor mitigation systems, the continuation of the vapor intrusion monitoring program and the installation of additional mitigation systems if monitoring results demonstrate that they are warranted.
- ICs in the form of existing governmental controls consisting of local laws that limit exposure to contaminated groundwater by restricting the drilling of private residential wells and their use as a domestic supply within established public water districts, as well as proprietary ICs in the form of environmental easements and/or restrictive covenants placed on the Facility properties to ensure that no construction or other invasive activities are

conducted on these properties which would interfere with existing remedial components, including the source extraction and treatment system.

- It is anticipated to take more than five years to achieve health-based cleanup levels in the groundwater. Therefore, a review will be conducted within five years after initiation of remedial action to ensure that the remedy as selected is protective of human health and the environment. Such reviews will be conducted no less often than once every five years until cleanup standards are achieved.

The components of the selected remedy that are to be implemented by IBM pursuant to the CD include:

- Operation, maintenance and monitoring of the existing source extraction and treatment system;
- MNA of VOC concentrations in the groundwater plume to meet NYS MCLs;
- Implementation of a comprehensive monitoring program for groundwater, surface water and sediments the locations of which are shown on Plate 4;
- Implementation and assurance of ICs in the form of existing governmental controls and proprietary ICs in the form of environmental easements and/or restrictive covenants placed on the Facility properties; and
- Performance of support activities for each five-year review as required in the CD.

Plans prepared by IBM to implement the engineering controls and ICs included in these components of the selected remedy are or will, to the extent possible, be consistent with NYSDEC's requirements for site management. These plans include the Operation, Maintenance and Monitoring Plan and this ICIAP.

3 REMEDIAL DESIGN OF INSTITUTIONAL CONTROLS

As noted previously, all but one of the components of the selected remedy described in Section 2 have already been designed and approved by EPA and constructed by IBM and its contractors. There is, therefore, no remedial design step necessary to implement them and they are not addressed in this section. The only element of the selected remedy that has not been designed is the ICs to be designed and implemented on the basis of this ICIAP.

3.1 Description of Institutional Controls

As discussed in the ROD, the selected remedy includes both governmental and proprietary ICs to insure that the remedy is protective of human health and to protect the remedial action elements from possible damage or obstruction.

The governmental controls are those provided in New York State, county and town statutes and regulations governing the drilling, use and testing of private supply wells within the limits of the Site. As per the EPA's ROD, since the county and town codes, statutes and regulations do not definitively prohibit well drilling on the three parcels of concern, environmental easements (EEs)/ restrictive covenants will be pursued. The proprietary controls will require the negotiation of environmental easements with restrictive covenants necessary to protect the integrity of the response actions taken at the Facility and to restrict future activities that might result in increased exposure to contaminants remaining in place during the ongoing operation of the SETS. A draft easement attached to the CD as Appendix D provides the format of the easement(s) to be negotiated with current Parcel Owners. Using the draft easements provided in the CD as a template, easements were prepared to submit to the Property Owners for signature. Copies of these prepared easements are included herein as Exhibit A.

The following subsections provide descriptions of the ICs included in this element of the selected remedy.

3.1.1 Town and County Governmental Controls

There are two existing governmental controls that will be applied to preventing exposure to contaminated groundwater. These are in addition to the protection provided by the installation and operation of the alternate water supply system.

3.1.1.1 County Well-Drilling Permit and Testing Programs

A county well-drilling permit program is in effect in Dutchess County and is administered by the Dutchess County Department of Health (DCDOH). Authorization for this well-drilling program is provided in Title 10, Department of Health, Chapter I. Sanitary Code, Part 5. Drinking Water Supplies, Subpart 5-2. Water Well Construction (10 NYCRR Subpart 5.2). The full text of this regulation is provided as an attachment to this work plan in Exhibit B-1. Section 5-2.3 (d), in part, defines a permit-issuing official as follows:

“(d) Permit-issuing official means ... the health commissioner or health officer of a county...”.

Section 5-2.8 lists the information that must be provided in the application for a permit. These include sufficient information to allow the permit-issuing official to accurately locate the proposed well. Paragraph 5-2.8 (h) also requires the following be provided:

“(h) approximate distance and relative elevation to well of any potential sources of ground water pollution which may be located within 200 feet of such well including, without limitation, the following: privy, sewage seepage pit, sewage filter bed, sewage disposal field, underground sewers, septic tank, storm water drain, building foundation drain, milk house drain outlet, manure pile, barn gutter, silo, abandoned well, other well, sink hole, cow yard, hog lot, chicken yard, other animal yard, stone quarry, mine, rock outcrop, rain water cistern, solid waste disposal site, calcium or salt piles;”.

While the limits of the Site are not one of the sources of contamination that an applicant must identify, it is clear that the term “without limitation” would include the presence of groundwater contamination related to a Superfund Site.

The provisions of 10 NYCRR Subpart 5.2 are repeated, paraphrased or incorporated by reference in the Dutchess County Sanitary Code, Article 16, Water Well Construction (attached to this work plan in Exhibit B-2). This well-drilling permit program is actively administered by the DCDOH. The form used to apply for a well-drilling permit is provided by NYSDEC. A copy of this form and the instructions for completing it are also attached to this work plan in Exhibit B-3.

In addition to the permitting program, Article 28 of the County Sanitary Code (attached to this work plan in Exhibit B-4) requires that newly drilled wells and wells on properties being transferred to a

new owner be tested to demonstrate that the groundwater produced from that well meets the 10 NYCRR Part 5 drinking water MCLs. The relevant text in Article 28 reads as follows:

Section 28.5 DWELLING WELL PERMIT REQUIREMENT: permit not transferable

“Within one year of the promulgation of this regulation and contingent upon the Dutchess County Legislature providing sufficient resources to enable the Dutchess County Health Department to provide for enforcement of this regulation, every owner of a private well in Dutchess County, which serves a private water supply, shall be required to possess a valid permit issued by the Dutchess County Commissioner of Health, or appointed designee. Private wells in operation as of July 1, 2006 shall be deemed to possess such permit, however, such grand-fathered permits for existing wells shall not signify that such wells have been tested or are in compliance with current Health Department parameters and such permits shall expire upon transfer of title to the real property on which the well is situated. Owners of new private wells put into operation subsequent to July 1, 2006 and of private wells whose permit has expired due to transfer of title shall be required to apply for a valid permit within thirty (30) days of the expiration of the permit. The issuance of such permit shall be conditioned upon demonstration that the water supply has been tested for test parameters established by the Dutchess County Commissioner of Health within one year prior to transfer of title. Water sample analysis shall be performed by a laboratory holding a valid New York State Department of Health approval for such test parameter. Water sample collection shall be conducted in a manner approved by the Dutchess County Commissioner of Health.”

This dwelling well permit requirement is also actively administered by the DCDOH. Although it is not desirable to discover after the fact that a new well has been installed within the plume at the Site, this testing and permit requirement at least provides a backup to the well-drilling permit requirement to identify a new private water supply well that may exhibit contamination related to the Site.

3.1.1.2 Code of the Town of East Fishkill

There are two provisions of the Town of East Fishkill (Town) Code that provide governmental controls that will reduce the potential for exposure to Site COCs. These are Section 186.21 governing cross connections of public water supplies with other sources of water (including private wells) and Section 189 requiring testing of wells in the Town to ensure that they do not contain

contaminants at levels exceeding MCLs. Both are included as attachments to this work plan in Exhibit B-5.

Section 186.21 reads as follows:

“Chapter 186: WATER

§ 186-21. Cross connections with nonpotable water supplies.

- A. If an owner has any source of water other than from the municipal public water system, such source will be considered nonpotable. Before making any service connection between the municipal public water supply and a consumer's premises, it is required that all connections between individual wells or other outside sources of water supply physically be disconnected from the consumer's plumbing fixtures, which are connected to the municipal potable water supply.*
- B. All owners of property within the confines of a municipal water district shall not use nonpotable water as a source of water supply for any purpose. Nonpotable water is defined as any source of water other than from a municipally owned water system.”*

With respect to this Site, this portion of the Town Code applies to municipal public water systems, such as the STWD, which includes the properties within the outline shown on Figure 2-1. Compliance with Paragraph A was achieved during the installation of services to the 134 individual residences where the owners agreed to connect to the public water supply installed by IBM in the STWD. The owners of eight residences within the STWD refused connection to the public water supply and opted to remain on their private wells. However, since there is no connection to the public water supply system at those properties, there is apparently no violation of the requirements in Paragraph A above.

Paragraph B precludes the use of nonpotable water as a source of water supply by owners of property within a municipal water district, such as the STWD. If strictly enforced, this provision of the Town Code would apparently have required connection to the public supply at the eight residences within the STWD whose owners did decline connection to the public water supply. However, the Town chose not to enforce this provision for these eight residences. It is important to note that none of the wells serving these properties had exhibited detectable concentrations of COCs during the nine-year residential well sampling period. Nevertheless, if consistently enforced, this section of the Town Code would preclude the use of private wells for water supply within the STWD.

The second provision of the Town Code that provides governmental control of future exposure to contaminated groundwater is Section 189 (Exhibit B-5). While this section of the Town Code provides well testing requirements that are similar to the County requirements, it is more stringent and explicit and provides for enforcement and penalties that are not included in the County Code. Furthermore, the Town Code includes a specific sampling and analysis protocol (Exhibit B-5) which includes all of the Site COCs in the list of analytes that must be reported in the laboratory analysis of well samples. The Town Code also requires that the results of the testing be reported to both the Town and the DCDOH, thus providing the County with the benefit of the more stringent requirements of the Town Code.

3.1.2 Environmental Easements and Restrictive Covenants on Private Lands

In addition to the governmental controls described above for the entire Site, including the Facility, additional ICs are required under the ROD for the properties where concentrations of COCs indicate the likely presence of a DNAPL source in bedrock or where elements of the SETS have been installed and must be protected from potential damage or disruption. As such there are three properties on which such easements and restrictions must be established. These are: EHCR7 and EHCR11 and STN47 (Figure 1-2) which together comprise the Facility.

3.1.2.1 Legal Property Description and Current Ownership

The current deeds for the three properties are included in Exhibit C. The deeds indicate the following current ownership (Parcel Owners), parcel size and date of transfer to the current owners:

Table 3.2: Parcel Ownership, Size and Acquisition Dates			
Parcel Address	Current Ownership	Size	Date Acquired
7 East Hook Cross Road	Uwe and Carlotta Heitmann	1.85 ac.	May 29, 1987
11 East Hook Cross Road	Carlotta A. Heitmann	2.267 ac.	January 23, 1971
47 Stone Ridge Lane	Carlotta and Uwe Heitmann	2.871 ac.	December 16, 1974

Figure 1-2 shows the layout of these three parcels together with surrounding parcels. Also shown on this figure are the outline of the area from which impacted soil was removed and the locations of extraction and monitoring wells, conveyance and discharge piping, the GTF and the access drive, all of which are SETS components.

3.1.2.2 Existing and Proposed Easements

The Parcel Owners have granted easements to the Town and to IBM. The first set of easements was granted by the Parcel Owners to the Town for the installation and operation of the water tank located on an adjacent property, including access for the water transmission line, an access ramp, the existing driveway and related buried utilities. These easements on the three properties are shown on plot plans for each property in Exhibit D.

The Parcel Owners granted a second set of easements to IBM to perform removal and remedial actions on the properties. On May 14, 2001, the Parcel Owners of EHCR7 and EHCR11 granted IBM access to the properties in the form of an access agreement. Under this agreement, the Parcel Owners permitted IBM access to these two parcels “in order to carry on any activity deemed necessary for the removal and/or subsequent remediation of contamination found on the property.” The access agreement remains in effect until “termination of all work, involving the property, as may be required to remove and remediate the contamination at the property”.

On November 18, 2011, the Parcel Owners granted IBM access to the property at STN47, incorporating the 2001 access agreement by reference. The combined access agreements are included in Exhibit D. The 2011 easement grants IBM “an easement and right of way to construct, install, operate, maintain, repair and replace a groundwater treatment building ... together with access drives, parking areas, utility and water lines, and all other facilities which may be appurtenant thereto as required by IBM in connection with its remediation activities.” This easement continues “until the termination of all work deemed necessary by IBM to achieve the U.S. Environmental Protection Agency-required removal and remediation of contamination at the Shenandoah Road Groundwater Contamination Superfund Site.” Taken together, the IBM easements provide IBM with access to operate, maintain and monitor the SETS, including the access required to expand or modify that system on the properties at STN47, EHCR7 and EHCR11.

In addition to the easements to the Town and to IBM, the CD requires that IBM use “best efforts” to secure Environmental Easements from the Parcel Owners. Therefore, as part of implementing the ICIAP, IBM will use “best efforts” to secure Environmental Easements from the Parcel Owners for these three properties for the benefit of NYSDEC. Copies of the three draft easements prepared to submit to the Property Owners for signature are provided as Exhibit A.

3.1.2.3 Nature and Extent of Restrictive Covenants on Private Lands

As a part of the Environmental Easements from the Property Owners to NYSDEC, referenced above, IBM will use “best efforts” to secure restrictive covenants from the Parcel Owners that are added to and run with the deeds. Figure 1-2 shows the areas of these three parcels for which restrictive covenants will be sought, as follows:

- 47 Stone Ridge Lane
 - No wells may be drilled; provided that NYSDEC (Grantee), EPA and IBM shall have the right to drill wells in connection with removal or remedial actions required by NYSDEC or EPA.
 - No penetration or excavation of soil is permitted extending 25 feet in all directions from features that are associated with the Source Extraction and Treatment System, as such System as shown on Figure 1-2; provided that NYSDEC, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by NYSDEC or EPA.
 - Notification to the NYSDEC with copy to the EPA and IBM, prior to the construction of any permanent structure for human occupancy such as a dwelling, on the Property.
- 7 & 11 East Hook Cross Road
 - No wells may be drilled anywhere; provided that NYSDEC, EPA and IBM shall have right to drill wells in connection with removal or remediation actions required by EPA or NYSDEC. The existing well on EHCR11 must be properly decommissioned as part of the residential well decommissioning program.
 - Construction of any permanent structure within the footprint of the contaminated soil removal effort as shown on Figure 1-2 must have a slab-on-grade foundation and footers that must not involve excavation to a depth of greater than six feet below ground surface (bgs). Such structures must not be for human occupancy as a dwelling and must not require water and sewer services based on Town codes and none may be installed. Roof drainage may only be conveyed to the nearest existing storm catch basin, but may not impede the capacity of the storm sewer system to convey the treated groundwater discharge from the Groundwater Treatment Facility. Unless already installed by buried cable, electrical service to any structure must be by overhead pole-to-structure cabling.
 - No penetration or excavation of soil is permitted extending 25 feet in all directions from features associated with the Source Extraction and Treatment System as such System is shown on Figure 1-2; provided that NYSDEC, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by NYSDEC or EPA.

- No penetration or excavation of soil is permitted within any area where further remedial action elements would be installed beyond those currently shown on Figure 1-2, such as a conveyance piping connection to one or more of the pit water pipes; provided that NYSDEC, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by NYSDEC or EPA.

4 INSPECTION AND ASSURANCE OF INSTITUTIONAL CONTROLS

After implementing the ICs described in Section 3, it will be necessary to inspect adherence to the restrictions imposed on the privately owned properties and to audit the enforcement of the governmental controls.

4.1 Review of Governmental Controls

As part of the preparation of the annual report, government records documenting the effectiveness of the governmental controls will be examined and County and Town officials responsible for administering these programs will be interviewed.

The following public information will be examined annually for the area covered by the Site and adjoining areas to determine whether or not an application for a well-drilling permit was erroneously approved:

- Well-drilling permits issued by the DCDOH;
- Records of the DCDOH and the Town documenting testing results for wells within the Site boundaries and adjacent areas will also be examined;
- Town code enforcement actions taken to enforce section 186 of the Town Code; and
- Town building permits issued for new residential structures at addresses within the Site boundary.

Any results of this examination that indicate a well has been drilled within the area of the Site or close enough to the Site boundary to induce the potential expansion of the plume will be brought to the attention of the DCDOH, NYSDEC, NYSDOH and EPA (the Agencies) immediately without waiting to publish this information in the annual report. Otherwise the results of these audits will be published in the annual report without prior notification to the Agencies.

4.2 Inspection of Properties Subject to Restrictive Covenants

Until such time as the operation of the SETS is terminated following EPA's approval of the termination report, quarterly inspections will be performed of the properties subject to restrictive covenants to identify any of the following conditions that might indicate the restrictive covenants were not being observed by the property owners:

- Evidence of intrusive activities within the limit of contaminated soil removal;
- Presence and construction specifications of new structures within the limit of contaminated soil removal;
- Presence of new structures or construction of any permanent structure for human occupancy such as a dwelling on the 47 Stone Ridge Lane Property
- Obstructions and/or damage to remedial action elements;
- Breaches of the cap over the backfilled pit within the limit of contaminated soil removal; and
- The presence of a new well on any one of the three properties that comprise the Facility.

In the event that any of these conditions are observed on the restricted properties, notification will be provided to the Agencies and the failure of the owners to adhere to the restrictions will be documented in the annual report along with actions taken to correct that failure.

4.3 Environmental Easement Required Notification by Property Owner(s)

In the event that NYSDEC (as the Environmental Easement Grantee), EPA and IBM receive notification by the Property Owner(s) as required under the Environmental Easement regarding the anticipated construction of a permanent structure for human occupancy such as a dwelling on the 47 Stone Ridge Lane Property, an assessment of the potential for the vapor intrusion pathway will be conducted prior to construction of any said structure,

5 SCHEDULE OF IC DESIGN ACTIVITIES

IBM will implement this ICIAP in accordance with the schedule set forth, as follows:

- Within 60 Days of EPA Approval of this ICIAP:
 - Provide EPA and NYSDEC with drafts of proposed easements and restrictive covenants.
 - Complete surveys of property lines and restricted areas, conduct title searches and request title insurance commitments.
 - Notify the County and Town agencies who are responsible for implementing governmental controls of EPA approval of this ICIAP.
 - Begin “best efforts” to secure Environmental Easements with restrictive covenants from Parcel Owners, as described in Section 3 of this ICIAP and Section IX of the CD (Access and Institutional Controls). If “best efforts” are successful, provide EPA and NYSDEC with executed copies of Environmental Easements with restrictive covenants along with the results of title searches and copies of title insurance commitments. If “best efforts” are unsuccessful, provide EPA and NYSDEC with a written description of “best efforts” made by IBM and propose an alternate plan to secure Environmental Easements with restrictive covenants.
- Within 15 Days of EPA Approval and Acceptance of the Proprietary Controls and the Title Evidence:
 - Update the title search and, if it is determined that nothing has occurred since the effective date of the commitment, or other title evidence, to affect the title adversely, record the Proprietary Controls with the Dutchess County Clerk’s Office.
- Within 30 Days of Recording the Proprietary Controls
 - Provide EPA with a final title insurance policy or other final evidence of title acceptable to EPA, and a certified copy of the original recorded easement showing the clerk’s recording stamps.
- Within 30 Days of EPA Acceptance of the Recording of Proprietary Controls:
 - Prepare a Final ICIAP which will document the implementation of this plan and include evidence of the Proprietary Controls.
 - Begin IC assurance inspections, notifications and reports based on the Final ICIAP.

6 MANAGEMENT, IMPLEMENTATION AND REPORTING

IBM and its contractor will coordinate with the EPA, NYSDEC, the New York State Department of Health (NYSDOH), DCDOH, the Town, any owners of private lands and residents within the Site to ensure the successful implementation of the ICIAP.

6.1 Project Management and Key Personnel

IBM's project coordinator for this effort is Mr. Thomas D. Morris, P.E. Mr. Morris' qualifications to serve in this position have previously been submitted to EPA and approved. Mr. Morris will coordinate directly with EPA's Remedial Project Manager (RPM), Mr. Damian Duda. Mr. Morris will also directly oversee the work to be performed by the team of consultants that has been assembled to complete this RA. Mr. Morris will be assisted by Dorothy A Bergmann, P.G., who will be the Project Director for Groundwater Sciences Corporation (GSC), the Supervising Consultant identified in the CD. Ms. Bergmann has worked at the Site as the Project Manager for Response Actions and Remedial Investigations described herein, and her credentials to serve in this position have previously been submitted to EPA and approved. Mr. Charles E. Stoner, P.G. will serve as GSC's Project Manager and Mr. Matthew T. Luckman, P.E. will serve as GSPC's Project Manager. GSC and GSPC will provide the personnel, services, materials and equipment required to perform the work for this project. Project managers will, in turn, supervise the work of GSC's and GSPC's internal staff. Brinnier and Larios, PC (B&LPC) will provide civil engineering and surveying support to the project.

Project coordination and site logistics will be the responsibility of GSC and GSPC project managers and will include, at a minimum, the following activities:

- Obtaining the necessary work plan review by the agencies. Concurrence will ensure that all regulatory issues have been adequately addressed.
- Allocating and scheduling project personnel for field work tasks, including but not limited to: surveying support to the project.
- Coordinating with Site residents, as necessary, for meetings and access.
- Preparation of routine progress reports; annual reports and five-year reviews.
- Preparation of site-specific plans.

6.2 Notification and Reporting

Reports and notifications must be provided to EPA and NYSDEC to document the progress of remediation and to justify termination of specific remedial action elements. These range from progress reports to the final groundwater remedial action report.

The IC annual report will detail the results of file reviews and interviews conducted at Town and County offices responsible for implementing the governmental controls included in the ICIAP and the documentation of inspections performed to confirm that restrictive covenants on private lands are being followed. Also, copies of certifications from property owners regarding adherence to these restrictions, as required by the NYSDEC's environmental easement template, will be provided in these annual reports.

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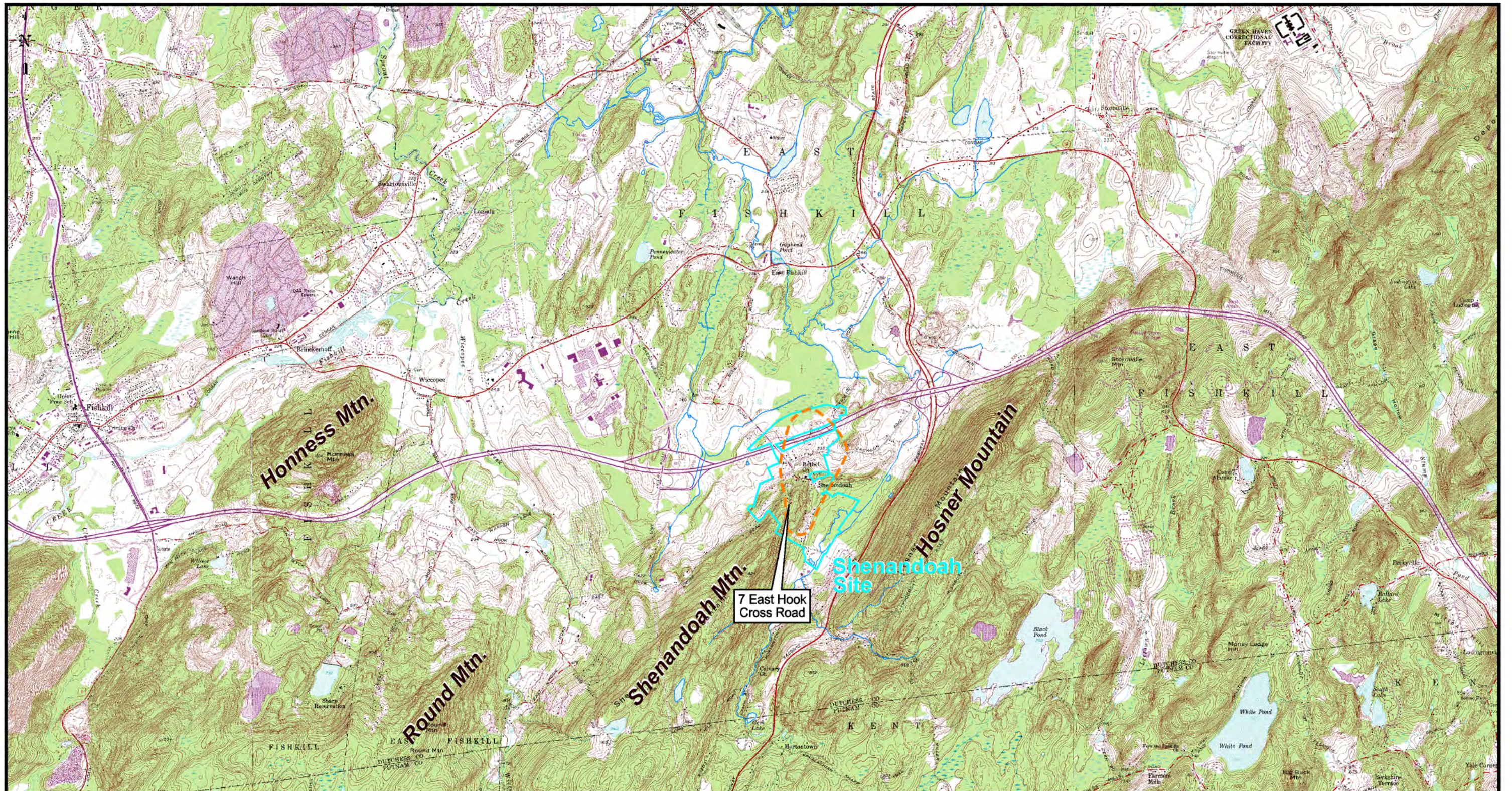
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USEPA (United States Environmental Protection Agency), DECISION DOCUMENT: Selection of a Groundwater Source Control Alternative for a Comprehensive Environmental Response, Compensation, and Liability Act Non-Time-Critical Removal Action at the Shenandoah Road Groundwater Contamination Superfund Site, Town of East Fishkill, Dutchess County, New York, December 30, 2011.

USEPA (United States Environmental Protection Agency), Announcement of Proposed Remedial Action Plan and Public Comment Period, Shenandoah Road Groundwater Contamination Superfund Site, Town of East Fishkill, Dutchess County, New York, August 2012.



----- - Extent of Individual Site COPCs Detected Above 5 µg/L in Groundwater

Scale
0 2000' 4000'

Figure 1-1
Study Area Setting
Shenandoah Road Groundwater Contamination Superfund Site

THIS CONTROLLED PROPERTY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS & ENVIRONMENTAL EASEMENTS (DCR & EE) HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THE DCR & EE ARE SET FORTH IN MORE DETAIL IN THE SITE MANAGEMENT PLAN (ICI&AP). A COPY OF THE ICI&AP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE ICI&AP MAY BE OBTAINED FROM NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT derweb@dec.ny.gov

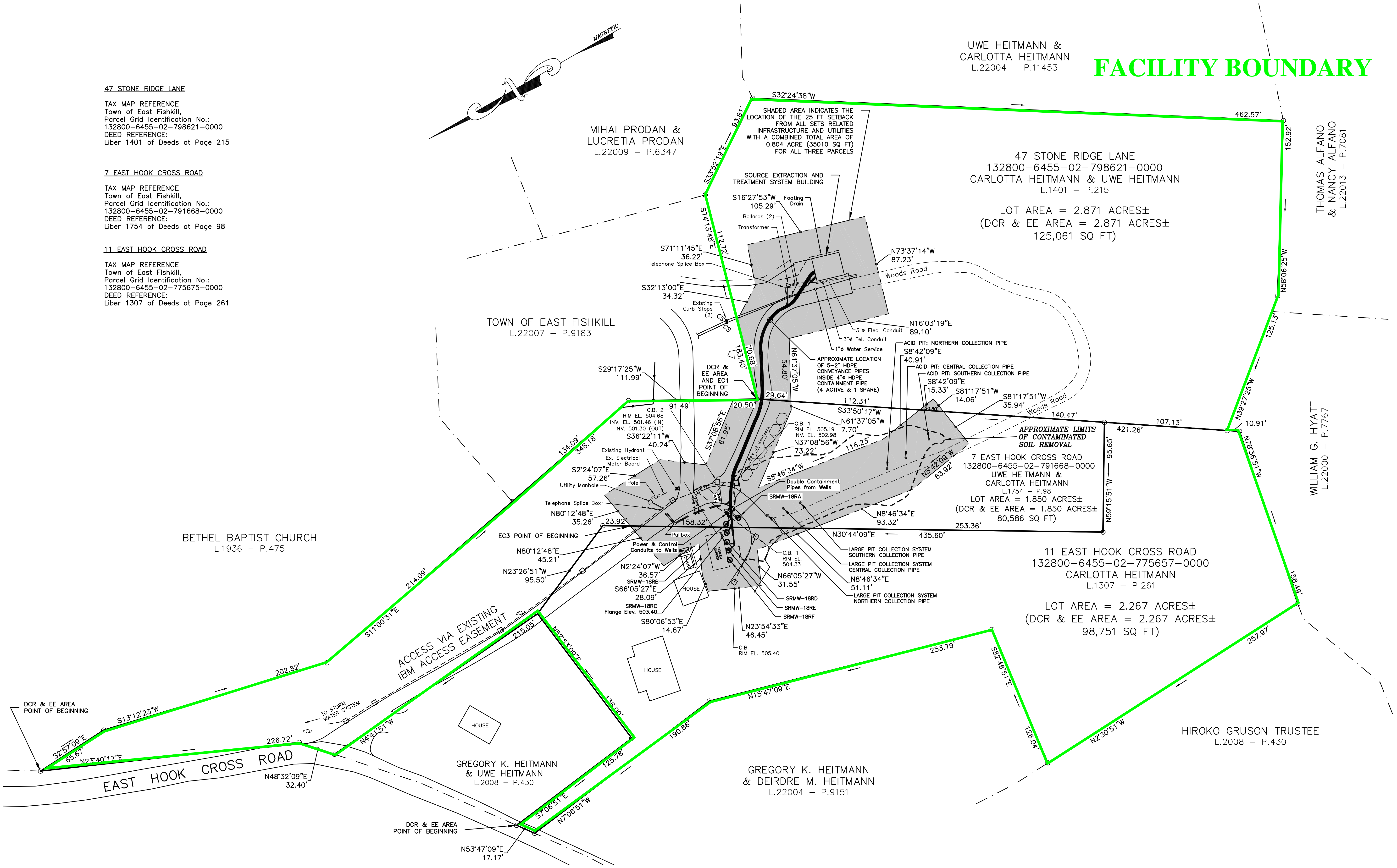
DCR & EE AREA ACCESS
THE USEPA AND/OR NYSDEC OR THEIR AGENT MAY ACCESS THE CONTROLLED PROPERTY AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDING INGRESS/EGRESS ACCESS POINT.

LEGEND	
PROPERTY BOUNDARY	—
ADJOINER BOUNDARY	- - -
EC AREA BOUNDARY	- - - - -
CONTAMINATED SOIL REMOVAL AREA	- - - - -
ACID PIT	•
EXTRACTION/MONITORING WELL	⊙
BUILDING/STRUCTURE	▭
STORM WATER CATCH BASIN	□
STORM WATER LINE	- - - - -
UTILITY POLE	⊙
PAVED ROAD	==
DIRT ROAD	- - - - -
HYDRANT	⊙
ROCK	⊙
FOOTING DRAIN	- - - - -
CURB STOP	CS•
WIRE FENCE	—•—
ENVIRONMENTAL EASEMENT -DCR & EE AREA	▭
EC AREA FOR 3 LOTS	▭

47 STONE RIDGE LANE
TAX MAP REFERENCE
Town of East Fishkill,
Parcel Grid Identification No.:
132800-6455-02-798621-0000
DEED REFERENCE:
Liber 1401 of Deeds at Page 215

7 EAST HOOK CROSS ROAD
TAX MAP REFERENCE
Town of East Fishkill,
Parcel Grid Identification No.:
132800-6455-02-791668-0000
DEED REFERENCE:
Liber 1754 of Deeds at Page 98

11 EAST HOOK CROSS ROAD
TAX MAP REFERENCE
Town of East Fishkill,
Parcel Grid Identification No.:
132800-6455-02-775675-0000
DEED REFERENCE:
Liber 1307 of Deeds at Page 261



NOTE:
THIS SURVEY HAS BEEN REVISED WITH THE BENEFIT OF TITLE REPORT COMMITMENT NO. 1512-1822302, DATED JULY 24, 2015, UPDATED FEBRUARY 17, 2016, PREPARED BY THE SECURITY TITLE GUARANTEE CORPORATION OF BALTIMORE TITLE COMPANY.

