

Draft Baseline Sampling Plan - July 2026

Former Ozone Industries, Inc. Site
Ozone Park, Queens, New York

Project reference: NYSDEC Site No. 2-41-033

July 13, 2026

Quality information

Prepared by	Checked by	Verified by	Approved by
Raimundo Matos, PhD PG Project Manager	Rosaura Andújar-McNeil, PE Senior Environmental Engineer	David Austin, PG Technical Lead	

Prepared for:

The New York State Department of Environmental Conservation
(NYSDEC)

Prepared by:

AECOM USA Inc.
605 Third Ave., 3rd Floor
New York, NY 10158, USA
aecom.com

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Certification

I _____ certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Baseline Sampling Plan 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) and Green Remediation (DER-31).

Signature

Date

Rosaura Andújar-McNeil

Name

License/ Certification Number

Table of Contents

1.	Introduction	1
1.1	Site Description	1
1.1.1	Summary of Relevant Past Sampling Activities	1
2.	Objectives	3
3.	Health and Safety Plan	4
4.	Baseline Sampling Plan	5
4.1	Groundwater Sampling Evaluation	5
4.2	Vapor Intrusion Evaluation: Soil-gas Vapor Sampling outside the Bays	5
4.3	Vapor Intrusion Evaluation: Soil-gas Sampling inside the Bays	6
5.	Reporting	8
6.	Schedule	9
7.	References	10
	Figures	11

Figures

Figure 1 – Site Locus Map

Figure 2 – Site and Site Vicinity Plan

Figure 3 – Location of Sampling Points

1. Introduction

On behalf of Signature Aviation, AECOM USA, Inc. (AECOM) has prepared this Draft Baseline Sampling Plan to conduct groundwater and soil-gas vapor sampling at the Former Ozone Industries Site (Site No. 2-41-033), located in Ozone Park, Queens, New York (the Site). This Baseline Sampling Plan is submitted in response to the New York State Department of Environmental Conservation (NYSDEC) letter dated January 8, 2026, requesting a baseline sampling work plan, including “monitoring wells, sampling ports, monitoring points, and soil vapor points,” as clarified by NYSDEC’s April 10, 2026, and subsequent May 29, 2026, correspondence. A list of all sample locations and ports subject to this Baseline Sampling Plan is provided in **Sections 2.0 and 4.0** below.

Consistent with NYSDEC’s request, the proposed sampling program includes the sampling of selected sampling points outlined in the Interim Site Management Plan (ISMP) Sub-Slab Depressurization System (SSDS) / Soil Vapor Extraction (SVE) system monitoring program - approved by NYSDEC on September 8, 2016. The existing ISMP monitoring program serves as the basis for the baseline sampling activities described in this Baseline Sampling Plan. It is expected that this Draft Baseline Sampling Plan will be discussed with NYSDEC in a meeting scheduled for July 15, 2026.

1.1 Site Description

The Former Ozone Industries, Inc. Site is comprised of a set of eight Bays (Bays 8 – 15) of approximately 12,000 square feet (0.25 acres) within the city block bounded by 99th and 100th Streets to the west and east, and by 101st and 103rd Avenues to the north and south (Ozone Park, New York City). Attached Figure 1 is a Site Locus depicting the Site location within the broader surrounding area and **Figure 2** is a Site and Site Vicinity Plan depicting the Site location and vicinity. Endzone, Inc. entered into an Order on Consent (#W2-0922-02-05) with the New York State Department of Environmental Conservation (NYSDEC) on February 5, 2003, to investigate and remediate the eight Bays, which are located across the street from 101-32 101st Street.

Currently, the Bays are located beneath an abandoned elevated railroad, and both the Site and the railroad are owned by the City of New York. Signature Aviation has access to the Site or Bays to complete operation and maintenance of the SSDS and SVE systems. Of the 28 bays located beneath the railroad, 13 are situated south of the Site and seven are situated north of the Site. The Site encompasses Bays 8 through 15 (Figures 2 and 3). The Bays lack water, sewer, gas, heating, and restroom facilities; therefore, no utility connections to the street are known to exist. Currently, Bay 8A occupies approximately one-half of Bay 8 and houses the aboveground treatment equipment for the SSDS and SVE system. The remaining Site Bays contain SSDS and SVE subsurface piping and flush-mounted monitoring points.

