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September 18, 2018

Mr. Dan Albrecht, Senior Planner
Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski, VT 05404

RE: **Proposal** – Environmental Oversight during Property Redevelopment, 3
Maple Street, Essex Junction, Vermont

Dear Mr. Albrecht:

KAS, Inc. (KAS) has prepared a Proposal to conduct environmental oversight during redevelopment at the 3 Maple Street property in Essex Junction, Vermont. The cost and fee schedule to implement the enclosed work scope is as follows:

KAS will implement the Environmental Oversight at 3 Maple Street in Essex Junction on a fixed price basis for **\$12,175**. All of the work is associated with petroleum investigative activities. A cost breakdown by task is provided below.

| | |
|---|---------|
| Coordination, QAPP Addendum, HASP | \$1,500 |
| Soil Boring Advancement & Soil Sampling | \$3,250 |
| Building Soil Vapor Mitigation Design & Oversight | \$3,500 |
| Soil Management Oversight | \$2,100 |
| Data Validation | \$ 300 |
| Project Documentation | \$ 925 |
| Institutional Control / Notice to Land Records | \$ 600 |

The labor and expense breakdown is as follows:

| Category | Classification | Units | Rate |
|----------|--------------------------------------|---------|---------|
| Labor | KAS Project Manager | 45.5 hr | \$95 |
| | KAS Field Task Manager | 10 hr | \$80 |
| | KAS Draftsperson | 8 hr | \$65 |
| | KAS Field Technician | 5 hr | \$65 |
| | KAS QA Officer | 3 hr | \$80 |
| | KAS Professional Engineer | 22 hr | \$95 |
| | KAS Senior Scientist | 7.5 hr | \$115 |
| | KAS Expenses | 1 LS | \$450 |
| Expense | Eastern Analytical Laboratory (soil) | 1 LS | \$570 |
| | Drilling Allowance | 1 LS | \$1,440 |

The costs and work scope presented assumes no contaminant impacts are noted in subsurface soils and the property redevelopment plans are not altered from the currently available information. Should a change in scope be



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necessary based on the findings or information presented after the project begins, KAS will immediately notify CCRPC and the interested stakeholders.

KAS is pleased to present this Proposal and associated Cost and Fee Schedule. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Roberts", written over the printed name.

Jeremy Roberts, PG
Principal / Environmental Program Manager

Enclosures: Proposal

Cc: Mr. Benjamin Avery, BlackRock Construction

3 Maple Street Essex Junction, Vermont

**VTDEC #2010-4037
KAS #508090166**

PROPOSAL – ENVIRONMENTAL OVERSIGHT DURING PROPERTY REDEVELOPMENT

February 6, 2017, Revised September 20, 2018

Prepared for:

Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski, VT 05404



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1.0 Introduction

This proposal has been prepared by KAS, Inc. (KAS) for the Chittenden County Regional Planning Commission (CCRPC), 110 West Canal Street, Suite 202, Winooski, Vermont. It addresses conducting the necessary environmental oversight during the proposed redevelopment activities at the 3 Maple Street, Essex Junction Vermont property. KAS has performed a Phase I Environmental Site Assessment and a Brownfields Phase II Environmental Site Assessment on this property and has an understanding of the existing environmental issues. Additionally, we have spoken with Mr. Benjamin Avery of LI Maple Street Properties, LLC and have a thorough understanding of the proposed redevelopment for the property. This proposal is being prepared pursuant to requirements of the Master Agreement for Brownfields Consulting Services by and between CCRPC and KAS dated September 26, 2016.

Generally, the findings of previous environmental site assessment work at this property indicated that subsurface soils and groundwater contained several petroleum constituents which could pose risk to human health during site redevelopment. Additionally, tetrachloroethene (PCE) vapors above regulatory standards were detected in soil gas samples collected on the property.

The petroleum and non-petroleum impacts noted beneath the property have been documented to be associated with off-site sources and no onsite release is known. Given this information and that the proposed redevelopment work will not extend deep enough to trigger dewatering efforts or exposure to petroleum impacted soils at depth, a Corrective Action Plan (CAP) is not necessary and the Site meets the exemption of a CAP as outlined in the Investigation and Remediation of Contaminated Properties Rule (IRule) dated July 27, 2017.