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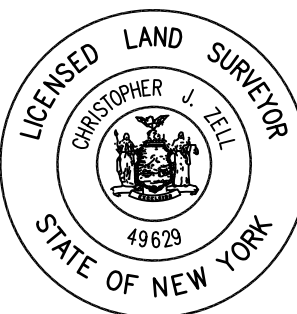
Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent owner or future grantees.

Only copies from the original of this survey marked with an original of the surveyor's seal shall be considered valid true copies.

The location of underground improvements or encroachments, if any exist or are shown hereon, are not certified.

Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveyors adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom the survey is prepared and on his behalf to the title company, governmental agency and lending institution listed hereon and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.



BRINNIER & LARIOS, P. C.
67 MAIDEN LANE
KINGSTON, N.Y. 12401
(845) 338-7822
czeil@blengineers.com

Figure 1-2

SHENANDOAH ROAD GROUNDWATER CONTAMINATION SUPERFUND SITE FACILITY PLOT PLAN

EAST HOOK CROSS ROAD & STONE RIDGE LANE
TOWN OF EAST FISHKILL DUTCHESS COUNTY NEW YORK
JANUARY 11, 2017



Figure 2-1
Shenandoah Road Groundwater Contamination Superfund Site
Shenandoah Town Water District
Service Territory Distribution System

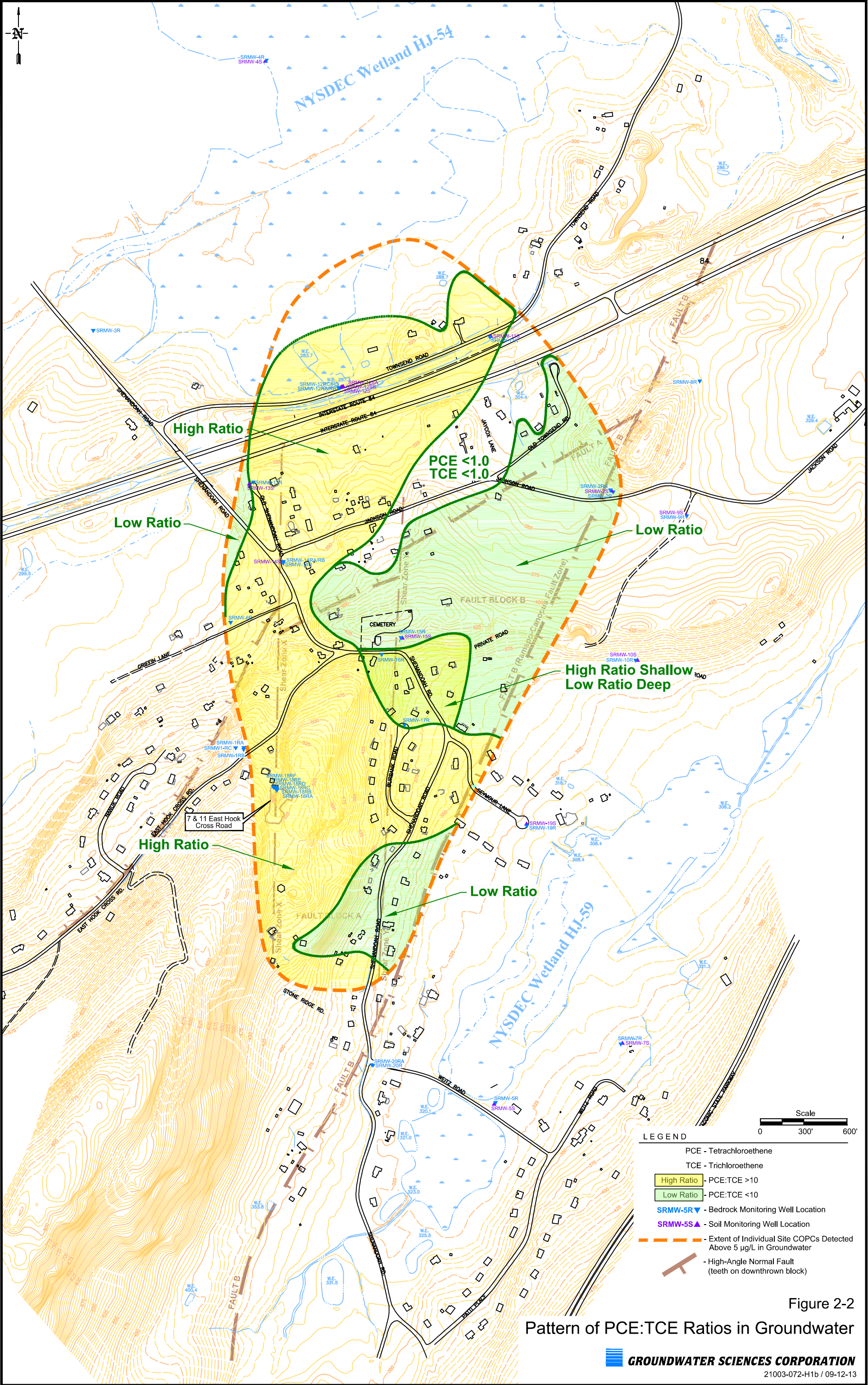
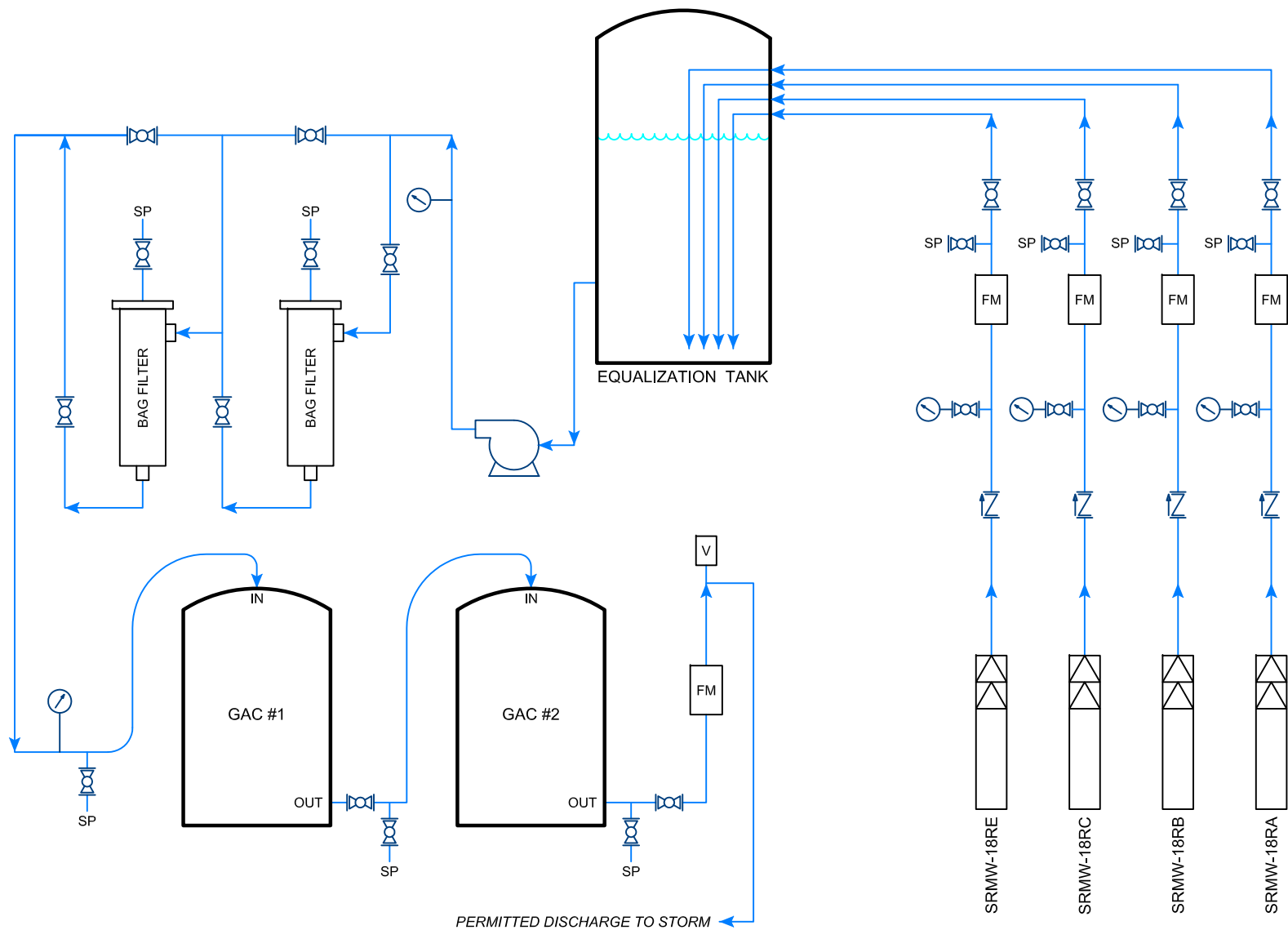


Figure 2-2
Pattern of PCE:TCE Ratios in Groundwater

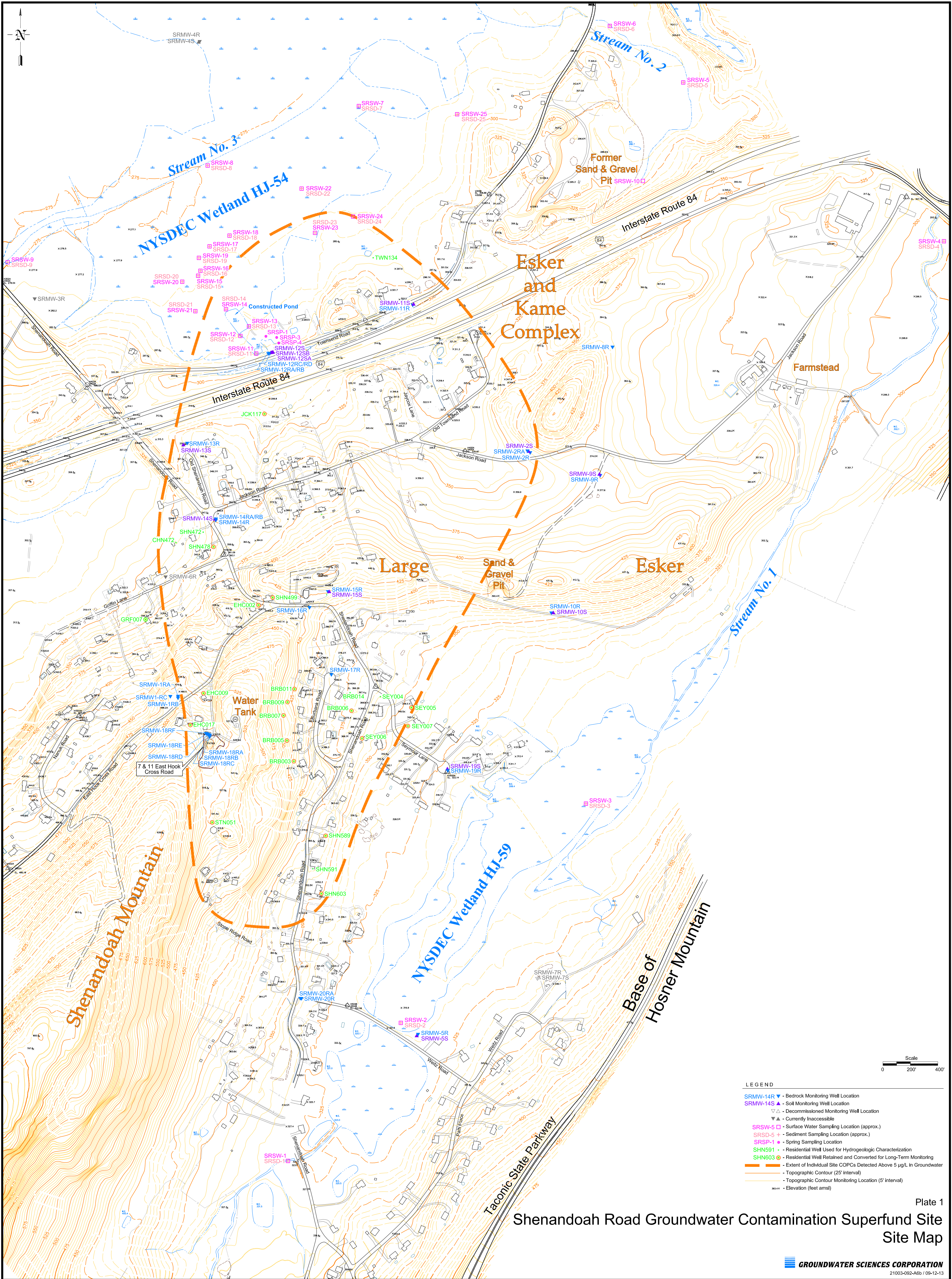


LEGEND

- Ball Valve
- Check Valve
- Needle Valve
- Pressure Gauge
- Discharge Pump
- Direction of Flow
- FM - Flow Meter
- GAC - Granular Activated Carbon
- SP - Sample Port
- V - Siphon Break

NOT TO SCALE

Figure 4-2
Shenandoah Road Groundwater Contamination Superfund Site
Source Extraction and Treatment System Flow Diagram



- LEGEND
- SRMW-14R ▽ - Bedrock Monitoring Well Location
 - SRMW-14S ▲ - Soil Monitoring Well Location
 - ▽ ▴ - Decommissioned Monitoring Well Location
 - ▽ ▴ - Currently Inaccessible
 - SRSW-5 □ - Surface Water Sampling Location (approx.)
 - SRSD-5 + - Sediment Sampling Location (approx.)
 - SRSP-1 * - Spring Sampling Location
 - SHN591 - Residential Well Used for Hydrogeologic Characterization
 - SHN603 - Residential Well Retained and Converted for Long-Term Monitoring
 - Extent of Individual Site COPCs Detected Above 5 µg/L in Groundwater
 - Topographic Contour (25' interval)
 - Topographic Contour Monitoring Location (5' interval)
 - Elevation (feet amsl)

Scale
0 200' 400'

7 & 11 East Hook Cross Road

EPA-Approved Clean Backfill

Uncontaminated Residual Soil

Uncontaminated Residual Soil

Shallow Groundwater
(frequently dry)

Residential Supply Well

Dwelling

Previous POET System

Groundwater Flow

Dissolved PCE

Adsorption and Intragranular Diffusion

DETAIL #3

Dwelling

Residential Supply Well

Previous POET System

Stream & Sediments

Silt & Clay

DNAPL
SOURCE ZONE
IN BEDROCK

Dissolved Plume

INFERRED
SHEAR ZONE

Fractured
Gneiss

FAULT CONTACT

Fractured
Carbonate Rock
and Quartzite

Glacial Ice Contact
Deposits

Wetlands

Upwelling
Artesian
Flow

(Not to Scale)

DNAPL PCE

Dissolved PCE

Matrix Diffusion

Fracture

(Adsorption on Fracture Faces)

DETAIL #1

Groundwater Flow

Groundwater Flow

Dissolved PCE

Matrix Diffusion

Fracture
(Adsorption on Fracture Faces)

DETAIL #2

EXHIBIT A

Draft Proprietary Controls (Environmental Easement)

- A-1: Draft Declaration of Covenants, Restrictions and Environmental Easement, 7 East Hook Cross Road
- A-2: Draft Declaration of Covenants, Restrictions and Environmental Easement, 11 East Hook Cross Road
- A-3: Draft Declaration of Covenants, Restrictions and Environmental Easement, 47 Stone Ridge Lane

EXHIBIT A-1:

**Draft Declaration of Covenants, Restrictions and Environmental Easement,
7 East Hook Cross Road**

DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT

This Declaration of Covenants, Restrictions and Environmental Easement (“**DCR & EE**”) is made this ____ day of _____, 20__, by and between Uwe and Carlotta Heitmann, having an address at 11 East Hook Cross Road, Town of East Fishkill, New York (“**Grantor**”), and the People of the State of New York, acting through their Commissioner of the New York State Department of Environmental Conservation (“**NYSDEC**”) with its Central Office, located at 625 Broadway, Albany, New York 12233 (“**Grantee**”).

WITNESSETH:

WHEREAS, Grantor is the owner of a parcel of land located in the Town of East Fishkill, County of Dutchess, State of New York, more particularly described on **Exhibit A** attached hereto and made a part hereof together with any buildings and improvements thereon and appurtenances thereto (“**Property**”); and

WHEREAS, the Property is part of the Shenandoah Road Groundwater Contamination Superfund Site (“**Site**”), the location of a former business to clean and repair computer chip racks which the U.S. Environmental Protection Agency (“**EPA**”), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (“**CERCLA**”), 42 U.S.C. § 9605, placed on the National Priorities List, as set forth in Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (“**NCP**”), 40 C.F.R. Part 300, by publication in the *Federal Register* on June 14, 2001; and

WHEREAS, in a Record of Decision dated September 30, 2012 (“**ROD**”), EPA Region 2 selected, and NYSDEC concurred with, a response action for the Site, which provided, in part, for the following actions:

- *Restricting use of the Property, or such other real property, in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material or interfere with or adversely affect the implementation, integrity, or protectiveness of the Remedial Action and Operation & Maintenance.*
- *In accordance with an EPA and NYSDEC-approved Institutional Controls Implementation and Assurance Plan (“**ICIAP**”) and Operation, Maintenance and Monitoring Manual (“**OM&M Manual**”), copies of which must be obtained by any party with an interest in the Property (copies of the ICIAP and OM&M Manual may be obtained from NYSDEC, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233, or at derweb@gw.dec.state.ny.us), the restrictions shall include, but not be limited to: prohibiting construction or other activities conducted on the Property that may interfere with remedial components, including the source extraction and treatment system.*

WHEREAS, pursuant to a judicial consent decree entered between the United States and International Business Machines Corporation (“**IBM**”), in *United States v. IBM*, 7:14-cv-936-KMK (the “CERCLA Consent Decree”), the construction activities associated with the remedial action have been completed at the Site by IBM and groundwater remediation and long-term monitoring activities are ongoing; and

WHEREAS, the parties hereto have agreed that Grantor shall grant to the Grantee this permanent Declaration of Covenants, Restrictions and Environmental Easement, including but not limited to providing a right of access over the Property for purposes of implementing, facilitating and monitoring the response action; and to impose on the Property, restrictions that will run with the land for the purpose of protecting human health and the environment; and

WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, for ten dollars and other good and valuable consideration, receipt whereof is hereby acknowledged, does hereby give, grant, covenant and declare in favor of the Grantee that the Site shall be subject to this DCR & EE and Grantor does further give, grant and convey to the Grantee the perpetual right to enforce said restrictions, covenants, right of access and Environmental Easement, all of which shall be of the nature and character, and for the purposes hereinafter set forth, with respect to the Property. Grantor does further give, grant and convey to EPA, and IBM, as third-party beneficiaries, the perpetual right to access the property for purposes of implementing, facilitating and monitoring any ongoing response action on the Property, in addition to the enforcement rights granted to the third-party beneficiaries in paragraph 11 below.
2. Purpose: It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, facilitate the remediation of past environmental contamination and to impose use restrictions and covenants to protect human health and the environment by reducing the risk of exposure to contaminants.
3. Restrictions: The following restrictions apply to the use of the Property, run with the land and are binding on the Grantor and its successors in title and assigns:
 - No wells may be drilled; provided that Grantee, EPA and IBM shall have the right to drill wells in connection with removal or remedial actions required by Grantee or EPA.
 - Construction of any permanent structure within the footprint of the contaminated soil removal effort as shown on **Exhibit B** must have a slab-on-grade foundation and footers that must not involve excavation to a depth of greater than six feet below ground surface (bgs). Such structures must not be for human occupancy as a dwelling and must not require water and sewer services based on Town codes and none may be installed. Roof drainage may only be conveyed to the nearest

existing storm catch basin, but may not impede the capacity of the storm sewer system to convey the treated groundwater discharge from the Groundwater Treatment Facility. Unless already installed by buried cable, electrical service to any structure must be by overhead pole-to-structure cabling.

- No penetration or excavation of soil is permitted extending 25 feet in all directions from features that are associated with the Source Extraction and Treatment System, as such System is shown on **Exhibit C**; provided that Grantee, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by Grantee or EPA.
- No penetration or excavation of soil is permitted within any area where further remedial action elements would be installed beyond those currently shown on **Exhibit C**, such as a conveyance piping connection to one or more of the pit water pipes; provided that Grantee, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by Grantee or EPA.

4. Modification or termination of restrictions, covenants and easement: The restrictions and easement specified in the preceding paragraph of this instrument may only be modified or terminated, in whole or in part, in writing, by the Grantee, provided, however, that any modification or termination of said restrictions shall not adversely affect the remedy selected by EPA and NYSDEC for the Site. If requested by the Grantor, such writing will be executed by Grantee in recordable form. Any request by Grantor for a modification or termination of this instrument shall be made in writing by Grantor to NYSDEC and to EPA in accordance with paragraph 15 of this instrument.

5. Right of access: Grantors hereby convey to Grantee, to EPA and to IBM, including its contractors and representatives, a right of access to the Property at all reasonable times for the following purposes, which shall run with the land and be binding on Grantor, their successors and /or assigns, and on any tenants or any other parties having an interest in and/or rights to the Property:

- a) Implementing the response actions in the ROD;
- b) Verifying any data or information relating to the Site;
- c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;
- d) Conducting investigations under CERCLA or the New York Environmental Conservation Law (“ECL”) relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils; and
- e) Implementing additional or new response actions under CERCLA or ECL.

6. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights, covenants and easements granted herein.
7. Federal authority: Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.
8. State authority: Nothing herein shall constitute a waiver of any rights the State may have pursuant to the Environmental Conservation Law, regulations and/or relevant provisions of statutory or common law.
9. No public access and use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.
10. Public notice: Grantor, on behalf of itself, its successors and assigns, agrees to include in each instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT, DATED _____, 20__, RECORDED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON _____, 20__, IN BOOK _____, PAGE _____, IN FAVOR OF, AND ENFORCEABLE BY, THE PEOPLE OF THE STATE OF NEW YORK AND BY THE UNITED STATES OF AMERICA AND IBM AS THIRD-PARTY BENEFICIARIES.

Within 30 days of the date any such instrument of conveyance is executed, Grantor agrees to provide Grantee, EPA and IBM with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Enforcement: The Grantee, EPA, and IBM shall be entitled to enforce the terms of this instrument by resort to specific performance. All remedies available hereunder shall be in addition to any and all other remedies available to Grantee or EPA at law or in equity, including CERCLA and the ECL. Any forbearance, delay or omission to exercise Grantee's or EPA's rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee or EPA of such term or of any of the rights of the Grantee or EPA under this instrument. IBM's third-party beneficiary right to enforcement shall be exercised solely at the direction of EPA and pursuant to the provisions of the CERCLA Consent Decree.
12. Damages: Grantee shall also be entitled to recover damages for breach of any covenant or violation of the terms of this instrument including any impairment to the remedial action that increases the cost of the selected response action for the Site as a result of such breach or violation.

County:

Site No:

Order No:

13. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription.
14. Covenants: Grantor hereby covenants that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein and that the Property is free and clear of encumbrances.
15. Notices: Any notice, demand, request, consent, approval, or communication under this instrument that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Uwe and Carlotta Heitmann
7 East Hook Cross Road
Hopewell Junction, New York 12533

To Grantee:

Office of General Counsel
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-5500

NYS Department of Environmental Conservation
Division of Environmental Remediation
Site Control
625 Broadway
Albany, New York 12233

A copy of each such communication shall also be sent to EPA and IBM in the same manner as to Grantor or Grantee, and addressed to the following addresses:

Chief, Eastern New York Remediation Section
New York Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region 2
Attn: Shenandoah Road Groundwater Contamination Superfund Site Remedial Project Manager
290 Broadway, 20th Floor
New York, New York 10007-1866

Chief, New York Caribbean Superfund Branch
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
Attn: Shenandoah Road Groundwater Contamination Superfund Site Attorney
290 Broadway, 17th Floor
New York, New York 10007-1866

International Business Machines Corporation
Thomas D. Morris, Project Coordinator
1 North Castle Drive
Armonk, NY 10503

International Business Machines Corporation
Dean W. Chartrand, Alternate Project Coordinator
8976 Wellington Road
Manassas, Virginia 20109

International Business Machines Corporation
IBM Environmental Counsel
1 North Castle Drive
Armonk, NY 10503

16. Recordation: Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner of the New York State Department of Environmental Conservation or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

17. General provisions:

a) Controlling law: The interpretation and performance of this instrument shall, with respect to the Declaration of Covenants, Restrictions and Environmental Easement, be governed by the laws of the State of New York, and with respect to other matters, shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of New York.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.

e) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

County:

Site No:

Order No:

f) Successors: The covenants, easements, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall mean the People of the State of New York acting through their Commissioner of NYSDEC or through any successor department or agency of the State of New York.

g) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

h) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

i) Third-Party Beneficiary: Grantor and Grantee hereby agree that the United States, through EPA, shall be third-party beneficiaries of the benefits, rights and obligations conveyed to Grantee in this instrument; provided that nothing in this instrument shall be construed to create any obligations on the part of the United States.

TO HAVE AND TO HOLD unto the Grantee and its assigns forever.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Executed this _____ day of _____, 201__.

GRANTOR: Uwe Heitmann and Carlotta Heitmann

By: _____

Title: _____

By: _____

Title: _____

Order No:

[illegible]

On the _____ day of _____, in the year 20____, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as _____ of the _____, and that by his signature on the instrument, the Grantor _____, upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

County:

Site No:

Order No:

THIS ENVIRONMENTAL EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Date: _____

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____, in the year 20____, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the People of the State of New York, upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

EXHIBIT A
To
Declaration of Covenants, Restrictions & Environmental & Easement
Property Description [Map 2]

SHENANDOAH ROAD DCR AND EE AREA DESCRIPTION MAP 2

DESCRIPTION OF AN ENVIRONMENTAL EASEMENT
ON LANDS OF CARLOTTA & UWE HEITMANN
7 EAST HOOK CROSS ROAD
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK

Beginning at a point on the Easterly side of East Hook Cross Road, said point also being on the Westerly line of lands of Bethel Baptist Church, Liber 1936 – Page 475, and running:

1) thence from said point of beginning, along the Westerly line of lands of Bethel Baptist Church, the following courses and distances: South 2° 57' 09" East, 65.67 feet to a point;

2) thence South 13° 12' 23" West, 202.82 feet to a point;

3) thence continuing along the Westerly line of lands of Bethel Baptist Church and lands of Town of East Fishkill, Liber 22007 – Page 9183, South 11° 00' 31" East, 348.18 feet to a point;

4) thence still along the Westerly line of lands of Town of East Fishkill, South 29° 17' 25" West, 111.99 feet to a point at the Northwesterly corner of other lands of Carlotta Heitmann and Uwe Heitmann, Liber 1401 – Page 215;

5) thence along the Westerly line of other lands of Heitmann, the following courses and distances: South 33° 50' 17" West, 303.22 feet to a point on the Northerly line of other lands of Carlotta Heitmann, Liber 1307 – Page 261;

6) thence along the Northerly and Easterly lines of other lands of Heitmann, the following courses and distances: North 59° 15' 51" West, 95.65 feet to a point;

7) thence North 30° 44' 09" East, 435.60 feet to a point;

8) thence North 23° 26' 51" West, 95.50 feet to a point;

9) thence North 4° 41' 51" West, 215.05 feet in East hook Cross Road;

10) thence through and along the Easterly side of East Hook Cross Road, the following courses and distances: North 48° 32' 09" East, 32.40 feet to a point;

11) thence North 23° 40' 17" East, 226.72 feet to the place of beginning.

CONTAINING: 1.850 Acres or 80,586 Square Feet

The above-described premises are subject to an Engineering Control Area known as EC2; said area described as follows:

ENGINEERING CONTROL AREA 2 (EC2)

Beginning at a point at the Southwesterly corner of lands at the Town of East Fishkill, Liber 22007 – Page 9183, said point also being the Northwesterly corner of lands of Carlotta Heitmann and Uwe Heitmann, Liber 1401 – Page 215 (47 Stone Ridge Lane), and running:

- 1) thence from said point of beginning, along the Westerly line of other lands of Heitmann (47 Stone Ridge Lane), South 33° 50' 17" West, 29.64 feet to point;
- 2) thence through the lands of Uwe and Carlotta Heitmann (7 East Hook Cross Road) the following courses and distances: North 61° 37' 05" West, 7.70 feet to a point;
- 3) thence North 37° 08' 56" West, 73.22 feet to a point;
- 4) thence South 8° 46' 34" West, 116.23 feet to a point;
- 5) thence South 8° 42' 09" East, 40.91 feet to a point on the Westerly line of other lands of Carlotta & Uwe Heitmann (47 Stone Ridge Lane);
- 6) thence along the Westerly line of other lands of Heitmann (47 Stone Ridge Lane), South 33° 50' 17" West, 20.80 feet to a point;
- 7) thence continuing through the lands of Heitmann (7 East Hook Cross Road) the following courses and distances: South 81° 17' 51" West, 35.94 feet to a point;
- 8) thence North 8° 42' 09" West, 63.92 feet to a point;
- 9) thence North 8° 46' 34" East, 93.32 feet to a point on the Easterly line of lands of Carlotta Heitmann, Liber 1307 – Page 261 (11 East Hook Cross Road);
- 10) thence along the Easterly line of other lands of Heitmann (11 East Hook Cross Road), North 30° 44' 09" East, 158.32 feet to a point;
- 11) thence continuing through the lands of Uwe & Carlotta Hietmann (7 East Hook Cross Road) the following courses and distances: North 80° 12' 48" East, 35.26 feet to a point;
- 12) thence South 2° 24' 07" East, 57.26 feet to a point;
- 13) thence South 36° 22' 11" West, 40.24 feet to a point

County:

Site No:

Order No:

14) thence South 37° 08' 56" East, 61.95 feet to a point on the Westerly line of lands of Town of East Fishkill;

15) thence along the Westerly line of lands of Town of East Fishkill, South 29° 17' 25" West, 20.50 feet to the place of beginning.

ENGINEERING CONTROL (EC 2) AREA CONTAINING: 0.427 Acres or 18,585.41 Square Feet.

All Bearings are referred to Magnetic North.

The above described easement is shown on "Map 2, Environmental Easement on Lands of Uwe Heitmann and Carlotta Heitmann, 7 East Hook Cross Road" Prepared by Brinnier & Larios, P.C., Dated January 11, 2017

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

County:

Site No:

Order No:

EXHIBIT B

SURVEY

**To Declaration of Covenants, Restrictions & Environmental Easement
Shenandoah Road Property [Map 2]**

**7 EAST HOOK CROSS ROAD
LANDS OF CARLOTTA & UWE HEITMANN
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK**

(See attached as-built survey of DCR &EE Property)

SHENANDOAH ROAD DCR AND EE AREA DESCRIPTION MAP 2

DESCRIPTION OF AN ENVIRONMENTAL EASEMENT
ON LANDS OF CARLOTTA & UWE HEITMANN
7 EAST HOOK CROSS ROAD
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK

Beginning at a point on the Easterly side of East Hook Cross Road, said point also being on the Westerly line of lands of Bethel Baptist Church, Liber 1936 – Page 475, and running:

- 1) thence from said point of beginning, along the Westerly line of lands of Bethel Baptist Church, the following courses and distances: South 2° 57' 09" East, 65.67 feet to a point;
- 2) thence South 13° 12' 23" West, 202.82 feet to a point;
- 3) thence continuing along the Westerly line of lands of Bethel Baptist Church and lands of Town of East Fishkill, Liber 22007 – Page 9183, South 11° 00' 31" East, 348.18 feet to a point;
- 4) thence still along the Westerly line of lands of Town of East Fishkill, South 29° 17' 25" West, 111.99 feet to a point at the Northwesterly corner of other lands of Carlotta Heitmann and Uwe Heitmann, Liber 1401 – Page 215;
- 5) thence along the Westerly line of other lands of Heitmann, the following courses and distances: South 33° 50' 17" West, 303.22 feet to a point on the Northerly line of other lands of Carlotta Heitmann, Liber 1307 – Page 261;
- 6) thence along the Northerly and Easterly lines of other lands of Heitmann, the following courses and distances: North 59° 15' 51" West, 95.65 feet to a point;
- 7) thence North 30° 44' 09" East, 435.60 feet to a point;
- 8) thence North 23° 26' 51" West, 95.50 feet to a point;
- 9) thence North 4° 41' 51" West, 215.05 feet in East hook Cross Road;
- 10) thence through and along the Easterly side of East Hook Cross Road, the following courses and distances: North 48° 32' 09" East, 32.40 feet to a point;
- 11) thence North 23° 40' 17" East, 226.72 feet to the place of beginning.