The Bays are each approximately 50 feet by 30 feet, constructed beneath the elevated railroad using a combination of concrete, wood, sheet metal, and chain-link fencing. The railroad structure is supported by concrete foundations and structural steel. Except for Bay 8A, the Site Bays are currently vacant/unoccupied or used temporarily for the storage of equipment and materials.

1.1.1 Summary of Relevant Past Sampling Activities

As discussed above, this Draft Baseline Sampling Plan includes the collection of multiple environmental media at the Site (i.e., groundwater and soil gas sampling). The following summarizes the previous sampling activities conducted at the Site that are relevant to and form the basis of this Draft Baseline Sampling Plan. The results of the completed assessment work have been provided in previously submitted reports to NYSDEC, including a Draft Final Engineering Report (March 2025).

Groundwater Sampling

Groundwater monitoring utilizing wells outside of the Site or Bays has occurred since 2005, starting with the 2009 Remedial Investigation/Feasibility Study (RI/FS) sampling, followed by post-system installation and start-up (2016 and 2017), and during rebound testing episodes (2017 and 2018, and five rounds between August 2019 and August 2020). The last groundwater sampling occurred in August 2020, as part of the last rebound testing at the Site under

the Work Plan Addendum – Sampling Plan during System Rebound dated August 21, 2019 (approved by NYSDEC on October 30, 2019). Groundwater samples were analyzed using SW-846 Methods 5030B/8260B for volatile organic compounds (VOCs).

Soil-Gas Sampling outside Bays

Soil-gas vapor samples have been collected from selected and permanent soil-gas monitoring points outside the Site or Bays since 2006, with increased sampling frequency following implementation of the Vapor Intrusion (VI) Assessment Plan, and Remedial Systems Rebound Testing Work Plan (2017 VI Work Plan). The monitoring program was implemented to evaluate Site conditions during the temporary shutdown and subsequent restart of the remedial systems as part of the VI assessment.

The soil-gas locations cover areas adjacent or across the Bays at 99th and 100th Street. The last soil-gas sampling event occurred in November 2020. Soil-gas vapor samples were analyzed for VOCs using United States Environmental Protection Agency (EPA) Method TO-15 and only included the reporting of five Site-specific VOC constituents (vinyl chloride, trans-1,2-dichloroethene [trans-1,2-DCE], cis-1,2-dichloroethene [cis-1,2-DCE], trichloroethene [TCE], and tetrachloroethene [PCE]), consistent with the analytical scope approved by NYSDEC for previous similar sampling events at the Site.

Soil-Gas Sampling within Bays

Soil-gas vapor samples have been collected from selected monitoring points within the Bays since 2005, with increased sampling frequency following implementation of the 2017 VI Work Plan. The most recent soil-gas vapor event was conducted in August 2024. Soil-gas vapor samples are collected from monitoring points within the Bays and analyzed for VOCs using EPA Method TO-15. Reported analytes included vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, TCE, and PCE, consistent with the analytical scope approved by NYSDEC for previous similar sampling events at the Site.

2. Objectives

Per NYSDEC, the objectives of this Draft Baseline Sampling Plan are the completion of one round of sampling for all media subject to the ISMP and future SMP to serve as baseline conditions to determine the Site's entry into the Site Management phase. The single round of sampling for all media subject to the ISMP and potentially relevant to a future SMP will include the sampling of the following (see **Figure 3** for a depiction of sample locations):

- Existing groundwater monitoring wells PZ-01, PZ-01D, PZ-08, PZ-09, PZ-10, MW-201S, MW-201D, and MW-203; and
- Existing soil-gas (outside the Bays) vapor monitoring points LOC-22, -24, -25, -26, -27, -27B and -28.

Additionally, as part of this Baseline Sampling Plan, four soil-gas vapor samples will be collected from Bays -9, -11, -13, and -15 from existing SVE vapor monitoring points as follows: MP-6S (Bay 9), MP-8S (Bay 11), MP-12S (Bay 13) and MP-15S (Bay 15). See Figure 3 for more details on sample locations. These locations will provide an opportunity to compare concentrations measured within the bays with those observed outside the bays, where previous sampling has identified variability in concentrations (e.g., lower concentrations within the bays at certain locations). This additional line of evidence will provide valuable context for interpreting site conditions, evaluating potential spatial variability, and supporting the overall site assessment.

