

February 1, 2021

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7016

Attn: Kimberly Junkins

Re: Offsite Soil Vapor and Indoor Air Investigation Work Plan
965 Mamaroneck Avenue, Mamaroneck, NY
Westchester County TaxID No. 8-20-244
BCP Site No. C360189

Dear Ms. Junkins,

This Offsite Soil Vapor and Indoor Air Investigation Work Plan (SVIWP) has been prepared on behalf 1946 Holding Corp. (the Participant) for the properties located at 955 Mamaroneck Avenue, 926 Lester Avenue, 932 Lester Avenue, and 934 Lester Avenue (adjacent properties). The Participant, having a property located at 965 Mamaroneck Avenue (Site), entered into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) in December 2019. This SVIWP describes the scope of work proposed to perform an offsite soil vapor investigation in accordance with the NYSDEC approved Remedial Investigation Work Plan (RIWP) for the Site, dated January 2020. Tenen Environmental, LLC (Tenen) conducted remedial investigation (RI) activities at 965 Mamaroneck Avenue, Mamaroneck, New York in March 2020 and supplemental remedial investigation (SRI) activities at locations surrounding the Site in July and December 2020. Upon submittal of analytical data from the RI and initial SRI to NYSDEC and the New York State Department of Health (NYSDOH), NYSDOH requested offsite soil vapor investigations be conducted at four properties directly adjacent to the Site, to assess if a soil vapor intrusion condition exists in offsite buildings as a result of chlorinated solvent impacts detected in groundwater at the Site. This offsite soil vapor investigation work plan has been prepared to address NYSDOH's request for an offsite soil vapor investigation at the adjacent properties, in accordance with the NYSDEC Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10, May 3, 2010) and the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006, with May 2017 updates). Methodology, quality assurance/quality control, health and safety and citizen participation activities will be implemented in accordance with Tenen's NYSDEC-approved RIWP.

Background

The Site is located at 965 Mamaroneck Avenue in the Village and Town of Mamaroneck, New York. The Site is an irregularly shaped parcel, identified by Westchester County TaxID No. 8-20-244 with an area of approximately 22,520 square feet (SF). The Site is located on the southeast corner of the intersection of Mamaroneck Avenue and North Barry Avenue Extension.

In accordance with the January 2020 NYSDEC-approved RIWP and July and October 2020 NYSDEC-approved SRIWPs, Tenen conducted RI and SRI activities on and off the Site in March, July and December 2020. The results of these investigations are being used to prepare Tenen's draft Remedial Investigation Report (RIR).

Groundwater samples collected during the RI and initial SRI indicate that chlorinated volatile organic compounds (cVOCs) are present in groundwater at concentrations above the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (Class GA Standards) across the Site and offsite to the west, with the highest concentrations occurring in the offsite wells along the eastern

sidewalk of Mamaroneck Avenue. A soil vapor investigation was conducted within the Site building as part of the RI and low concentrations of cVOCs, including tetrachloroethene (PCE), were detected in sub-slab soil vapor and indoor air. Sub-slab soil vapor and co-located indoor air samples were compared to the applicable NYSDOH Matrices as listed in the NYSDOH SVI Guidance and all locations resulted in a 'no further action' matrix decision for all analytes. Based on these findings, NYSDOH requested additional sampling in order to assess if an offsite soil vapor intrusion condition exists at neighboring properties due to elevated cVOC concentrations detected in groundwater.

Access Requests and Building Inspections

South Adjoining Building Inspections – 955 Mamaroneck Avenue

Access was provided to Tenen by the owner of 955 Mamaroneck (south adjoining property) on December 16, 2020 to perform a building inspection in order to further develop the SVI sampling plan. The property is improved with one single-story slab-on-grade commercial building occupying the northern portion of the property and one two-story residential building with a partial cellar and a crawl space occupying the eastern portion of the property. The crawl space is not capped and contains exposed soil. The remainder of the Site consists of an asphalt-paved parking lot in the southern portion of the property and side and rear yards to the south and east of the residential building, respectively. Currently, both buildings are vacant.

