environmental science & engineering

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July 17, 2023

Mr. Kitter Spader
Briggs House, LLC
255 South Prospect Street
Burlington, VT 05401

RE: Work Scope and Cost Proposal, Phase II Environmental Site Assessment, Ahavath Gerim Synagogue, 168 Archibald Street, Burlington, Vermont

Dear Mr. Spader:

Per your request, KAS, Inc. (KAS) has provided the following work scope and cost proposal to conduct a Phase II Environmental Site Assessment (ESA) at the Ahavath Gerim Synagogue property located at 168 Archibald Street, Burlington, Vermont (the "Site" or "property"). The work scope has been developed based on KAS' knowledge of the Site and the findings of a Phase I ESA completed in May 2023. The property has been enrolled and accepted into the State of Vermont Brownfields Reuse Environmental Liability Limitation Act (BRELLA) program and KAS understands the intent is to redevelop the property building into residential housing.

The Phase I ESA identified the following recognized environmental conditions (RECs) in connection with the property:

- REC 1: The presence of an active state hazardous waste site (SHWS) and Brownfield site listing on the adjacent property to the southwest with a documented undefined tetrachloroethylene (PCE) vapor plume near the property boundary; and,
- REC 2: The past use of the adjacent property to the west as a junk yard with junk material stored up to the boundary with the property.

In addition, the following two business environmental risks (BERs) were identified in connection with the property:

- BER 1: The potential presence of development soils beneath the property; and,
- BER 2: The potential presence of asbestos containing materials (ACM), lead-based paint (LBP) and/or polychlorinated biphenyls (PCBs) in building materials.

KAS will perform the following work as part of the Phase II ESA to assess the RECs and BERs. A building material survey of ACM, LBP and PCBs is not included as part of the Phase II ESA.

Work Plan Preparation

KAS will prepare a work plan for review and approval by Briggs House, LLC and the Vermont Department of Environmental Conservation (VT DEC). At this time, it is assumed the funding source received will not require a site-specific quality assurance project plan (SSQAPP) addendum for approval by the VT DEC and the US EPA. KAS will prepare a work plan to meet the requirements of a site investigation as outlined in the VT DEC Investigation and Remediation of Contaminated Properties Rule (I-Rule) dated July 6, 2019. Following submittal of the work plan, KAS will respond to comments and make revisions as deemed necessary to obtain final approvals.

Health and Safety Plan (HASP) Preparation and Project Notifications

A site-specific HASP will be prepared and implemented to govern the safety aspects of the job in accordance with the Vermont Occupational Safety and Health Administration (VOSHA) requirements. Prior to intrusive subsurface work, KAS will contact Dig-Safe at least 48 hours in advance of subsurface work so that member utility mark outs can be made and will coordinate with the City of Burlington Public Works to locate service utility lines and other lines that may exist at the Site and which may not be marked by Dig-Safe.

Soil Boring Advancement / Soil Assessment

KAS will assess soils at the Site with a focus on the following areas to investigate the RECs and BERs:

- Along the western portion of property adjoining the former Champlain Transmission building and former junk yard (REC 1 & 2); and,
- Within the greenspace along the eastern side of the property building (BER 1 & 2).

Five (5) soil borings will be advanced by KAS using a hand auger. The soils will be logged by the drilling supervisor, who will also use a photoionization detector (PID) to screen the soils for the presence of volatile organic compounds (VOCs) during drilling. The soil borings will be advanced to 2 – 3 feet below grade (fbg) to assess shallow soil conditions. One of the borings on the eastern side of the property will be advanced within 1-foot of the foundation to assess potential contaminant runoff from historical building materials.

At each boring location, KAS will also collect one discrete laboratory analytical sample from shallow soils for laboratory analysis of VOCs, lead, arsenic, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) which are all common contaminants in historical fill (urban fill/development soil). Where a noticeable distinction between a fill and native layer is identified, those distinct layers will be chosen for the sampling and analysis. If historical fill is encountered and is noted to range in depth, various sampling depth intervals will be chosen to evaluate the horizontal and vertical distribution of contaminants. In general, it is anticipated three of the samples will be collected from 0 – 6” and two will be

collected from 6 – 12". However, where a noticeable distinction between a fill and native layer is identified, those distinct layers will be chosen for the sampling and analysis. The two samples collected along the western portion of the property will be obtained from the 0 – 6" bg zone to assess potential past surface runoff from the former adjacent junk yard.

