FEASIBILITY STUDY

142 State Street
Albany, New York

NYSDEC Site No. 401061
CHA Project Number: 21645

Prepared for:

Columbia Eagle LLC
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Prepared by:

CHA

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August 29, 2013

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CERTIFICATION

I, the undersigned, certify that I am currently a NYS registered professional engineer and that this Feasibility Study report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

For CHA:

(Professional Seal)

John P. Sobiech, P.E.
Printed Name of Certifying Engineer

Signature of Certifying Engineer

09/03/13
Date of Certification

068973
Registration Number

New York
Registration State

CHA
Company

Partner
Title

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1.0 INTRODUCTION

This Feasibility Study (FS) has been prepared for the purposes of identifying and evaluating remedial alternatives for mitigation of vapor intrusion (VI) concerns in connection with the building on the property located at 142 State Street in the City of Albany, New York (the Site), and through the evaluation process, select the most appropriate remedy for implementation at the Site, based on the criteria set forth in Section 4.2 of the New York State Department of Environmental Conservation's (NYSDEC) *DER-10 – Technical Guidance for Site Investigation and Remediation*. The remedial goal of the alternatives evaluated is to eliminate or mitigate significant threats to public health and the environment posed by the identified contaminants at the Site through proper application of scientific and engineering principles.

2.0 SITE DESCRIPTION AND HISTORY

The 142 State Street property extends from State Street to Howard Street along the southeast side of Eagle Street and is currently developed with a largely vacant commercial high-rise building. A site location map has been included as Figure 1. This property is situated to the northwest of, and adjacent to, a previously designated Class 2 Inactive Hazardous Waste Disposal Site, identified as Former Albany Laboratories Site, New York State Department of Environmental Conservation (NYSDEC) Site No. 401061, at 67 Howard Street, Albany, New York.

Columbia Development Companies (Columbia), the owner of the Former Albany Laboratories Site, is currently in negotiations to acquire the property and building at 142 State Street, and renovation of the building is slated to occur in late 2013. To facilitate acquisition of the 142 State Street property, renovation of the building and progression of the Former Albany Laboratories Site toward the goal of NYSDEC's issuance of a Record of Decision (ROD) requiring no additional remedial action, Columbia has retained CHA to complete an evaluation of potential remedies to address the vapor intrusion issues at the 142 State Street property. By addressing the vapor intrusion issues at the 142 State Street Property, it is anticipated that the Former Albany Laboratories Site will eventually be reclassified by the NYSDEC from a Class 2 site to a Class 4 site, which is designated by the State as "properly closed" site requiring "continued management."

The Former Albany Laboratories Site, which is currently a vacant lot, was previously investigated by CHA and subsequently was the subject of an Interim Remedial Measure (IRM) for the removal of contaminated soil impacted by volatile organic compounds (VOCs). The extent of contaminated soil was confirmed and delineated as presented in a *Site Characterization Report* completed by CHA in August of 2010. The IRM was performed in accordance with the NYSDEC-approved IRM Work Plan dated January 5, 2011. The remedial activities undertaken during the IRM included removal of impacted soils from the area delineated under previous investigations, off-site disposal of impacted soils, confirmatory soil sampling following excavation and backfilling of the excavation with clean imported soil. IRM activities and confirmatory soil sampling results were documented in CHA's *Construction Completion Report*, dated October 3, 2011. As part of this IRM, soil excavation for off-site disposal terminated at the top of the footer elevation of the 142 State Street building (approximately 11 feet below the ground surface) to minimize potential structural instability of the building's foundation system.

Based on the findings of the previous investigations and the IRM, which entailed source removal of impacted soils, further investigation was completed which focused on the potential for soil vapor intrusion (SVI) into the building on the adjacent, off-site property at 142 State Street, and provided the necessary field data to delineate the nature and extent of potential SVI impacts to the building. The investigation was performed in accordance with CHA's *Remedial Investigation Work Plan*, dated June 13, 2011. The data derived from the investigation were utilized to facilitate an evaluation of the potential migration or possible future migration of soil vapor into the building, and provided the data necessary to develop potential remedial alternatives. The findings of the investigation indicated the presence of VOCs in sub-slab vapor beneath the eastern portion of the building at levels requiring mitigation in accordance with the New York State Department of Health's (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006*.

3.0 SUMMARY OF REMEDIAL INVESTIGATION

3.1 MEDIA INVESTIGATED

There are no reported releases associated with the 142 State Street property, the subject of this report. Rather, it is believed that this Site was impacted by an historical release that occurred at the adjacent 67 Howard Street. As previously indicated, the impacted soil located at the 67 Howard Street has previously been excavated and disposed off-site, eliminating the source area of the contamination. Therefore, the investigation at 142 State Street was limited to an evaluation of sub-slab soil vapor and indoor air quality. No other media (e.g. sub-surface soils or groundwater) were evaluated at this property.