CONTAINING: 1.850 Acres or 80,586 Square Feet

All Bearings are referred to Magnetic North.

The above-described premises are subject to an Engineering Control Area known as EC2.

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

ENGINEERING CONTROL AREA 2 (EC2)

Beginning at a point at the Southwesterly corner of lands at the Town of East Fishkill, Liber 22007 – Page 9183, said point also being the Northwesterly corner of lands of Carlotta Heitmann and Uwe Heitmann, Liber 1401 – Page 215 (47 Stone Ridge Lane), and running:

- 1) thence from said point of beginning, along the Westerly line of other lands of Heitmann (47 Stone Ridge Lane), South 33° 50' 17" West, 29.64 feet to point;
- 2) thence through the lands of Uwe and Carlotta Heitmann (7 East Hook Cross Road) the following courses and distances: North 61° 37' 05" West, 7.70 feet to a point;
- 3) thence North 37° 08' 56" West, 73.22 feet to a point;
- 4) thence South 8° 46' 34" West, 116.23 feet to a point;
- 5) thence South 8° 42' 09" East, 40.91 feet to a point on the Westerly line of other lands of Carlotta & Uwe Heitmann (47 Stone Ridge Lane);
- 6) thence along the Westerly line of other lands of Heitmann (47 Stone Ridge Lane), South 33° 50' 17" West, 20.80 feet to a point;
- 7) thence continuing through the lands of Heitmann (7 East Hook Cross Road) the following courses and distances: South 81° 17' 51" West, 35.94 feet to a point;
- 8) thence North 8° 42' 09" West, 63.92 feet to a point;

- 9) thence North 8° 46' 34" East, 93.32 feet to a point on the Easterly line of lands of Carlotta Heitmann, Liber 1307 – Page 261 (11 East Hook Cross Road);
- 10) thence along the Easterly line of other lands of Heitmann (11 East Hook Cross Road), North 30° 44' 09" East, 158.32 feet to a point;
- 11) thence continuing through the lands of Uwe & Carlotta Heitmann (7 East Hook Cross Road) the following courses and distances: North 80° 12' 48" East, 35.26 feet to a point;
- 12) thence South 2° 24' 07" East, 57.26 feet to a point;
- 13) thence South 36° 22' 11" West, 40.24 feet to a point
- 14) thence South 37° 08' 56" East, 61.95 feet to a point on the Westerly line of lands of Town of East Fishkill;
- 15) thence along the Westerly line of lands of Town of East Fishkill, South 29° 17' 25" West, 20.50 feet to the place of beginning.

ENGINEERING CONTROL (EC2) AREA CONTAINING: 0.427 Acres or 18,585.41 Square Feet.

All Bearings are referred to Magnetic North.

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

NOTE:
THIS SURVEY HAS BEEN REVISED WITH THE BENEFIT OF TITLE REPORT COMMITMENT NO. 1512-1822303, DATED JULY 24, 2015 PREPARED BY THE SECURITY TITLE GUARANTEE CORPORATION OF BALTIMORE TITLE COMPANY.

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Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent owner or future grantees.

Only copies from the original of this survey marked with an original of the surveyor's seal shall be considered valid true copies.

The location of underground improvements or encroachments, if any exist or are shown hereon, are not certified.

Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveyors adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom the survey is prepared and on his behalf to the title company, governmental agency and lending institution listed hereon and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.

TAX MAP REFERENCE
Town of East Fishkill,
Parcel Grid Identification Nos.
132800-6455-02-791668-0000

DEED REFERENCES
Liber 1754 of Deeds at Page 98

CERTIFICATION
I hereby certify this survey to:

1. The People of the State of New York Acting Through Their Commissioner of the Department of Environmental Conservation
2. Uwe Heitmann and Carlotta Heitmann
3. The Security Title Guarantee Corporation of Baltimore

Christopher J. Zell, P.L.S.
N.Y.S. License No. 49629

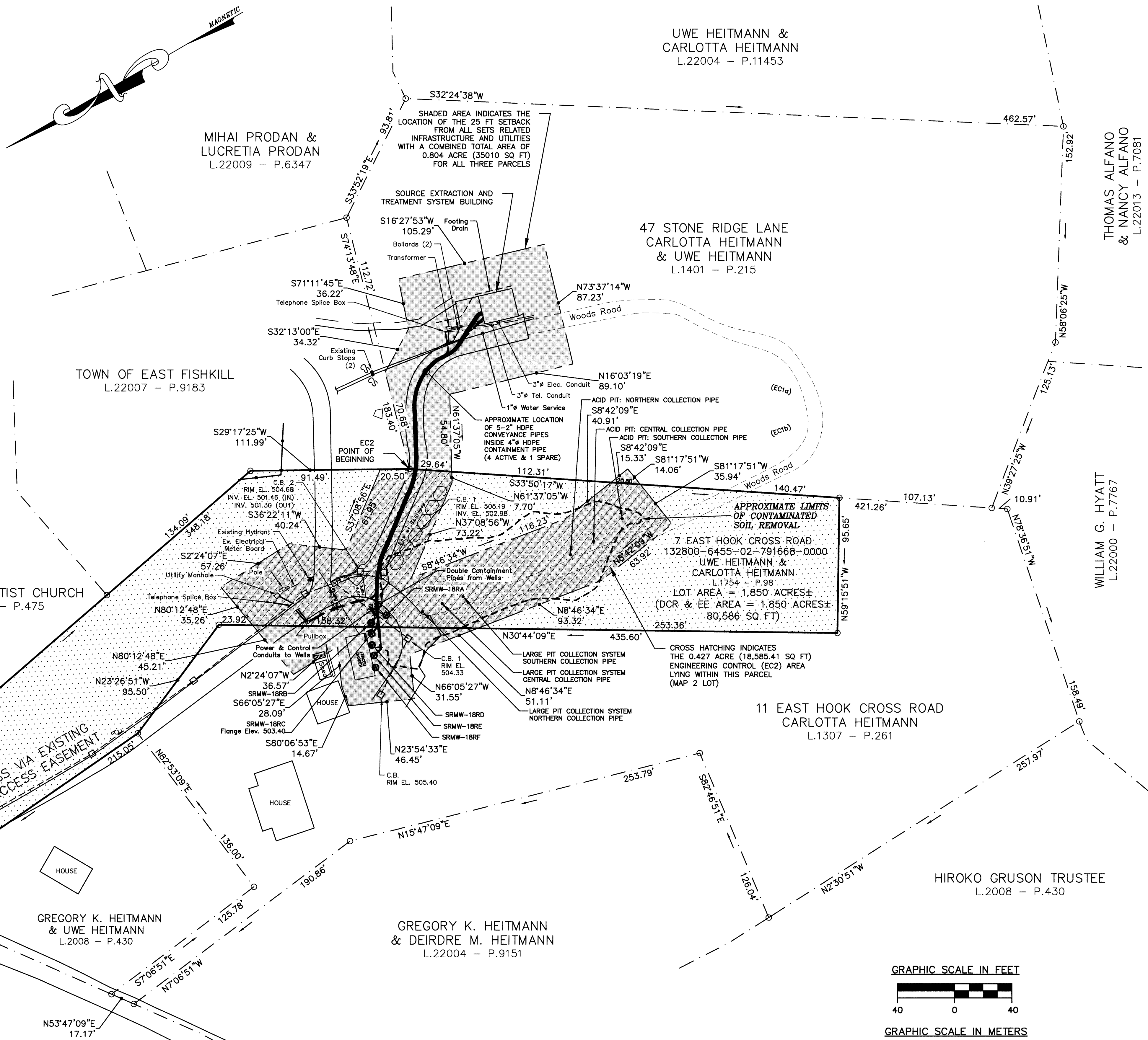
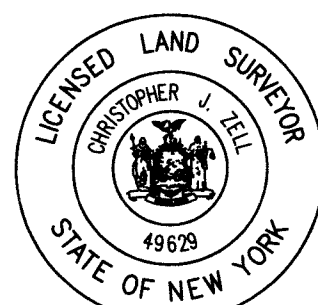
DCR & EE AREA
POINT OF BEGINNING

BRINNIER & LARIOS, P. C.
67 MAIDEN LANE
KINGSTON, N.Y. 12401
(845) 338-7822
czell@blngineers.com

LEGEND

- PROPERTY BOUNDARY
- ADJOINER BOUNDARY
- EC AREA BOUNDARY
- CONTAMINATED SOIL REMOVAL AREA
- ACID PIT
- EXTRACTION/MONITORING WELL
- BUILDING/STRUCTURE
- STORM WATER CATCH BASIN
- STORM WATER LINE
- UTILITY POLE
- PAVED ROAD
- DIRT ROAD
- HYDRANT
- ROCK
- FOOTING DRAIN
- CURB STOP
- WIRE FENCE
- ENVIRONMENTAL EASEMENT
-DCR & EE AREA FOR MAP 2 LOT
- EC AREA FOR 3 LOTS (MAPS 1, 2 & 3)
- EC AREA FOR MAP 2 LOT

STIPPLED AREA INDICATES THE 1.850 ACRE ENVIRONMENTAL EASEMENT-DCR & EE AREA FOR 7 EAST HOOK CROSS ROAD



ENGINEERING/INSTITUTIONAL CONTROLS

- Compliance with the DCR & EE by the Grantor and the Grantor's successors and assigns.
- Access for the Source Extraction and Treatment System (SETS) Engineering Control (EC1) located on 47 Stone Ridge Lane must be maintained.
- Access to the SETS (EC2) and associated features on the controlled property via access road from East Hook Cross Road must be maintained.
- Access to the SETS (EC3) area which includes extraction wells SRMW-18RE, SRMW-18RC, SRMW-18RB and SRMW-18RA and underground conveyance piping and associated features on the Controlled Property via Access Road from East Hook Cross Road must be maintained.
- The use and development of the Controlled Property is limited to Restricted Residential, Commercial and Industrial uses only as described in 6NYCRR Part 375-1.8(g)(2) (ii), (iii) & (iv).
- No intrusive work of any kind will be permitted within the SETS (EC2) area (25 feet in all directions from features such as underground piping associated with the SETS) including the Access Road on the Controlled Property.
- Construction of any permanent structure within the footprint of the Contaminated Soil Removal Area must be slab on grade and footers that must not involve excavation to a depth of greater than 6 feet below ground surface. Such structures must not be for human occupancy as a dwelling and must not require any underground utilities and infrastructure such as but not limited to water and sewer service. Roof drainage may not be conveyed to subsurface drainage systems. If roof drainage includes gutters and downspouts, roof drainage must be conveyed to the nearest existing storm catch basin but may not impede the capacity of the storm sewer used to convey treated groundwater discharge from SETS. Telephone, internet cable and electrical service to such structure must be provided by overhead pole to structure cabling.
- Use of the groundwater underlying the property is prohibited.
- Consistent with County and Town codes, no wells may be drilled for any purpose.

THIS CONTROLLED PROPERTY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS & ENVIRONMENTAL EASEMENTS (DCR & EE) HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THE DCR & EE ARE SET FORTH IN MORE DETAIL IN THE SITE MANAGEMENT PLAN (ICI&AP). A COPY OF THE ICI&AP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE ICI&AP MAY BE OBTAINED FROM NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT derweb@dec.ny.gov

DCR & EE AREA ACCESS

THE USEPA AND/OR NYSDEC OR THEIR AGENT MAY ACCESS THE CONTROLLED PROPERTY AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDING INGRESS/EGRESS ACCESS POINT.

MAP 2

ENVIRONMENTAL EASEMENT ON LANDS OF

**UWE HEITMANN &
CARLOTTA HEITMANN**

7 EAST HOOK CROSS ROAD

TOWN OF EAST FISHKILL DUTCHESS COUNTY NEW YORK

JANUARY 11, 2017

EXHIBIT A-2:

**Draft Declaration of Covenants, Restrictions and Environmental Easement,
11 East Hook Cross Road**

DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT

This Declaration of Covenants, Restrictions and Environmental Easement (“**DCR & EE**”) is made this ____ day of _____, 20__, by and between Carlotta A. Heitmann, having an address at 11 East Hook Cross Road, Town of East Fishkill, New York (“**Grantor**”), and the People of the State of New York, acting through their Commissioner of the New York State Department of Environmental Conservation (“**NYSDEC**”) with its Central Office, located at 625 Broadway, Albany, New York 12233 (“**Grantee**”).

WITNESSETH:

WHEREAS, Grantor is the owner of a parcel of land located in the Town of East Fishkill, County of Dutchess, State of New York, more particularly described on **Exhibit A** attached hereto and made a part hereof together with any buildings and improvements thereon and appurtenances thereto (“**Property**”); and

WHEREAS, the Property is part of the Shenandoah Road Groundwater Contamination Superfund Site (“**Site**”), the location of a former business to clean and repair computer chip racks which the U.S. Environmental Protection Agency (“**EPA**”), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (“**CERCLA**”), 42 U.S.C. § 9605, placed on the National Priorities List, as set forth in Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (“**NCP**”), 40 C.F.R. Part 300, by publication in the Federal Register on June 14, 2001; and

WHEREAS, in a Record of Decision dated September 30, 2012 (“**ROD**”), EPA Region 2 selected, and NYSDEC concurred with, a response action for the Site, which provided, in part, for the following actions:

- *Restricting use of the Property, or such other real property, in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material or interfere with or adversely affect the implementation, integrity, or protectiveness of the Remedial Action and Operation & Maintenance.*
- *In accordance with an EPA and NYSDEC-approved Institutional Controls Implementation and Assurance Plan (“**ICIAP**”) and Operation, Maintenance and Monitoring Manual (“**OM&M Manual**”), copies of which must be obtained by any party with an interest in the Property (copies of the ICIAP and OM&M Manual may be obtained from NYSDEC, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233, or at derweb@gw.dec.state.ny.us), the restrictions shall include, but not be limited to: prohibiting construction or other activities conducted on the Property that may interfere with remedial components, including the source extraction and treatment system.*

WHEREAS, pursuant to a judicial consent decree entered between the United States and International Business Machines Corporation (“**IBM**”), in *United States v. IBM*, 7:14-cv-936-KMK (the “CERCLA Consent Decree”), the construction activities associated with the remedial action have been completed at the Site by IBM and groundwater remediation and long-term monitoring activities are ongoing; and

WHEREAS, the parties hereto have agreed that Grantor shall grant to the Grantee this permanent Declaration of Covenants, Restrictions and Environmental Easement, including but not limited to providing a right of access over the Property for purposes of implementing, facilitating and monitoring the response action; and to impose on the Property, restrictions that will run with the land for the purpose of protecting human health and the environment; and

WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, for ten dollars and other good and valuable consideration, receipt whereof is hereby acknowledged, does hereby give, grant, covenant and declare in favor of the Grantee that the Site shall be subject to this DCR & EE and Grantor does further give, grant and convey to the Grantee the perpetual right to enforce said restrictions, covenants, right of access and Environmental Easement, all of which shall be of the nature and character, and for the purposes hereinafter set forth, with respect to the Property. Grantor does further give, grant and convey to EPA, and IBM, as third-party beneficiaries, the perpetual right to access the property for purposes of implementing, facilitating and monitoring any ongoing response action on the Property, in addition to the enforcement rights granted to the third-party beneficiaries in paragraph 11 below.
2. Purpose: It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, facilitate the remediation of past environmental contamination and to impose use restrictions and covenants to protect human health and the environment by reducing the risk of exposure to contaminants.
3. Restrictions: The following restrictions apply to the use of the Property, run with the land and are binding on the Grantor and its successors in title and assigns:
 - No wells may be drilled; provided that Grantee, EPA and IBM shall have the right to drill wells in connection with removal or remedial actions required by Grantee or EPA.
 - Construction of any permanent structure within the footprint of the contaminated soil removal effort as shown on **Exhibit B** must have a slab-on-grade foundation and footers that must not involve excavation to a depth of greater than six feet below ground surface (bgs). Such structures must not be for human occupancy as a dwelling and must not require water and sewer services based on Town codes and none may be installed. Roof drainage may only be conveyed to the nearest

existing storm catch basin, but may not impede the capacity of the storm sewer system to convey the treated groundwater discharge from the Groundwater Treatment Facility. Unless already installed by buried cable, electrical service to any structure must be by overhead pole-to-structure cabling.

- No penetration or excavation of soil is permitted extending 25 feet in all directions from features that are associated with the Source Extraction and Treatment System, as such System is shown on **Exhibit C**; provided that Grantee, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by Grantee or EPA.
- No penetration or excavation of soil is permitted within any area where further remedial action elements would be installed beyond those currently shown on **Exhibit C**, such as a conveyance piping connection to one or more of the pit water pipes; provided that Grantee, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by Grantee or EPA.

4. Modification or termination of restrictions, covenants and easement: The restrictions and easement specified in the preceding paragraph of this instrument may only be modified or terminated, in whole or in part, in writing, by the Grantee, provided, however, that any modification or termination of said restrictions shall not adversely affect the remedy selected by EPA and NYSDEC for the Site. If requested by the Grantor, such writing will be executed by Grantee in recordable form. Any request by Grantor for a modification or termination of this instrument shall be made in writing by Grantor to NYSDEC and to EPA in accordance with paragraph 15 of this instrument.

5. Right of access: Grantors hereby convey to Grantee, to EPA and to IBM, including its contractors and representatives, a right of access to the Property at all reasonable times for the following purposes, which shall run with the land and be binding on Grantor, their successors and /or assigns, and on any tenants or any other parties having an interest in and/or rights to the Property:

- a) Implementing the response actions in the ROD;
- b) Verifying any data or information relating to the Site;
- c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;
- d) Conducting investigations under CERCLA or the New York Environmental Conservation Law (“**ECL**”) relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils; and
- e) Implementing additional or new response actions under CERCLA or ECL.

6. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights, covenants and easements granted herein.
7. Federal authority: Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.
8. State authority: Nothing herein shall constitute a waiver of any rights the State may have pursuant to the Environmental Conservation Law, regulations and/or relevant provisions of statutory or common law.
9. No public access and use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.
10. Public notice: Grantor, on behalf of itself, its successors and assigns, agrees to include in each instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT, DATED _____, 20__, RECORDED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON _____, 20__, IN BOOK _____, PAGE _____, IN FAVOR OF, AND ENFORCEABLE BY, THE PEOPLE OF THE STATE OF NEW YORK AND BY THE UNITED STATES OF AMERICA AND IBM AS THIRD-PARTY BENEFICIARIES.

Within 30 days of the date any such instrument of conveyance is executed, Grantor agrees to provide Grantee, EPA and IBM with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Enforcement: The Grantee, EPA, and IBM shall be entitled to enforce the terms of this instrument by resort to specific performance. All remedies available hereunder shall be in addition to any and all other remedies available to Grantee or EPA at law or in equity, including CERCLA and the ECL. Any forbearance, delay or omission to exercise Grantee's, EPA's or IBM's rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee, EPA or IBM of such term or of any of the rights of the Grantee, EPA or IBM under this instrument. IBM's third-party beneficiary right to enforcement shall be exercised solely at the direction of EPA and pursuant to the provisions of the CERCLA Consent Decree.
12. Damages: Grantee shall also be entitled to recover damages for breach of any covenant or violation of the terms of this instrument including any impairment to the remedial action that increases the cost of the selected response action for the Site as a result of such breach or violation.

County:

Site No:

Order No:

13. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription.
14. Covenants: Grantor hereby covenants that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein and that the Property is free and clear of encumbrances.
15. Notices: Any notice, demand, request, consent, approval, or communication under this instrument that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Carlotta A. Heitmann
11 East Hook Cross Road
Hopewell Junction, New York 12533

To Grantee:

Office of General Counsel
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-5500

NYS Department of Environmental Conservation
Division of Environmental Remediation
Site Control
625 Broadway
Albany, New York 12233

A copy of each such communication shall also be sent to EPA and IBM in the same manner as to Grantor or Grantee, and addressed to the following addresses:

Chief, Eastern New York Remediation Section
New York Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region 2
Attn: Shenandoah Road Groundwater Contamination Superfund Site Remedial Project Manager
290 Broadway, 20th Floor
New York, New York 10007-1866

Chief, New York Caribbean Superfund Branch
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
Attn: Shenandoah Road Groundwater Contamination Superfund Site Attorney
290 Broadway, 17th Floor
New York, New York 10007-1866

International Business Machines Corporation
Thomas D. Morris, Project Coordinator
1 North Castle Drive
Armonk, NY 10503

International Business Machines Corporation
Dean W. Chartrand, Alternate Project Coordinator
8976 Wellington Road
Manassas, Virginia 20109

International Business Machines Corporation
IBM Environmental Counsel
1 North Castle Drive
Armonk, NY 10503

16. Recordation: Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner of the New York State Department of Environmental Conservation or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

17. General provisions:

a) Controlling law: The interpretation and performance of this instrument shall, with respect to the Declaration of Covenants, Restrictions and Environmental Easement, be governed by the laws of the State of New York, and with respect to other matters, shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of New York.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.

e) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

f) Successors: The covenants, easements, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall mean the People of the State of New York acting through their Commissioner of NYSDEC or through any successor department or agency of the State of New York.

g) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

h) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

i) Third-Party Beneficiary: Grantor and Grantee hereby agree that the United States, through EPA, and IBM shall be third-party beneficiaries of the benefits, rights and obligations conveyed to Grantee in this instrument; provided that nothing in this instrument shall be construed to create any obligations on the part of the United States or IBM.

Order No:

Title: _____

8

County:

Site No:

Order No:

THIS ENVIRONMENTAL EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Date: _____

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____, in the year 20____, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the People of the State of New York, upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

EXHIBIT A
To
Declaration of Covenants, Restrictions & Environmental & Easement
Property Description [Map 3]

SHENANDOAH ROAD DCR AND EE AREA DESCRIPTION MAP 3

DESCRIPTION OF AN ENVIRONMENTAL EASEMENT
ON LANDS OF CARLOTTA HEITMANN
11 EAST HOOK CROSS ROAD
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK

Beginning at a point in East Hook Cross Road, said point also being the most Westerly corner of lands of Gregory K. Heitmann and Uwe Heitmann, Liber 2008 – Page 430;

1) thence from said point of beginning, along the Westerly and Southerly line of lands of Gregory and Uwe Heitman, the following courses and distances: South 7° 06' 51" East, 125.78 feet to a point;

2) thence North 82° 53' 09" East, 136.00 feet to a point on the Westerly line of lands of Uwe Heitmann and Carlotta Heitmann, Liber 1754 – Page 98;

3) thence along the Westerly line of lands of Heitman, the following courses and distances: South 23° 26' 51" East, 95.50 feet to a point;

4) thence South 30° 44' 09" West, 435.60 feet to a point;

5) thence South 59° 15' 51" East, 95.65 feet to a point on the Westerly line of other lands of Carlotta Heitmann and Uwe Heitmann, Liber 1401 – Page 215;

6) thence along the Westerly line of other lands of Heitmann, South 33°50' 17" West, 118.04 feet to a point on the Northerly line of lands of William G. Hyatt, Liber 22000 – Page 7767;

7) thence along the Northerly line of lands of Hyatt, North 78° 36' 51" West, 158.49 feet to a point on the Easterly line of lands of Hiroko Gruson Trustee, Liber 2008 – Page 430;

8) thence along the Easterly line of lands of Gruson, North 2° 30' 51" West, 257.97 feet to a point at the Southwesterly corner of lands of Gregory K. Heitmann and Deirdre M. Heitmann, Liber 22004 – Page 9151;

9) thence along the Southerly and Easterly line of lands of Gregory and Deirdre Heitmann, the following courses and distances: South 82° 46' 51" East, 126.04 feet to a point;

10) thence North 15° 47' 09" East, 253.79 feet to a point;

11) thence North 7° 06' 51" West, 190.86 feet to a point in East Hook Cross Road;

County:

Site No:

Order No:

12) thence through East Hook Cross Road, North 53° 47' 09" East, 17.17 feet to the place of beginning.

CONTAINING: 2.267 Acres or 98,751 Square Feet

The above-described premises are subject to the rights of the public in and to any portion of said premises lying within the bounds of the public road known as East Hook Cross Road.

The above-described premises are subject to an Engineering Control Area known as EC3; said area described as follows:

ENGINEERING CONTROL AREA 3 (EC3)

Beginning at a point on the Westerly line of lands of Uwe Heitmann & Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road), said point also being South 30° 44' 09" West, 23.92 feet from the Northeasterly corner of lands of Carlotta Heitmann, Liber 1307 – Page 261 (11 East Hook Cross Road), and running:

1) thence from said point of beginning, along Westerly line of lands of Uwe & Carlotta Heitmann (7 East Hook Cross Road), South 30° 44' 09" West, 158.32 feet to a point;

2) thence through the lands of Carlotta Heitmann (11 East Hook Cross Road) the following courses and distances: North 8° 46' 34" East, 51.11 feet to a point;

3) thence North 66° 05' 27" West, 31.55 feet to a point;

4) thence North 23° 54' 33" East, 46.45 feet to a point;

5) thence South 80° 06' 53" East, 14.67 feet to a point;

6) thence South 66° 05' 23" East, 28.09 feet to a point;

7) thence North 02° 24' 07" West, 36.57 feet to a point;

8) thence North 80° 12' 48" East, 45.21 feet to the place of beginning.

ENVIRONMENTAL CONTROL (EC3) AREA CONTAINING: 0.101 Acres or 4,377.84 Square Feet.

All Bearings are referred to Magnetic North.

The above described easement is shown on "Map 3, Environmental Easement on Lands of Carlotta Heitmann, 11 East Hook Cross Road," Prepared by Brinnier & Larios, P.C. Dated January 11, 2017.

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.,
BRINNIER and LARIOS, P.C.

County:

Site No:

Order No:

EXHIBIT B

SURVEY

**Declaration of Covenants, Restrictions & Environmental Easement
Shenandoah Road Property [Map 3]**

**11 EAST HOOK CROSS ROAD
LANDS OF CARLOTTA HEITMANN
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK**

(See attached as-built survey of DCR &EE Property)

SHENANDOAH ROAD DCR AND EE AREA DESCRIPTION MAP 3

DESCRIPTION OF AN ENVIRONMENTAL EASEMENT
ON LANDS OF CARLOTTA HEITMANN
11 EAST HOOK CROSS ROAD
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK

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2) thence North 82° 53' 09" East, 136.00 feet to a point on the Westerly line of lands of Uwe Heitmann and Carlotta Heitmann, Liber 1754 – Page 98;

3) thence along the Westerly line of lands of Heitman, the following courses and distances: South 23° 26' 51" East, 95.50 feet to a point;

4) thence South 30° 44' 09" West, 435.60 feet to a point;

5) thence South 59° 15' 51" East, 95.65 feet to a point on the Westerly line of other lands of Carlotta Heitmann and Uwe Heitmann, Liber 1401 – Page 215;

6) thence along the Westerly line of other lands of Heitmann, South 33°50' 17" West, 118.04 feet to a point on the Northerly line of lands of William G. Hyatt, Liber 22000 – Page 7767;

7) thence along the Northerly line of lands of Hyatt, North 78° 36' 51" West, 158.49 feet to a point on the Easterly line of lands of Hiroko Gruson Trustee, Liber 2008 – Page 430;

8) thence along the Easterly line of lands of Gruson, North 2° 30' 51" West, 257.97 feet to a point at the Southwesterly corner of lands of Gregory K. Heitmann and Deirdre M. Heitmann, Liber 22004 – Page 9151;

9) thence along the Southerly and Easterly line of lands of Gregory and Deirdre Heitmann, the following courses and distances: South 82° 46' 51" East, 126.04 feet to a point;

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11) thence North 7° 06' 51" West, 190.86 feet to a point in East Hook Cross Road;

12) thence through East Hook Cross Road, North 53° 47' 09" East, 17.17 feet to the place of beginning.

CONTAINING: 2.267 Acres or 98,751 Square Feet

All Bearings are referred to Magnetic North.

The above-described premises are subject to the rights of the public in and to any portion of said premises lying within the bounds of the public road known as East Hook Cross Road.

The above-described premises are subject to an Engineering Control Area known as EC3.

JANUARY 11, 2017 CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THE DCR & EE ARE SET FORTH IN MORE DETAIL IN THE SITE MANAGEMENT PLAN (ICI&AP). A COPY OF THE ICI&AP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE ICI&AP MAY BE OBTAINED FROM NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT derweb@dec.ny.gov

DCR & EE AREA ACCESS
THE USEPA AND/OR NYSDC OR THEIR AGENT MAY ACCESS THE CONTROLLED PROPERTY AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDING INGRESS/EGRESS ACCESS POINT

NOTE:
THIS SURVEY HAS BEEN REVISED WITH THE BENEFIT OF TITLE REPORT COMMITMENT NO. 1512-1822301, DATED JULY 24, 2015, UPDATED FEBRUARY 17, 2016, PREPARED BY THE SECURITY TITLE GUARANTEE CORPORATION OF BALTIMORE TITLE COMPANY.

Copyright 2017, Brinnier & Larios, P.C. All Rights Reserved.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent owner or future grantees.

Only copies from the original of this survey marked with an original of the surveyor's seal shall be considered valid true copies.

The location of underground improvements or encroachments, if any exist or are shown hereon, are not certified.

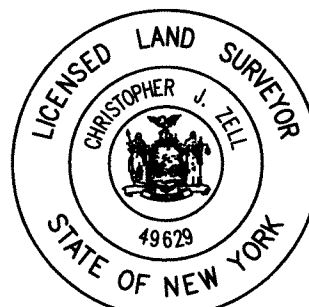
Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveyors adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom the survey is prepared and on his behalf to the title company, governmental agency and lending institution listed hereon and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.