One duplicate sample will be collected for all parameters and a laboratory prepared trip blank sample will be kept with the samples and analyzed for VOCs. All samples will be transported under chain of custody procedures to Eastern Analytical Laboratories of Concord, New Hampshire (EAI) for laboratory analysis.

Groundwater Assessment

Groundwater has been documented to exist > 90' fbg in the immediate vicinity of the property. Given the RECs identified, KAS does not believe there is an elevated risk of impacts to groundwater beneath the property and thus no groundwater assessment is being proposed.

Soil Gas Sampling

A sub-slab vapor investigation will be performed to evaluate the potential risk for vapor intrusion into the property building. KAS will install two (2) CoxColvin Vapor Pins™ through the basement concrete slab. The chosen locations will be dependent on building access / owner approval and will be placed in discrete areas that will not disturb future building users. Generally, one will be installed along the southwest corner of the building and one will be installed along the northwest portion of the building. A hammer drill will be used to install the devices through the floor. Once the vapor pins are fully installed, they will be flush with the existing floor.

Following installation, a discrete soil gas sample will be collected from the two soil gas pins at least 24 hours after the devices are installed. The devices will first be purged of three to five volumes of air with a calibrated low-flow pump. A 30-minute sample will then be obtained using a dedicated 3-liter Summa vacuum canister and flow regulator. The soil gas samples will be collected for laboratory analysis of VOCs in air via EPA Method TO-15. One outdoor air sample will be collected in an upwind location of the general sampling area. Lastly, an air quality sample will be collected from each point with a PID.

Sampling information will be recorded on a sampling data sheet in accordance with KAS' Soil Vapor Sampling Procedure. Quality Assurance/Quality Control measures will be taken to ensure that the sample collected from each soil gas pin is representative of the soil gas and not the atmosphere above it. Helium will be used as a tracer gas to verify the quality and integrity of each soil gas pin's seal to the ambient air. A helium detector will be used on-site to verify the integrity of the seal.

The samples will be transported under chain of custody procedures to Pace Laboratories in East Longmeadow, MA for analysis. The laboratory detection limits will meet current VT standards for vapor intrusion at a residential property.

Summary Report Preparation

KAS will prepare a report for review and approval by Briggs House, LLC and the VT DEC. The report will be prepared and reviewed by environmental professionals and will satisfy the requirements outlined in the I-Rule.

Project Schedule

KAS is prepared to perform this work in a timely manner and we are currently adequately staffed to dedicate the necessary time and resources to this project. The schedule below provides an estimate of KAS' implementation time requirements. The Phase II ESA will take approximately 75 days once authorized. Work plan approval may take up to 30 days depending on the VT DEC's work load. The schedule depicts a 3-week time period during which the field work is anticipated to be completed. KAS will work closely with all parties to make sure the work is completed in as short a time frame as possible.

Phase II ESA Work Plan Review / Approval: By August 31, 2023
Drilling / Soil and Soil Vapor Assessment: By September 20, 2023
Laboratory Analysis: By October 15, 2023
Data Evaluation / Reporting: By November 15, 2023

Project Organization and Staffing

The project will be managed and overseen by Jeremy Roberts, P.G. Mr. Roberts will be responsible for project management, communications, document preparation, scheduling and implementation of field work, and report writing. Mr. Roberts will be assisted by KAS' staff of environmental professionals and field technicians, primarily in the performance of field work.

Cost Proposal

| Task | Price |
|---|---|
| Work plan, Coordination | $ 1,285 |
| Premark | $ 265 |
| Soil Borings / Soil Sampling & Soil Gas Pin Installation | $ 1,560 |
| Soil Gas Sampling | $ 670 |
| Laboratory Analysis | $ 3,660 |
| Data Analysis & Reporting | $ 2,820 |
| Total estimated pricing | $ 10,260 |

All pricing is presented subject to the following assumptions:

- Free and easy access to the Site.
- Laboratory samples will be submitted on standard turnaround time basis.
- Costs do not include site investigations or remediation beyond those presented in the work plan document.

Project MBR.WBE Fair Share Information

All of the work except the laboratory analysis will be performed by KAS which is a certified WBE (Vermont Agency of Transportation) and a registered WBE (Vermont Department of Environmental Conservation).

KAS would very much like to conduct this work and we appreciate the opportunity to present this proposal. Please call if you have any questions.

Sincerely,

Jeremy Roberts, P.G.
Principal / Environmental Program Manager

Enc/ cc: Site Plan w/ Proposed Sample Locations
KAS #503230699