3.2 PERMANENT SUB-SLAB VAPOR PROBE INSTALLATION

On February 28, 2012, CHA installed three permanent sub-slab sampling probes within the basement of the building located at 142 State Street. The sampling probes were identified as SSV-1, SSV-2 and SSV-3, and their approximate locations are depicted in Figure 2. The sampling probes were installed to facilitate collection of sub-slab soil vapor samples to evaluate the potential for intrusion of volatile organic compounds (VOCs) into the building at 142 State Street due to historical VOC impacts to subsurface soils in connection with historical operations on the adjacent Former Albany Laboratories site.

At each probe location, a ¾-inch diameter hole was drilled through the concrete floor slab and into the sub-slab material a maximum of 2 inches below the bottom of the floor slab. A vapor sampling probe, consisting of a 3/8-inch outside diameter by ¼-inch inside diameter, black metal pipe, was then installed in each hole. Coarse sand was added around the outside of each sampling probe to approximately 1 inch above the bottom of the probe. Finally, cement was used to fill the annular space between the probe and the surrounding concrete floor slab, and to create a surface seal. Each probe was finished with a threaded metal cap, flush with the floor surface.

At the time that the sub-slab sample probes were installed and prior to collection of soil vapor and indoor air samples, CHA completed a chemical inventory of the immediate vicinity of the sample points to identify and document materials (in use or in storage) that likely contained volatile organic compounds. The identified materials were temporarily removed from the sampling areas so as to reduce the potential for cross-contamination.

3.3 SUB-SLAB & INDOOR AIR SAMPLING

During the 2011/2012 and 2012/2013 heating seasons (February 2012 and November 2012, respectively), sub-slab soil vapor and indoor air samples were collected (in pairs) from within the basement and analyzed to evaluate the potential for vapor intrusion into the building. The sample pairs are listed in the table below for reference.

Sub-Slab Sample Number	Corresponding Indoor Air Sample Number
SSV-1	IA-1
SSV-2	IA-2
SSV-3	IA-3

For each sub-slab sample location, the corresponding indoor air sample was collected in the immediate vicinity of the sub-slab sample location.

The samples were collected in 6-liter SUMMA canisters, and the sample flow rates were pre-calibrated by the laboratory for an eight-hour sample duration. The samples were submitted to TestAmerica, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory, and analyzed for the presence of volatile organic compounds (VOCs) via EPA Method TO-15.

3.4 QUALITY ASSURANCE/QUALITY CONTROL

For quality assurance/quality control (QA/QC) purposes, CHA collected one outdoor ambient air (background) sample, identified as AM-1, adjacent to the southeastern side of the building. The purpose of the background sample was to determine if one or more compounds detected in the indoor air samples could be attributable to background levels at the Site at the time of sampling. As an additional QA/QC measure prior to each sampling event, and per the approved work plan, helium was used as a tracer gas to evaluate potential short-circuiting using a helium shroud around the outside of each vapor sampling probe.

Following the tracer gas study and prior to sub-slab sample collection, one to three implant volumes (volume of the sample probe and tube) were purged at each probe location. This action was completed to ensure that the samples collected were representative of soil vapor conditions.

3.5 ANALYTICAL RESULTS

3.5.1 Guidance/Screening Levels

The laboratory analytical results for the sub-slab vapor and indoor air samples were compared to a number of guidance values. More specifically, the results reported for the compounds carbon tetrachloride, 1,1-dichloroethylene, cis-1,2-dichloroethene, tetrachloroethene, 1,1,1-trichloroethane, trichloroethene and vinyl chloride, in both the sub-slab and indoor air samples, were compared to the decision matrices that are presented in the NYSDOH October 2006 *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*. It should be noted that these seven compounds are the only compounds that are included in the NYSDOH decision matrices which are utilized to determine whether monitoring or mitigation is required. Analytical results for the above-listed compounds from the sampling events conducted during February and November of 2012 are shown on Figure 3.

3.5.2 Quality Assurance/Quality Control Results

The background sample (AM-1) during both the February and November 2012 sampling events was found to contain low concentrations of VOCs. Carbon tetrachloride was detected at a concentration of 0.41 micrograms per cubic meter (μg/m^3) in February 2012 and 0.39 μg/m^3 in November 2012. The background sample results serve as a basis of comparison for both the sub-slab and the indoor air results discussed in subsequent sections.

3.5.3 Sub-slab and Indoor Air Sampling Results

The analytical results of sub-slab vapor and indoor air sampling at locations SSV-1 and IA-1, respectively, during both the February 29, 2012 and November 27, 2012 sampling events, indicated the presence of trichloroethene at concentrations warranting mitigation, based on comparison of the results with NYSDOH Soil Vapor/Indoor Air Matrix 1. In addition, results indicated the presence of carbon tetrachloride, cis-1,2-dichloroethene and 1,1,1-trichloroethane at concentrations warranting monitoring, based on comparison of the results with the NYSDOH decision matrices.