Upon review and evaluation of the Baseline Sampling Plan data, in conjunction with NYSDEC, a determination will be made regarding the steps warranted to move towards Site closure under a SMP.

3. Health and Safety Plan

Prior to conducting fieldwork, AECOM will update the existing site-specific health and safety plan (HASP), as necessary, for the baseline sampling fieldwork. The HASP will address EPA Standard Operating Safety Guidelines, Occupational Safety and Health Administration (OSHA) Health and Safety Practices (29 CFR 1910), and National Institute of Occupational Safety and Health (NIOSH) practices. The HASP will address safety and emergency response procedures, ambient air quality monitoring requirements, and personal protection equipment to be available. The HASP will also include a list of emergency service telephone numbers and contacts.

4. Baseline Sampling Plan

4.1 Groundwater Sampling Evaluation

As indicated previously, AECOM will collect one (1) round of groundwater data from the current network of monitoring wells installed up-gradient and down-gradient at the Site. These monitoring wells were last sampled in August 2020 (completing the August 21, 2019, NYSDEC approved Work Plan Addendum) as part of the quarterly groundwater sampling events conducted in accordance with the ISMP for the Site.

Prior to sampling, monitoring wells will be assessed to determine well conditions and suitability for groundwater sampling. In the event it is determined the well is not suitable for sampling (i.e., the well is damaged or cannot be located), a determination will be made, in conjunction with NYSDEC, as to whether an alternate well could be sampled. Any alternate location will be subject to review and agreement by the parties and will not expand the scope of this baseline sampling plan.

The monitoring wells to be sampled are the following (see Attached **Figure 3** for monitoring well locations):

- Upgradient – existing wells PZ-01 and PZ-01D on 101st Avenue;
- Next to site along 99th Street – existing wells PZ-08 and PZ-09; and
- Downgradient of site (Bays) – on 99th Street: existing wells PZ-10 (next to Bay 21) and MW-203 (across from Bay 25), and on 100th Street: existing wells MW-201S and MW-201D.

All the existing wells will be gauged prior to sampling. Due to the time elapsed since the last sampling event, monitoring wells will be developed at least 72 hours prior to sampling by pumping until the discharged water is relatively sediment free. The monitoring well development process will be closely monitored in order to minimize the volume of purge water while ensuring that sediment-free groundwater samples are obtained. A portable turbidimeter will be used to monitor effectiveness of development. A turbidity reading of < 50 Nephelometric Turbidity Units (NTU) and steady-state pH, temperature, and specific conductivity readings will be used as a guide for discontinuing well development.

Groundwater samples will be collected using EPA low-flow sampling procedures with peristaltic pumps and flow-through cells. Prior to sample collection, field parameters will be monitored and allowed to stabilize based on the following criteria: specific conductance within 3%, pH within 0.10 standard units, dissolved oxygen within 10%, turbidity within 10%, and oxidation-reduction potential (ORP) within ± 10 millivolts. Collection of groundwater samples may commence once stabilization criteria have been achieved; purging of three well volumes is not required provided the parameters have stabilized. However, a minimum of one well volume will be purged from each well before sampling.

Groundwater samples will be collected directly into laboratory-supplied containers containing the appropriate preservatives, placed on ice, and maintained under chain-of-custody procedures for shipment to Pace Analytical Services, LLC. Samples will be analyzed for volatile organic compounds (VOCs) by EPA SW-846 Method 8260B. As part of the Quality Assurance/Quality Control (QA/QC) program, one trip blank, one field duplicate, one matrix spike/matrix spike duplicate (MS/MSD) sample set, and one equipment blank will also be submitted for VOC analysis.

AECOM assumes that up to two (2) drums of purged water will be generated and disposed of offsite as non-hazardous waste by a local contractor.

4.2 Vapor Intrusion Evaluation: Soil-gas Vapor Sampling outside the Bays

Prior to sampling, existing soil-gas monitoring points will be assessed to determine sampling point conditions and suitability for sampling. In the event it is determined the point is not suitable for sampling (i.e. the point is damaged or cannot be located), a determination will be made, in conjunction with NYSDEC, as to whether an alternate point could be sampled. Any alternate location will be subject to review and agreement by the parties and will not expand the scope of this baseline sampling plan.