TAX MAP REFERENCE
Town of East Fishkill,
Parcel Grid Identification No.
132800-6455-02-775657-0000

DEED REFERENCES
Liber 1307 of Deeds at Page 261

CERTIFICATION
I hereby certify this survey to:
1. The People of the State of New York Acting Through Their Commissioner of the Department of Environmental Conservation
2. Carlotta Heitmann
3. The Security Title Guarantee Corporation of Baltimore
Commitment No. 1512-1822301

Christopher J. Zell, P.L.S.
N.Y.S. License No. 49629



ENGINEERING CONTROL AREA 3 (EC3)

Beginning at a point on the Westerly line of lands of Uwe Heitmann & Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road), said point also being South 30° 44' 09" West, 23.92 feet from the Northeasterly corner of lands of Carlotta Heitmann, Liber 1307 – Page 261 (11 East Hook Cross Road), and running:

1) thence from said point of beginning, along Westerly line of lands of Uwe & Carlotta Heitmann (7 East Hook Cross Road), South 30° 44' 09" West, 158.32 feet to a point;

2) thence through the lands of Carlotta Heitmann (11 East Hook Cross Road) the following courses and distances: North 8° 46' 34" East, 51.11 feet to a point;

3) thence North 66° 05' 27" West, 31.55 feet to a point;

4) thence North 23° 54' 33" East, 46.45 feet to a point;

5) thence South 80° 06' 53" East, 14.67 feet to a point;

6) thence South 66° 05' 23" East, 28.09 feet to a point;

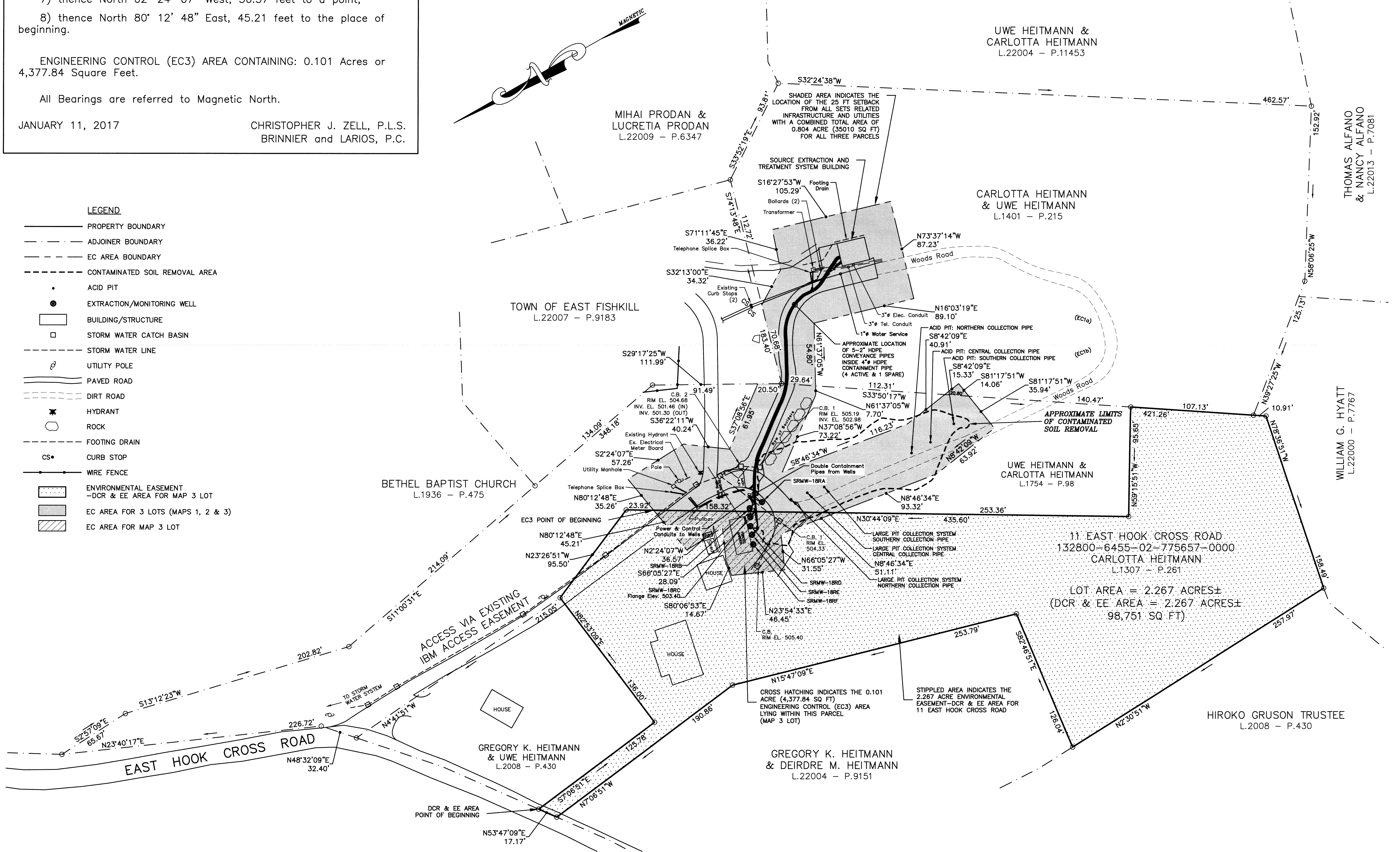
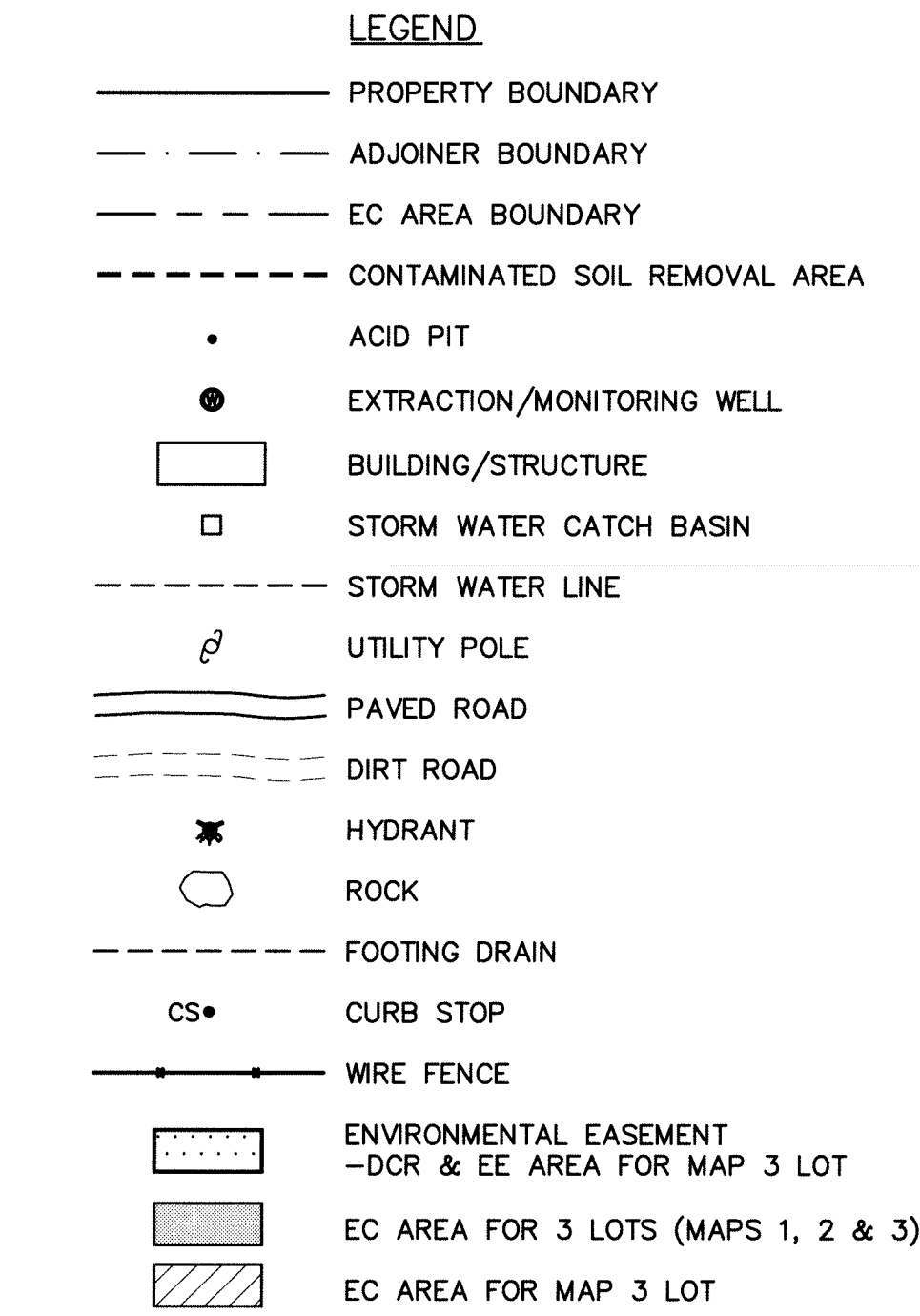
7) thence North 02° 24' 07" West, 36.57 feet to a point;

8) thence North 80° 12' 48" East, 45.21 feet to the place of beginning.

ENGINEERING CONTROL (EC3) AREA CONTAINING: 0.101 Acres or 4,377.84 Square Feet.

All Bearings are referred to Magnetic North.

JANUARY 11, 2017 CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.



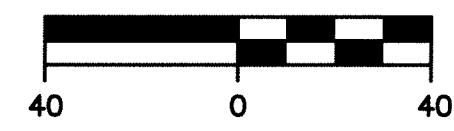
THIS CONTROLLED PROPERTY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS & ENVIRONMENTAL EASEMENTS (DCR & EE) HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

ENGINEERING/INSTITUTIONAL CONTROLS

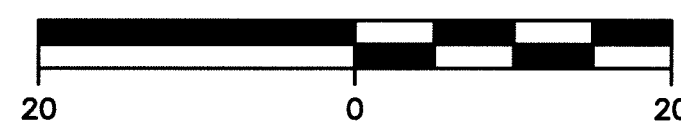
- Compliance with the DCR & EE by the Grantor and the Grantor's successors and assigns.
- Access to monitoring wells SRMW-18RE and SRMW-18RD on the Controlled Property as defined in the ICI&AP and Comprehensive Monitoring Plan must be maintained.
- Access to the Source Extraction and Treatment System (SETS) Engineering Control (EC3) area, which includes extraction wells SRMW-18RE, SRMW-18RC, SRMW-18RB and SRMW-18RA and underground conveyance piping and associated features via Access Road on the Controlled Property from East Hook Cross Road must be maintained.
- The use and development of the Controlled Property is limited to Restricted Residential, Commercial and Industrial uses only as described in 6NYCRR Part 375-1.8(g)(2) (ii), (iii) & (iv).
- No intrusive work of any kind will be permitted within the SETS (EC3) area (25 feet in all directions from features such as extraction wells and underground piping associated with the SETS including the Access Road on the Controlled Property).

- Construction of any permanent structure within the footprint of the Contaminated Soil Removal Area must be slab on grade and footers that must not involve excavation to a depth of greater than 6 feet below ground surface. Such structures must not be for human occupancy as a dwelling and must not require any underground utilities and infrastructure such as but not limited to water and sewer service. Roof drainage may not be conveyed to subsurface drainage systems. If roof drainage includes gutters and downspouts, roof drainage must be conveyed to the nearest existing storm catch basin but may not impede the capacity of the storm sewer used to convey treated groundwater discharge from SETS. Telephone, Internet cable and electrical service to such structure must be provided by overhead pole to structure cabling.
- Use of the groundwater underlying the property is prohibited.
- Consistent with County and Town codes, no wells may be drilled for any purpose.

GRAPHIC SCALE IN FEET



GRAPHIC SCALE IN METERS



MAP 3

ENVIRONMENTAL EASEMENTS ON LANDS OF

CARLOTTA HEITMANN

11 EAST HOOK CROSS ROAD

TOWN OF EAST FISHKILL DUTCHESS COUNTY NEW YORK

JANUARY 11, 2017

EXHIBIT A-3:

**Draft Declaration of Covenants, Restrictions and Environmental Easement,
47 Stone Ridge Lane**

DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT

This Declaration of Covenants, Restrictions and Environmental Easement (“**DCR & EE**”) is made this ____ day of _____, 20__, by and between Uwe and Carlotta Heitmann, having an address at 11 East Hook Cross Road, Town of East Fishkill, New York (“**Grantor**”), and the People of the State of New York, acting through their Commissioner of the New York State Department of Environmental Conservation (“**NYSDEC**”) with its Central Office, located at 625 Broadway, Albany, New York 12233 (“**Grantee**”).

WITNESSETH:

WHEREAS, Grantor is the owner of a parcel of land located in the Town of East Fishkill, County of Dutchess, State of New York, more particularly described on **Exhibit A** attached hereto and made a part hereof together with any buildings and improvements thereon and appurtenances thereto (“**Property**”); and

WHEREAS, the Property is part of the Shenandoah Road Groundwater Contamination Superfund Site (“**Site**”), the location of a former business to clean and repair computer chip racks which the U.S. Environmental Protection Agency (“**EPA**”), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (“**CERCLA**”), 42 U.S.C. § 9605, placed on the National Priorities List, as set forth in Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (“**NCP**”), 40 C.F.R. Part 300, by publication in the Federal Register on June 14, 2001; and

WHEREAS, in a Record of Decision dated September 30, 2012 (“**ROD**”), EPA Region 2 selected, and NYSDEC concurred with, a response action for the Site, which provided, in part, for the following actions:

- *Restricting use of the Property, or such other real property, in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material or interfere with or adversely affect the implementation, integrity, or protectiveness of the Remedial Action and Operation & Maintenance.*
- *In accordance with an EPA and NYSDEC-approved Institutional Controls Implementation and Assurance Plan (“**ICIAP**”) and Operation, Maintenance and Monitoring Manual (“**OM&M Manual**”), copies of which must be obtained by any party with an interest in the Property (copies of the ICIAP and OM&M Manual may be obtained from NYSDEC, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233, or at derweb@gw.dec.state.ny.us), the restrictions shall include, but not be limited to: prohibiting construction or other activities conducted on the Property that may interfere with remedial components, including the source extraction and treatment system.*

WHEREAS, pursuant to a judicial consent decree entered between the United States and International Business Machines Corporation (“**IBM**”), in *United States v. IBM*, 7:14-cv-936-KMK (the “CERCLA Consent Decree”), the construction activities associated with the remedial action have been completed at the Site by IBM and groundwater remediation and long-term monitoring activities are ongoing; and

WHEREAS, the parties hereto have agreed that Grantor shall grant to the Grantee this permanent Declaration of Covenants, Restrictions and Environmental Easement, including but not limited to providing a right of access over the Property for purposes of implementing, facilitating and monitoring the response action; and b) to impose on the Property, restrictions that will run with the land for the purpose of protecting human health and the environment; and

WHEREAS, Grantor wish to cooperate fully with the Grantee in the implementation of all response actions at the Site.

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, for ten dollars and other good and valuable consideration, receipt whereof is hereby acknowledged, does hereby give, grant, covenant and declare in favor of the Grantee that the Site shall be subject to this DCR & EE and Grantor does further give, grant and convey to the Grantee, EPA and IBM the perpetual right to enforce said restrictions, covenants, right of access and Environmental Easement, all of which shall be of the nature and character, and for the purposes hereinafter set forth, with respect to the Property. Grantor does further give, grant and convey to EPA, and IBM, as third-party beneficiaries, the perpetual right to access the property for purposes of implementing, facilitating and monitoring any ongoing response action on the Property, in addition to the enforcement rights granted to the third-party beneficiaries in paragraph 11 below.
2. Purpose: It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, facilitate the remediation of past environmental contamination and to impose use restrictions and covenants to protect human health and the environment by reducing the risk of exposure to contaminants.
3. Restrictions: The following restrictions apply to the use of the Property, run with the land and are binding on the Grantor and its successors in title and assigns:
 - No wells may be drilled; provided that Grantee, EPA and IBM shall have the right to drill wells in connection with removal or remedial actions required by Grantee or EPA.
 - No penetration or excavation of soil is permitted on the Property extending 25 feet in all directions from features that are associated with the Source Extraction and Treatment System, as such System is shown on **Exhibit B**; provided that Grantee, EPA and IBM shall have the right to penetrate or excavate soils in connection with removal or remedial actions required by Grantee or EPA.

-
- Notification to the Grantee, with copy to EPA and IBM, prior to the construction of any permanent structure for human occupancy, such as a dwelling, on the Property.
4. Modification or termination of restrictions, covenants and easement: The restrictions and easement specified in the preceding paragraph of this instrument may only be modified or terminated, in whole or in part, in writing, by the Grantee, provided, however, that any modification or termination of said restrictions shall not adversely affect the remedy selected by EPA and NYSDEC for the Site. If requested by the Grantor, such writing will be executed by Grantee in recordable form. Any request by Grantor for a modification or termination of this instrument shall be made in writing by Grantor to NYSDEC and to EPA in accordance with paragraph 15 of this instrument.
 5. Right of access: Grantors hereby convey to Grantee, to EPA and to IBM, including its contractors and representatives, a right of access to the Property at all reasonable times for the following purposes, which shall run with the land and be binding on Grantor, their successors and /or assigns, and on any tenants or any other parties having an interest in and/or rights to the Property:
 - a) Implementing the response actions in the ROD;
 - b) Verifying any data or information relating to the Site;
 - c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;
 - d) Conducting investigations under CERCLA or the New York Environmental Conservation Law (“ECL”) relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils; and
 - e) Implementing additional or new response actions under CERCLA or ECL.
 6. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors, and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights, covenants and easements granted herein.
 7. Federal authority: Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.
 8. State authority: Nothing herein shall constitute a waiver of any rights the State may have pursuant to the Environmental Conservation Law, regulations and/or relevant provisions of statutory or common law.
 9. No public access and use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

10. Public notice: Grantor, on behalf of itself, its successors and assigns, agrees to include in each instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT, DATED _____, 20__, RECORDED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON _____, 20__, IN BOOK _____, PAGE _____, IN FAVOR OF, AND ENFORCEABLE BY, THE PEOPLE OF THE STATE OF NEW YORK AND BY THE UNITED STATES OF AMERICA AND IBM AS THIRD-PARTY BENEFICIARIES.

Within 30 days of the date any such instrument of conveyance is executed, Grantor agrees to provide Grantee, EPA and IBM with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Enforcement: The Grantee, EPA, and IBM shall be entitled to enforce the terms of this instrument by resort to specific performance. All remedies available hereunder shall be in addition to any and all other remedies available to Grantee or EPA at law or in equity, including CERCLA and the ECL. Any forbearance, delay or omission to exercise Grantee's, EPA's or IBM's rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee, EPA or IBM of such term or of any of the rights of the Grantee, EPA or IBM under this instrument. IBM's third-party beneficiary right to enforcement shall be exercised solely at the direction of EPA and pursuant to the provisions of the CERCLA Consent Decree.
12. Damages: Grantee shall also be entitled to recover damages for breach of any covenant or violation of the terms of this instrument including any impairment to the remedial action that increases the cost of the selected response action for the Site as a result of such breach or violation.
13. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription.
14. Covenants: Grantor hereby covenants that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein and that the Property is free and clear of encumbrances.
15. Notices: Any notice, demand, request, consent, approval, or communication under this instrument that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

County:

Site No:

Order No:

To Grantor:

Uwe and Carlotta Heitmann
47 Stone Ridge Lane
Hopewell Junction, New York 12533

To Grantee:

Office of General Counsel
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-5500

NYS Department of Environmental Conservation
Division of Environmental Remediation
Site Control
625 Broadway
Albany, New York 12233

A copy of each such communication shall also be sent to EPA and IBM in the same manner as to Grantor or Grantee, and addressed to the following addresses:

Chief, Eastern New York Remediation Section
New York Remediation Branch
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region 2
Attn: Shenandoah Road Groundwater Contamination Superfund Site Remedial Project Manager
290 Broadway, 20th Floor
New York, New York 10007-1866

Chief, New York Caribbean Superfund Branch
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
Attn: Shenandoah Road Groundwater Contamination Superfund Site Attorney
290 Broadway, 17th Floor
New York, New York 10007-1866

International Business Machines Corporation
Thomas Morris, Project Coordinator
1 North Castle Drive
Armonk, NY 10503

International Business Machines Corporation
Dean Chartrand, Alternate Project Coordinator
8976 Wellington Road
Manassas, Virginia 20109

International Business Machines Corporation
IBM Environmental Counsel
1 North Castle Drive
Armonk, NY 10503

16. Recordation: Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner of the New York State Department of Environmental Conservation or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

17. General provisions:

a) Controlling law: The interpretation and performance of this instrument shall, with respect to the Declaration of Covenants, Restrictions and Environmental Easement, be governed by the laws of the State of New York, and with respect to other matters, shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of New York.

b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.

d) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.

e) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

f) Successors: The covenants, easements, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in place thereof, shall mean the People of the State of New York acting through their Commissioner of NYSDEC or through any successor department or agency of the State of New York.

g) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

Order No:

i) Third-Party Beneficiary: Grantor and Grantee hereby agree that the United States, through EPA, and IBM shall be third-party beneficiaries of the benefits, rights and obligations conveyed to Grantee in this instrument; provided that nothing in this instrument shall be construed to create any obligations on the part of the United States or IBM.

Executed this day of , 201 .

Title:

[illegible]

On the _____ day of _____, in the year 20____, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as _____ of the _____, and that by his signature on the instrument, the Grantor _____, upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

County:

Site No:

Order No:

THIS ENVIRONMENTAL EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Date: _____

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____, in the year 20____, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the People of the State of New York, upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

EXHIBIT A
To
Declaration of Covenants, Restrictions & Environmental & Easement
Property Description [Map 1]

SHENANDOAH ROAD DCR AND EE AREA DESCRIPTION MAP 1

DESCRIPTION OF AN ENVIRONMENTAL EASEMENT
ON LANDS OF CARLOTTA & UWE HEITMANN
47 STONE RIDGE LANE
TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK

Beginning at a point at the Northwesterly corner of the herein-described premises, said point being the Southwesterly corner of lands of Town of East Fishkill, Liber 22007 – Page 9183;

1) thence from said point of beginning, along the Southerly line of lands of Town of East Fishkill, South 74° 13' 48" East, 183.40 feet to a point on the Southwesterly line of lands of Mihai Prodan and Locretia Prodan, Liber 22009 – Page 6347;

2) thence along the Southwesterly line of lands of Prodan, South 33° 52' 19" East, 93.81 feet to a point at the Northwesterly corner of other lands of Uwe Heitmann and Carlotta Heitmann, Liber 22004 – Page 11453;

3) thence along the Westerly line of other lands of Heitmann, South 32° 24' 38" West, 462.57 feet to a point on the Northerly line of lands of Thomas Alfano and Nancy Alfano, Liber 22013 – Page 7081;

4) thence along the Northerly line of lands of Alfano, North 58° 06' 25" West, 152.92 feet to a point;

5) thence continuing along the Northeasterly line of lands of Alfano and lands of William G. Hyatt, Liber 22000 – Page 7767, North 39° 27' 25" West, 125.13 feet to a point on the Southeasterly line of other lands of Carlotta Heitmann, Liber 1307 – Page 261 (11 East Hook Cross Road);

thence along the Southeasterly line of other lands of Heitman (11 East Hook Cross Road) and other lands of Uwe Heitmann and Carlotta Heitmann, Liber 1754

6) – Page 98 (7 East Hook Cross Road), North 33° 50' 17" West, 421.26 feet to the place of beginning.

CONTAINING: 2.871 Acres

All Bearings are referred to Magnetic North.

County:

Site No:

Order No:

The above-described premises are subject to an Engineering Control Area known as EC1, consisting of EC1a and EC1b; said areas described as follows:

ENGINEERING CONTROL AREA 1a (EC1a)

Beginning at a point being the Northwesterly corner of lands of Carlotta Heitmann and Uwe Heitmann, said point also being the Southwesterly corner of lands of Town of East Fishkill, Liber 22007 – Page 9183, and running:

1) thence from said point of beginning, along the Southerly line of lands of Town of East Fishkill, South 74° 13' 48" East, 70.68 feet to a point;

2) thence through the lands of Carlotta and Uwe Heitmann, the following courses and distances:
South 32° 13' 00" East, 34.32 feet to a point;

3) thence South 71° 11' 45" East, 36.22 feet to a point;

4) thence South 16° 27' 53" West, 105.29 feet to a point;

5) thence North 73° 37' 14" West, 87.23 feet to a point;

6) thence North 16° 03' 19" East, 89.10 feet to a point;

7) thence North 61° 37' 05" West, 54.80 feet to a point on the Easterly line of other lands of Uwe Heitmann and Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road);

8) thence along the Easterly line of other lands of Heitmann, North 33° 50' 17" East, 29.64 feet to the place of beginning.

SUB AREA I CONTAINING: 0.274 Acres or 11,913.63 Square Feet.

ENGINEERING CONTROL AREA 1b (EC1b)

Beginning at a point on the Easterly line of other lands of Uwe and Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road), said point being South 33° 50' 17" West, 141.95 feet from the Southwesterly corner of lands of Town of East Fishkill, Liber 22007 – Page 9183, and running:

- 1) thence from said point of beginning, through the lands of Carlotta Heitmann and Uwe Heitmann (47 Stone Ridge Lane), the following courses and distances: South 8° 42' 09" East, 15.33 feet to a point;
- 2) thence South 81° 17' 51" West, 14.06 feet to a point on the Easterly line of other lands of Heitmann (7 East Hook Cross Road);
- 3) thence along the Easterly line of other lands of Heitmann, North 33° 50' 17" East, 20.80 feet to the place of beginning.

SUB-AREA II CONTAINING: 0.002 Acres, or 107.78 Square Feet

TOTAL ENVIRONMENTAL CONTROL (EC1) AREA: 0.276 Acres or 12,021.41 Sq. Ft.

The above-described premises is shown on "Map 1, Environmental Easement on Lands of Carlotta Heitmann and Uwe Heitmann, 47 Stone Ridge Lane" Prepared by Brinnier & Larios, P.C. Dated January 11, 2017.

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

County:

Site No:

Order No:

EXHIBIT B

SURVEY

To Declaration of Covenants, Restrictions & Environmental Easement

Shenandoah Road Property [Map 1]

47 STONE RIDGE LANE

LANDS OF CARLOTTA & UWE HEITMANN

TOWN OF EAST FISHKILL, ULSTER COUNTY, NEW YORK

(See attached as-built survey of DCR &EE Property)

SHENANDOAH ROAD DCR AND EE AREA DESCRIPTION MAP 1

DESCRIPTION OF LANDS OF
CARLOTTA HEITMANN AND UWE HEITMANN
47 STONE RIDGE LANE
TOWN OF EAST FISHKILL, DUTCHESS COUNTY, NEW YORK

Beginning at a point at the Northwestern corner of the herein-described premises, said point being the Southwesterly corner of lands of Town of East Fishkill, Liber 22007 – Page 9183;

1) thence from said point of beginning, along the Southerly line of lands of Town of East Fishkill, South 74° 13' 48" East, 183.40 feet to a point on the Southwesterly line of lands of Mihai Prodan and Lucretia Prodan, Liber 22009 – Page 6347;

2) thence along the Southwesterly line of lands of Prodan, South 33° 52' 19" East, 93.81 feet to a point at the Northwestern corner of other lands of Uwe Heitmann and Carlotta Heitmann, Liber 22004 – Page 11453;

3) thence along the Westerly line of other lands of Heitmann, South 32° 24' 38" West, 462.57 feet to a point on the Northerly line of lands of Thomas Alfano and Nancy Alfano, Liber 22013 – Page 7081;

4) thence along the Northerly line of lands of Alfano, North 58° 06' 25" West, 152.92 feet to a point;

5) thence continuing along the Northeasterly line of lands of Alfano and lands of William G. Hyatt, Liber 22000 – Page 7767, North 39° 27' 25" West, 125.13 feet to a point on the Southeasterly line of other lands of Carlotta Heitmann, Liber 1307 – Page 261 (11 East Hook Cross Road);

6) thence along the Southeasterly line of other lands of Heitmann (11 East Hook Cross Road) and other lands of Uwe Heitmann and Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road), North 33° 50' 17" West, 421.26 feet to the place of beginning.

CONTAINING: 2.871 Acres or 125,061 Sq. Ft.

All Bearings are referred to Magnetic North.

The above-described premises are subject to an Engineering Control Area known as EC1, consisting of EC1a and EC1b.

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

ENGINEERING CONTROL AREA 1a (EC1a)

Beginning at a point being the Northwestern corner of lands of Carlotta Heitmann and Uwe Heitmann, said point also being the Southwesterly corner of lands of Town of East Fishkill, Liber 22007 – Page 9183, and running:

1) thence from said point of beginning, along the Southerly line of lands of Town of East Fishkill, South 74° 13' 48" East, 70.68 feet to a point;

2) thence through the lands of Carlotta and Uwe Heitmann, the following courses and distances: South 32° 13' 00" East, 34.32 feet to a point;

3) thence South 71° 11' 45" East, 36.22 feet to a point;

4) thence South 16° 27' 53" West, 105.29 feet to a point;

5) thence North 73° 37' 14" West, 87.23 feet to a point;

6) thence North 16° 03' 19" East, 89.10 feet to a point;

7) thence North 61° 37' 05" West, 54.80 feet to a point on the Easterly line of other lands of Uwe Heitmann and Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road);

8) thence along the Easterly line of other lands of Heitmann, North 33° 50' 17" East, 29.64 feet to the place of beginning.

EC1a AREA CONTAINING: 0.274 Acres or 11,913.63 Square Feet.

ENGINEERING CONTROL AREA 1b (EC1b)

Beginning at a point on the Easterly line of other lands of Uwe and Carlotta Heitmann, Liber 1754 – Page 98 (7 East Hook Cross Road), said point being South 33° 50' 17" West, 141.95 feet from the Southwesterly corner of lands of Town of East Fishkill, Liber 22007 – Page 9183, and running:

1) thence from said point of beginning, through the lands of Carlotta Heitmann and Uwe Heitmann (47 Stone Ridge Lane), the following courses and distances: South 8° 42' 09" East, 15.33 feet to a point;

2) thence South 81° 17' 51" West, 14.06 feet to a point on the Easterly line of other lands of Heitmann (7 East Hook Cross Road);

3) thence along the Easterly line of other lands of Heitmann, North 33° 50' 17" East, 20.80 feet to the place of beginning.

EC1b AREA CONTAINING: 0.002 Acres, or 107.78 Square Feet

TOTAL ENGINEERING CONTROL (EC1) AREA: 0.276 Acres or 12,021.41 Sq. Ft.

All Bearings are referred to Magnetic North.

JANUARY 11, 2017

CHRISTOPHER J. ZELL, P.L.S.
BRINNIER and LARIOS, P.C.

ENGINEERING/INSTITUTIONAL CONTROLS

- Compliance with the DCR & EE by the Grantor and the Grantor's successors and assigns.
- Access to the Source Extraction and Treatment System (SETS) Engineering Control (EC1) and associated features via Access Road on the Controlled Property from East Hook Cross Road must be maintained.
- The use and development of the site is limited to Restricted Residential, Commercial and Industrial uses only as described in 6NYCRR Part 375-1.8(g)(2) (ii), (iii) & (iv).
- No intrusive work of any kind will be permitted within the SETS (EC1) area (25 feet in all directions from the SETS from features such as underground piping associated with the SETS) including the Access Road on the controlled property.
- Use of the groundwater underlying the property is prohibited.
- Consistent with County and Town codes, no wells may be drilled for any purpose.

THIS CONTROLLED PROPERTY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS & ENVIRONMENTAL EASEMENTS (DCR & EE) HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THE DCR & EE ARE SET FORTH IN MORE DETAIL IN THE SITE MANAGEMENT PLAN (ICI&AP). A COPY OF THE ICI&AP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE ICI&AP MAY BE OBTAINED FROM NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT derweb@dec.ny.gov

DCR & EE AREA ACCESS

THE USEPA AND/OR NYSDEC OR THEIR AGENT MAY ACCESS THE CONTROLLED PROPERTY AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDING INGRESS/EGRESS ACCESS POINT.

NOTE: THIS SURVEY HAS BEEN REVISED WITH THE BENEFIT OF TITLE REPORT COMMITMENT NO. 1512-1822302, DATED JULY 24, 2015, UPDATED FEBRUARY 17, 2016, PREPARED BY THE SECURITY TITLE GUARANTEE CORPORATION OF BALTIMORE TITLE COMPANY.

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Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7208, Subdivision 2 of the New York State Education Law.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent owner or future grantees.

Only copies from the original of this survey marked with an original of the surveyor's seal shall be considered valid true copies.

The location of underground improvements or encroachments, if any exist or are shown hereon, are not certified.

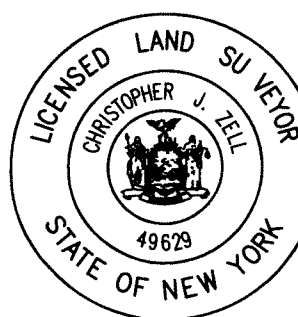
Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveyors adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom the survey is prepared and on his behalf to the title company, governmental agency and lending institution listed hereon and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.