The analytical results of sub-slab vapor and indoor air sampling at locations SSV-2 and IA-2, respectively, as well as SSV-3 and IA-3, during both the February 29, 2012 and November 27, 2012 sampling events, indicated the presence of trichloroethene at concentrations warranting monitoring, based on comparison with NYSDOH Soil Vapor/Indoor Air Matrix 1. In addition, results from these locations indicated the presence of carbon tetrachloride at concentrations warranting taking reasonable and practical actions to identify source(s) and reduce exposures, based on comparison of the results with NYSDOH Soil Vapor/Indoor Air Matrix 1.

4.0 REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are medium-specific or operable-unit specific objectives that are established for the protection of human health and the environment. RAOs are typically narrative statements that identify the contaminants and environmental media of concern, the potential exposure pathways to be addressed by remedial actions relative to the exposed populations and environmental receptors to be protected, as well as the acceptable contaminant concentrations/remediation goals for each environmental medium.

The contaminants of concern at the 142 State Street site consist of volatile organic compounds (VOCs), specifically the following four chlorinated VOCs which have adversely impacted sub-slab soil vapor quality beneath the eastern portion of building: carbon tetrachloride; cis-1,2-Dichloroethene; 1,1,1-Trichloroethane; and Trichloroethene. Sub-slab soil vapor and indoor air sampling results from the 2011/2012 and 2012/2013 heating seasons indicate the presence of these four compounds at levels requiring mitigation and monitoring, based on the NYSDOH decision matrices included in its *Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006*.

The remedial action objective for the 142 State Street site is to mitigate the potential for exposure to the VOCs identified in the sub-slab soil vapor by preventing the intrusion of these VOCs into the building through holes, cracks or other penetrations in the basement floor and building foundation.

5.0 GENERAL RESPONSE ACTIONS

After establishing the remedial objective for the Site, general response actions were evaluated based upon the ability of the response to address the established objective. These actions are intended to mitigate potential exposure to the contaminants of concern. The purpose of establishing general response actions is to begin to evaluate basic methods of protecting human health and the environment, such as treatment and/or containment of the contaminants. The general response actions may then be combined to form alternatives.

The following list summarizes the general response actions that will be considered for sub-slab soil vapor impacts at the 142 State Street property, each of which are described in more detail in the following subsections:

1. No Action
2. Vapor Intrusion Mitigation (elimination of exposure)
3. Building Demolition (elimination of exposure)

5.1 NO ACTION

The no action response action/alternative is considered to be the baseline alternative that will provide the basis for comparison for other response actions and resultant remedial alternatives. Under this scenario, all ongoing activities associated with remediation of the subject Site would cease and no future remediation or mitigation would be completed. The only way that the Site contaminants would be addressed would be through the natural processes of biodegradation, dispersion, adsorption, dilution, and volatilization.

5.2 VAPOR INTRUSION MITIGATION

Ventilation controls are often utilized to address volatile organic vapor migration into buildings. The most typical application of ventilation controls is placement of an engineered ventilation system (e.g. a sub-slab depressurization system) beneath a building that is constructed over volatile contaminants where there could be an inhalation risk to the building occupants.

While this technology is often unacceptable as a sole remedial alternative to address source area(s) of contamination or highly contaminated locations, it is effective in the mitigation of remaining residual vapor contamination.

5.3 BUILDING DEMOLITION

Building demolition eliminates the potential for exposure to soil vapor by removing the structure into which the soil vapor could potentially enter. While this response action represents an effective method of mitigating soil vapor intrusion, it is typically not considered to be an economically practical approach.

The general response actions are further defined, screened and evaluated in Section 6.0.

6.0 DEVELOPMENT AND ANALYSIS OF ALTERNATIVES

6.1 GENERAL

The purpose of this section is to provide a detailed analysis of alternatives evaluated for mitigation of vapor intrusion concerns in connection with contaminants that have been identified in sub-slab soil vapor at the Site. Section 6.2 provides a detailed analysis of each alternative. The alternatives evaluated for the Site include the following:

1. No Action
2. Installation and operation of a sub-slab depressurization system (SSDS)
3. Building Demolition

After the description of each alternative in Section 6.2, an assessment of the alternative is made, evaluating the alternative relative to the first seven (7) of the following criteria:

1. Overall protection of human health and the environment;
2. Compliance with Standards, Criteria, and Guidance (SCG);
3. Long-term effectiveness and permanence;
4. Reduction in toxicity, mobility, and volume;
5. Short-term effectiveness;
6. Implementability;
7. Cost; and
8. Community acceptance.

The NYSDEC will evaluate the eighth criterion, Community Acceptance, after the Public Comment period is complete.