AECOM will perform one (1) round of soil-gas vapor sampling outside of the Site or Bays at seven existing soil-gas monitoring points (LOC 22, -24, -25, -26, -27, -27B and -28). See Attached **Figure 3** for soil-gas monitoring locations. Prior to sampling the SSDS and SVE system will be turned off. The SSDS and SVE will remain off for a minimum of seven days prior to sampling. The systems will be restarted following sample collection.

The soil-gas samples will be collected using a 6-liter Summa® canister with a regulator set to collect for a period of approximately two hours. Prior to collection, approximately five liters will be purged from the sampling points to remove the stagnant air and ensure that only vapors from the surrounding soil are collected. Flow rates for both purging and collecting will not exceed 200 mL/min to minimize outdoor air infiltration during sampling.

Following purging, each soil-gas vapor monitoring point will be screened using a calibrated photoionization detector (PID) and then connected to a laboratory-certified clean 6-liter Summa® canister for a 2-hour sample collection, similar to previous sampling events. A tracer gas (e.g., helium) will be employed during sampling to verify proper sample integrity and confirm that infiltration of ambient air is not occurring. Weather conditions during the 24- to 48-hour period preceding sampling, including precipitation and ambient temperature, will be documented, along with any other pertinent field observations such as odors and instrument readings.

Upon completion of sampling, the final vacuum within the Summa® canister will be verified to be approximately 5 ± 1 inches of mercury before the canister valve is closed. The canisters will then be labeled, documented under chain-of-custody procedures, and submitted to Pace Analytical Services, LLC for laboratory analysis.

The samples will be examined for VOC analysis via EPA Method TO-15, with the reporting of five VOC constituents (vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, TCE, and PCE), consistent with the analytical scope approved by NYSDEC for previous similar sampling events at the Site.

4.3 Vapor Intrusion Evaluation: Soil-gas Sampling inside the Bays

AECOM will perform one round of soil-gas vapor sampling from four existing monitoring points located within the Bays: MP-6S (Bay 9), MP-8S (Bay 11), MP-12S (Bay 13), and MP-15S (Bay 15). These four monitoring locations have been sampled in the past as part of the 2017 VI Work Plan and 2019 Work Plan Addendum activities. The monitoring points are located in Bays 9 and 13 along 99th Street, and Bays 11 and 15 along 100th Street. See Attached **Figure 3** for soil-gas monitoring locations. Samples will be collected using laboratory-certified clean 6-liter Summa® canisters over an approximate 2-hour sampling period.

Prior to sampling, existing soil-gas monitoring points will be assessed to determine sampling point conditions and suitability for sampling. In the event it is determined the point is not suitable for sampling (i.e. the point is damaged or cannot be located), a determination will be made, in conjunction with NYSDEC, as to whether an alternate point could be sampled. Any alternate location will be subject to review and agreement by the parties and will not expand the scope of this baseline sampling plan.

Consistent with the soil vapor sampling procedures used for monitoring points located outside the Bays, each soil-gas monitoring point will be purged prior to sampling to remove stagnant air and ensure collection of representative soil vapor from beneath the slab. Approximately 3.7 liters of vapor will be purged from each monitoring point before sample collection begins.

Following purging, each soil-gas vapor monitoring point will be screened using a calibrated photoionization detector (PID) and then connected to a laboratory-certified clean 2.6-liter Summa® canister for a 30-minute sample collection, consistent with the 2019 Work Plan Addendum. A tracer gas (e.g., helium) will be employed during sampling to verify proper sample integrity and confirm that infiltration of ambient air is not occurring. Weather conditions during the 24- to 48-hour period preceding sampling, including precipitation and ambient temperature, will be documented, along with any other pertinent field observations such as odors and instrument readings.

Upon completion of soil-gas vapor sampling, the final vacuum within the Summa® canister will be verified to be approximately 5 ± 1 inches of mercury before the canister valve is closed. The canisters will then be labeled, documented under chain-of-custody procedures, and submitted to Pace Analytical Services, LLC for laboratory analysis.

The samples will be examined for VOC analysis via EPA Method TO-15, with the reporting of five VOC constituents (vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, TCE, and PCE), consistent with the analytical scope approved by NYSDEC for previous similar sampling events at the Site.