2.0 Scope of Work

KAS will work with the project stakeholders to provide the necessary environmental oversight and design to facilitate the proposed property redevelopment. The scope of work will consist of the following activities:

- Project Coordination, Quality Assurance Project Plan (QAPP) Site Specific Addendum, Health and Safety Plan (HASP);
- Soil Boring Advancement and Soil Sampling;
- Building Vapor Mitigation System Design and Oversight;
- Soil Management Oversight;
- Laboratory Data Validation;
- Project Documentation; and,
- Institutional Controls Implementation.

Details regarding each of the aforementioned tasks are provided below.

2.1 Project Coordination, QAPP Addendum, Health and Safety Plan

Project Coordination

KAS will contract with CCRPC and will conduct necessary project coordination activities to



allow the work to proceed as planned. Comprehensive project management will be conducted by KAS' project manager. Regular, frequent reconciliation of the project budget and implementation schedule will be performed to ensure progress and to note any indication of unexpected conditions.

KAS will maintain direct communications with the involved parties including the project stakeholders. These include CCRPC Project Manager Dan Albrecht, project owner representative Ben Avery, Vermont Department of Environmental Conservation (DEC) Brownfields Project Manager Hugo Martínez Cazón, and United States Environmental Protection Agency (EPA) Project Manager Frank Gardner.

Communications will be tailored to the preferences of the individual stakeholders and may be by phone, electronic mail or by other appropriate means. Notice of on site activities will be given ahead of time to allow for attendance by the involved parties. All project documents will be submitted to CCRPC for review before distribution. Unless otherwise instructed, KAS will coordinate access with Mr. Ben Avery.

KAS will initiate and maintain the necessary subcontractual agreements. KAS' subcontractors will include T&K Drilling of Swanzey, New Hampshire and Eastern Analytical Laboratories of Concord, New Hampshire. Subcontractor performance will be closely monitored with respect to scope, scheduling and budget.

Site Specific QAPP Addendum

KAS will prepare a site specific QAPP addendum for review and approval by the CCRPC, the EPA and the DEC. The QAPP addendum will compliment KAS' approved Generic QAPP (RFA07264) for Brownfields work in the State of Vermont. KAS will respond to comments and will obtain QAPP addendum approval prior to on site work. The QAPP addendum will also include a synopsis of previous investigations, a conceptual site model, and an assessment of plume characterization.

Health and Safety Plan (HASP)

The site-specific HASP will be updated and implemented to govern the safety aspects of the Phase II ESA in accordance with the Vermont Occupational Safety and Health Administration (OSHA) requirements. KAS will appoint one of its 40 hour OSHA 1910.120 trained persons as the Site Safety Officer with a backup also designated. No subsurface activities will take place on the site without a Site Safety Officer present. A copy of the HASP will be kept on site and will be available to other parties at any time requested. Site subsurface work will not commence until the HASP is in place.

2.2 Soil Boring Advancement and Soil Sampling

Three soil borings will be advanced within the proposed building footprint area. The purpose of these borings will be to characterize subsurface soils where ground disruption will occur during the proposed future development. Each boring will be advanced to approximately 4 – 5 feet below grade to match the vertical extent of the proposed building excavation activities. The location of each soil boring will be logged with a GPS following completion.

The soil boring advancement will be performed using a geoprobe drill rig. The soil 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. Soil samples

will be collected and screened continuously from each borehole. To confirm the findings, one soil sample will be taken from each boring at the approximate 1 – 3 foot below grade depth interval or from the soil interval exhibiting the highest PID reading and submitted under proper chain of custody to a laboratory for analysis of VOCs via EPA M8260C. One duplicate sample will be collected for quality assurance purposes.

2.3 Building Vapor Mitigation System Design and Oversight

KAS will design and provide oversight during the installation of a building vapor mitigation system. Based on what is currently known about the proposed building, it is expected that the primary vapor mitigation practice to be employed will be passive sub-slab depressurization. The system will be designed as a passive vent system, which could be easily converted into an active vent system using a in-line fan if needed in the future.