6.2 INDIVIDUAL ANALYSIS OF ALTERNATIVES

6.2.1 Alternative 1 – No Action

Description of Alternative

The "No Action" alternative is presented as a basis for comparison of other alternatives. However, this alternative will not be selected as the Site remedy because of the unacceptable levels of risk posed by potential exposure pathways that result in a threat to human health by the Site. Natural processes, including degradation, dispersion, dilution, adsorption, volatilization, etc., would provide the only source of contaminant attenuation. As a result, there would be no active means of mitigating potential vapor intrusion into the Site building. Although the cost estimate associated with this alternative does not include any additional monitoring of the Site, CHA has assumed that it would cost approximately $20,000 to implement institutional controls at the Site to protect the public from the Site as well as additional annual costs for an indefinite period of time to maintain the institutional controls.

Assessment of Alternative 1

An analysis of the feasibility of the "No Action" alternative relative to the Site is summarized in the following table:

Evaluation of Alternative 1

Criterion	Discussion
Protection of Human Health & the Environment	*Advantages:* ▪ Minimal effort to implement institutional controls (e.g. environmental easement, deed restriction) *Disadvantages:* ▪ Remedial objective not met. Provides no reduction in the potential for exposure to sub-slab soil vapor. ▪ May take several years for Site contaminants to attenuate, but unknown unless this alternative is accompanied by monitoring.
Compliance with Standards, Criteria & Guidance Levels (SCGs)	▪ Does not meet SCGs. For this project, SCGs consist of the established contaminant limits presented in the NYSDOH's decision matrices in its *Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006*. With no action, SCGs may not be met for several years.

Criterion	Discussion
Long-Term Effectiveness & Permanence	*Advantages:* ▪ No significant advantages. *Disadvantages:* ▪ Not effective in meeting SCGs within a reasonable length of time. ▪ Not effective in reducing current or future exposure to sub-slab contaminants. ▪ Significant institutional controls and land-use restrictions necessary to ensure long-term protectiveness from contaminants, and redevelopment of Site for public access not feasible.
Reduction in Toxicity, Mobility, & Volume	*Advantages:* ▪ No advantages. *Disadvantages:* ▪ No reduction in toxicity, mobility or volume of contaminants beyond natural attenuation. No reduction in potential exposure to sub-slab soil vapor.
Short-Term Effectiveness	*Advantages:* ▪ No intrusive activity eliminates exposures to workers. *Disadvantages:* ▪ Offers no protection to human health or the environment upon implementation.
Implementability	*Advantages:* ▪ Readily implemented with no significant technical requirements. *Disadvantages:* ▪ Significant institutional controls and administration needed to restrict current and future land-use at the Site.
Cost	▪ Present Worth = $20,000+. No active remediation or monitoring of Site.

6.2.2 Alternative 2 – Installation and Operation of SSDS

<u>Description of Alternative 2</u>

Under Alternative 2, a sub-slab depressurization system, consisting of several extraction points connected to multiple sub-systems, would be installed within the basement of the building. Once activated, the SSDS would operate continuously, and would create a negative pressure differential (minimum of 0.002 inches of water) beneath the slab throughout the footprint of the building, thereby mitigating the potential for intrusion of soil vapor into the building.

It is anticipated that installation of the SSDS could be completed within four weeks' time. Once the SSDS is in full operation, the system would be inspected annually to evaluate the condition of system components (and repair or replace as necessary) and to confirm proper operation of the system. In addition to the annual inspection, sub-slab vapor and indoor air quality testing would be performed periodically to verify successful operation of the system as well as facilitate an evaluation for the potential future shutdown of one or more of the sub-systems. Such testing would be performed at the following times:

1. Approximately two weeks following system installation and startup.
2. At least one year following the system installation and during the heating season.
3. Once every five years following the post-installation sampling events, during heating season, to verify continued effectiveness of the vapor mitigation systems.
4. Prior to evaluating the potential shutdown of one or more of the SSDS sub-systems.

Assessment of Alternative 2

The following table provides a summary of the detailed assessment for installation and operation of a SSDS at the 142 State Street Site.

Evaluation of Alternative 2

Criterion	Discussion
Protection of Human Health & the Environment	*Advantages:* ▪ Will prevent further exposure risks to human health upon activation and continuous operation, while residual sub-slab contaminants naturally attenuate over time. ▪ Will begin to provide protection of human health immediately upon operation. ▪ No secondary waste generated via installation or operation. *Disadvantages:* ▪ Not intended to actively remediate residual contaminants in sub-slab materials. ▪