TAX MAP REFERENCE
Town of East Fishkill
Parcel Grid Identification Nos.
132800-6455-02-798621-0000

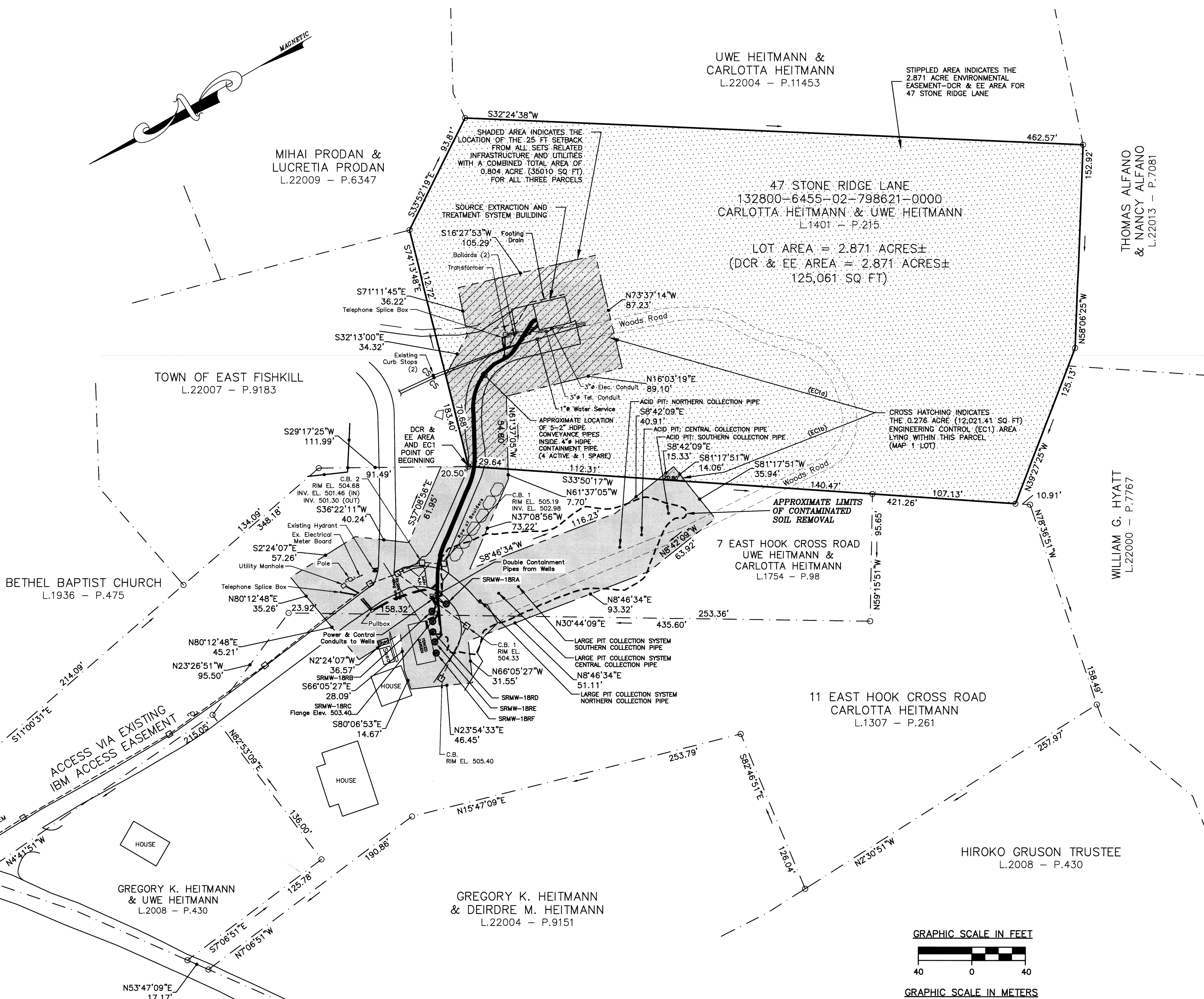
DEED REFERENCES
Liber 1401 of Deeds at Page 215

CERTIFICATION
I hereby certify this survey to:
1. The People of the State of New York Acting Through Their Commissioner of the Department of Environmental Conservation
2. Carlotta Heitmann and Uwe Heitmann
3. The Security Title Guarantee Corporation of Baltimore
Commitment No. 1512-1822302

Christopher J. Zell, P.L.S.
N.Y.S. License No. 49829



BRINNIER & LARIOS, P. C.
67 MAIDEN LANE
KINGSTON, N.Y. 12401
(845) 338-7622
czell@blengineers.com



LEGEND

PROPERTY BOUNDARY	—
ADJOINER BOUNDARY	- - -
EC AREA BOUNDARY	- - - - -
CONTAMINATED SOIL REMOVAL AREA	- - - - -
ACID PIT	•
EXTRACTION/MONITORING WELL	•
BUILDING/STRUCTURE	□
STORM WATER CATCH BASIN	□
STORM WATER LINE	—
UTILITY POLE	⊕
PAVED ROAD	—
DIRT ROAD	- - -
HYDRANT	⊕
ROCK	⊕
FOOTING DRAIN	—
CURB STOP	CS•
WIRE FENCE	—
ENVIRONMENTAL EASEMENT -DCR & EE AREA FOR MAP 1 LOT	□
EC AREA FOR 3 LOTS (MAPS 1, 2 & 3)	□
EC AREA FOR MAP 1 LOT	□

MAP 1

ENVIRONMENTAL EASEMENT ON LANDS OF

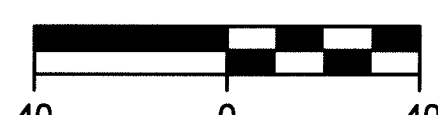
CARLOTTA HEITMANN
& UWE HEITMANN

47 STONE RIDGE LANE

TOWN OF EAST FISHKILL DUTCHESS COUNTY NEW YORK

JANUARY 11, 2017

GRAPHIC SCALE IN FEET



GRAPHIC SCALE IN METERS



EXHIBIT B

- B-1: Title 10, Department of Health, Chapter I. Sanitary Code, Part 5. Drinking Water Supplies, Subpart 5-2. Water Well Construction (10 NYCRR Subpart 5.2)
- B-2: Dutchess County Sanitary Code, Article 16, Water Well Construction
- B-3: NYSDEC Well-drilling Permit, including instructions for completion
- B-4: Dutchess County Sanitary Code, Article 28
- B-5: Town of East Fishkill (Town) Code (Sections 186 and 189)

EXHIBIT B-1:

**Title 10, Department of Health, Chapter I. Sanitary Code, Part 5. Drinking Water
Supplies, Subpart 5-2. Water Well Construction (10 NYCRR Subpart 5.2)**

OFFICIAL COMPILATION OF CODES, RULES AND REGULATIONS OF THE STATE OF
NEW YORK
TITLE 10. DEPARTMENT OF HEALTH
CHAPTER I. STATE SANITARY CODE
PART 5. DRINKING WATER SUPPLIES
SUBPART 5-2. WATER WELL CONSTRUCTION

Current through June 15, 2014

5-2.1 Statement

The improper construction, operation, maintenance or abandonment of water wells and the improper installation of water well pumps and pumping equipment represent a potential hazard to public health and safety. More than two million people in New York State depend upon private or individual water well supplies as their only sources of drinking water because public water supply systems are not available to serve them. To assure such consumers that the ground waters available to them will be reasonably and sanitary for drinking, culinary or food processing purposes, the following regulations for water well construction have been promulgated.

5-2.2 Scope

Minimum requirements are hereby prescribed governing the location, construction and abandonment of water wells used for drinking, culinary and food processing purposes other than municipal or public sources, together with procedures relating thereto, in implementation of this Subpart. No person shall construct or abandon or cause to be constructed or abandoned, any water well, nor shall any person install or cause to be installed, any pump or pumping equipment contrary to this Subpart. Distribution of water beyond the point of discharge from the storage or pressure tank, or beyond the point of discharge from the pump if no tank is employed and to wells used or intended to be used as a source of water supply for public water supply systems, or to any pump, well, or other equipment used temporarily for de-watering purposes shall comply with all other applicable State and local regulations.

5-2.3 Definitions

As used in this Subpart:

- (a) *Abandoned well* means a well whose use has been permanently discontinued. A well shall be deemed abandoned if it is in such a state of disrepair that continued use for the purpose of obtaining a satisfactory ground water supply is impracticable.
- (b) *Applicant* means the owner, lessee or other person having the possession and control of property on which a well is to be constructed or abandoned.
- (c) *Construction of water wells* means all acts necessary to obtain ground water by wells, including the location and excavation of the well.

(d) *Permit-issuing official* means the health commissioner or health officer of a city of 50,000 population or over, the health commissioner or health officer of a county or part-county health district, the State regional health director or area director having jurisdiction, a grade I or grade II public health administrator qualified and appointed pursuant to Part 11 of this Title, or any county health director having all the powers and duties prescribed in section 352 of the Public Health Law. The health commissioner or health officer of a city of 50,000 population or over, or the health commissioner or health officer of a county or part-county health district, or such grade I or grade II public health administrator or county health director may designate the director of environmental health of such district; and the State regional health director or area director may designate the district sanitary engineer as additional persons authorized to issue the permits required by this Part.

(e) *Installation of pumps and pumping equipment* means the procedure employed in the placement, protection and preparation for operation of pumps and pumping equipment, including all construction involved in making entrance to the well and establishing seals.

(f) *Person* means any individual, public or private corporation, political subdivision, government agency, municipality, industry, copartnership, association, firm, trust, estate or any other legal entity.

(g) *Pumps and pumping equipment* means any equipment or materials utilized or intended for use in withdrawing or obtaining ground water for any use; including, without limitation, seals and tanks, together with fittings and controls.

(h) *Yield* means the quantity of water per unit of time which may flow or be pumped from a well at a stabilized drawdown water level.

(i) *Specific capacity* means the rate of yield of well per unit drawdown expressed either as gallons per minute per foot or as liters per minute per meter.

(j) *Water well contractor* means any person, firm, or corporation engaged in the business of constructing water wells.

(k) *Well* means any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location or acquisition of ground water, but such term does not include an excavation made for the purpose of obtaining or for prospecting for oil, natural gas, minerals, or products of mining or quarrying, or for inserting media to repressure oil or natural gas-bearing formation or for storing petroleum, natural gas or other products.¹

5-2.4 Need for permit.

No person shall construct or abandon any water well unless a permit has first been secured from the permit issuing official.

¹ Counties wishing to do so may include within the coverage of this definition de-watering, seismological, geophysical, prospecting, observation or test wells.

5-2.5 Applications

Applications for a permit to construct or abandon a water well shall be directed to the permit issuing official by the applicant or his agent and shall be on a form prescribed by the State Department of Health.

5-2.6 Permit

The permit issuing official shall issue a permit whenever he finds that an application is in proper form and contains required information, provided that on the basis of the information therein contained, the proposed location, construction, abandonment or installation will not be contrary to applicable law, rules or regulations. Such permit, may, at the discretion of the permit issuing official, direct the applicant to file a “compliance notice” as hereinafter provided.

5-2.7 Notice of disapproval and appeal

The permit issuing official shall issue a “notice of disapproval” whenever he finds that an application fails to meet the requirements for issuance of a permit as hereinabove provided. Such notice shall:

- (a) state the grounds for disapproval; and
- (b) be served upon the applicant or his agent, provided, however, that such notice shall be deemed to be properly served upon such applicant or agent, if a copy thereof is sent by registered or certified mail to his last known address, or if he is served by such other methods as are, or may be authorized, under the laws of this State governing personal service of process upon individuals. Such notice may state any remedial action which, if taken, will effect compliance with this Subpart and permit approval of the application.

5-2.8 Application to construct a water well

An application for permission to construct a water well shall be submitted by the applicant or his agent and contain the following information.²

- (a) name and address of the applicant;
- (b) legal or other description adequate to locate the property and the well;
- (c) name and address of the water well contractor;
- (d) estimated depth in feet and method of construction;
- (e) purpose for which well is to be used and desired yield;
- (f) proposed diameter of the well and drillhole in inches;

² Counties may require additional information, such as geologic description when necessary to make a determination.

- (g) type and depth of the proposed well casing;
- (h) approximate distance and relative elevation to well of any potential sources of ground water pollution which may be located within 200 feet of such well including, without limitation, the following: privy, sewage seepage pit, sewage filter bed, sewage disposal field, underground sewers, septic tank, storm water drain, building foundation drain, milk house drain outlet, manure pile, barn gutter, silo, abandoned well, other well, sink hole, cow yard, hog lot, chicken yard, other animal yard, stone quarry, mine, rock outcrop, rain water cistern, solid waste disposal site, calcium or salt piles;
- (i) distance to well from existing and proposed structures, as well as property lines located within 100 feet;
- (j) statement of whether site is subject to flooding; and
- (k) statement regarding the availability of a public water supply.

5-2.9 Completed works

Within 30 days of the completion of water well construction, the applicant or his agent shall:

- (a) pump the well until the water is clear;
- (b) disinfect the well in accordance with the requirements of the permit issuing official; and
- (c) submit a well log to the permit issuing official. Such well log shall specify the well location, depth and diameter, formations penetrated, casing length, extent and nature of grouting, well output tests and associated water levels, and any other information required by the permit issuing official. In addition, analytical data of the water quality associated with such well shall be submitted when available.

5-2.10 Certificate or letter of compliance

Upon satisfactory completion of the requirements of the permit issuing official as contained in sections 5-2.9 and 5-2.13 of this Subpart, a certificate of compliance will be issued to the applicant.

5-2.11 Notification of abandonment of a water well

Every abandoned well shall be sealed or closed so as to protect the aquifer from pollution and to prevent a hazard to life or property. If such well is to be sealed or closed the owner of the property shall make application of notification to abandon such water well and provide the following information:

- (a) name and address of the applicant;
- (b) legal or other description adequate to locate the property and the well;

- (c) name and address of the water well contractor employed to perform the work herein required for abandonment;
- (d) type and description of well;
- (e) reason for abandonment; and
- (f) description of work to be performed to effect abandonment.

5-2.12 Variance

- (a) Where the permit-issuing official finds that compliance with all requirements of this Subpart would result in undue hardship, a variance from any one or more such requirements may be granted by the State Department of Health to the extent necessary to ameliorate such undue hardship and to the extent such variance can be granted without impairing the intent and purpose of this Subpart.
- (b) An application for a variance shall be submitted to the permit-issuing official by the applicant including any requested additional information concerning the application.

5-2.13 General provisions

Provisions and standards applicable to the construction and location of all water wells, and the installation of all pumps and pumping equipment contained in Appendix 5-B, Standards for Water Wells of this Title shall be used as the basis for issuing or denying a permit.

5-2.14 Applicability

The requirements of this Subpart shall:

- (a) Apply within a county health district, a part-county health district, and a city having a city health department, when adopted by the appropriate local authority.
- (b) Apply in those State district health areas designated by the State Commissioner of Health.

EXHIBIT B-2:

Dutchess County Sanitary Code, Article 16, Water Well Construction

WATER WELL CONSTRUCTION

Section 16.1 Statement

The improper construction, operation, maintenance or abandonment of water wells and the improper installation of water well pumps and pumping equipment represent a potential hazard to public health and safety. To assure the people who depend upon private or individual water well supplies as their only source of drinking water that the ground waters available to them will be reasonably safe for drinking, culinary or food processing purposes, regulations for water well construction have been promulgated in Part 5, Subpart 5-2, of the New York State Sanitary Code.

Section 16.2 Scope

Minimum requirements are hereby prescribed governing the location, construction and abandonment of water wells used for drinking, culinary and food processing purposes other than municipal or public sources, together with procedures relating thereto, in implementation of this Article. No person shall construct or abandon or cause to be constructed or abandoned any water well, nor shall any person install or cause to be installed any pump or pumping equipment contrary to this Article. Distribution of water beyond the point of discharge from the storage or pressure tank or beyond the point of discharge from the pump if no tank is employed and to wells used or intended to be used as a source of water supply for public water supply systems, or to any pump, well or other equipment used temporarily for de-watering purposes shall comply with all other applicable State and local regulations.

Section 16.3 Definitions

The definitions contained in Subpart 5-2 of the New York State Sanitary Code are adopted as provisions of this Article of the Dutchess County Sanitary Code.

Section 16.4 Permit requirements

(A) Every person who constructs or abandons a water well must obtain a permit from the Dutchess County Commissioner of Health or appointed designee.

(B) Application shall be made at least fifteen (15) days prior to such activity on a prescribed form. All applications for such permit shall be accompanied by payment of the prevailing fee.

Section 16.5 Regulations applicable

(A) The provisions of Subpart 5-2 of the New York State Sanitary Code shall apply to all construction, operation, maintenance or location of water wells and the installation of water well pumps and pumping equipment.

(B) The information required in Section 5-2.9(c) of Subpart 5-2 of the New York State Sanitary Code shall be submitted on a well log form prescribed by the Dutchess County Commissioner of Health or appointed designee.

EXHIBIT B-3:

NYSDEC Well-drilling Permit, including instructions for completion



PRINT OR TYPE IN BLACK INK

APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK OR CONVERT A WELL SUBJECT TO THE OIL, GAS AND SOLUTION MINING LAW

THIS APPLICATION IS A LEGAL DOCUMENT. READ THE APPLICABLE AFFIRMATION AND ACKNOWLEDGMENT CAREFULLY BEFORE SIGNING.
For instructions on completing this form, visit the Division's website at www.dec.ny.gov/energy/205.html or contact your local Regional office.

PLANNED OPERATION: (Check one)		
<input type="checkbox"/> Drill	<input type="checkbox"/> Deepen	<input type="checkbox"/> Plug Back
<input type="checkbox"/> Convert	<input type="checkbox"/> Sidetrack	
TYPE OF WELL: (Check one)		
<input type="checkbox"/> New	<input type="checkbox"/> Existing	Existing API Well Identification Number
		31- - -
TYPE OF WELL BORE: (Check one)		
<input type="checkbox"/> Vertical	<input type="checkbox"/> Directional	<input type="checkbox"/> Horizontal
NAME OF OWNER (Full Name of Organization or Individual as registered with the Division)		TELEPHONE NUMBER (include area code)
ADDRESS (P.O. Box or Street Address, City, State, Zip Code)		
NAME AND TITLE OF LOCAL REPRESENTATIVE WHO CAN BE CONTACTED WHILE OPERATIONS ARE IN PROGRESS		
ADDRESS—Business (P.O. Box or Street Address, City, State, Zip Code)		TELEPHONE NUMBER (include area code)
ADDRESS—Night, Weekend and Holiday (P.O. Box or Street Address, City, State, Zip Code)		TELEPHONE NUMBER (include area code)
WELL LOCATION DATA (attach plat)		
COUNTY	TOWN	FIELD/POOL NAME (or "Wildcat")
WELL NAME		WELL NUMBER
7 1/2 MINUTE QUAD NAME	QUAD SECTION	PROPOSED TARGET FORMATION
LOCATION DESCRIPTION	Decimal Latitude (NAD83)	Decimal Longitude (NAD83)
Surface _____	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Kickoff _____	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Top of Target Interval _____	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Bottom of Target Interval _____	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Bottom Hole _____	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
TVD TMD		
PROPOSED WELL DATA		
WELL TYPE	PLANNED DATE OF COMMENCEMENT OF OPERATIONS	
SURFACE ELEVATION (check how obtained)		TYPE OF TOOLS
_____ ft <input type="checkbox"/> Surveyed <input type="checkbox"/> Topo Map <input type="checkbox"/> Other _____		
NAME OF PLANNED DRILLING CONTRACTOR (as registered with the Division)		TELEPHONE NUMBER (include area code)
PROPOSED SPACING DATA		
WELL SPACING TYPE (subject to Article 23, Title 5)	TYPE OF UNIT (conforms to spacing under either Title 5 or Part 553)	NUMBER OF ACRES IN UNIT
<input type="checkbox"/> Title 5 <input type="checkbox"/> Non-Title 5	<input type="checkbox"/> Conforming <input type="checkbox"/> Non-Conforming	
ACREAGE CONTROLLED IN UNIT	ACREAGE CONTROLLED IN BORE HOLE (throughout entire hole)	STATE LANDS (leased or unitized)
<input type="checkbox"/> 100% <input type="checkbox"/> ≥ 60% AND <100%	<input type="checkbox"/> Yes <input type="checkbox"/> No	
DEPARTMENT USE ONLY		
APD NUMBER	BOND NUMBER	RECEIPT NUMBER
PERMIT FEE	API WELL IDENTIFICATION NUMBER	DATE ISSUED
	31-	

WELL NAME				WELL NUMBER		NAME OF OWNER				
PROPOSED CASING AND CEMENTING DATA										
C A S I N G D A T A	Feature	Size (in.)	Top (ft.)	Bottom (ft.)	Weight (lbs.)	New Pipe	Comments			
C E M E N T D A T A	Feature	Top (ft.)	Bottom (ft.)	Volume (ft. ³)	Cement Class (include excess)*	No. of Sacks*	Weight (PPG)	Yield (ft. ³ /sx)	Vol. (ft. ³)*	Comments

AFFIRMATION AND ACKNOWLEDGMENT

A. For use by individual:
 By the act of signing this application:
 (1) I affirm under penalty that the information provided in this application is true to the best of my knowledge and belief; and that I possess the right to access property, and drill and/or extract oil, gas, or salt, by deed or lease, from the lands and site described in the well location data section of this application. I am aware that any false statement made in this application is punishable as a Class A Misdemeanor under Section 210.45 of the Penal Law.
 (2) I acknowledge that if the permit requested to be issued in consideration of the information and affirmations contained in this application is issued, as a condition to the issuance of that permit, I accept full legal responsibility for all damage, direct or indirect, of whatever nature and by whomever suffered, arising out of the activity conducted under authority of that permit; and agree to indemnify and hold harmless the State, its representatives, employees, agents, and assigns for all claims, suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or non-compliance with the terms and conditions of the permit.

Printed or Typed Name of Individual

Signature of Individual

Date

B. For use by organizations other than an individual:
 By the act of signing this application:
 (1) I affirm under penalty of perjury that I am _____ (title) of _____ (organization); that I am authorized by that organization to make this application; that this application was prepared by me or under my supervision and direction, is true to the best of my knowledge and belief; and that the aforementioned organization possesses the right to access property, and drill and/or extract oil, gas, or salt by deed or lease, from the lands and site described in the well location data section of this application. I am aware that any false statement made in this application is punishable as a Class A Misdemeanor under Section 210.45 of the Penal Law.
 (2) _____ (organization); acknowledges that if the permit requested to be issued in consideration of the information and affirmations contained in this application is issued, as a condition to the issuance of that permit, it accepts full legal responsibility for all damage, direct or indirect, of whatever nature and by whomever suffered, arising out of the activity conducted under authority of that permit; and agrees to indemnify and hold harmless the State, its representatives, employees, agents, and assigns for all claims, suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or noncompliance with the terms and conditions of the permit.

Printed or Typed Name of Authorized Representative

Signature of Authorized Representative

Date



INSTRUCTIONS FOR APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK OR CONVERT FORM (85-12-5, 01/13)

The Division of Mineral Resources has developed this form to accommodate newer drilling technologies and to conform to the American Petroleum Institute's (API) well identification number system. For a complete description of the API numbering system, visit the Empire State Oil and Gas Information System's website at http://esogis.nysm.nysed.gov/Help_API.cfm. Instructions and examples for completing the form are below.

The completed form should be submitted along with an Environmental Assessment Form (EAF), 3 copies of the well plat and the permit fee to the appropriate Regional office. If you have any questions or need any further assistance with the forms, please feel free to contact the Regional office responsible for the area where the well is located, or visit our website at www.dec.ny.gov/energy/205.html.

Allegany Office (716) 372-0645 (Allegany, Cattaraugus, Chautauqua, Erie, Niagara and Wyoming counties)
Avon Office (585) 226-2466 (Jefferson, St. Lawrence, Lewis, Oneida, Herkimer, Oswego, Cayuga, Onondaga, Madison, Tompkins, Cortland, Chenango, Broome, Orleans, Monroe, Wayne, Genesee, Livingston, Ontario, Yates, Seneca, Steuben, Schuyler, Tioga and Chemung counties)
Albany Office (518) 402-8056 (All other counties)

GENERAL INFORMATION

- Planned Operation -** Check the appropriate box for the planned operation: **DRILL** a new well from surface, or **DEEPEN, PLUG BACK** or **CONVERT** an existing well bore, or drill a **SIDETRACK** from an existing well bore.
- Type of Well -** Check the appropriate box for the type of well: **NEW** for a new well from surface or **EXISTING** to drill, deepen, plug back or convert an existing well bore. For existing wells, include the complete API Well Identification number for the well bore.
- Type of Well Bore -** Check the appropriate box for the type of well bore: **VERTICAL, DIRECTIONAL** or **HORIZONTAL**. By convention, the Division defines a Vertical well as any new well drilled as a straight hole from the surface location, a Directional well as any new well drilled either from the surface or from an existing well bore and intentionally deviated from the surface location, and a Horizontal well as any new well drilled either from the surface or from an existing well bore where any portion of the well is drilled horizontally or at a near horizontal attitude. If the well is directional or horizontal, include a well bore diagram showing the profile and features described in the Casing section.
- Owner Information -** Enter the appropriate owner name and address information. This information must be the same as that included in the Organizational Report on file with the Division. If you would like the permit mailed to a different office, please include the mailing address in the Comments section.
- Representative -** Enter the appropriate name, title, address and telephone numbers for the local representative who can be contacted while operations are in progress.

WELL LOCATION DATA

- County, Town -** Enter the appropriate county and town where the surface of the well will be located.
- Field/Pool Name -** Enter "New Field Wildcat" if the well is not a proposed extension well and is not a deeper or shallower test within an existing field. If the well is in or extends an existing field, enter the field name. Extensions to fault-bounded Trenton-Black River hydrothermal dolomite fields are determined by geological interpretation. Proposed Medina or Queenston wells within 2½ miles of an existing well in the same pool are extension wells. All other proposed wells are extension wells if they are within 1 mile of an existing well in the same pool, unless otherwise determined by a Commissioner's Order. Contact the Division of Mineral Resources for assistance if necessary.
- Well Name -** Enter the well name. Typically, the well name is based on the lease or unit name. By convention, the Division uses **Last Name First Initial** where possible. For example, a well name of John A. Smith would be issued as the **Smith** (space) **J**.
- Well Number -** Enter the well number. For example, the first well on a lease would be number 1, the second number 2, etc. By convention, the Division uses the alphabetical designator **A, B, C, etc.**, for successive wells in the same well bore or for well locations skidded less than 75' from the permitted location. For example, a new well from an existing well bore or skid of the John A. Smith number 1 well would be issued as **Smith J 1A**.
- Quad, Section -** Enter the appropriate 7½ minute topographic map and section. By convention, the Division uses the letter designations **A - I** for each section. The correct section can be determined by dividing the 7½ minute topographic map into 9 sections along the 2½ minute divisions and lettering them from left to right as shown.

A	B	C
D	E	F
G	H	I



INSTRUCTIONS FOR APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK OR CONVERT FORM (85-12-5, 01/13)

Proposed Formation - Enter the proposed target formation for the well.

Location - Enter the appropriate locations for the Surface, Kickoff, Top of the Target Interval, Bottom of the Target Interval and Bottom Hole. Enter latitude and longitude as decimal degrees in the format **DD.DDDDDD** using the North American Datum of 1983. Also, enter the True Vertical Depth (**TVD**) and True Measured Depth (**TMD**) for the Top of the Target Interval, Bottom of the Target Interval and Bottom Hole locations. For fault-bounded Trenton-Black River hydrothermal dolomite reservoirs, the target interval is the extent of the proposed productive section that will be penetrated by the well bore between the bounding faults. For all other reservoirs, the target interval is the target formation.

PROPOSED WELL DATA

Well Type - Enter the proposed well type as either **Oil Production, Gas Production, Brine, Storage, Injection, Brine Disposal, Geothermal, Stratigraphic, or Other (specify)**.

Planned Date - Enter the planned date of commencement of operations.

Surface Elevation - Enter the surface elevation and mark the appropriate box for how the elevation was obtained.

Type of Tools - Enter the proposed type of drilling equipment to be used as either **Cable** or **Rotary**.

Name of Contractor - Enter the name of the proposed drilling contractor. The well shall be drilled only by a contractor registered as a driller with the Division.

PROPOSED SPACING DATA

Well Spacing Type - Check the appropriate box to indicate if the well spacing type is subject to Title 5. Refer to Article 23, Title 5 for additional guidance.

Type of Unit - Check the appropriate box to indicate if the type of unit conforms to spacing under either Title 5 or Part 553.

Number of Acres - For a well drilled, deepened, plugged back or converted subject to Title 5 of ECL Article 23, enter the number of acres in the proposed spacing unit.

Acreage Controlled In Unit - Check the appropriate box to indicate the percent of the acreage within the spacing unit controlled by the applicant.

Acreage Controlled In Bore Hole - Check the appropriate box to indicate if the applicant controls the oil or gas rights in the target formation to be penetrated by the well bore.

State Lands - Enter Yes or No to indicate whether State owned lands are included within the proposed spacing unit.

PROPOSED CASING AND CEMENT DATA

Casing Data - Enter proposed casing information including, but not limited to: hole size; casing type, size and weight; total measured depth of top and bottom of casing run; and centralizers.

Cement Data - Enter proposed cement information including, but not limited to: casing type, total measured depth of top and bottom of cement run, class of cement, number of sacks, slurry weight, yield, volume (include excess), and baskets.

AFFIRMATION AND ACKNOWLEDGMENT

Signature Section - Complete the appropriate section for either an Individual or Organization. The person signing the application must be authorized to do so on the Organizational Report on file with the Division.

EXHIBIT B-4:

Dutchess County Sanitary Code, Article 28

PRIVATE WATER SUPPLIES

Section 28.1 STATEMENT AND SCOPE

WHEREAS, Article 5 of the Dutchess County Sanitary code sets forth the performance standard and maximum contaminant parameters for public water supplies; and

WHEREAS, the Dutchess County Board of Health desires the Commissioner of Health to promulgate guidance for the testing and maintenance of private water supplies relative to the suitability of such supplies for human consumption; and

WHEREAS, the Dutchess County Board of Health believes that periodic testing of private water supplies is the best means of assuring the safety of private water supplies in the County of Dutchess where there has been experience with contamination of private wells; and

WHEREAS, the Dutchess County Board of Health recommends that all owners of private water supplies test their water at least every six years, or when concern develops, using New York State certified testing laboratories and testing for New York State Sanitary Code Part 5 parameters for public water supplies as modified and specifically targeted by the Dutchess County Commissioner of Health for the needs of Dutchess County 's private water supplies; and

WHEREAS, such list of applicable parameters or "Testing Recommendations for Private Water Supplies" shall be available at the Dutchess County Department of Health website (www.dutchessny.gov/CountyGov/Departments/Health); and

WHEREAS, if testing shows levels above specified parameters, the Dutchess County Department of Health is prepared to give advice on the significance of test results and information about remediation.

THEREFORE, the Dutchess County Board of Health hereby amends and enacts the Dutchess County Sanitary Code as follows herein:

Section 28.2 DEFINITIONS

A. The term "private water supply" shall mean any water supply utilized for the purposes of human consumption not identified as a public water supply by Article 5 of this Code or by Part 5 of the New York State Sanitary Code.

B. The term "residential rental property" shall mean any "dwelling" or "dwelling unit" [as those terms are defined in [Article 21](#) of this Code at Section 21.1(G) and 21.1(H)] which

is occupied by other than an owner thereof and for use or occupation of which rent or consideration is periodically paid to the owner.

C. The term "commercial building" shall mean any structure which is wholly or partially used or intended to be used for commercial purposes, including, but not limited to, office buildings, stores, markets, shops, malls, marinas, restaurants, clubs, gas stations, or car dealerships.

Section 28.3 PERIODIC WELL TESTING AND MAXIMUM CONTAMINANT LEVELS

A. The Dutchess County Board of Health recommends that all wells situated in Dutchess County, which serve private water supplies, be tested on a periodic basis (at least every six years) in a manner determined by the Dutchess County Commissioner of Health.