Note that prior to access approval for the SVI at 955 Mamaroneck, two permanent groundwater monitoring wells (one shallow and one deep) were installed within the southern parking lot of 955 Mamaroneck and sampled for VOCs in July 2020. The results of the groundwater sampling indicate that cVOCs are not present in groundwater beneath the south adjoining property at concentrations exceeding Class GA Standards.

East Adjoining Building – 932 Lester Avenue

The owner of 932 Lester Avenue agreed to provide Tenen access to their property to conduct SVI activities on January 18, 2021. A building inspection was not performed. This property is currently improved with one two-story residential building with a front and rear yard and detected garage.

Access Requests – East Adjoining Buildings (926 and 934 Lester Avenue)

Two requests for access were sent to the property owners of 924 Lester Avenue and 934 Lester Avenue by Tenen via FedEx in July and October 2020. Additionally, one request for access was left on the front doors of each property by NYSDEC on January 15, 2021. Currently, there has been no response from either property owner. Both properties are improved with one two-story residential buildings with front and rear yards. 934 Lester Avenue is also improved with a detached garage.

Note that samples will not be collected from these properties if access agreements are not obtained.

Scope of Work

The following scope of work is proposed to investigate sub-slab soil vapor and indoor air at the south and east adjoining properties:

Soil Vapor

- Install one sub-slab soil vapor point within each commercial and residential building located at 955 Mamaroneck Avenue and within each residential building located at 924 Lester Avenue, 932 Lester Avenue, and 934 Lester Avenue. The soil vapor sample probes will be installed within the lowest building level no more than two inches below the building slab in the vicinity of the boilers (if any). These locations will be co-located with indoor air samples collected from breathing height (three to five feet above the floor);

- Collection of one indoor air sample from the lowest level living space of each residential building located at 955 Mamaroneck Avenue, 924 Lester Avenue, 932 Lester Avenue, and 934 Lester Avenue. If the basement is the lowest living space, a second indoor air sample will not be collected;
- Completion of a building questionnaire and product inventory for each offsite structure to be sampled;
- Collect one ambient air sample for each sub-slab soil vapor and indoor air sampling event (for a total of two); and,
- Analyze sub-slab vapor, indoor air, and ambient air samples for TO-15 VOCs.

Proposed offsite sub-slab soil vapor and indoor air sample locations are shown in the attached Figure 1.

Soil Vapor Point Installation and Soil Vapor Sampling Methodology

Sub-slab soil vapor points will be installed and samples will be collected in accordance with Section 3.3.1 of the RIWP and NYSDOH's SVI Guidance as described below. 24 hours prior to sampling, the heating systems in any vacant structures will be turned on and will operate to maintain normal indoor air temperatures (65°F to 75°F). The heating systems will remain operational until sub-slab soil vapor sampling is complete.

Temporary sub-slab soil vapor points will be installed using a hand-held hammer drill with a concrete drill bit. The drill bit will be extended a maximum two inches below the floor slab for sub-slab soil vapor samples. At the terminal depth of sub-slab soil vapor locations, the sample probe will be attached to ¼-inch diameter Teflon® tubing and extended to the surface. The borehole above the sampling probe to grade will be sealed using an inert sealant to prevent ambient air mixing with the soil vapor. Ambient air will be purged from the boring hole by attaching the surface end of the ¼-inch diameter Teflon® tube to an air valve and then to a vacuum pump. The vacuum pump will remove no more than one to three volumes of air (volume of the sample probe and tube) prior to sample collection. The flow rate for both purging and sample collection will not exceed 0.2 liters per minute.

The sub-slab soil vapor samples will be first screened for VOCs using a photoionization detector (PID). A tracer gas (helium) will be used in accordance with the NYSDOH protocols to verify the integrity of the soil vapor probe seal. Helium will be used as the tracer gas and a bucket will serve to keep it in contact with the probe during testing. A portable monitoring device will be used to analyze a sample of soil vapor from the tracer prior to sampling. Although there is an allowable amount of tracer gas that can be detected as per the NYSDOH SVI Guidance, if the tracer sample results show any presence of the tracer gas, the probe seals will be adjusted to prevent infiltration which would result in the generation of inaccurate (likely biased low) results.