5. Reporting

AECOM, on behalf of Signature Aviation, will prepare and submit a comprehensive report to the NYSDEC documenting the results of this Baseline Sampling Plan program. The report will include a summary of field activities, analytical data tables, figures, laboratory data summaries, and recommendations regarding potential entry into the site closure phase under a NYSDEC-approved Site Management Plan (SMP).

Laboratory data will be validated by a qualified AECOM subcontractor in general accordance with the most recent USEPA Region 2 Standard Operating Procedures (SOPs) and modified to meet specific requirements of NYSDEC Analytical Services Protocol (ASP). The Baseline Sampling Report will be certified by a New York State Licensed Professional Engineer or Qualified Environmental Professional (QEP).

Consistent with NYSDEC's May 29, 2026, correspondence, groundwater analytical results will be compared to applicable New York State groundwater Standards, Criteria, and Guidance Values (SCGs), as well as historical groundwater data collected at the Site. AECOM understands the applicable comparison values to be those contained in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards, and Guidance Values and Groundwater Effluent Limitations (June 1998, as amended).

With respect to soil vapor data, NYSDEC indicated in its May 29, 2026, correspondence that soil vapor results will be evaluated in consultation with NYSDOH staff and compared to previous soil vapor data collected at the Site. AECOM notes that New York State has not established promulgated numerical standards or criteria for evaluating soil vapor concentrations collected from soil vapor monitoring points. Existing NYSDOH vapor intrusion guidance values (2017, as amended, Soil Vapor/Indoor Air Matrices) are generally intended for the evaluation of sub-slab soil vapor, indoor air, and associated building-specific vapor intrusion conditions. Accordingly, these guidance values may not be directly applicable to soil vapor samples collected from deeper subsurface monitoring points located within public right-of-way areas (streets and sidewalks), such as monitoring locations LOC-22, LOC-24, LOC-25, LOC-26, LOC-27, LOC-27B, and LOC-28. Therefore, AECOM anticipates that evaluation of the outdoor soil vapor data will primarily rely on comparison to historical Site data and consideration of overall chemicals of concern (COCs) concentration trends, in consultation with NYSDEC and NYSDOH, as appropriate.

6. Schedule

The activities described in this Draft Baseline Sampling Plan will begin following acceptance of the final Draft Baseline Sampling Plan by the NYSDEC. Presently, sampling activities are anticipated to be performed in September/October 2026. Analytical laboratory data are anticipated to be received by October/November 2026, with submittal of a Baseline Sampling Report within approximately 30 to 60 days thereafter. Changes to the schedule may occur due to the NYSDEC review and approval process, unforeseen weather delays, etc.

7. References

New York State Department of Environmental Conservation, Order on Consent, Index No. W2-0922-02-05 (executed Feb. 5, 2003).

AECOM, Final Interim Site Management Plan (ISMP) (July 28, 2016), as amended Apr. 17, 2017.

AECOM, Addendum to the Interim Site Management Plan (ISMP): Groundwater Monitoring Opinion, Vapor Intrusion Assessment Plan, and Remedial Systems Rebound Testing (2017), approved by NYSDEC June 23, 2017.

New York State Department of Environmental Conservation, Office of General Counsel, Off-Site Investigation Status and Baseline Sampling (letter dated Apr. 10, 2026).

New York State Department of Environmental Conservation, Office of General Counsel, Former Ozone Industries, Site No. 2-41-033 (letter dated May 29, 2026).

New York State Department of Environmental Conservation, Ambient Water Quality Standards and Guidance Values, Division of Water Technical and Operational Guidance Series (1.1.1), October 1998 (with addendums through June 2021).