Criterion	Discussion
Compliance with SCGs/ARARs	▪ Remedial objective would be met upon activation and continuous operation of the system. ▪ Periodic system maintenance and monitoring would need to be performed to verify that the system is operating as designed. In addition, periodic sub-slab soil vapor and indoor air sampling would be performed to evaluate attenuation of residual sub-slab contaminants and to verify compliance with indoor air quality SCGs.
Long-Term Effectiveness & Permanence	*Advantages:* ▪ Effective in mitigating vapor intrusion concerns as long as system is operating and maintained as designed. *Disadvantages:* ▪ Duration of system operation is undefined, and is dependent on concentrations of residual contaminants in sub-slab soil vapor. ▪ Periodic fan replacement may be required (typical lifespan of 5 to 10 years).
Reduction in Toxicity, Mobility, & Volume	*Advantages:* ▪ May enhance natural attenuation of residual contaminants in sub-slab soil vapor. *Disadvantages:* ▪ Not intended as a means of active remediation of residual contaminants in sub-slab materials.
Short-Term Effectiveness	*Advantages:* ▪ Will be effective immediately upon system activation and continuous operation. *Disadvantages:* ▪ No significant disadvantages. Electrical power consumption is considered minimal and may be further mitigated by selecting several smaller sub-systems as opposed to one large fan system.
Implementability	*Advantages:* ▪ Can be readily implemented. ▪ SSDS can be installed within approximately four weeks' time. ▪ No construction of additional structures required to house remedial equipment that may impact future redevelopment of the Site. *Disadvantages:* ▪ Will require abatement of previously identified asbestos containing materials in a pipe shaft prior to system installation of the exhaust piping from the basement of the building to the roof.
Cost	▪ Present Worth is estimated at $250,000 (includes an estimated $150,000 for installation and $100,000 for operation, maintenance and monitoring over a period of 20 years).

6.2.3 Alternative 3 – Building Demolition

Description of Alternative 3

Under this alternative, the existing building would be demolished, thereby eliminating the presence of receptors potentially exposed to indoor soil vapor.

Assessment of Alternative 3

The following table provides a summary of the detailed assessment for demolition of the building.

Evaluation of Alternative 3

Criterion	Discussion
Protection of Human Health & the Environment	*Advantages:* ▪ Expected to protect human health and the environment by eliminating the potential for indoor exposure to soil vapor. ▪ No chemical additives required for remediation. *Disadvantages:* ▪ Increased health and safety risk to workers and public during asbestos abatement and demolition activities.
Compliance with SCGs	▪ Remedial objective would be met upon completion of demolition, since potential for indoor exposure to soil vapor would be eliminated
Long-Term Effectiveness & Permanence	*Advantages:* ▪ Effective in mitigating vapor intrusion concerns, based on the elimination of the potential for exposure to soil vapor. *Disadvantages:* ▪ At such time as future building construction is considered at the site, the potential for soil vapor intrusion and the need for mitigation will may need to be re-evaluated.
Reduction in Toxicity, Mobility, & Volume	*Advantages:* ▪ Eliminates potential for indoor exposure to soil vapor. *Disadvantages:* ▪ No significant disadvantages.