A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone and chain of custody. A building questionnaire and product inventory will be completed for each offsite structure to be sampled, in accordance with NYSDOH's SVI Guidance.

Sub-slab soil vapor samples will be collected in laboratory-supplied 6-liter Summa canisters using eight-hour regulators in commercial structures and 24-hour regulators in residential structures. All samples will be sealed, labeled, and placed in a secure container for delivery to a NYSDOH ELAP-certified analytical laboratory. All sub-slab soil vapor samples will be analyzed for EPA Method TO-15 VOCs.

Indoor Air and Ambient Air Sampling Methodology

Indoor air and ambient air samples will be collected in accordance with Section 3.3.2 of the RIWP and NYSDOH's SVI Guidance as described below. 24 hours prior to sampling, the heating systems in any vacant structures will be turned on and will operate to maintain normal indoor air temperatures (65°F to 75°F). The heating systems will remain operational until indoor air sampling is complete.

Five indoor air samples will be co-located with sub-slab soil vapor samples within the lowest level of each of five offsite buildings. Four indoor air samples will also be collected within the lowest level living space of each of four offsite residential buildings. Both indoor and ambient air samples will be collected from breathing height (three to five feet above the floor) from within each offsite building and in a secure, upwind direction. The sampling flow rate will not exceed 0.2 liters per minute (L/min). Sampling will occur for a duration of eight hours in commercial structures and 24 hours in residential structures. A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols. A building questionnaire and product inventory will be completed for each offsite structure to be sampled, in accordance with NYSDOH's SVI Guidance.

Samples will be collected during the heating season in laboratory-supplied 6-liter Summa canisters using eight-hour regulators in commercial structures and 24-hour regulators in residential structures and will be sealed, labeled, and placed in a secure container for delivery to a NYSDOH ELAP-certified analytical laboratory. All samples will be analyzed for EPA Method TO-15 VOCs.

Quality Assurance/Quality Control

Sub-slab soil vapor, indoor air and ambient air samples will be collected in accordance with the Quality Assurance Project Plan (QAPP) included as Appendix B of the RIWP. The laboratory will report sample results on a five-day turn-around time. An independent sub-consultant will validate sample results and prepare a Data Usability Summary Report (DUSR).

Health and Safety

All work at the Site will be completed in accordance with the Health and Safety Plan (HASP) included in Appendix C of the RIWP.

Air Monitoring and Daily Reporting

Ground-intrusive sampling activities are not planned, therefore, a Community Air Monitoring Plan (CAMP), will not be required. Daily reports will be sent to the NYSDOH and NYSDEC Project Manager via email. Daily reports will include a Site figure depicting Work Zones, activities, representative photos of work performed, and wind direction.

Reporting

The findings of the offsite soil vapor investigation will be incorporated into the draft RIR and submitted to NYSDEC and NYSDOH for approval.

Please contact us if you need any additional information.