B. That the test parameters and associated maximum contaminant levels for private water supplies shall be New York State Sanitary Code Part 5 parameters for public water supplies as modified and specifically targeted by the Dutchess County Commissioner of Health for the needs of the County's private water supplies.

C. The Dutchess County Commissioner of Health will make available to the public within Dutchess County, the private water supply test parameters and associated maximum contaminant levels.

Section 28.4 RESIDENTIAL RENTAL PROPERTY WELL PERMIT

Within one year of the promulgation of this regulation and contingent upon the Dutchess County Legislature providing sufficient resources to enable the Dutchess County Health Department to provide for enforcement of this regulation, every owner of residential rental property with a private well in Dutchess County, which serves a residential rental property's water supply, shall be required to possess a valid residential rental property permit issued by the Dutchess County Commissioner of Health, or appointed designee. Private wells in operation as of July 1, 2006 shall be deemed to possess such permit, however, such grandfathered permits for existing wells shall not signify that such wells have been tested or are in compliance with current Health Department parameters and such permits shall expire July 1, 2007. Owners of residential rental property serviced by private wells put into operation subsequent to July 1, 2006 shall be required to apply for a valid residential rental property permit, which shall expire six years from issuance. The issuance of such permit shall be conditioned upon demonstration that the water supply has been tested for test parameters established by the Dutchess County Commissioner of Health within one year prior to issuance or renewal of permit. Water sample analysis shall be performed by a laboratory holding a valid New York State Department of Health approval for such test parameter. Water sample collection shall be conducted in a manner

approved by the Dutchess County Commissioner of Health. In the event that test results of residential rental properties indicate that tenants' drinking water is not in compliance with current Health Department parameters, tenants shall be so notified in writing by Landlord. In addition, enforcement action may be taken by the Dutchess County Department of Health pursuant to Dutchess County Sanitary Code Article 4 to compel corrective action by Landlord. Corrective action may include, but is not limited to, requiring Landlord to install a filtration system to bring water quality into compliance and/or requiring Landlord to purchase satisfactory bottled water to be provided to tenants.

Section 28.5 DWELLING WELL PERMIT REQUIREMENT: permit not transferable

Within one year of the promulgation of this regulation and contingent upon the Dutchess County Legislature providing sufficient resources to enable the Dutchess County Health Department to provide for enforcement of this regulation, every owner of a private well in Dutchess County, which serves a private water supply, shall be required to possess a valid permit issued by the Dutchess County Commissioner of Health, or appointed designee. Private wells in operation as of July 1, 2006 shall be deemed to possess such permit, however, such grand-fathered permits for existing wells shall not signify that such wells have been tested or are in compliance with current Health Department parameters and such permits shall expire upon transfer of title to the real property on which the well is situated. Owners of new private wells put into operation subsequent to July 1, 2006 and of private wells whose permit has expired due to transfer of title shall be required to apply for a valid permit within thirty (30) days of the expiration of the permit. The issuance of such permit shall be conditioned upon demonstration that the water supply has been tested for test parameters established by the Dutchess County Commissioner of Health within one year prior to transfer of title. Water sample analysis shall be performed by a laboratory holding a valid New York State Department of Health approval for such test parameter. Water sample collection shall be conducted in a manner approved by the Dutchess County Commissioner of Health.

Section 28.6 WAIVER FROM TESTING FOR SPECIFIC PARAMETERS

The Dutchess County Commissioner of Health may grant a waiver from testing for a specific test parameter or parameters established by this article, provided that prior to the granting of any such waiver the applicant shall establish that:

- (a) testing for a specific parameter or parameters is not necessary for the protection of the health of the consumers of the drinking water and that such testing would not be cost effective for the applicant; or
- (b) other factors which would render testing for a complete regimen of established parameters unreasonable.

Section 28.7 WATER TEST RESULTS DATA

The Dutchess County Commissioner of Health shall make available to the public, a general compilation of water test results data, arranged or identified by municipality, locations, or appropriate geographic areas. Such general compilation shall not include the names of specific property owners or their particular numerical street address, although street names in general and identification by tax map number shall be permissible.

Adopted October 20, 2005; Approved by NYSDOH December 28, 2005; Filed at DC Clerk March 10, 2006

Section 28.8 COMMERCIAL BUILDING WELL PERMIT

Please Note: Many commercial facilities already are required to conform to public water supply standards. This section does not apply to them.

Within one year of the promulgation of this regulation and contingent upon the Dutchess County Legislature providing sufficient resources to enable the Dutchess County Health Department to provide for enforcement of this regulation, every owner of a commercial building with a private well in Dutchess County, which serves a commercial building's water supply, shall be required to possess a valid commercial building well permit issued by the Dutchess County Commissioner of Health, or appointed designee. Private wells in operation as of November 1, 2006 shall be deemed to possess such permit, however, such grandfathered permits for existing wells shall not signify that such wells have been tested or are in compliance with current Health Department parameters and such permits shall expire November 1, 2007. Owners of commercial buildings serviced by private wells put into operation subsequent to November 1, 2006 shall be required to apply for a valid commercial building well permit, which shall expire six years from issuance. The issuance of such permit shall be conditioned upon demonstration that the water supply has been tested for test parameters established by the Dutchess County Commissioner of Health within one year prior to issuance or renewal of permit. Water sample analysis shall be performed by a laboratory holding a valid New York State Department of Health approval for such test parameter. Water sample collection shall be conducted in a manner approved by the Dutchess County Department of Health. Upon receipt of test results of a commercial building's water supply indicating that such drinking water is not in compliance with current Health Department maximum contaminant levels for private water supplies established by the Dutchess County Commissioner of Health (Section 28.3, B), the owner/operator of such commercial facility shall notify the Dutchess County Health Department of such results with 24 hours and will be responsible for any and all notification of occupants and consumers as directed by the Dutchess County Department of Health.

In addition, enforcement action may be taken by the Dutchess County Department of Health pursuant to the Dutchess County Sanitary Code to compel corrective action by the

owner(s). Such corrective action may include, but is not limited to, requiring the owner(s) to install a filtration system to bring water quality into compliance and/or requiring owners to purchase satisfactory bottled water to be provided occupants.

EXHIBIT B-5:

Town of East Fishkill (Town) Code (Sections 186 and 189)

Chapter 186. WATER

[HISTORY: Adopted by the Town Board of the Town of East Fishkill as indicated in article histories. Amendments noted where applicable.]

Article I. Standards for Installation of Water Mains, Valves and Hydrants

[Adopted 4-10-1975]

§ 186-1. Scope.

[Amended 1-12-1989 by L.L. No. 2-1989]

- A. These specifications shall be used for construction of water lines within the Town of East Fishkill. These include the mains within the streets and on rights-of-way and building connections, including the necessary items such as valves, hydrants and appurtenances. These specifications shall be considered to be minimum acceptable standards for construction.
- B. Upon approval of the Engineer, the owner may use as alternative specifications applicable standards of the Dutchess County Health Department and New York State Department of Environmental Conservation or other agencies of jurisdiction, as long as such specifications meet or exceed the specifications herein, but the owner in no case shall be allowed to use standards which are less stringent than those adopted herein.

§ 186-2. Definitions.

As used in this article, the following terms shall have the meanings indicated:

ANSI

The numbered specifications of the American National Standards Institute, as revised at the time design is approved.

AWWA

The numbered specifications of the American Water Works Association, as revised at the time design is approved.

ENGINEER

The Engineer for the Town of East Fishkill or his authorized deputy, agent or representative.

OWNER

The legal owner of the real estate to be improved, or such person designated as his agent, in writing, to the Engineer.

OWNER'S ENGINEER

The engineer of record with reference to the water system.

§ 186-3. Permits.

The owner shall obtain such permits as are necessary for the opening of streets, building permits and such others as are required by local law. These shall be obtained prior to the start of construction and at no cost to the Town of East Fishkill. The owner shall be responsible for payment of all fees required by such local laws.

§ 186-4. Notice of construction.

The Engineer shall be notified at least seven working days in advance of the start of construction.

§ 186-5. Judge of quality and suitability.

All materials becoming a part of the permanent construction, as called for on the approved drawings and in the specifications, shall be first class in every respect and subject to the approval of the Engineer who shall be the sole judge of their quality and suitability for the purposes that they are to be used. If any material, brought on the site for use in the work, is condemned by the Engineer after arrival at the site, as unsuitable or not in conformity with the specifications, the owner shall immediately remove such materials from the construction site.

§ 186-6. Approved drawings.

[Amended 1-12-1989 by L.L. No. 2-1989]

Approved drawings shall consist of a set of plans and profiles prepared by the owner's engineer and submitted to the Engineer for review and approval as to conformity to the basic municipal water supply system plan and the specifications. The Engineer's approval shall be affixed to the drawings, and a copy of such approved drawings shall be on the construction site at all times. No deviation shall be made from the line and grade, or by substitution of materials, from that shown on the approved drawings, except by written authorization of the Engineer.

§ 186-7. As-built drawings.

The owner's engineer shall provide the Engineer with a revised set of permanent reproducible drawings showing the as-built location, sizes and elevations of water lines, valves, hydrants, building connection, water main and service terminations and easements, together with such legal descriptions as are required for proper recording of such easements.

§ 186-8. Water main sizes.

All water mains shall be no smaller than eight-inch diameter. Written requests for exceptions shall be submitted to the Engineer for approval. The Engineer may require the installation of water mains of greater size than eight-inch diameter if, in his judgment, service conditions so require.

§ 186-9. Water main materials.

[Amended 1-12-1989 by L.L. No. 2-1989]

A. Ductile iron pipe.

- (1) Type and class of pipe. All ductile pipe shall meet the requirements of the specifications tabulated below and shall be in accord with the pressure and thickness classifications tabulated:

Material Specifications

ANSI A21.51-86

AWWA C151-86

ANSI A21.4-85

AWWA C104-85

(2) Joints.

- (a) Mechanical joints shall meet the requirements of ANSI Specification A21.11-86 (AWWA C111-86) and shall have the same pressure rating as the pipe of which it is a part. Assembly of mechanical joint fittings shall be completed with a torque wrench. Torque to be applied to each bolt shall be between 60 pounds and 90 pounds. After all pipe and fitting joints have been completed, there shall be inserted in each joint two bronze wedges as furnished by the pipe manufacturer. They shall be firmly driven between the outside surface of the pipe and the inside surface of the socket. The wedges shall be placed 180° apart on the horizontal axis.
 - (b) Except as necessary to connect into existing pipe, rubber-ring-type gaskets shall be used with bell and spigot pipe, mechanical joints or push-on joints, which gaskets shall be equal to Fastite as made by the American Cast Iron Pipe Company; Bell-Tite as made by Clow Company; Tyton as made by the U.S. Cast Iron Pipe Company.
 - (c) A thin coat of lubricant shall be applied to each spigot end, as required by ANSI Specification A21.11-7.4-86.
- (3) Fittings. All bell and spigot cast-iron fittings and mechanical joint ductile-iron pipe fittings shall meet the specification of ANSI A21.10-87.
 - (4) Coating and lining. All ductile-iron pipe and fittings shall be coal tar pitch coated on the outside and cement lined on the inside, in conformance with ANSI A21.4-85 specification (AWWA C104-85). Coating and lining shall be accomplished at the point of manufacture.

B. Polyvinyl chloride (PVC) pressure pipe, four-inch through twelve-inch diameter for water main.

- (1) Material and class. All PVC pressure pipe for water systems and appurtenances therefor shall conform to the current (latest revision) AWWA Standard Specification C900-81 in all respects, including the following:
 - (a) The class of the pipe to be furnished shall be Class 200 for pipe sizes up to eight-inch diameter pipe and Class 150 above eight-inch diameter pipe.
 - (b) Certified records of tests made by the manufacturer or by an approved commercial laboratory, or by both, as required by the Engineer, shall be submitted to the Engineer with each shipment of pipe, demonstrating that the pipe delivered complies with the specifications herein.
- (2) All couplings, fittings, valves, gaskets (elastomeric) and other such related appurtenances shall be in conformance with current AWWA Standards governing such appurtenances for the pipe being provided.

C. Marking.

- (1) Ductile-iron pipe and fittings.
 - (a) Each length of pipe and each random and short length of pipe shall be marked with the manufacturer's name, trade name, nominal size, class, hydrostatic test pressure, a "T" to signify it was tested and the date of manufacture.
 - (b) Each coupling shall be marked by the manufacturer with the manufacturer's identification, the size, the year of manufacture and the class of pipe with which it can be used.

§ 186-10. Water main installation.

A. Excavation.

- (1) Trench width.
 - (a) The trench width may vary with and depend upon the depth of trench and the nature of the excavated material encountered but, in any case, shall be of ample width to permit the pipe to be laid and jointed properly and the backfill to be placed and compacted properly.
 - (b) The minimum width of unsheeted trench shall be at least 18 inches larger than the outside diameter of the pipe except by consent of the Engineer; the maximum clear width of trench shall be not more than two feet greater than the outside pipe diameter. When sheeting and bracing is used, the trench width shall be increased accordingly. All trenching operations shall be performed in compliance with OSHA safety standards.
[Amended 1-12-1989 by L.L. No. 2-1989]

(2)

Pipe cover. Minimum cover over top of water mains shall be five feet measured from established grade of street. Cover in excess of five feet may be approved by the Engineer.

[Amended 1-12-1989 by L.L. No. 2-1989]

(3) Bedding.

(a) The trench, unless otherwise specified, shall be excavated at least four inches below the bottom of the pipe and bottom shall be brought back to grade by thoroughly compacting selected backfill which meets the requirements of Subsection **A(6)**. This bedding requirement may be waived by the Engineer if pipe foundation soil condition warrants same. Said waiver is to be solely determined by the Engineer.

[Amended 1-12-1989 by L.L. No. 2-1989]

(b) When the uncovered trench bottom at subgrade is soft and, in the opinion of the Engineer, cannot support the pipe, a further depth and/or width shall be excavated and refilled to pipe foundation grade with slag, stone and/or other approved materials, or other approved means shall be adopted to secure a firm foundation for the pipe.

(c) Ledge rock, boulders, large stones and shale shall be removed to provide a clearance of at least six inches below all parts of the pipe, valves or fittings, and a clear width of nine inches on each side of all pipe shall be provided.

(d) Bell holes of ample dimensions shall be dug at each joint to permit the jointing to be made properly. Adequate clearance for properly jointing pipe laid in rock shall be provided at bell holes.

(4) Sheeting and bracing. Sheeting and bracing shall be used as required or ordered by the Engineer to support the sides of trenches or other excavation. Such sheeting and bracing shall be removed as the trench or excavation is backfilled, unless the Engineer shall order the same left in place.

(5) Backfilling. The backfilling shall be first done over the middle portion of each length of pipe, bringing the cover to a depth of at least one foot over the top of the pipe and leaving all joints exposed until after the pipe has been tested and passed by the Engineer. The rest of the backfilling shall be done in the same manner.

(6) Selected backfill. All backfill under, around and to a depth of one foot over the top of all pipes and valves shall be made with a selected material thoroughly tamped. The material to be used for selected backfill embedment shall be a natural bank sand graded from fine to coarse, not lumpy or frozen and free from slag, cinders, ashes, rubbish or other deleterious or objectionable material. It shall not contain a total of more than 5% by weight of loam and clay, and all material must be capable of being passed through a three-fourths-inch sieve. Not more than 5% shall remain on a No. 4 sieve. Samples of the material to be used shall be submitted to and be approved by the Engineer or his authorized agent. Limestone screenings, sand, bank-run gravel and approved excavated material may be utilized with the approval of the Engineer.

(7) Earth backfill.

- (a) Only after the backfill previously mentioned has been satisfactorily compacted may work proceed in placing the remaining backfill which must be carefully placed and compacted by tamping, puddling or rolling. All precautions must be taken to eliminate future settlement.
- (b) Where pavements, driveways, curbing and sidewalks are to be placed or are to be replaced, all backfill placed over the pipe shall be compacted with the use of approved vibratory or flat-faced mechanical tampers in layers not more than 12 inches thick, loose measurements, to 95% standard proctor density (per ASTM: D698 method). If any compaction is questioned by the Engineer, the owner shall supply test results to verify the compaction.
[Amended 1-12-1989 by L.L. No. 2-1989]
- (c) Backfilling shall not be done in freezing weather, except by permission of the Engineer, and it shall not be made with frozen materials nor shall any fill be made where the material already in the ditch is frozen.
- (d) All backfill above a plane one foot above the top of all pipes may be made with material excavated from the trenches, provided that the same is satisfactory to the Engineer. If, in the opinion of the Engineer, the material excavated is unsatisfactory, other material suitable for backfill shall be used. All backfill shall be free from slag, cinders, rubbish and other objectionable material.

(8) Pipe laying.

- (a) Pipe, couplings and fittings shall be handled and installed in accordance with the recommendations of the pipe manufacturer. Proper and suitable tools and appliances for the safe and convenient handling and laying of the pipes and fittings shall be used. Under no circumstances shall pipe or accessories be dropped or dumped into the trench or bumped while handling.
- (b) Great care shall be taken to prevent the pipe coating from being damaged, particularly on the inside of the pipes and fittings, and any such damage shall be remedied as directed. All pipes and fittings shall be carefully examined for defects just before laying, and no pipe or fitting shall be laid which is known to be defective. Pipes shall be laid only in properly prepared trenches and on compacted sand cradle, true to line and grade and with no dips or rises except as required by the design.
- (c) All pipes and fittings shall be thoroughly cleaned before they are laid, shall be kept clean until they are used in the completed work and, when laid, shall conform to the lines and grades of the design. Open ends of pipe shall be kept plugged with a bulkhead during construction.
- (d) Pipe laid in trench shall be laid to a firm and even bearing in material for its full length.

[Amended 1-12-1989 by L.L. No. 2-1989]

- (e) No pipe shall be laid in wet trench conditions which preclude proper bedding as specified or on frozen trench bottom, or when in the opinion of the Engineer the trench conditions or weather are unsuitable for proper installation.
- (f) It is the intention of these specifications to secure first class workmanship in the placing of pipe and accessories.
- (9) Nonstandard deflections. Whenever changes in line and grades of the main are not standard fitting deflections, combinations of standard fittings and small deflections, in the adjoining lengths of pipe will be permitted, subject to the following limitations:
[Amended 1-12-1989 by L.L. No. 2-1989]
 - (a) For ductile iron bell and spigot pipe, the maximum deflection at each joint shall be 3°.
 - (b) For ductile iron mechanical joint pipe, the above deflection shall be limited to 5°.
 - (c) For PVC pipe, the above deflection shall not exceed that recommended as maximum by the pipe manufacturer.
- (10) Buttresses and anchorages. Bends, T's and plugged ends shall be buttressed or anchored with poured concrete as directed by the Engineer.
- (11) Operating valves. The operation of all gate valves on existing mains for making connections or tests, or for any other cause, shall be done by the Town water district (if such districts are created), and sufficient notice shall be given to the Town water district by the contractor so that the work may be done with a minimum of inconvenience to the public and delay to the contractor.

§ 186-11. Testing and sterilization.

A. Testing.

- (1) After the pipe is laid and before backfill is placed around joints, such length of the water main as the Engineer may have determined shall be tested under hydrostatic pressure. The section of pipe to be tested shall be filled with water for a minimum period of 48 hours and then subjected to the test. The test pressure shall be 50% greater than the operating pressure measured at the lowest elevation of the system.
[Amended 1-12-1989 by L.L. No. 2-1989]
- (2) The duration of the test shall be two hours unless otherwise directed by the Engineer. Under test, pipelines shall show leakage not exceeding the following:
[Amended 1-12-1989 by L.L. No. 2-1989]
 - (a) Ductile iron:
L = SDP

(b) PVC:

$$L = \frac{NDP}{7400}$$

Where "L" is the allowable leakage in gallons per hour, "N" is the number of joints in the length of pipeline being tested, "S" is the length of pipe in feet, "D" is the nominal pipe diameter in inches and "P" is the average test pressure during the leakage test in pounds per square inch gauge.

- (3) Tests shall be under the direction of the Engineer or his designate. The contractor shall furnish a pressure gauge for measuring the pressure on the water main and shall also furnish a suitable pump, pipes and all appliances, labor, fuel and other appurtenances necessary to make these tests. The test pressure shall be maintained for a sufficient length of time to allow for a thorough examination of leakage where necessary. The pipeline shall be made watertight under the test pressure.

B. Disinfecting mains.

- (1) Water mains shall be disinfected in accordance with AWWA C651-86 prior to being placed into service. For short lengths of main, the contractor may use the tablet method, if conditions so warrant and it is approved by the Engineer and Health Department. Disinfected water must lay in mains for a minimum of 24 hours before being thoroughly flushed for usage.
[Amended 1-12-1989 by L.L. No. 2-1989]
- (2) The contractor shall furnish the necessary labor, equipment and material required for such chlorination. The contractor shall furnish the necessary labor for excavating and backfilling which will be required for the chlorination work. Chlorination by the contractor shall be continued or repeated until tests conducted by the Town Engineer shall indicate an acceptable residual of chlorine is present in the water.
- (3) Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremities until the replacement water throughout its length shall, upon test, both chemically and bacteriologically, be proven equal the water quality served the public from the existing water supply system.

§ 186-12. Valves.

A. Gate valves.

- (1) All gate valves shall conform to the AWWA Specifications for Water Valves, Designation C500-86, except as herein modified. Gate valves three inches and larger in size shall be equal to Darling AWWA Gate Valves as manufactured by the Darling Valve and Manufacturing Company of Williamsport, Pennsylvania, or to Rensselaer Valve Company, Troy, New York.

[Amended 1-12-1989 by L.L. No. 2-1989]

- (2) All gate valves three inches and larger in size shall be of the iron body bronze mounted, double disc, parallel seat type, with nonrising bronze stem, shall open by turning to the left and shall be operated by nut or handwheel as required.
- (3) All valves (gate) shall be of the same size as the water main in which they are to be installed.

B. Tapping sleeves and valves.

- (1) Tapping sleeves and valves shall be used for all connections, six inches and larger in size, to any existing main where 10 or more domestic services would be shut off if a T or other connection were to be made.
- (2) The tapping sleeves shall be properly sized to fit the existing mains to which connections are to be made.
- (3) The sleeves shall be of the bolted type, of rugged cast-iron construction of ample strength for the service intended, and shall be caulked with lead the full length of the sleeve after attachment to the existing main. The existing pipe shall be thoroughly cleaned prior to installation of the tapping sleeve.
- (4) Tapping valves shall be not less than one size smaller than the diameter of the existing main to which connection is to be made unless otherwise permitted by the Engineer.
- (5) The tapping valves shall meet the AWWA Specifications for Gate Valves, except that oversized seat rings shall be provided to permit the use of full-sized cutters through the valve. The valve ends shall be flanged, with flanges plain faced and drilled to ANSI one-hundred-twenty-five-pound standards. The valves shall be nut operated and shall open by turning to the left. Tapping valves shall be installed and open vertically.

C. Valve boxes and covers. Valve boxes and covers shall be installed over each vertically set, buried valve and elsewhere as directed. Valve boxes and covers shall be of the adjustable type and shall be equal to standard valve box No. F-2450, of the required length, as manufactured by the Clow Company. Valve box covers shall be of the stay-put type (Claw F-2494) with the word "WATER" cast thereon in raised block capital letters. Base size and extension piece length shall be as required for each individual size and depth of bury.

D. Corporation stops. A corporation stop shall be installed at each service connection. Corporation stops shall be as manufactured by the Mueller Company and equal to Grinnell Figure H-1003 with Mueller inlet thread and IP outlet thread one size larger than body.

§ 186-13. Hydrants.

- A. Location and number of hydrants shall be approved by the Town Engineer.
- B. Size and type:

- (1) All hydrants shall be six inches in size with a six-inch mechanical joint inlet connection, and shall be equal to the Model H100 as manufactured by the A.P. Smith Manufacturing Company, East Orange, New Jersey.
- (2) Each hydrant shall have the name of the maker, the year when made and the size of main valve opening cast upon it in raised letters.
- (3) Unless otherwise directed by the Town Engineer, each hydrant shall be fitted with one four-and-one-half-inch National Standard thread steamer nozzle and two-and-one-half-inch National Standard thread hose nozzles. The size and thread of all outlets shall meet the standards of the local Fire Department.
- (4) The main valve shall open by turning in a counterclockwise direction and shall open against the pressure. This valve shall be faced with rubber which shall seat against an accurately machined bronze seat.
- (5) The top cap of the hydrant shall be provided with a waste or drip to prevent the cap from filling with water.
- (6) The hydrants shall be provided with automatically operated drainage valves to permit drainage of the hydrant when the main valve is in closed position.
- (7) The head of the revolving nut or operating nut and nozzle cap nuts shall be of the exact dimensions of those in use in the local water district.
- (8) The nozzle caps shall be secured to hydrants by means of galvanized or cadmium plated steel chain of not less than one-eighth-inch diameter links.
- (9) The hydrant bottom, connecting pipe, head, packing dome, date, nozzle cap and umbrella operating nut shall be made of cast iron.
- (10) All bolts and nuts shall be of the best quality of wrought iron or steel, rustproofed; the heads, nuts and threads shall be of standard size. All joints shall be faced true and smooth so as to make a perfectly watertight joint.
- (11) All castings, whether of iron or bronze, shall be of uniform thickness in their several parts and shall be sound and smooth, without cold-shuts, sand holes or other defects of any description. All materials shall conform to those standards as required by AWWA Specification C502-85.
[Amended 1-12-1989 by L.L. No. 2-1989]

C. Cleaning and painting.

- (1) All iron parts of the hydrant, inside and outside, shall be thoroughly cleaned and, thereafter, all surfaces inside and outside, except the exterior portion above ground line, shall be shop painted with two coats of asphalt varnish conforming to the requirements of Federal Specification TT-V-51A or Army-Navy Specification JAN-P-450. The first coat shall be allowed to dry thoroughly before the second coat is applied.

- (2) The outside of the hydrant above the finished ground line shall be thoroughly cleaned and thereafter painted in the shop with two coats of paint of a durable and weatherproof composition conforming to Federal Specification TT-P-86A (Type IV). The color or colors of finish paint above the ground line shall be as required by the local Fire Department.
- D. Hydrostatic test.
 - (1) After completion of fabrication, each hydrant shall be tested at the shop by hydraulic pressure, as follows: a pressure of 300 pounds per square inch shall be applied to the body of the hydrant before the protection case is put on; after the hydrant is assembled complete, with a test elbow, a pressure of 300 pounds per square inch shall be applied below the compression valve, and 200 pounds per square inch above the valve.
 - (2) Any hydrant showing a sweating of the metal under any of these tests, or leaking at the valve or stuffing boxes, or showing any other defects shall be rejected.
- E. Hydrant connection. The connection from the wafer main to the hydrant shall be cast-iron six inches in diameter and shall be provided with a six-inch gate valve and adjustable valve box and cover.
- F. Installation. Hydrants shall be set plumb on a poured concrete base six inches thick, extending across the full width of the trench and affording buttress support against the end wall of the trench. Weep hole drainage shall be provided by means of one cubic foot of coarse gravel or crushed stone mixture with coarse sand. Hydrant installation shall conform, in all respects, with AWWA Standard C600-87, Sections 11 and 12.
[Amended 1-12-1989 by L.L. No. 2-1989]

§ 186-14. Connections.

- A. Main connections. All connections with the mains of the Town of East Fishkill shall be made under the supervision of water district employees, at the expense of the owner. The owner shall furnish such labor and do and perform such excavation, sheeting, pumping, etc., as may be directed. The owner shall, before the water is turned on, pay such fees as required in the schedules for the water district. All taps and service connections shall be installed under the supervision of water district employees at the expense of the owner and/or contractors and in trenches to be excavated and backfilled by said owner. A separate tap shall be required for each building served.
[Amended 1-12-1989 by L.L. No. 2-1989]
- B. Building connections. All building connections shall have a check valve installed ahead of the meter. Service lines from the main to house shall be Type K copper having mechanical joints only unless directed by the Town Engineer.
[Amended 1-12-1989 by L.L. No. 2-1989]
- C.

Pump house connections. All piping within any pump house shall be installed with threaded connections. Where a connection is to be made at the main line to the distribution station the contractor will be required to install short lengths of pipe and swing joints.

§ 186-15. Inspections; approval and acceptance by the Town.

- A. Inspection and tests. All material and workmanship shall be subject to inspection, examination and test by the Town Engineer or authorized Town representative. The contractor shall submit manufacturer's certifications, standards, fabrications and working drawings as required. Requests for changes in types of materials and specifications must be submitted to the Town Engineer in writing.
- B. Final inspection. Final inspection and acceptance of the facilities by the Town shall be one year after completion of construction. During the probationary period of one year, the contractor is to remedy, at his expense, all defects in the work as may become evident or as may be required by the Town Engineer.

Article II. Water Use

[Adopted 4-14-1983 by L.L. No. 2-1983]

§ 186-16. Purpose.

It is the purpose of this article to establish rules and regulations concerning the taking and using of water furnished and supplied by municipal water districts in the Town of East Fishkill, and to provide enforcement measures for the protection of the continued operation of these systems.

§ 186-17. Definitions.

As used in this article, the following terms shall have the meanings indicated:

OWNER or CONSUMER

The owner or owners of the premises supplied or furnished with water.

SERVICE PIPE or SERVICE MAIN

The pipe and attachments of every kind and nature thereto connecting the street main with the house or building piping.

SUPERINTENDENT OF HIGHWAYS

The Superintendent of Highways of the Town of East Fishkill.

WATER DEPARTMENT

That department or agency of the Town which is authorized by the Town Board to operate, maintain and in general terms manage the water system(s) of the municipality.

WATER MAIN or STREET MAIN

The pipe, attachments and appurtenances of every kind and nature conveying water along the streets of the Town.

§ 186-18. Application.

- A. This article shall apply to all municipal water districts in the Town of East Fishkill, and shall govern the taking and use of any water furnished and supplied by said district.
- B. The Town Board may, from time to time, enact further regulations to govern any or all municipal water districts in the Town of East Fishkill, by resolution, ordinance or local law.
- C. Every owner taking water or permitting water to be taken for use on premises of such owner shall be bound by these rules and regulations and by such other rules and regulations as may hereinafter be established by law.

§ 186-19. District and owner responsibility.

- A. The district shall be responsible for the operation and maintenance of the district wells, water mains and street mains.
- B. The individual property owner shall be responsible for the maintenance and repair of the service pipes or service mains, and all fixtures connected therewith, from the building to the curb stop, and shall keep them in good repair at his own expense, and prevent all unnecessary waste of water. When an owner is notified by the district that a repair under this section is necessary, such repair shall be made by the owner within five days of service of such notice. Upon failure to comply with this rule, the district may enter the property and make such repairs, and charge them to the owner, as provided in Subsection **F**. Upon failure to comply with this rule, the district may also disconnect the water supply as provided in § **186-34**.
- C. If repairs to the service main or its appurtenances and fixtures becomes necessary, the repair and the cost of such repair will be made at the expense of the water district if the defect is located between the street main and the curb stop. If the defect is between the curb stop and the building, the repair and full cost of the repair shall be the responsibility of the owner of the premises.
- D. The owner shall have the responsibility of reporting any defect in a water meter to the Water Department immediately. The district shall repair and maintain water meters, when necessary, except that when the Water Department determines that the repairs have been necessitated by negligence or tampering by the owner, the cost of repair shall be charged to the owner.
- E. The owner shall have the responsibility of duly paying any water rents or other fees and charges established and assessed by the district. Continued provision of water to premises is specifically conditioned upon prompt payment of these duly imposed charges.
- F. Whenever repair services are performed by the district and determined to be the responsibility of an owner pursuant to this section, a bill for the expense thereof shall be

remitted to the owner. Such repair bill shall be payable within 30 days of the date of issuance. Any failure to pay such repair bills shall be dealt with in the same manner as delinquent water rates as provided in § **186-32**.

§ 186-20. Limits on water usage.