KAS will review the final building plans and work with the civil and structural engineers to design a system to be constructed beneath the foundation slab. Once the building is constructed, KAS will complete an influence test utilizing a micro-manometer capable of detecting 0.001" water column (wc). Approximately four penetrations into the slab will be drilled in locations coordinated in the field with the building contractor in order to determine the effectiveness of the system. The measurement points will be spaced out as much as possible across the building footprint to demonstrate adequate pressure field extension of the system, while also minimizing impact of finished spaces, avoiding damaging utilities, and locations that could be reasonably accessed. The measurement points will be distributed throughout the floor of the building away from the extraction location to ensure complete influence below the building. The goal of the visit will be to establish the system is achieving a vacuum at or above the recommended minimum vacuum pressure differential of 2 Pascals (0.008" WC) outlined in Appendix C of the VTDEC's *Investigation and Remediation of Contaminated Properties Procedure (IROCP)* document and also in accordance with accepted Soil Gas Mitigation Standards.

2.4 Soil Management Oversight

During construction for the new building foundation, a KAS environmental professional will be on-site to oversee the soil disturbance and confirm impacted soils are not encountered. The overseeing KAS scientist will use a PID to screen the disturbed soils for VOCs. Any soils exhibiting PID readings above 1 parts per million by volume (ppmv) will be segregated from "clean" soils for proper disposal. The overseeing personnel will also confirm the handling of subsurface soils is conducted in accordance with the HASP should impacted soils be encountered. The use of the PID along with the soil analytical results from the soil boring advancement (Section 2.2) is deemed sufficient to determine if impacted soils are present/encountered and if so, to segregate "clean" soils. Should impacted soils be encountered and stockpiled for off site disposal, waste characterization sampling will be necessary and will be completed under a separate work scope.

2.5 Laboratory Data Validation

Following receipt of laboratory analytical data and laboratory quality assurance information, KAS' quality assurance officer (QAO) will perform data verification /validation as described in the QAPP. The verification will evaluate the usability of the data generated during the soil boring investigation including soil laboratory analytical data, and will determine whether data quality objectives (DQO) are met. Parameters to be evaluated will be described in the QAPP. The QAO will prepare a data verification report that notes whether DQOs are met, and will indicate whether the data generated during the sampling is usable for the intended purposes. The verification report will be included with the summary report as an appendix.



2.6 Project Documentation

At the completion of the redevelopment activities, KAS will prepare a brief summary report documenting the findings and environmental oversight provided. KAS will develop the report in digital draft for concurrent submittal to the project stakeholders, CCRPC, the Vermont DEC and the EPA, and will respond to comments and questions. The report will include a discussion of the work performed, a detailed plan of the SSD system and building drawings along with the results of the influence test, laboratory analytical data and data validation report and photo-documentation of the work.

2.7 Institutional Control Implementation

Upon implementation of the redevelopment activities, a notice to land records (NTLR) will need to be filed with the VTDEC and Village of Essex Junction. KAS will assist in the coordination of this effort. The NTLR will be filed in the Village land records to notify interested parties of the documented remaining petroleum impacts beneath the Site property and state the need for the VTDEC to be notified should additional subsurface work occur in the future. The NTLR will include a brief description of the nature of the contaminants, the measures used to minimize exposure and any obligations on future activity (in this case, unauthorized excavation or use of groundwater beneath the Site without VTDEC consultation).

3.0 Project Organization and Staffing

Jeremy Roberts, PG of KAS will be the project manager and will be responsible for overall performance, interface with stakeholders and budget management. He will oversee and review all work prior to release. Clare Santos, PE of KAS will be the field task manager and will coordinate and conduct the soil borings and sampling work. Toni Baitz of KAS will be the project QA officer responsible for data validation. Project engineering will be provided by Stephen Diglio, PE and Erik Sandblom, PE.

4.0 Project Schedule

KAS is prepared to perform this work in a timely manner. The work will commence upon approval of this proposal by CCRPC. Once approved, KAS will begin project coordination and QAPP Addendum preparation efforts. Upon approval of the QAPP Addendum, KAS will complete the soil boring and soil sampling work. It is anticipated the soil boring and soil sampling work will be completed within 6 weeks of proposal approval. Total implementation time for the remaining tasks will be dependent on the project redevelopment construction schedule. KAS will be prepared to complete the project tasks as soon as possible once a defined construction schedule has been established.

5.0 Project MBE/WBE Fair Share Information

Approximately 84% of the work will be performed by KAS which is a certified WBE (Vermont Agency of Transportation) and a registered WBE (Vermont Department of Environmental Conservation). The balance of the work will be conducted by EAI and T&K Drilling. Neither of these companies are, to KAS' knowledge, MBE/WBE certified.