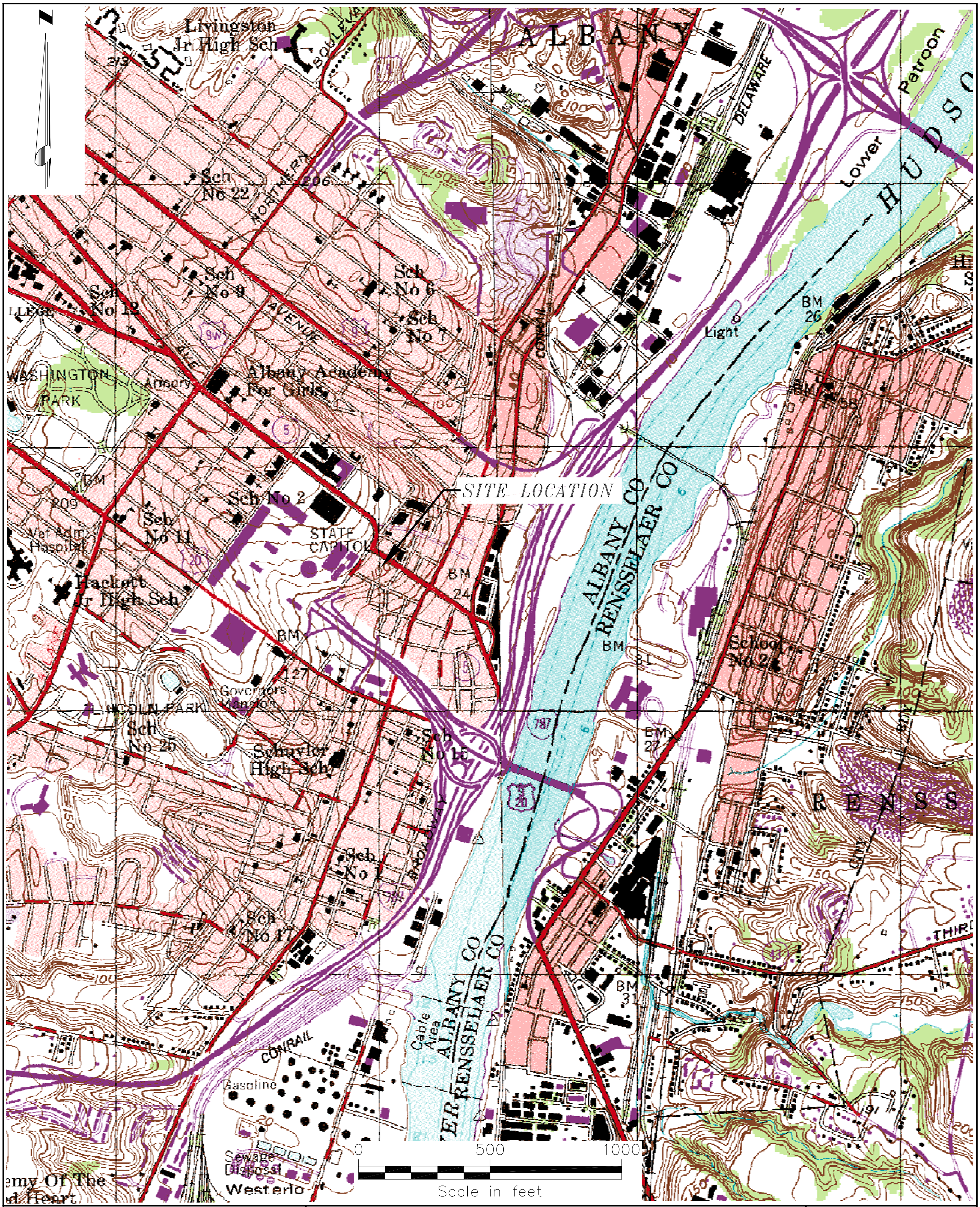
Criterion	Discussion
Short-Term Effectiveness	*Advantages:* ▪ No significant advantages. *Disadvantages:* ▪ Does not provide a short-term solution to mitigate potential for vapor intrusion into the building. ▪ Lengthy process associated with the safe and proper demolition of the building.
Implementability	*Advantages:* ▪ Technically feasible. *Disadvantages:* ▪ Not practical. ▪ Elevated health and safety risks to workers and public during demolition activities. ▪ Building currently partially occupied. ▪ Building usable and currently slated for renovation. ▪ Long time period to complete. ▪ Potentially delays the redevelopment of the former Albany Laboratories site, due to the lengthy process associated with demolition.
Cost	▪ Present Worth estimated at greater than $2,000,000. ▪ Not cost-effective

7.0 RECOMMENDED REMEDY

Alternative 3, Building Demolition represents an aggressive approach that removes the presence of a receptor for potential exposure to indoor soil vapor. This alternative, however, would also result in a lengthy demolition process, elevated health and safety risks to workers and the public, high costs associated with necessary asbestos abatement and demolition of a building this size. Additionally the current viability of the building and plans for renovation make demolition undesirable. These items all lead to the elimination of Alternative 3.

CHA recommends the selection of Alternative 2, Installation and Operation of a Sub-Slab Depressurization System as the preferred remedy for the Site. While residual contaminants may remain within the sub-slab soil vapor for an undefined period of time, it is anticipated that the remedial objective will be met to the extent practicable in a cost-effective manner. Alternative 2 will provide a long-term effective and permanent remedy for the Site. The proposed SSDS will mitigate potential human exposure to residual contaminants. It is anticipated that this alternative would be implemented as an IRM, and that successful completion of the IRM, as approved by the NYSDEC and NYSDOH, will enable reclassification of the adjacent Former Albany Laboratories site from Class 2 to Class 4.