- A. The water district reserves the right to shut off the water in the mains at any time for the purpose of making repairs or extensions or for other necessary purposes and will, where possible, give due notice, except in cases of breaks and emergencies. The water district will not be responsible for any damages resulting directly or indirectly from any interruption of the water supply. In cases where boilers or other appliances in a premises depend upon the pressure in the service line to keep them supplied with water, the owner or occupant shall place suitable safety devices to guard against the possibility of collapse or explosion when the water supply is interrupted. Likewise such owner or occupant shall protect water-cooled compressors for refrigeration systems by means of high-pressure safety cutout devices and shall provide means for the prevention of the transmission of water hammer or noise of operation of any valve or appliance through his piping to any adjacent premises. Failure of the owner or occupant to provide such safety devices shall in no way make the district responsible for any damage.
- B. The water district may, in times of water shortage or emergency, limit the amount of public water supply to each owner or building. The Town Board shall determine when such a water shortage or emergency exists, by resolution. In case of such emergency or water shortage, notice of the finding of the emergency, and the restrictions imposed by the Town Board shall be given by posting same on the Town Clerk's bulletin board, and by mail, telephone, or delivery of printed notices, to the properties within the district. Any person failing to comply with the conditions or restrictions imposed upon a finding of water shortage or emergency shall be guilty of an offense against this article, punishable as provided in § **186-34**.
- C. The Town and/or water district shall not be liable for any damage resulting from leaks, broken pipes or from any other cause, occurring to or within or without any house or building, and it is expressly stipulated by and between the water district and the consumer that no claim shall be made against said Town and/or water district on account of the bursting or breaking of any main or service pipe or any attachment to said waterworks.
- D. The Town and/or water district shall not be liable for any deficiency or failure in the supply when occasioned by shutting off water to make repairs or connections or by failure from any cause beyond control.
- E. The water district reserves the right to restrict the supply of water whenever the public welfare may require it, as the water district may determine. The Town and the water district make no guaranty as to the amount or consistency of pressure or volume of the water it furnishes and will not under any circumstances be responsible for any loss or damage from excess, deficiency or variation in the pressure, volume or supply of water or for loss or damage caused by water escaping from or obstructions in a service line due to frost or any

other cause or for any loss or damage as a result of water escaping from laterals, fixtures, appliances or pipes owned by consumers.

§ 186-21. Cross connections with nonpotable water supplies.

- A. If an owner has any source of water other than from the municipal public water system, such source will be considered nonpotable. Before making any service connection between the municipal public water supply and a consumer's premises, it is required that all connections between individual wells or other outside sources of water supply physically be disconnected from the consumer's plumbing fixtures, which are connected to the municipal potable water supply.
- B. All owners of property within the confines of a municipal water district shall not use nonpotable water as a source of water supply for any purpose. Nonpotable water is defined as any source of water other than from a municipally owned water system.

§ 186-22. Service outside water district area.

No water main shall be tapped for, nor any main extended, outside the boundaries of any water district. Any person violating this section shall be guilty of an offense against this article punishable as provided in § **186-34**.

§ 186-23. Obstruction of fixtures.

No person shall obstruct access to any fire hydrant, stop cock or curb box connected with the water mains or service mains or pipes in any street. A violation of this provision shall be an offense against this article punishable as provided in § **186-34**.

§ 186-24. Opening of streets; permits.

- A. No street, sidewalk or other public ground shall be opened, for the purpose of laying or repairing or performing any work connected with a water pipe or service pipe, unless a permit is obtained from the Town Superintendent of Highways and the Town Board. Any such permit shall provide for the inspection of construction by the Town Highway Superintendent, the Town Engineer and the Town Water Department. The fee for such permit shall be set from time to time by the Town Board by resolution.
- B. Before any permit shall be granted, such owner shall file a bond in the office of the Town Clerk in an amount to be set by the Town Board, not less than \$10,000, properly conditioned to indemnify the Town of East Fishkill against any loss which the Town may sustain by reason of the negligence of such owner or his agent, or other failure to comply with these rules. Such bond shall be approved by the Town Board as to form and sufficiency prior to granting any permit.
- C.

All persons performing any street opening pursuant to a permit issued by the Town Board shall duly regard public safety and convenience. Any excavation shall be adequately guarded and properly lighted at night to warn and protect the public.

§ 186-25. Connection with mains.

No person shall tap any street main or make any connection or disconnection therewith or otherwise connect or disconnect water service, except upon permission of the Water Department. All tapping of mains shall be performed by the Town Water Department, or its duly authorized agents. The fee for such tapping shall be set from time to time by the Town Board by resolution. If any unauthorized connection is made, it shall be sufficient cause for shutting off that water connection without notice.

§ 186-26. Service mains.

- A. No person shall lay any service main or make any attachment, alteration or repair thereto except by permission by the Town Water Department. Such application for a permit shall authorize the Town Water Department to inspect and examine the pipes and materials which have been installed or the repairs performed. The fee for such permit shall be set from time to time by the Town Board by resolution.
- B. Service main requirements and specifications:
 - (1) There shall be no tap, provision for tap, plugged tee or other such fitting in the service main between the street main and the meter inside the building. Any yard hydrant, fountain or hose must be connected on the discharge side of the meter.
 - (2) All service pipe shall be of the best grade and weight standard type "K" copper tubing for sizes through two inches meeting AWWA Specification 7S-CR. Service pipe over two inches shall be ductile iron meeting AWWA Specifications C 151-65. All pipe shall be rated for service of 150 psi or greater. No service shall be less than 3/4 inch.
 - (3) Service pipe shall be laid not less than 4 1/2 feet below the surface of grade and its vertical and horizontal alignment in relation to any sewer or other parallel pipe shall conform to Health Department Standards and to the requirements of the Town Sewer Ordinance^[1] and other Town local laws.
[1]: *Editor's Note: See Ch. 152, Sewers.*
 - (4) Only one property or property unit shall be supplied through a single service pipe.
 - (5) Every service main shall have a cock or other approved valved tap in the main, an inverted key stop cock, or other approved valve with a metal protecting box, at the curb or property line and a gate valve or other approved valve just before the meter. It shall be the duty and responsibility of the property owner to keep the curb box in good repair, above ground, and accessible at all times.
 - (6)

Any variation from these specifications must be approved in writing by the Town Board prior to installation.

- C. No person shall open or close any valve on the street main or service main or any cocks in any curb box, or molest or interfere with same in any way whatsoever, except when acting by specific permission of the Water Department.
- D. The entire expense, both in labor and materials, of installing the service from the curb stop at the street line to the gate valve at the meter, shall be borne by the owner of the premises. In districts where service pipe from the street main to the curb stop at the property line has not been provided, the entire expense of labor and materials of installing the service from the corporation cock in the main to the gate valve at the meter shall be borne by the owner of the premises and the street surface and walks, and other surface elements shall be replaced after the construction at the property owner's expense.

§ 186-27. Voluntary disconnection of service; application for new service.

- A. When a property within a water district is to be sold, the seller may give notice to the Town Water Department, at least 10 days prior to the closing, to obtain an accurate water reading as of the date of the closing.
- B. Water service billing records shall be changed into the name of the purchaser as of the date of the closing, without any disconnection of service, upon proper filing of an application for water service filed by the purchaser with the Town. Such application shall be signed by the purchaser and be upon a form subscribed by the Water Department.
- C. It shall be the responsibility of all owners selling property within the district to notify the Town Water Department of the date of any change in ownership at least 10 days prior to the sale of the property.
- D. Unless the Town Water Department receives an application for water service by the new owner on or before the date of the closing, the Water Department shall have the authority to disconnect the water supply as of that date.
- E. Any new connections of water service shall be made upon the proper filing of an application therefor and with payment of the connection fee to be set, from time to time, by the Town Board by resolution.
- F. No person shall turn on any water service nor shut off any water service except with the permission of the Town Water Department.

§ 186-28. Water charges.

- A. All water used in and upon premises shall be charged to the owner of the property. The amount consumed shall be metered, estimated or otherwise charged by the Town Board.

- B. All water bills shall be the responsibility of the property owner. If requested in writing by the owner, the Town Board may consent to send water bills and notices to agents or tenants in the owner's name, but the Town shall do so only upon written acknowledgment by the owner of the owner's responsibility for the payment of all water rents, charges and penalties.

§ 186-29. Special provisions applying to districts with water meters.

- A. In all districts having water meters, all water service shall be supplied through a meter, and, except as otherwise provided herein, all meters are the property of the Water District. No person shall in any way interfere or tamper with the water meter or the valves and fittings connected therewith, or in any manner distort or attempt to distort the accurate operation of the meter, nor shall such person in any manner obtain, or attempt to obtain water otherwise than through the meter.
- B. Only one meter shall be set in any service main. If more than one meter is desired or required for a building or premises, a separate service main must be run to the street main for each and every additional meter. However, the Town Board shall have the right to issue a temporary special permit to allow more than one meter on any one service main. Such special permit shall have a maximum term of six months, and may be revoked by the Town Board at any time. The fee for such permit shall be set from time to time by the Town Board by resolution.
- C. No meter shall be installed or connected to the water system without a permit from the Water Department. All water meters of one inch size or less shall be procured from the Water Department and shall be the property of the Town water district servicing the area. Owners may apply to the Water Department for permission to install larger meters. If approved, these larger meters shall be provided by and at the expense of the owner of the premises requiring the meter and shall be of the size and type acceptable to the Water Department. Notwithstanding the provisions of **§ 186-19D**, all repair costs on such larger meters shall be charged to the owner of the premises. All meters shall be set at the expense of the property owner in such location, position and manner as to be readily accessible for reading and repair. Each owner shall keep the meter free from any obstruction whatsoever and fully protected from freezing and damage, and shall provide clear access for meter reading by the district. Any damage to a meter caused by the negligence or other act of the property owner shall be repaired at the property owner's expense. All meters and any other equipment accessory to the meters shall be under the exclusive control of the water district and subject to inspection at all times by the Water Department or other agent of the Town Board.
- D. All water passing through meters will be charged for, whether used or wasted. Owners shall report any defect in a water meter as soon as it is discovered. Meters will be tested at the owner's request. However, if the meter is found to be accurate, the consumer shall bear the expense of the test. Meters will be considered accurate if registering within 2% of actual usage. The Water Department shall also have the authority to authorize the testing of any meter for accuracy. If a meter of size greater than one inch is found to be inaccurate, the

owner shall, upon written notification by the Water Department, have the meter repaired within 20 days of the notice, at the owner's expense. If a meter is out of order and fails to register correctly, the consumer shall be charged on the basis of average daily consumption as shown by the meter when in accurate working condition.

- E. All meters shall be sealed. The seal may be broken only by an authorized agent of the Town Board. Should the seal be broken in any other manner, the property owner will be held responsible and the Town Board reserves the right to order the meter removed for tests at the expense of the property owner.
- F. The water district, inspector, meter reader or other properly authorized representative shall have access at all reasonable hours to the premises supplied for the purpose of setting, reading, repairing or removing meters or for making necessary inspections.

§ 186-30. Water rates.

[Amended 11-18-2004 by L.L. No. 9-2004]

- A. In districts without meters, the Town Board shall set the charges for water use according to a formula to be established for each district by resolution.
- B. In districts with meters, the Town Board shall set the water rate to be applied based upon quantity of water used; provided, however, that the Town Board shall be authorized to set a flat water rate for owners within such districts who refuse to permit the installation of a water meter on their property. Any flat water rate set by the Town Board hereunder shall be established by resolution.
- C. All such water rates, for districts with or without meters, shall be set and reviewed by the Town Board at least once a year. The Town Board shall have authority to modify the water rates during the year when required in order to raise the necessary funds for operation and maintenance of the district.
- D. The Town Board shall also, for all districts, set a minimum water rate by resolution, which shall be payable even though no water is consumed within a billing period.
- E. Water rates, when collected, shall be applied, first, toward the maintenance, operation, enlargement or improvement of the water system and, second, for the payment of principal and interest on bonds issued for the purpose of such district.

§ 186-31. Imposition and computation of water rates.

[Amended 11-18-2004 by L.L. No. 9-2004]

- A. All water rates shall be payable quarterly, unless the Town Board by resolution determines that such rates shall be payable at greater or lesser frequency. In districts with meters, quarterly charges shall be determined by a water meter reading made some time within 30 days prior to the billing date; provided, however, that the Town Board may impose such

quarterly charges by a flat water rate for owners who refuse to permit the installation of a water meter on their property, as authorized by § **186-30B** above. In the event that the Town Board or its agent may not obtain access to a meter for accurate reading, the Board will have the right to estimate the bill based upon prior usage.

- B. The owner shall be obligated to pay the minimum water charge set by resolution of the Town Board regardless of the actual consumption of water.

§ 186-32. Payment and enforcement of water rates.

- A. All water bills for water rates and repairs shall be due and payable within 30 days of the billing date. After 30 days, a penalty equal to 10% of the amount remaining due shall be added to said bill. When a bill remains unpaid for 30 days, the Town Water Department shall send a notice to the customer that unless the bill is paid in 30 days, the water service will be disconnected without further notice. Any customer whose water bill is not paid after 60 days from the billing date shall have their service disconnected, pursuant to such notice. After such disconnection for delinquency, service shall be restored only upon payment of a reconnection fee to be set by the Town Board by resolution.
- B. The payment of water rents must include all arrears and charges, including repair costs charged, to date of billing. No partial payment will be received which leaves a previous charge unpaid.
- C. All water charges shall constitute a lien upon the real property served by the water system of the district and such lien shall be prior and superior to every other lien or claim except the lien of an existing tax, assessment, water rate, sewer rent or other lawful charges imposed by the Town.
- D. All other lawful charges in connection with the water system and any and all penalties for the violations of any rules and regulations adopted for such water district, if not promptly paid, shall likewise constitute a lien upon the real property and premises in the same manner as unpaid water rents.
- E. All water rents, penalties and other lawful charges remaining due and unpaid at the time of the annual tax roll of the water district is compiled shall be included therein and levied against the real property on which the water shall have been used, and shall be collected with and in the same manner as other Town taxes with the additional fees, charges and penalties incident to the collection of such taxes.

§ 186-33. Fees.

The Town Board shall, from time to time, act by resolution to set fees for the following items:

- A. Street opening permits as provided for in § **186-24A**.
- B. Fee for tapping into main as provided in § **186-25**.

- C. Service main permit for installation and repair as provided in § **186-30**.
- D. New connection of water service fee as provided in § **186-27E**.
- E. Reconnection of water service after disconnection for delinquency, or other failure to comply with rules.
- F. Special permits to allow more than one meter on any one service main as provided for in § **186-29B**.
- G. Fee for permit to install meter as provided in § **186-29**.

§ 186-34. Enforcement.

- A. Pursuant to §§ 135 and 198, Subdivision 3(c), of the Town Law, a violation of any of the provisions of this article is hereby declared to be a violation, punishable by a fine for each violation not exceeding \$250, or imprisonment for a period not to exceed 15 months, or both. Each day said violation continues shall constitute a separate violation. The proper local authorities of the Town, in addition to other remedies, may institute any appropriate action or proceeding to prevent unlawful violation of these rules and regulations to restrain, correct or abate such violation or to prevent any illegal action, conduct or use in or about said water district.
- B. In case of any violation of this article, the Water Department may shut off the supply upon 24 hours' notice, and water shall not be turned on again until the rules are complied with and all unpaid charges and rents are paid, together with a reconnection fee to be set by the Town Board, from time to time, by resolution.

§ 186-35. Method of service of notice.

- A. Service of any notice, provided for in this article, may be upon the owner or consumer personally or by leaving the same at the premises where water is supplied or by sending the same by mail to such party at the last known address.
- B. Service of any notice to the Town Board or water district shall be by delivery to the Town Clerk.

§ 186-36. Reservation.

The Town Board reserves the right to change, modify, supplement or amend these rules and regulations from time to time. The right is also reserved to make such additional rules and regulations which the Town Board deems best to regulate the water supply and the proper and efficient administration of the Town water districts and to make contracts for the use of water in special cases.

Chapter 189. WELLS

[HISTORY: Adopted by the Town Board of the Town of East Fishkill as indicated in article histories. Amendments noted where applicable.]

189a Schedule A 

Article I. Testing of Private Wells

[Adopted 7-26-2007 by L.L. No. 4-2007]

§ 189-1. Title.

This chapter shall be known and cited as Town of East Fishkill "Local Law No. 4 of the Year 2007, entitled "Mandatory Private Well Testing" in the Town of East Fishkill.

§ 189-2. Legislative intent.

The Town Board of the Town of East Fishkill enacts this chapter to establish water quality standards for residential and nonresidential private water sources not otherwise regulated by Part 5 of the New York State Sanitary Code for the protection of and for the health, safety and welfare of the residents of the Town of East Fishkill.

§ 189-3. Statutory authority; purpose.

- A. This chapter is enacted pursuant to the powers vested in the Town of East Fishkill by Municipal Home Rule Law § 10, Town Law § 130, Subdivision 5, and Public Health Law §§ 302, 308 and 347, Subdivision 1c.
- B. The Town Board of the Town of East Fishkill enacts this chapter for purposes of requiring mandatory private well testing for all properties in the Town of East Fishkill that rely on a private water supply which is utilized for purposes of human consumption. It is also the purpose of this chapter to establish minimum water quality standards for private water sources servicing residential and nonresidential properties, and to mandate water testing standards to assure purchasers and tenants of residential and nonresidential properties serviced by private wells that the water supplied to these properties will be potable and free from harmful contaminants. These water quality standards will also apply to multifamily residential properties and commercial properties not otherwise subject to regulation and testing pursuant to Part 5 of the New York State Sanitary Code. The water test results shall be

filed with the Town of East Fishkill Building Department and the Dutchess County Health Department and will also serve as a data base for identifying potential problem areas of contamination within the Town.

§ 189-4. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings unless the context clearly indicates otherwise:

A. General definitions:

COMMUNITY WATER SYSTEM

A public water system which serves at least five service connections used by year-round residents or regularly serves at least 25 year-round residents, as defined in § 5-1.1 of the New York State Sanitary Code.

EAST FISHKILL WELL-TESTING PROTOCOL

Standards, procedures, test parameters and maximum contaminant levels for all well water used for human consumption in the Town of East Fishkill.

MULTIFAMILY RESIDENTIAL RENTAL PROPERTY

Residential property containing three or more rental units.

NONCOMMUNITY WATER SYSTEM

A public water system that is not a community water system, as defined in § 5-1.1 of the New York State Sanitary Code.

NONRESIDENTIAL BUILDING

Any structure which is wholly or partially used or intended to be used and occupied for commercial purposes, including but not limited to office buildings, stores, markets, shops and malls engaged in retail sales, marinas, restaurants, clubs, gas stations, or car dealerships, etc., which establishments have a water system intended for human consumption.

NONTRANSIENT NONCOMMUNITY WATER SYSTEM

A public water system that is not a community water system but is a subset of a noncommunity water system that regularly serves at least 25 of the same people, four hours or more per day, for four or more days per week, for 26 or more weeks per year, as defined in § 5-1.1 of the New York State Sanitary Code.

POTABLE WATER

Water suitable for drinking and fit for human consumption in accordance with standards established by the Dutchess County Department of Health and the New York State Department of Health.

PRIVATE WATER SUPPLY

Any water supply utilized for the purposes of human consumption not identified as a public water supply by § 189-5 of this chapter or by Part 5 of the New York State Sanitary Code.

PUBLIC WATER SYSTEM

A community or noncommunity or nontransient noncommunity water system which provides water to the public for human consumption through pipes or other constructed conveyances if such system has at least five service connections or regularly serves an average of least 25 individuals daily at least 60 days out of the year. Such term includes:

- (1) Collection, treatment, storage and distribution facilities under control of the supplier of water of such system and used with such system; and
- (2) Collection or pre-treatment storage facilities not under such control which are used with such system.

PURCHASER

"Purchaser" and "buyer" shall have the same meaning and shall mean a purchaser or buyer of real estate pursuant to a written contract.

RESIDENTIAL PROPERTY

Any owner-occupied one- or two-family dwelling unit(s).

RESIDENTIAL RENTAL PROPERTY

Any "dwelling" or "dwelling unit" [as those terms are defined in Article 21 of the Dutchess County Sanitary Code at Section 21.1(G) and 21.1 (H)] which is nonowner occupied and for which rent or consideration is periodically paid to the owner and otherwise does not constitute a multifamily residential real property.

SELLER AND PURCHASER

Shall include both male and female and be considered single or plural depending on the context. The terms shall also include legal entities and organizations.

TENANT

Any person or entity who leases property for either residential or commercial purposes.

WELL

Privately owned well used to supply potable drinking water to residential premises or nonresidential establishments; it does not include wells that supply water pursuant to § 5-1.1 of New York State Sanitary Code as a community water system or a noncommunity water system.

- B. This chapter hereby adopts the definitions contained in the New York State Sanitary Code Part 5 and contained in the Town of East Fishkill Code as the same may be amended hereafter from time to time.

§ 189-5. Well testing required.

A. Residential properties.

- (1) Well testing is hereby required for all one- and two-family residential properties which are provided with water from a private water source; said testing to occur prior to a sale or exchange of the property. The parties shall be free to contractually allocate the cost of such testing.
- (2) A copy of the certified test results shall be sent to the parties and shall be filed with the Town of East Fishkill Building Department, which Department will file a copy with the Dutchess County Health Department, and shall be valid for 36 months and may be used for subsequent sales/purchases or exchanges within said 36 month period.

B. Multifamily and nonresidential properties and residential rental property.

- (1) Multifamily and nonresidential properties and residential rental property not otherwise exempted under this chapter shall be required to test their private wells within 12 months of the effective date of this chapter. A copy of the certified test results shall be sent to the parties, tenants or occupants and shall be filed with the Town of East Fishkill Building Department and said Department will file a copy with the Dutchess County Health Department and shall be valid for a three-year period. At the end of the three-year period, a new well test shall be required.

§ 189-6. Tests required.

- A. Each water sample shall be analyzed in accordance with the East Fishkill Well-Testing Protocol (the Protocol) made a part of this chapter, copies of which shall be kept on file with the Town Clerk.^[1] The Town Board reserves the right to amend the East Fishkill Well Testing Protocol by resolution.

[1]: *Editor's Note: Said Protocol appears at the end of this chapter.*

- B. Analytic testing and collection with proper chain of custody shall be performed by a New York State certified laboratory and shall conform to the rules and regulations of the New York State Department of Health.
- C. The required test parameters will have the same maximum contaminant levels as set forth in Part 5 of the New York State Sanitary Code for public water supplies.
- D. Copies of the test results shall be sent to the parties, tenants or occupants and shall be filed with the Town of East Fishkill Building Department and a copy forwarded to the Dutchess County Department of Health. Test results shall also be available for public inspection and reproduction in the same manner as other public documents.

§ 189-7. Exemptions.

Any property which is serviced by a community and/or noncommunity water system as defined herein and in § 5-1.1 of the New York State Sanitary Code which is already regulated and subject to testing shall be exempt from the requirements of this chapter.

§ 189-8. Enforcement.

- A. The Town of East Fishkill Building Inspector, Code Enforcement Officers, Zoning Administrator, Deputy Zoning Administrator and the Fire Inspector shall enforce the provisions of this chapter.
- B. The Town of East Fishkill Building Department shall be prohibited from releasing the results of any Building Department or certificate of occupancy search to either buyer/seller, title company or their agent, until the required certified test results have been filed with the Town Building Department.
- C. Any property required pursuant to this chapter to have well test results on file with the Town Building Department shall be ineligible for a building permit, certificate of occupancy/certificate of compliance, site plan review, subdivision review and/or ZBA variance review or interpretation until the required certified test results have been filed in accordance with the provisions of this chapter.
- D. Prior to the issuance of the original certificate of occupancy, a test will be required.

§ 189-9. Penalties for offenses.

- A. For each violation of a provision of this chapter, the person violating the same shall be guilty of a violation and shall be subject to a fine in the amount set forth in the Code.
- B. Any person violating this chapter shall be subject to a civil penalty enforceable and collectible by the Town in the amount set forth in the Code for each offense.
- C. In addition to the above penalties, the Town Board may also maintain an action or proceeding in the name of the Town in a court of competent jurisdiction to compel compliance with or to restrain by injunction the violation of this chapter, and to recover the appropriate fines and penalties together with administrative fees and costs, including attorney's fees and disbursements.
- D. Each violation will be punishable by a fine not to exceed \$500 or a civil penalty not to exceed \$1,000.

§ 189-10. Responsibility for enforcement.

This chapter will be enforced by the Building Inspector, the Code Enforcement Officers, the Fire Inspector, the Deputy Fire Inspector and any police agency having jurisdiction within the Town of East Fishkill.

WELLS

189 Attachment 1

Town of East Fishkill

Schedule A

Well-Testing Protocol

1. Laboratory Requirements.

All sample collection with proper chain of custody and analysis shall be performed by a laboratory approved by the New York State Department of Health, "Environmental Laboratory Approval Program."

2. Testing Procedure.

- a. New Wells: The well should be pumped clear and disinfected with chlorine. The water sample shall be collected after the disinfectant has been cleared from the system.
- b. Existing Wells: Samples should be taken of the raw water after any existing treatment has been bypassed. The sampling location should purge water for a minimum of 10 minutes prior to collection of water samples for wells in active use. For wells not in active use, water shall be purged for a minimum of 60 minutes to insure representative water samples from the well.
- c. Additional testing at point of use may be necessary to determine the efficacy of any installed treatment systems.

3. Testing Standards.

The following contaminants shall be tested for compliance with the Maximum Contaminant Level established for such contaminants by the New York State Sanitary Code, Part 5 limits:

a. Principal Organic Compounds Parameters*

Benzene	cis-1, 3-dichloropropene
bromobenzene	trans-1, 3-dichloropropene
bromochloromethane	ethylbenzene
bromomethane	hexachlorobutadiene
n-butylbenzene	isopropylbenzene
sec-butylbenzene	p-isopropyltoluene
tert-butylbenzene	methylene chloride
carbon tetrachloride	n-propylbenzene
chlorobenzene	styrene
chloroethane	1,1,1,2-tetrachloroethane
chloromethane	1,1,2,2-tetrachloroethane

EAST FISHKILL CODE

2-chlorotoluene	tetrachloroethene
4-chlorotoluene	toluene
dibromomethane	1,2,3-trichlorobenzene
1,2-dichlorobenzene	1,2,4-trichlorobenzene
1,3-dichlorobenzene	1,1,1-trichloroethane
1,4-dichlorobenzene	1,1,2-trichloroethane
dichlorodifluoromethane	trichloroethylene
1,1-dichloroethane	trichlorofluoromethane
1,2-dichloroethane	1,2,3-trichloropropane
1,1-dichloroethene	1,2,4-trimethylbenzene
cis-1,2-dichloroethene	1,3,5-trimethylbenzene
trans-1,2-dichloroethene	m-xylene
1,2-dichloropropane	o-xylene
1,3-dichloropropane	p-xylene
2,2-dichloropropane	vinyl chloride
1,1-dichloropropene	methyl tertiary-butyl ether

*EPA method 502.2 with a detection limit of 0.5 ug/l or less

b. Inorganic Compounds Parameters

Antimony	Cyanide	Nitrate
Arsenic	Iron	Nitrite
Beryllium	Lead	Selenium
Cadmium	Manganese	Sulfate
Chlorides	Mercury	Thallium
Chromium	Nickel	

EXHIBIT C

PROPERTY DEEDS

47 STONE RIDGE LANE
PARCEL NO. 798621

85-Warranty Deed with Full Description of Individual.
Statutory Form A. Photo Not to be used.

LIBER 1401 PAGE 216

JULIUS BLUMBERG, INC., LAW BLANK PUBLISHERS
80 EXCHANGE PLACE AT BROADWAY, NEW YORK

THIS INDENTURE, made the 16th day of ~~November~~ DECEMBER, nineteen hundred and Seventy-four

BETWEEN CARLOTTA SARTORI, residing at Shenandoah Road, Hopewell Junction, New York,

party of the first part, and

CARLOTTA HEITMAN and UWE HEITMAN, both residing at East Hook Cross Road, Hopewell Junction, New York,

parties of the second part,

WITNESSETH, that the party of the first part, in consideration of TEN and no/100-----

----- (\$10.00) ----- Dollars,
lawful money of the United States, and other good and valuable consideration

paid by the parties of the second part do es hereby grant and release unto the parties of the second part,
their heirs and assigns, forever,

ALL that parcel of land in the TOWN OF EAST FISHKILL, County of Dutchess and State of New York, described as follows:

BEGINNING at an iron pipe set in a stone heap on the top of a rock ledge at the southwesterly corner of lands of Bartolomei and running thence with line of lands of Bartolomei North 44° 7' East 462.59 feet; thence with line of lands now or formerly of the Fowler Estate and along a stone wall North 22° 9' 50" West 93.81 feet to a corner of walls; thence still with lands now or formerly of the Fowler Estate North 57° 46' 50" West 183.87 feet to the line of lands of Sartori; thence with the line of lands of Sartori South 45° 46' West 423 feet to the line of lands of Cirkinian; thence with line of lands of Cirkinian South 27° 45' East 131.6 feet; thence with other lands of Weitz South 46° 24' East 152.92 feet to the place of beginning; containing 2.95 acres of land.

The seller is conveying her one-half interest in the property described above.

Being the same premises conveyed to Louis Sartori, Sr., and Frank Sartori, Sr., by deed recorded in Liber 1085 of Deeds at Page 824.

Louis Sartori, Sr., also known as Lewis Sartori and as Luigi Sartori died testate, a resident of the County of Dutchess on 25 October 1971, By Will he devised and bequeathed his estate to his wife Carlotta who is the Seller herein named. See Dutchess County Surrogate's Court File No. 63495.

DUTCHESS COUNTY CLERK'S OFFICE

RECEIVED ON THE 4 DAY OF Feb 19 75
AT 2 H 28 M P M-RECORDED IN
BOOK No. 1401 OF Deeds
AT PAGE 216 AND EXAMINED

DUTCHESS COUNTY

REAL ESTATE
TRANSFER TAX

Dept. of Taxation
& Finance

STATE OF
NEW YORK

01.65

PR. 10948

CLERK

700

FEB 4 2 28 PM '75

DUTCHESS COUNTY
CLERK'S OFFICE
RECORDED

RE 4⁶⁰ 9

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises.

TO HAVE AND TO HOLD the premises herein granted unto the parties of the second part,
their heirs and assigns forever.

870

This Indenture,

Made the 23rd day of January nineteen hundred and seventy-one

Between LUIGI SARTORI, residing at Condominio Al Parco, Feltre, Provinci, Belluno, Italia, by Frank Sartori and Arrigo Sartori a/k/a Harry Sartori, his attorneys in fact, FRANK SARTORI and ARRIGO SARTORI a/k/a HARRY SARTORI, both residing at East Hook Cross Road, Hopewell Junction, New York,

parties of the first part,

and CARLOTTA HEITMANN, residing at East Hook Cross Road, Hopewell Junction, New York,

part y of the second part,

Witnesseth, that the parties of the first part, in consideration of-----

-----O N E (\$1.00)----- Dollars,

lawful money of the United States, and other good and valuable consideration

paid by the part y of the second part

do hereby grant and release unto the part y of the second part,

her heirs and assigns forever,

All that tract or parcel of land situate in the Town of East Fishkill, County of Dutchess and State of New York, bounded and described as follows:

BEGINNING at a point on the southeasterly side of East Hook Cross Road said point being distant N51°16'E108 feet, N70°36'E62 feet and N66°33'E 46.26 feet from a second point, said second point being the northeasterly corner of lands of Horton and proceeding along the center of a lane S5°39'W 190.86 feet, thence S28°33'W 253.79 feet and N70°01'W 122.55 feet to the easterly line of Horton, thence along said last mentioned line S10°15'W 255.65 feet to the southeasterly corner of Horton, thence S66°50' E 172 feet, thence along lands of Stevens N43°30'E 99.4 feet, thence along lands surveyed by Hustis in 1959 for use as a factory N46°30'W 100 feet and N43°30'E 435.6 feet, thence N 10°41'W 95.5 feet more or less to the southeast corner of lands now or formerly of Heitmann, N 84°21'W 136.0 feet and N5°39'E 126.71 feet to the southeasterly side of East Hook Cross Road, thence along said road S66°33' W 17.17 feet to the point and place of beginning being 2.25 acres more or less.

