akrf

440 Park Avenue South, 7th Floor
New York, NY 10016
tel: 212.696.0670
www.akrf.com

11.24.2025

Mr. Christopher Allan
Region 2 – Division of Environmental Remediation
NYS Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101

Re: SVE Cycling Workplan
Newtown Creek Bud Site-North Block
2-21 Malt Drive, Queens, NY
BCP Site No. C241248

Dear Mr. Allan:

This Soil Vapor Extraction (SVE) Cycling Workplan (Workplan) was prepared by AKRF, Inc. (AKRF) on behalf of Bud North LLC (the Volunteer) in response to the New York State Department of Environmental Conservation (NYSDEC) Periodic Review Report (PRR) approval letter (dated August 25, 2025). This Workplan details the proposed cycled operation of the SVE system (SVES) at 2-21 Malt Drive in the Long Island City section of Queens, New York (hereinafter referred to as the "Site"). A Site location map is provided as Figure 1, and the SVE treatment area is shown on Figure 2.

As described in the 2025 PRR, the maximum pre-remedial Freon-12 concentrations in soil vapor during the 2020 Phase II Investigation and 2021 Remedial Investigation (RI) were 14,900,000 micrograms per meter cubed (µg/m³) (SV-19) and 648,000 µg/m³ (RI-SV-08), respectively. The remedial activities to address the Freon-12 source area in the southeastern portion of the Site consisted of soil excavation along with installation and operation of the SVES. The SVES influent [extracted vapor sample prior to treatment by granular activated carbon (GAC) units] Freon-12 concentrations in 2024 ranged from 34.3 to 52.4 µg/m³, which corresponds to a significant (99.99+%) reduction when compared to the highest soil vapor concentrations detected prior to remediation, which indicates that the SVES mass recovery is reaching low, asymptotic levels.

Contaminant concentrations can often rebound to following shutdown of an SVES, especially if contaminants have been trapped in lower permeability zones (e.g., tighter soil) or inundated by mounding groundwater during SVES operation. In an effort to extract any residual Freon-12 contamination in soil vapor, AKRF proposes the following SVES cycling operation and performance monitoring program, with the goal of permanently discontinuing operation of the SVES:

1. Based upon the low Freon-12 concentrations in the influent (before GAC treatment), intermediate (between the two GAC units in series), and the effluent (following the two GAC units in series), the GAC treatment system will be taken off-line and the outlet piping from the SVES manifold will be connected to the piping leading to the riser, which connects to the discharge stack on the roof of the building. The system will be rebalanced thereafter.
    a. Following rebalancing, the SVES will be left in operation for a minimum of 24 hours for the SVES to reach steady state, and then a full inspection will be conducted to confirm that the SVES alterations did not result in changes to the operating conditions.
    b. The Site Management Plan (SMP) and related inspection logs will be modified to reflect the removal of the SVES GAC vessels.

c. The SVES will continue operation for a one-week period as a precautionary measure to confirm that the SVES operation without GAC vessels has not impacted operating conditions.

d. The SVES will then be shut down for a one-month period.

e. The GAC drums will be properly characterized and sent off-site for disposal in accordance with the NYSDEC PRR approval letter (dated August 25, 2025).

2. Following the initial one-month shutdown period, the SVES will be restarted and operated for two hours to allow the system to approach a steady state condition. Following the two hour startup, an SVES influent sample will be collected for volatile organic compounds (VOC) analysis by EPA Method TO-15 (in accordance with the sampling procedures outlined in the SMP). SVES operation will continue for a one-month period.

3. Operation of the SVES will continue to be cycled off and on for one-month periods for a total of six months, inclusive of the initial two (2) one-month periods discussed in steps 1.d. and 2. above. SVES influent sample collection during each re-start of the SVES will be completed for VOC analysis by EPA Method TO-15 (in accordance with the sampling procedures outlined in the SMP).

4. During each off month, vacuum will be measured from sub-slab depressurization system (SSDS) monitoring points MP-01 through MP-14 and from SVE monitoring points SVMP-01 through SVMP-06 to demonstrate that adequate sub-slab vacuum is maintained.

5. At the conclusion of the six-month cycling period, AKRF will tabulate and compare the influent VOC concentrations from the SVES cycling sampling events against previous sampling events, which will be submitted to NYSDEC in a letter report.

    a. If the SVES influent concentrations remain low and consistent with recent influent concentrations indicating asymptotic levels, AKRF will propose that the SVES be turned off permanently.

    b. Alternatively, if the SVES influent concentrations are variable and show increases during cycled operation, a supplemental six-month cycling period will be performed (re-starting the above process at step 1.d.) and re-evaluated.

6. Following NYSDEC approval for permanent shutdown of the SVES, the following will be implemented:

    a. The remaining accessible/removeable above grade SVES components will be taken off-site for recycling, repurposing, or disposal.

    b. The SVES lines will be plugged to prevent infiltration from the subgrade SVES lines into the building.

    c. Final SVES shutdown documentation and disposal manifests will be included in the subsequent PRR following completion of the SVES decommissioning.

    d. The SMP will be updated to reflect to removal of the SVES as an Engineer Control at the Site, which will be submitted to NYSDEC and New York State Department of Health (NYSDOH) for review and approval. Following review and finalization, the modified SMP will be maintained on-site and distributed to the required document repositories.

During the procedures outlined above, the active sub-slab depressurization system (SSDS) will continue to operate (24 hours a day, 7 days a week) under stabilized conditions at the Site, which provides protection from sub-slab soil vapor intrusion. If any significant spikes in VOCs or issues maintaining adequate vacuum beneath the slab (from the operating SSDS component) occur, the SVES would be re-activated if necessary to address these conditions. The Institutional and Engineering Controls maintained at the Site continue to ensure protection of public health and the environment from residual contamination present at the Site.