FIGURES



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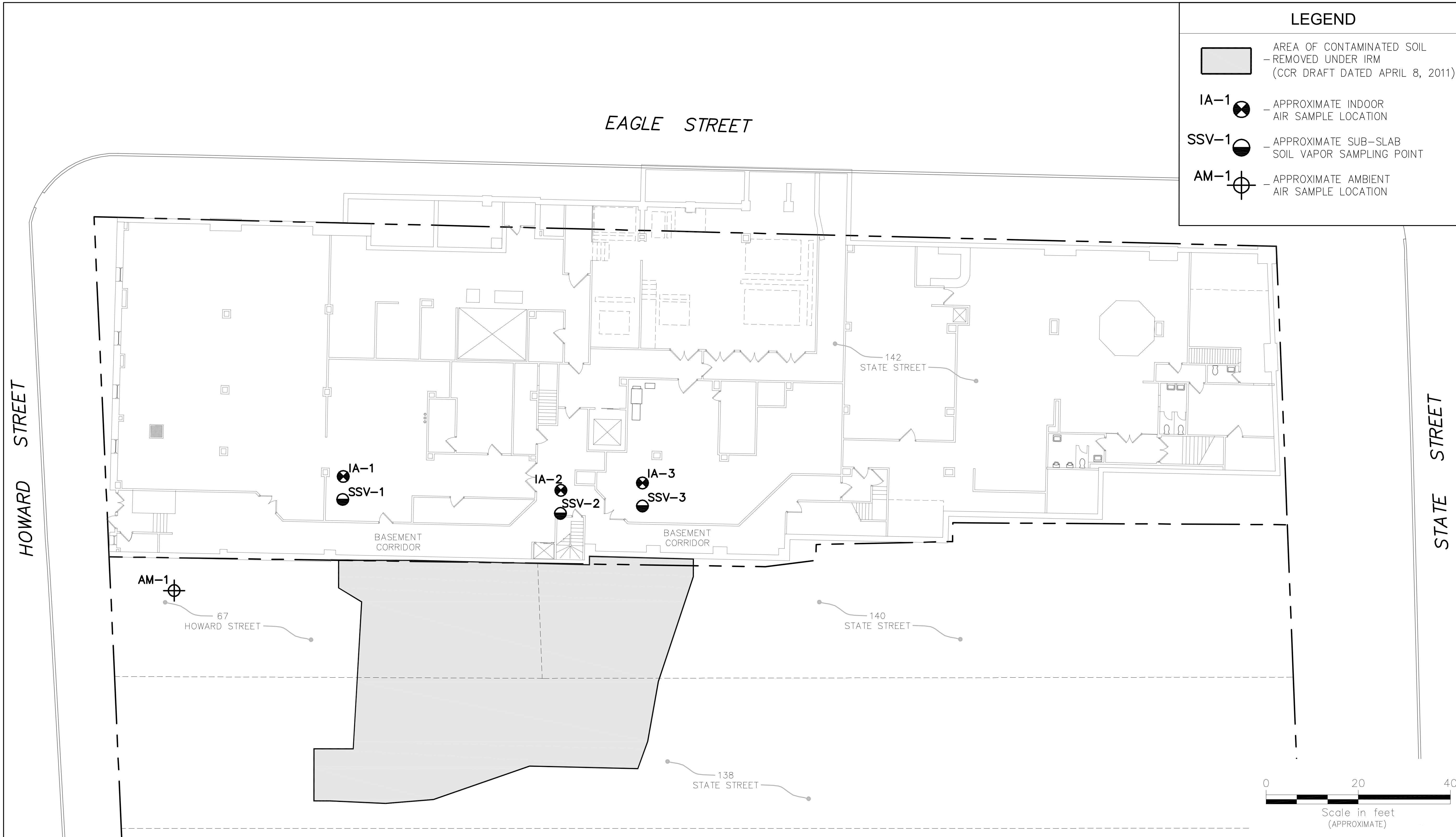
SITE LOCATION MAP

67 HOWARD STREET SITE
ALBANY, NEW YORK

PROJECT NO. 21645

DATE: 07/09/10

FIGURE 1



NOTE:
SUB-SLAB SOIL VAPOR AND INDOOR AIR SAMPLES COLLECTED ON 02/29/2012

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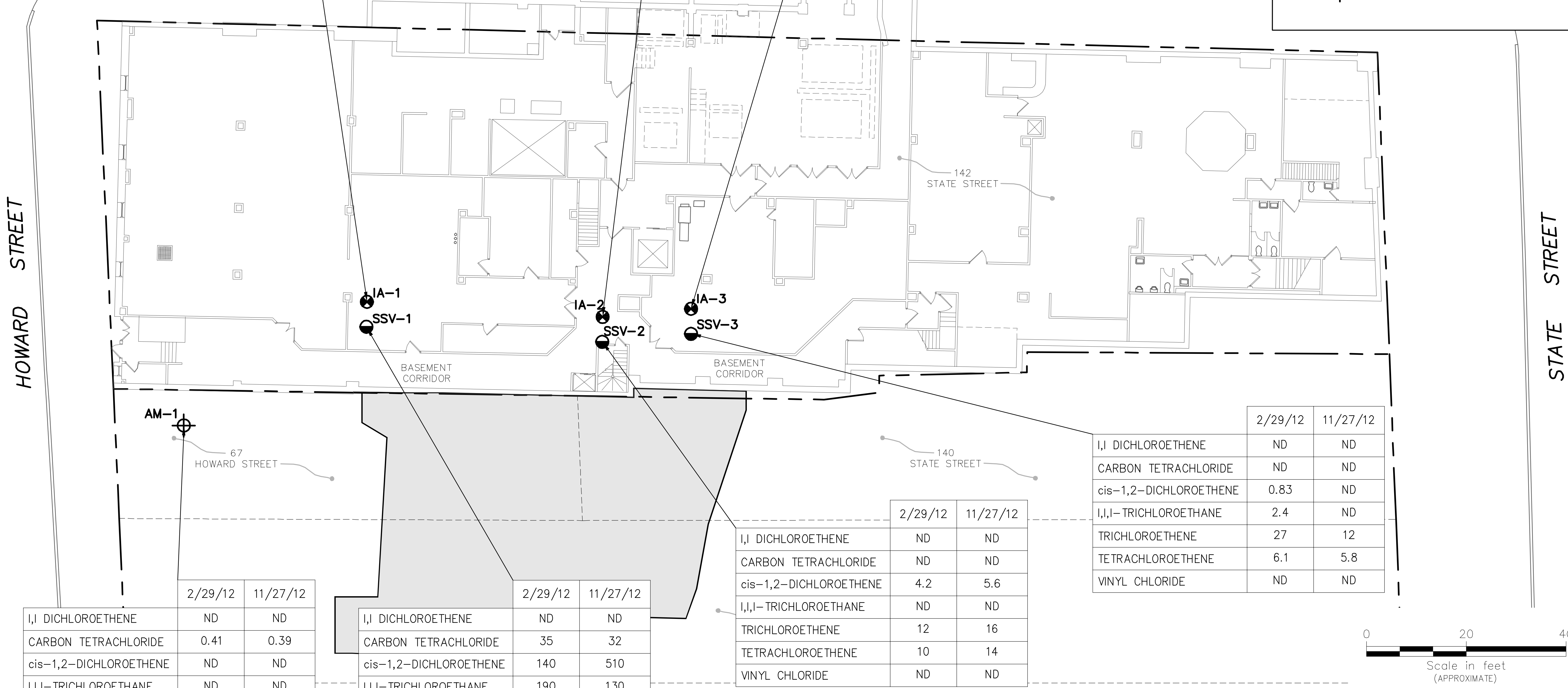
SOIL VAPOR AND INDOOR AIR SAMPLING LOCATIONS
REMEDIAL INVESTIGATION
FORMER ALBANY LABORATORIES SITE
ALBANY, NEW YORK