Sincerely,
Tenen Environmental, LLC



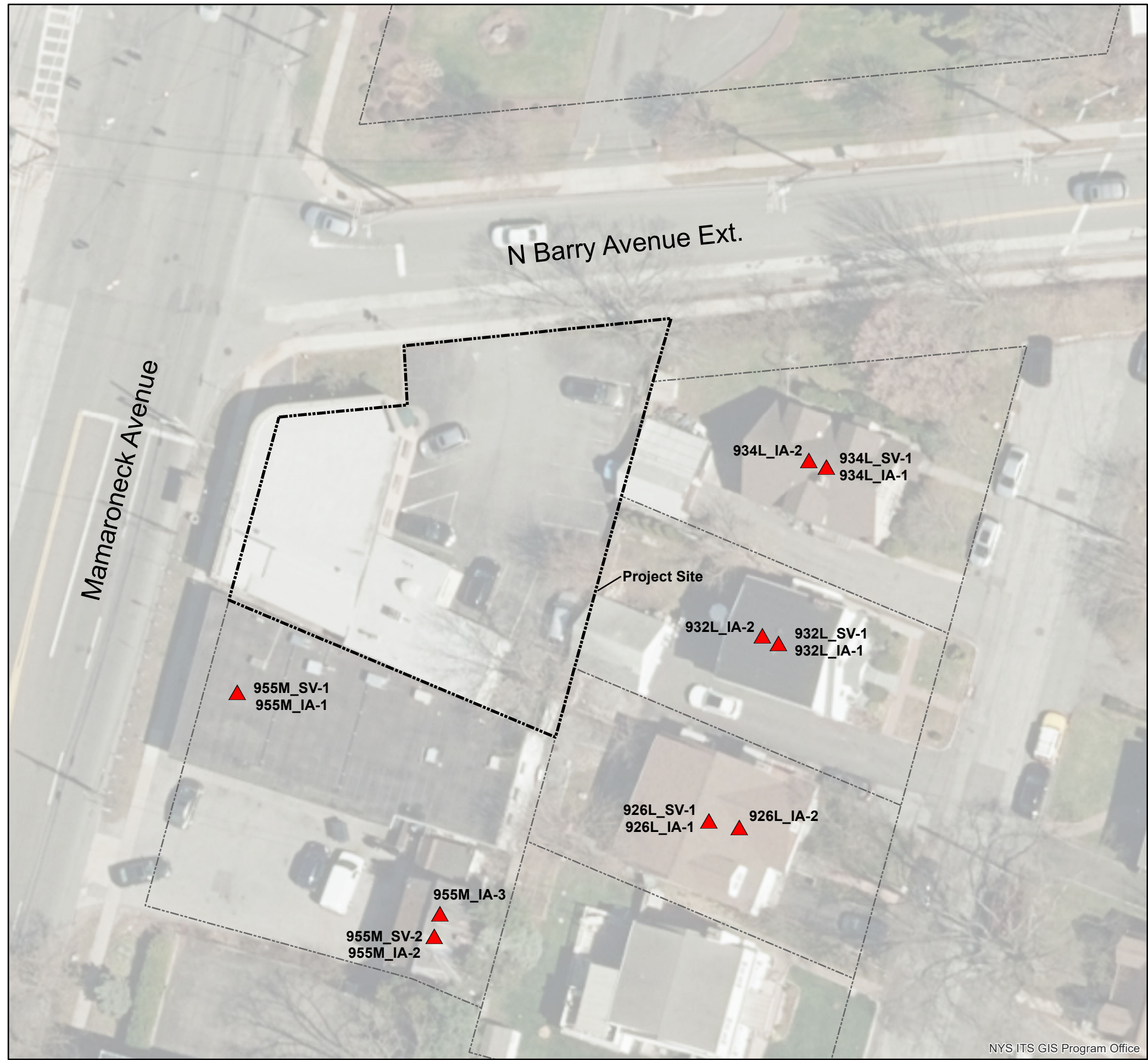
Alana Carroll, PG
Senior Project Manager

Attachments




Figure 1

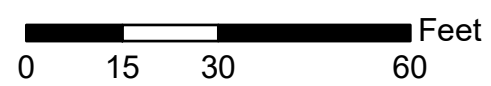
Offsite Soil Vapor and Indoor Air Sample Locations

Figure



Legend

-  Soil Vapor and Indoor Air Sample Location
-  Project Site
-  Tax Lots



**965 Mamaroneck Avenue
Mamaroneck, New York**

Site



Tenen Environmental, LLC
121 West 27th Street
Suite 702
New York, NY 10001
O: (646) 606-2332
F: (646) 606-2379

Drawn By LM

Checked By AP

Date January 2021

Scale As Noted

**Offsite Soil Vapor and
Indoor Air Sample Locations**

Figure 1

Drawing Title

Drawing No