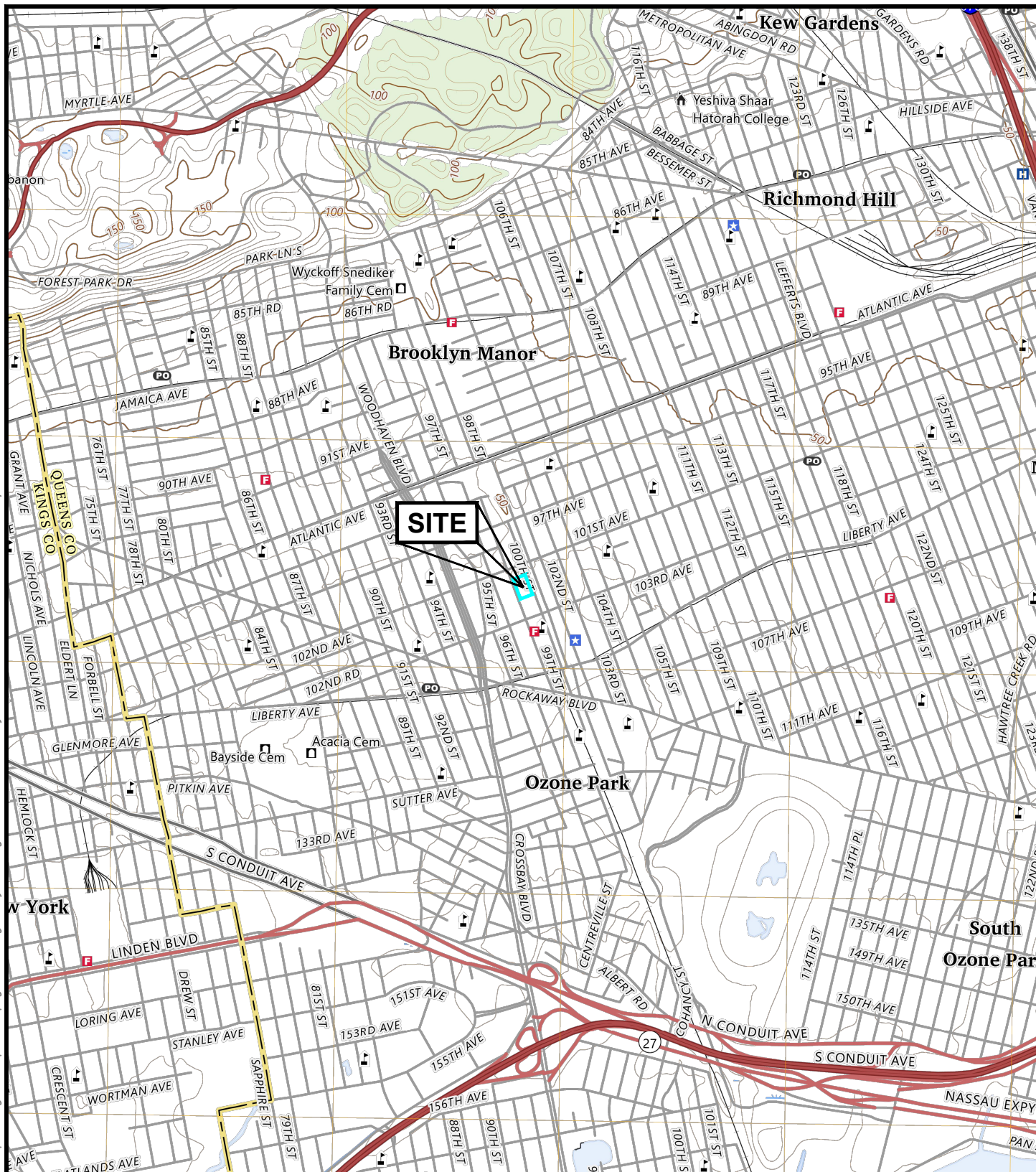
New York State Department of Environmental Conservation, DER-10 / Technical Guidance for Site Investigation and Remediation, issued May 3, 2010.

New York State Department of Environmental Conservation, DER-31 / Green Remediation, issued August 11, 2010.

New York State Department of Health, Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, (with updates through February 2024).

Figures

File: C:\Users\BarryK\OneDrive - AECOM\Working Jobs\Ozone\Figure 1.dwg Layout: Figure 1 User: BarryK Plotted: Jul 08, 2026 - 2:54pm Xref's:



AECOM

1000 0 1000 2000 3000 4000
SCALE IN FEET



FORMER OZONE INDUSTRIES, INC.
OZONE PARK
101-61 99TH STREET, QUEENS, NY

SITE LOCUS MAP

DATE: 7/8/26

DRWN: KPB

PROJECT No.: 60752529

FIGURE 1