PROJECT NO. 21645

DATE: 07/02/13

FIGURE 2

File: V:\PROJECTS\ANY\K2\21645\CADD\ACAD\FIGURES\SUBSURFACE INVESTIGATION\FIGURE 2 - SOILVPR_INDRAIR_SAMPLOCS.DWG Saved: 7/16/2013 11:05:16 AM PLotted: 7/16/2013 11:07:44 AM User: Harden, Jason



LEGEND

- AREA OF CONTAMINATED SOIL REMOVED UNDER IRM (CCR DRAFT DATED APRIL 8, 2011)
- IA-1 – APPROXIMATE INDOOR AIR SAMPLE LOCATION
- SSV-1 – APPROXIMATE SUB-SLAB SOIL VAPOR SAMPLING POINT
- AM-1 – APPROXIMATE AMBIENT AIR SAMPLE LOCATION

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	0.36	0.43
cis-1,2-DICHLOROETHENE	ND	ND
I,I,I-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	0.34	0.56
TETRACHLOROETHENE	0.5	0.88
VINYL CHLORIDE	ND	ND

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	0.41	0.79
cis-1,2-DICHLOROETHENE	ND	ND
I,I,I-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	0.33	0.44
TETRACHLOROETHENE	0.45	0.93
VINYL CHLORIDE	ND	ND

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	0.38	0.45
cis-1,2-DICHLOROETHENE	ND	ND
I,I,I-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	0.32	0.48
TETRACHLOROETHENE	0.29	1.1
VINYL CHLORIDE	ND	ND

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	ND	ND
cis-1,2-DICHLOROETHENE	0.83	ND
I,I,I-TRICHLOROETHANE	2.4	ND
TRICHLOROETHENE	27	12
TETRACHLOROETHENE	6.1	5.8
VINYL CHLORIDE	ND	ND

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	ND	ND
cis-1,2-DICHLOROETHENE	4.2	5.6
I,I,I-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	12	16
TETRACHLOROETHENE	10	14
VINYL CHLORIDE	ND	ND

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	0.41	0.39
cis-1,2-DICHLOROETHENE	ND	ND
I,I,I-TRICHLOROETHANE	ND	ND
TRICHLOROETHENE	0.24	ND
TETRACHLOROETHENE	ND	ND
VINYL CHLORIDE	ND	ND

	2/29/12	11/27/12
I,I DICHLOROETHENE	ND	ND
CARBON TETRACHLORIDE	35	32
cis-1,2-DICHLOROETHENE	140	510
I,I,I-TRICHLOROETHANE	190	130
TRICHLOROETHENE	260	940
TETRACHLOROETHENE	4.1	17
VINYL CHLORIDE	ND	ND

NOTE: ALL RESULTS REPORTED IN ug/M³

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SOIL VAPOR AND INDOOR AIR SAMPLING RESULTS
REMEDIAL INVESTIGATION
FORMER ALBANY LABORATORIES SITE
ALBANY, NEW YORK

PROJECT NO. 21645

DATE: 08/20/13

FIGURE 3

CHA