THE parcel above described also being Lot designated "E" on Map numbered 3776 filed in the Dutchess County Clerk's Office on the 16th day of December, 1970.

BEING also a portion of the premises conveyed by Charles Levins and Belle A. Levins, his wife, to Luigi Sartori, Arrigo Sartori and Frank Sartori, by deed dated the 7th day of Aug ust, 1948, and recorded in the Office of the Clerk of the County of Dutchess on the 13th day of August, 1948, in Liber 697 of Deeds at Page 254.

* THENCE ALONG LANDS OF HEITMANN

LIBER 1302 PAGE 261

261

11 EAST HOOK CROSS ROAD
PARCEL NO. 775657

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT--THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY.

BOOK 1754 PAGE 98

098

THIS INDENTURE, made the 29 day of May, nineteen hundred and eighty-seven

BETWEEN EUGENE C. NICOLATO, residing at 6 Whitehouse Avenue, Poughkeepsie, New York

as executor of the last will and testament of CARLOTTA SARTORI, late of the Town of East Fishkill, Dutchess County, New York who died on the day of , nineteen hundred and party of the first part, and

UWE HEITMANN and CARLOTTA HEITMANN, husband and wife, both residing at East Hook Cross Road, Hopewell Junction, New York

party of the second part,

WITNESSETH, that the party of the first part, to whom letters testamentary were issued by the Surrogate's Court, Dutchess County, New York on and by virtue of the power and authority given in and by said last will and testament, and/or by Article 11 of the Estates, Powers and Trusts Law, and in consideration of

EIGHT THOUSAND FIVE HUNDRED (\$8,500.00) dollars, (representing the 1/3 share of the decedent, Carlotta Sartori) paid by the party of the second part, does hereby grant and release unto the party of the second part, the distributees or successors and assigns of the party of the second part forever,

~~ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon, situate, lying and being in the~~

ALL that parcel of land situate in the TOWN OF EAST FISHKILL, County of Dutchess, State of New York, shown and designated as Lot "A" on a map entitled "Sartori", filed in the Dutchess County Clerk's Office as Map No. 3776 on December 16, 1970, which lot contains 2.0 acres.

BEING a portion of the premises conveyed to Luigi Sartori, Arrigo Sartori and Frank Sartori, by deed recorded in Liber 697 of Deeds at Page 254. Luigi

(also known as Lewis and Louis Sr.) Sartori died testate on October 25, 1971, leaving Carlotta Sartori, above named, his sole beneficiary (D.C. Surr. Ct. File No. 63495).

Contract of Sale
Examined--Dated
Prior to 5/1/83

DUTCHESS COUNTY CLERK'S OFFICE
RECEIVED ON THE 5 DAY OF June 1987
AT 11 H 34 M. IS RECORDED IN
BOOK No. 1754 OF Deeds
AT PAGE 98 AND EXAMINED
R. Stinson CLERK

6784
RECEIVED
9.35
REAL ESTATE
JUN 5 1987
TRANSFER TAX
DUTCHESS
COUNTY

DUTCHESS COUNTY
CLERK'S OFFICE
RECEIVED
JUN 5 11 34 AM '87

Attorney Filed \$1

7 EAST Hook Cross Road
PARCEL NO. 791668

EXHIBIT D

EXISTING EASEMENTS

EASEMENT AGREEMENT

THIS EASEMENT is made as of the 18th day of November, 2011, by and between Uwe Heitmann and Carlotta Heitmann, residing at 11 East Hook Cross Road, Hopewell Junction, New York 12533 (hereinafter collectively referred to as the “Owner”) and International Business Machines Corporation, a New York corporation having an office and place of business at New Orchard Road, Armonk, New York 10504 (hereinafter referred to as “IBM”).

WITNESSETH:

WHEREAS, the Owner holds all right, title and interest in property known as 47 Stone Ridge Lane in the Town of East Fishkill, Dutchess County, New York, bearing parcel identification number 132800-6455-02-798621-0000, said property being more particularly bounded and described in a deed from Carlotta Sartori to Carlotta Heitmann and Uwe Heitmann, dated December 16, 1974 and recorded in the Dutchess County Clerk’s Office in Liber 1401 of Deeds, page 216; and,

WHEREAS, IBM is engaged in remediation activities at the Shenandoah Road Groundwater Contamination Superfund Site within nearby parcels in the Town of East Fishkill; and

WHEREAS, pursuant to an Agreement for Access to Property dated on or about May 14, 2001, a copy of which is annexed hereto as Exhibit A and incorporated herein by reference thereto, the Owner and IBM entered into an agreement granting IBM access to the nearby properties known as 7 and 11 East Hook Cross Road in the Town of East Fishkill, Dutchess County, New York, in order to carry out certain response actions necessary to remediate

contamination found on those properties; and

WHEREAS, in connection with such remediation activities, IBM has requested that Owner grant an easement over the Property for access to, construction and maintenance of a groundwater treatment building, to be known as 7 East Hook Cross Road Facility for the Shenandoah Road Groundwater Contamination Superfund Site, Town of East Fishkill, Dutchess County, New York; and,

WHEREAS, the Owner is willing to grant such an easement to IBM in accordance with the terms and provisions contained in this instrument;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar actual consideration paid by IBM to the Owner, receipt of which is hereby acknowledged, and the mutual covenants contained herein, the parties hereto agree as follows:

1. The Owner hereby grants IBM, its successors and assigns an easement and right of way to construct, install, operate, maintain, repair and replace a groundwater treatment building, to be known as 7 East Hook Cross Road Facility for the Shenandoah Road Groundwater Contamination Superfund Site, together with access drives, parking areas, utility and water lines, and all other facilities which may be appurtenant thereto as required by IBM in connection with its remediation activities. Access to the easement area shall be provided pursuant to the Agreement for Access to Property annexed hereto as Exhibit A.

2. The facilities shall be constructed in accordance with the building permit obtained by IBM after consultation with the Owner. IBM will provide the Owner with copies of the building permit and final certificate of occupancy for the structure upon receipt from the municipality. IBM shall perform such construction, maintenance, repair and replacement in the

manner consistent with providing the least interference with the use and enjoyment of the Owner's land, to the extent reasonably possible. In addition, except for the new facilities to be constructed by IBM hereunder, IBM agrees to restore the affected portions of the Owner's property to a condition reasonably approximate to the condition the premises were in prior to the construction of the facilities.

3. Owner shall pay when due all real property taxes for the parcel of which the leased premises are a part, except that, notwithstanding the foregoing, as long as this Easement remains in effect and has not expired of its own terms or been terminated by either party, IBM shall pay any real property tax or any other tax or fee which is directly attributable to the presence or installation of the 7 East Hook Cross Road Facility. IBM shall seek to have such improvements separately assessed to IBM. If IBM's facilities are not separately assessed, IBM shall promptly reimburse to the Owner any real property taxes paid by the Owner which are directly attributable to IBM's facilities. Owner hereby grants to IBM the right to challenge, whether in a court, administrative proceeding, or other venue, on behalf of the Owner and/or IBM, any real property tax assessments that may affect IBM. If Owner receives notice of any real property tax assessment against the Owner which is directly attributable to IBM's facilities, the Owner shall provide timely notice of the assessment to IBM sufficient to allow IBM to consent to or challenge such assessment. The Owner shall promptly provide to IBM any and all documentation associated with the assessment and shall execute any and all documents reasonably necessary to effectuate the intent of this paragraph.

4. IBM accepts full responsibility for any claims, suits, accidents, injuries (including death) or damage to any person (including its representative, employees, contractors or agents) or

property caused by its own negligent acts, errors or omissions, or those of its representatives, employees, contractors or agents, in connection with IBM's activities covered by this Easement, and, to the extent of its responsibility therefor, shall indemnify, defend and hold harmless the Owner, its employees, agents, contractors or subcontractors from all cost, liability or expense by reason of any such claims.

5. For purposes of this Easement, IBM's Project Coordinator is Mr. Thomas Morris, International Business Machines Corporation, 294 Route 100, Bldg 2, Mail Drop 2393, Somers, NY 10589, telephone number 914-766-2739. IBM's Project Coordinator will be the Owner's point of contact in IBM for any purpose related to this Easement.

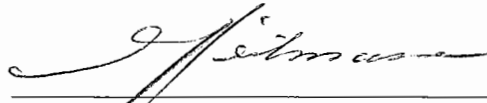
6. This Easement shall continue until the termination of all work deemed necessary by IBM to achieve the U.S. Environmental Protection Agency-required removal and remediation of contamination at the Shenandoah Road Groundwater Contamination Superfund Site. Upon completion of such work, IBM shall execute and deliver to Owner an instrument in recordable form terminating and releasing its rights under this Easement in favor of the Owner or Owner's heirs, successors, and assigns, who shall be the owner or owners of the parcel of which the leased premises are a part. Upon such termination, IBM will also transfer ownership and title of its facilities, including the building, site improvements and other facilities, including but not limited to electric and telephone lines, access drive and parking areas and potable water line, if any, to such Owner.

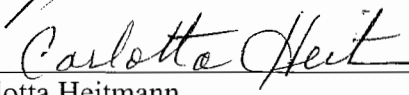
7. This Easement shall run with the land and shall be binding upon and enure to the benefit of the Owner and IBM and their respective heirs, successors and assigns.

TO HAVE AND TO HOLD the rights herein granted unto IBM for the term of this

Easement.

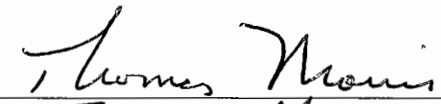
IN WITNESS WHEREOF, the parties have executed this instrument as of the date and year appearing above.



Uwe Heitmann


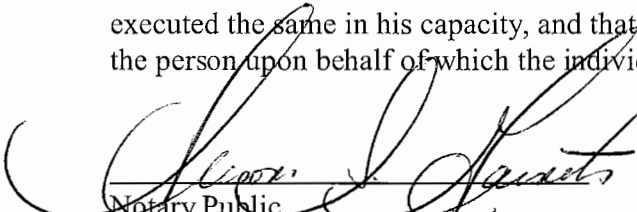
Carlotta Heitmann

INTERNATIONAL BUSINESS
MACHINES CORPORATION

By: 
Name: THOMAS MORRIS
Title: IBM PROGRAM MANAGER

STATE OF NEW YORK)
) ss.:
COUNTY OF DUTCHESS)

On the 18th day of November, 2011 before me, the undersigned, personally appeared Uwe Heitmann, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



Notary Public
Commission Expires: 6/2/2012
(Affix Notary Stamp or Seal)

ALISON A. GARNOT
Notary Public, State of New York
Qualified in Dutchess County
No. 01GA6186032
Commission Expires June 2, 2012

[illegible]

On the 18th day of November, 2011 before me, the undersigned, personally appeared Carlotta Heitmann, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

Commission Expires: 6/2/2012
(Affix Notary Stamp or Seal)

ALISON A. GAGNOT
Notary Public, State of New York
Qualified in Dutchess County
No. 01GA6188092
Commission Expires June 2, 2012

[illegible]

On the 28 day of NOV, 2011^{2012 JCS} before me, the undersigned, personally appeared Thomas Morris, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

Commission Expires: 7/15/2014
(Affix Notary Stamp or Seal)

JENNIFER A. SMITH
Notary Public, State of New York
No. 01SM5063001
Qualified in Westchester County
Commission Expires July 15, 2019

SCHEDULE A

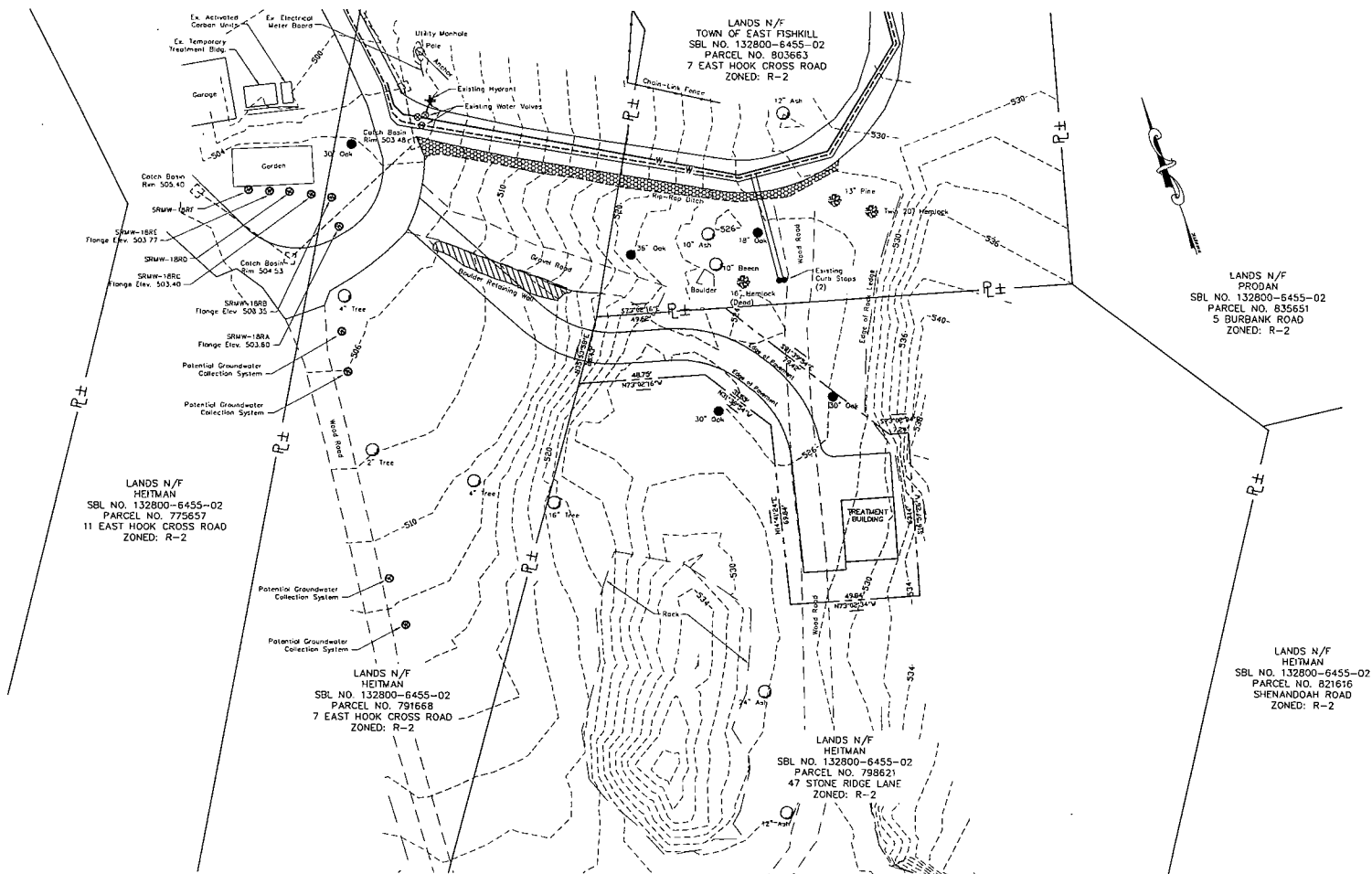
DESCRIPTION OF AN EASEMENT FOR ACCESS TO,
CONSTRUCTION AND MAINTENANCE OF A WATER TREATMENT BUILDING
TO BE KNOWN AS 7 EAST HOOK CROSS ROAD FACILITY FOR THE
SHENANDOAH ROAD GROUNDWATER CONTAMINATION SUPERFUND SITE
TOWN OF EAST FISHKILL, DUTCHESS COUNTY, NEW YORK

BEGINNING at a point on the Easterly line of lands of Uwe and Carlotta Heitmann, Liber 1754 Page 098, and running:

- 1) thence from said point of beginning along the Easterly line of lands of Heitmann North 35° 53' 58" East, 26.43 feet to a point at the Southwesterly corner of lands of the Town of East Fishkill, Liber 22007 Page 9183, said point also being the Northwesterly corner of other lands of Uwe and Carlotta Heitmann, Liber 1401 Page 216;
- 2) thence along the Southerly line of lands of the Town of East Fishkill South 73° 02' 16" East, 49.62 feet to a point;
- 3) thence through the lands of Uwe and Carlotta Heitmann, Liber 1401 Page 216 the following course and distances: South 31° 39' 54" East, 79.42 feet to a point;
- 4) thence South 73° 02' 34" East, 7.24 feet to a point;
- 5) thence South 16° 57' 26" West, 63.14 feet to a point;
- 6) thence North 73° 02' 34" West, 49.84 feet to a point;
- 7) thence North 14° 41' 24" East, 69.84 feet to a point;
- 8) thence North 31° 39' 54" West, 31.55 feet to a point;
- 9) thence North 73° 02' 16" West, 48.75 feet to the place of beginning.

CONTAINING: 0.138 Acres of 5,992 Sq. Ft.

All bearings are referred to Magnetic North.

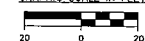


LEGEND

----- EXISTING CONTOURS
 - - - - - PROPOSED EASEMENT

AREA OF EASEMENT = 0.138 ACRE

GRAPHIC SCALE IN FEET



EASEMENT MAP

7 EAST HOOK CROSS ROAD FACILITY

SHENANDOAH ROAD
 GROUNDWATER CONTAMINATION SUPERFUND SITE
 TOWN OF EAST FISHKILL DUTCHESS COUNTY NEW YORK

DATE	REVISION	RECORD

BRINNIER & LARIOS, P.C.
 ENGINEERS & LAND SURVEYORS
 67 MAIDEN LANE KINGSTON, N.Y.

SCALE: 1" = 20'
 DATE: SEPT. 2011
 SHEET NO. 1 OF 1



Unauthorized alteration or addition to a plan bearing a licensed engineer's seal is a violation of section 7209, subdivision 2, of the New York State Education Law.

EXHIBIT A

AGREEMENT FOR ACCESS TO PROPERTY BETWEEN UWE AND CARLOTTA HEITMANN, AS "OWNER" AND INTERNATIONAL BUSINESS MACHINES CORPORATION, AS "IBM", DATED MAY 14, 2001, IS TO BE ANNEXED HERETO FOLLOWING THIS PAGE AND MADE A PART OF THIS EASEMENT AGREEMENT.

MAY 15 2001 12:10 FR LAW DEPT

914 499 7372 TO 68262837

P.02



Office of the Vice President, Assistant General Counsel

*New Orchard Road
Armonk, New York 10504*

May 15, 2001

George A. Rodenhausen, Esq.
Rapport, Meyers, Whitbeck, Shaw & Rodenhausen
110 Main Street
Poughkeepsie, New York 12601-3083

Re: Shennandoah Road, Ground Water Contamination Site
7 and 11 East Hook Cross Road, Hopewell Junction

Dear Mr. Rodenhausen:

Enclosed is a copy of the access agreement signed by IBM.

Thank you for your courtesy in this matter.

Sincerely,

A handwritten signature in cursive script, reading "Edward M. Lineen".

Edward M. Lineen

MAY 15 2001 12:11 FR LAW DEPT

914 499 7372 TO 89262837

P.03

LAW OFFICES OF
RAPPORT, MEYERS, WHITBECK, SHAW & RODENHAUSEN, LLP

110 MAIN STREET
POUGHKEEPSIE, NEW YORK 12601-3083

(845) 473-7766
(845) 473-7790 FAX
e-mail: GRodenhausen@rapportmeyers.com

OF COUNSEL
JOHN J. FASO

CARMI RAPPORT
VICTOR M. MEYERS
CARL G. WHITBECK, JR.
JASON L. SHAW
GEORGE A. RODENHAUSEN
CHRISTINE M. CHALE
SHANNON MARTIN LAFRANCE
ALBERT BRIGHT

HUDSON OFFICE:
436 UNION STREET
HUDSON, NY 12534
518-828-9444
518-828-9719 FAX

May 10, 2001

Edward M. Lineen
Office of the Vice President, Assistant General Counsel
IBM Corporation
New Orchard Road
Armonk, NY 10504

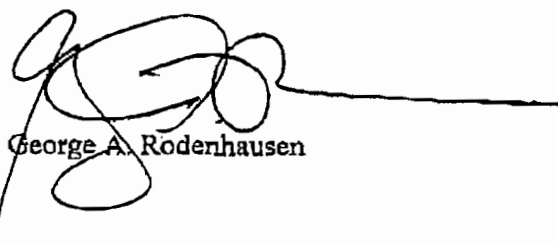
Re: Shennandoah Road, Ground Water Contamination Site
7 and 11 East Hook Cross Road, Hopewell Junction.

Dear Mr. Lineen:

As discussed, I enclose the access agreement signed by Mr. and Mrs. Heitmann as owners of the property at 7 and 11 East Hook Cross Road, Hopewell Junction. Number 9 is not in their joint ownership and is not involved in the remediation. I have amended the agreement to reflect that it applies only to lots 7 and 11, and to add the language regarding termination of the agreement in paragraph 7. I've initialed both changes as attorney in fact for the owners.

I would appreciate it, if you would return to me at your earliest convenience, a copy signed by an authorized representative of IBM. If you have any questions or comments, please do not

Sincerely,



George A. Rodenhausen

GAR:hs

Co: Mr. and Mrs. Uwe Heitmann

01134CPD 1249

MAY 15 2001 12:11 FR LAW DEPT
MAY 15 2001 11:40 FR LAW DEPT914 499 7372 TO 88262837
914 499 7372 TO 918454737790P.04
P.03**AGREEMENT FOR ACCESS TO PROPERTY**

This agreement is between Uwe and Carlotta Heitmann, hereinafter referred to as "owner", and International Business Machines Corporation, hereinafter referred to as "IBM".

Whereas the owner holds all right, title and interest in properties described as "~~7^{and 11} East~~ Hook Cross Road" in the Town of East Fishkill, Dutchess County, New York (the "property");
and

*Att In Fact
McDermott*

QMA

Whereas the owner has the right to grant access to said property; and

Whereas owner has previously granted access to the property to the United States Environmental Protection Agency (the "EPA") and to the New York State Department of Environmental Conservation ("NYSDEC") in order to carry out certain response actions necessary to remediate contamination found on the property; and

Whereas IBM is considering voluntarily entering into an agreement with the EPA, and may enter into subsequent agreements with the EPA, for actions related to the removal and remediation of contamination found on the property; and

Whereas IBM, its employees, agents, contractors and their subcontractors, as well as the EPA and NYSDEC and their designated representatives and agents, will require access to the property for purposes related to activities under those agreements;

Now therefore, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

- 1) The owner will permit IBM, its employees, agents, contractors and subcontractors, the EPA, NYSDEC and their authorized representatives and agents to enter on and use the property in order to carry on any activity deemed necessary for the removal and/or subsequent remediation of contamination found on the property. These activities will be formalized in Work Plans to be prepared in accordance with agreements which may be entered into by IBM and the EPA.
- 2) Such activities will include, but are not limited to, operating a work area, installing temporary structures, excavating on the property, removing therefrom any material, the provision of certain security measures, conducting water, soil and air sampling, placing monitoring or extraction wells on the property, and other activities related to the purposes outlined in the Work Plans.
- 3) All monitoring wells which may be installed, will be sampled and maintained by IBM or its contractors and subcontractors in accordance with the Work Plans.
- 4) IBM and its contractors will restore any excavated areas by grading, seeding, and planting and repair any damage to the gravel road and parking area.

MAY 15 2001 12:11 FR LAW DEPT

914 499 7372 TO 88262837

P.05

914 499 7372 TO 914934131130

P.04

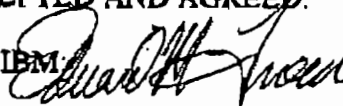
5) IBM accepts full responsibility for any claims, suits, accidents, injuries (including death) or damage to any person (including its representatives, employees, contractors or agents) or property caused by its own negligent acts, errors or omissions, or those of its representatives, employees, contractors or agents, in connection with IBM's activities covered by this Agreement, and, to the extent of its responsibility therefor, shall indemnify, defend and hold harmless the owner, its employees, agents, contractors or subcontractors from all cost, liability or expense by reason of any such claims.

6) For purposes of this Agreement, IBM's Project Coordinator is Mr. Thomas Morris, IBM, Route 100, Box 100, Somers, NY 10589, telephone number 914-766-2739. IBM's Project Coordinator will be the owner's point of contact in IBM for any purposes related to this Agreement.

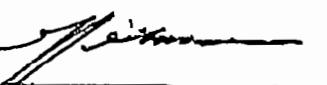
7) This Agreement shall continue until the termination of all work, involving the property, as may be required to remove and remediate the contamination at the property, and upon completion of such work this Agreement shall terminate. *Can be required to remove and remediate the contamination at the property, and upon completion of such work this Agreement shall terminate. Att. In To for owner*

ACCEPTED AND AGREED:

FOR IBM:



Date: 5/4/01



Uwe Heitmann

Date: 5/4/01



Carlotta Heitmann

Date: 5/4/01

Recording office time stamp

Schedule A — Information relating to conveyance

Grantor/Transferor		Name (if individual: last, first, middle initial)		Social security number
<input checked="" type="checkbox"/> Individual		Heitmann, Carlotta / Heitmann, Uwe		
<input type="checkbox"/> Corporation		Mailing address		Social security number
<input type="checkbox"/> Partnership		11 East Hook Cross Road		
<input type="checkbox"/> Estate/Trust		City	State	ZIP code
<input type="checkbox"/> Other		Hopewell Junction	NY	12533
Grantee/Transferee		Name (if individual: last, first, middle initial)		Social security number
<input type="checkbox"/> Individual		International Business Machines Corporation		
<input checked="" type="checkbox"/> Corporation		Mailing address		Social security number
<input type="checkbox"/> Partnership		C/O General Counsel, New Orchard Road		
<input type="checkbox"/> Estate/Trust		City	State	ZIP code
<input type="checkbox"/> Other		Armonk	NY	10504
				Federal employer ident. number
				13-0871985

Tax map designation			Address	City/village	Town	County
Section	Block	Lot	47 Stone Ridge Lane		East Fishkill	Dutchess
6455	02	79862 1				

1 ☐ One- to three-family house
2 ☐ Residential cooperative
3 ☐ Residential condominium
4 ☐ Vacant land

5 ☐ Commercial/Industrial
6 ☐ Apartment building
7 ☐ Office building
8 ☒ Other easement

month day year

Percentage of real property conveyed which is residential real property 0.00%
(see instructions)

a. ☐ Conveyance of fee interest

b. ☐ Acquisition of a controlling interest (state percentage acquired _____%)

c. ☐ Transfer of a controlling interest (state percentage transferred _____%)

d. ☐ Conveyance to cooperative housing corporation

e. ☐ Conveyance pursuant to or in lieu of foreclosure or enforcement of security interest (*attach Form TP-584.1, Schedule E*)

f. ☐ Conveyance which consists of a mere change of identify or form of ownership or organization (*attach Form TP-584.1, Schedule F*)

g. ☐ Conveyance for which credit for tax previously paid will be claimed (*attach Form TP-584.1, Schedule G*)

h. ☐ Conveyance of cooperative apartment(s)

i. ☐ Syndication

j. ☐ Conveyance of air rights or development rights

k. ☐ Contract assignment

I. ☐ Option assignment or surrender

m. ☐ Leasehold assignment or surrender

n. ☐ Leasehold grant

o. ☒ Conveyance of an easement

p. ☐ Conveyance for which exemption from transfer tax claimed (*complete Schedule B, Part III*)

q. ☐ Conveyance of property partly within and partly outside the state

r. ☐ Other (describe)

For recording officer's use	Amount received	Date received	Transaction number
	Schedule B., Part I \$		
	Schedule B., Part II \$		

Schedule B — Real estate transfer tax return (Tax Law, Article 31)**Part I — Computation of tax due**

1 Enter amount of consideration for the conveyance (if you are claiming a total exemption from tax, check the exemption claimed box, enter consideration and proceed to Part III) <input type="checkbox"/> Exemption claimed	1.	1.00
2 Continuing lien deduction (see instructions If property is taken subject to mortgage or lien)	2.	
3 Taxable consideration (subtract line 2 from line 1)	3.	1.00
4 Tax: \$2 for each \$500, or fractional part thereof, of consideration on line 3	4.	0
5 Amount of credit claimed (see instructions and attach Form TP-584.1, Schedule G)	5.	
6 Total tax due* (subtract line 5 from line 4)	6.	0

Part II — Computation of additional tax due on the conveyance of residential real property for \$1 million or more

1 Enter amount of consideration for conveyance (from Part I, line 1)	1.	
2 Taxable consideration (multiply line 1 by the percentage of the premises which is residential real property, as shown in Schedule A) ...	2.	
3 Total additional transfer tax due* (multiply line 2 by 1% (.01))	3.	

Part III — Explanation of exemption claimed on Part I, line 1 (check any boxes that apply)

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

- a. Conveyance is to the United Nations, the United States of America, the state of New York, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) a ☐
- b. Conveyance is to secure a debt or other obligation b ☐
- c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance c ☐
- d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts d ☒
- e. Conveyance is given in connection with a tax sale e ☐
- f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F f ☐
- g. Conveyance consists of deed of partition g ☐
- h. Conveyance is given pursuant to the federal Bankruptcy Act h ☐
- i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property i ☐
- j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than \$200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment j ☐
- k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, section 1401(e) (attach documents supporting such claim) k ☐
- l. Other (attach explanation) l ☐

*Please make check(s) payable to the county clerk where the recording is to take place. If the recording is to take place in New York City, make check(s) payable to the **NYC Department of Finance**. If a recording is not required, send this return and your check(s) made payable to the **NYS Department of Taxation and Finance**, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule C — Credit Line Mortgage Certificate (Tax Law, Article 11)**Complete the following only if the interest being transferred is a fee simple interest.**I (we) certify that: *(check the appropriate box)*

1. ☒ The real property being sold or transferred is not subject to an outstanding credit line mortgage.
 2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:
 - ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
 - ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).
 - ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
 - ☐ The maximum principal amount secured by the credit line mortgage is \$3,000,000 or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

Please note: for purposes of determining whether the maximum principal amount secured is \$3,000,000 or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.

 - ☐ Other *(attach detailed explanation)*.
3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:
 - ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
 - ☐ A check has been drawn payable for transmission to the credit line mortgagee or his agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.
 4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded or, if the recording is to take place in New York City, make check payable to the NYC Department of Finance.)*

Signature (both the grantor(s) and grantee(s) must sign)

The undersigned certify that the above information contained in schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of his/her knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor signature	Title	Grantee signature	Title
Grantor signature	Title	Grantee signature	Title

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you checked e, f, or g in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place or, if the recording is in New York City, to the **NYC Department of Finance**? If no recording is required, send your check(s), made payable to the **Department of Taxation and Finance**, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule D - Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, section 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

Part I - New York State residents

If you are a New York State resident transferor(s)/seller(s) listed in Schedule A of Form TP-584 (or an attachment to Form TP-584), you must sign the certification below. If one or more transferors/sellers of the real property or cooperative unit is a resident of New York State, **each** resident transferor/seller must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law, section 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law, section 685(c), but not as a condition of recording a deed.

Part II - Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Schedule A of Form TP-584 (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law, section 663(c), check the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor(s)/seller(s), that transferor(s)/seller(s) is not required to pay estimated personal income tax to New York State under Tax Law, section 663. **Each** nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, *Nonresident Real Property Estimated Income Tax Payment Form*, or Form IT-2664, *Nonresident Cooperative Unit Estimated Income Tax Payment Form*. For more information, see *Payment of estimated personal income tax*, on page 1 of Form TP-584-I.

Exemption for nonresident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law, section 663 due to one of the following exemptions:

- ☐ The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence (within the meaning of Internal Revenue Code, section 121) from _____ Date _____ to _____ Date _____ (see instructions).
- ☐ The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.
- ☐ The transferor or transferee is an agency or authority of the United States of America, an agency or authority of the state of New York, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date