The proposed changes to the SVES would not impact the ability of the Site remedy to provide those protections. AKRF requests that the NYSDEC and NYSDOH review and provide approval for this Workplan.

Please feel free to contact Patrick at (914) 922-2784 or Marc at (914) 922-2356 with any questions or concerns regarding this request or the ongoing remedial activities at the Site.

Sincerely,
AKRF, Inc.

Rebecca Kinal, PE
Vice President, NYS PE #082046-1

cc:
Jane O'Connell, Cris-Sandra Maycock, Mandy Yau - NYSDEC
Shaun Surani - NYSDOH
Jon Sanneman, Lauren Geminder, Nick Vasta - Bud North LLC
Marc Godick, J. Patrick Diggins – AKRF

Attachments:
Figure 1 – Site Location Map
Figure 2 – SVE Treatment Area

FIGURES

AKRF

440 Park Avenue South, New York, NY 10016

Newtown Creek Bud Site - North Block

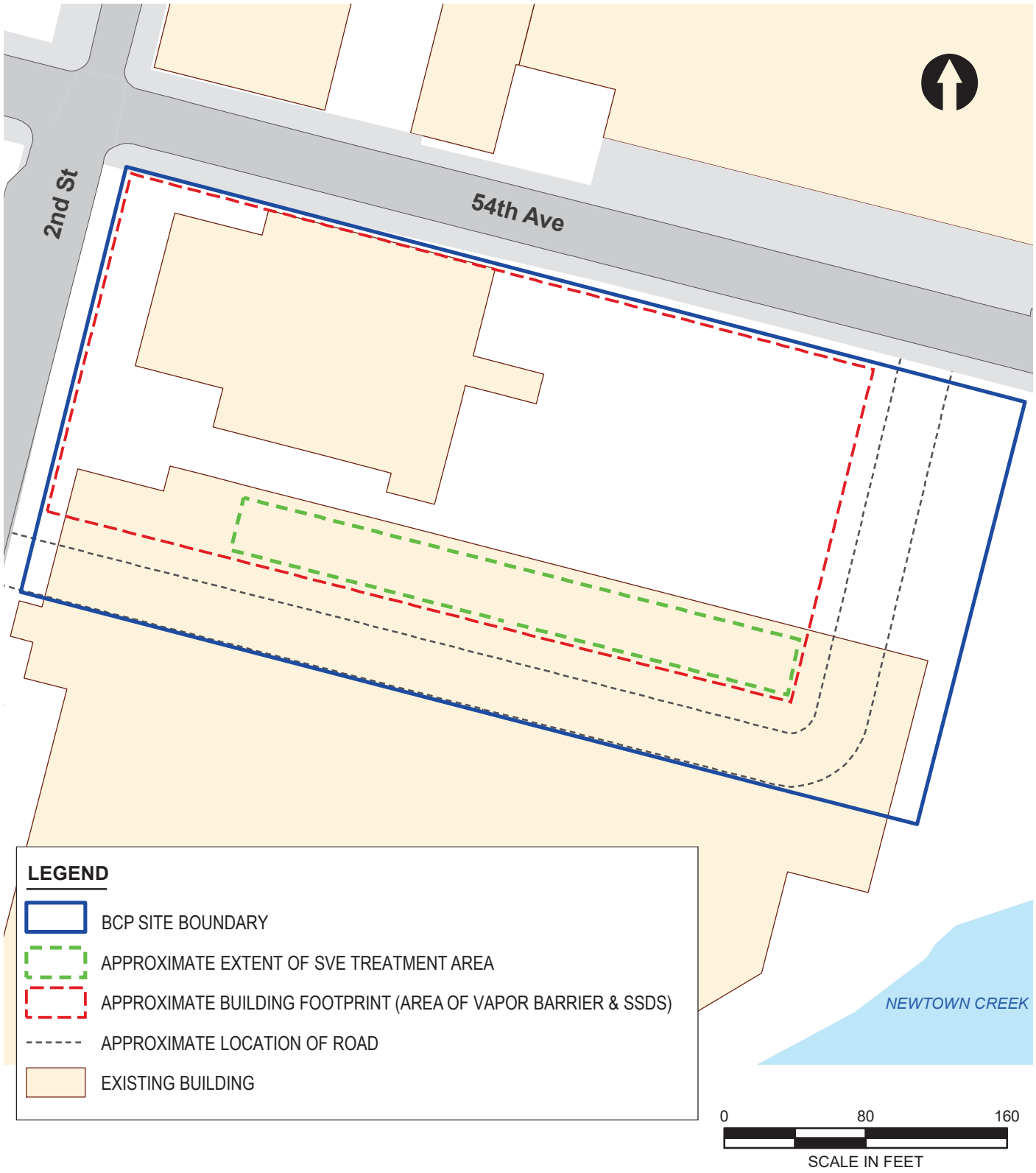
2-10 54th Avenue - Long Island City, New York

SITE LOCATION MAP

DATE
9/26/2025

PROJECT NO.
200112

FIGURE
1



Map Source:
NYCDCP (NYC Dept. of City Planning) GIS database

AKRF
440 Park Avenue South, New York, NY 10016

Newtown Creek Bud Site - North Block
2-21 Malt Drive - Long Island City, New York

SVE TREATMENT AREA

DATE
9/26/2025

PROJECT NO.
200112

FIGURE
2