AECOM Technical Services
1255 Broad Street, Suite 201
Clifton, NJ 07013-3398

973.883.8500 tel
973.883.8501 fax

March 29, 2022

Dorrit Blakeslee
Project Manager, Facilities Management and Sustainability
NYC Department of Transportation
212-839-8894
dblakeslee@dot.nyc.gov

Re: Indoor Air Quality and Sub-Slab Investigation Letter Report
47-25 34th Street
Long Island City, New York 11101
AECOM Project No. 60602814

Dear Ms. Blakeslee:

At the request of the New York City Department of Transportation (DOT), AECOM USA, Inc. (AECOM) performed an Indoor Air Quality (IAQ) and Sub-Slab Soil Investigation at the privately owned site located at 47-25 34th Street, Long Island City, Queens County, New York 11101 (Project Area). The DOT is leasing approximately 149,000 square feet of a 322,390 gross square foot facility. The DOT lease includes the approximately 13,000 square feet (sf) of exterior paved surface parking lot and 136,000 sf of office and warehouse space on the ground and mezzanine floors within the Project Area. According to the City of New York Department of Finance records, the subject property consists of a single parcel of land that is designated as Block 250, Lot 1. The approximate location of the subject property is illustrated on **Figure 1** - Project Area Map.

NYCDOT, through its consultant AECOM, conducted a Phase I Environmental Site Assessment (ESA) of the proposed leasehold (AECOM, November 2020). Based upon the findings, the conduct of an indoor air quality assessment and sub-slab vapor investigation was proposed to evaluate what impacts, if any, historical underground storage tanks and other historical uses identified during the Phase I ESA may have on indoor air quality. The purpose of the indoor air quality assessment and sub-slab vapor investigation was to evaluate if there are any indoor/ambient air conditions that would impact the Proposed Development in the Project Area.

1. Site Background/History

AECOM conducted a Phase I ESA of the subject property in November 2020. AECOM's historical research indicates that the subject property was occupied by manufacturing operations from 1924 through the late 1970s (International Motor Co. - 1924 to at least 1950 and Neptune Meter Co. - 1962 to sometime between 1977 and 1979). The use of hazardous materials, if any, associated with historical manufacturing operations is unknown. The potential historic use of the subject property as manufacturing is considered a recognized environmental concern (REC).

The subject property utilized up to six fuel oil underground storage tank (UST) for heating purposes. Each of the referenced USTs were reported as closed-in-place or removed. Two 4,000-gallon diesel USTs were closed in 2002 and are associated with a New York State Department of Environmental Conservation (NYSDEC) spill case that received a No Further Action (NFA) determination from NYSDEC in 2003. However, copies of the UST closure reports or NFA correspondence were not readily available for the other

four tank systems. Based on the lack of information regarding location and regulatory status, AECOM considers these four historical USTs a REC and a vapor concern (VEC).

Eight metal floor plates that ranged in size from one foot (ft) by one ft to two ft by three ft were observed within the ground level of the proposed leasehold. Select metal plate covers were lifted and the pits were observed to contain cut and capped piping. The origin of the piping or historical use of the piping is unknown at this time but believed to be associated with the historical fuel system that serviced the on-site boilers.

Based upon the findings, AECOM conducted a Phase I ESA with an indoor air quality assessment and sub-slab vapor investigation to evaluate what impacts, if any, historical USTs and below grade features (i.e., metal plates) have on indoor air quality. The proposed scope of work included the collection and analysis of three indoor air samples, one background air sample, and four sub-slab samples as described below.

2. Project Mobilization

AECOM and its geophysical survey and drilling subcontractor mobilized to the Project Area on February 1, 2022. Prior to initiation of activities in the Project Area, a Health and Safety Plan was (HASP) prepared and reviewed by AECOM in compliance with applicable sections of Occupational Safety and Health Administration (OSHA) Regulations 29 Code of Federal Regulations (CFR) Part 1910 and 29 CFR Part 1926 for use by all AECOM personnel.

At least three business days prior to the beginning of intrusive work, the drilling subcontractor, AARCO Environmental Services Corp. (AARCO), of Lindenhurst, New York, contacted New York's utility location service known as "New York 811" to request a field mark-out of underground utilities at the Project Area. "New York 811" provided a case number and a list of companies that were notified. Utilities indicated the location where their facilities enter the Project Area using color-coded, semi-permanent spray paint. Private utility location services were also completed before any intrusive subsurface work was started as described in Section 2.1 (Geophysical Survey).

2.1 Geophysical Survey

Prior to the advancement of sub-slab borings, the geophysical subcontractor, AARCO, scanned an approximately ten ft by ten ft area around each proposed sub-slab boring location using a GSSI SIR-4000 controller together with a 350 MHz ground-penetrating radar (GPR) antenna mounted on a cart. The GPR scanning was conducted to locate underground utilities and other significant anomalies. The locations of any detected utilities and anomalies were marked directly in the Project Area with hot pink paint and the results were reviewed with personnel at the Project Area. The location of the proposed sampling points were adjusted slightly based upon the location of identified subsurface utilities. The locations of the subsurface points are shown on **Figure 3**.

2.2 Structure Sampling Building Questionnaire

On February 1, 2022, AECOM completed the Soil Vapor Intrusion – Structure Sampling Building Questionnaire and Product Inventory in general accordance with the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in New York State, October 2006 (including subsequent updates)*. Field measurements were recorded using a ppb RAE 3000 photoionization detector (PID) with a 10.6 electron volt (eV) lamp to measure volatile organic compounds (VOCs). The completed Questionnaire and Product Inventory is included as **Appendix A**. The background reading throughout the building was 0 parts per billion (ppb). The only chemicals identified in the leasehold were five-gallon pails

of latex paints on a pallet. The building survey was used to refine the locations of the indoor air samples. The locations of the indoor air sample locations are shown on **Figure 2**.

2.3 Applicable Regulatory Standards - Indoor Air and Soil Vapor Guidelines

No standards currently exist for soil vapor samples in New York State. The analytical results for the indoor air and soil vapor samples were compared to the Air Guideline Values (AGVs) presented in the NYSDOH Vapor Intrusion Guidance Document, NYSDOH's Tetrachloroethene (Perc) in Indoor and Outdoor Air September 2013 Fact Sheet ("NYSDOH Perc Fact Sheet"), and NYSDOH's Trichloroethene (TCE) in Indoor and Outdoor Air August 2015 Fact Sheet ("NYSDOH TCE Fact Sheet"). Additionally, the sample results were compared to background levels of VOCs in indoor air presented in Appendix C of the Vapor Intrusion Guidance Document, including Upper Fence Limit indoor air values from "Table C-1. NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes"; 90th Percentile indoor air values from "Table C-2. EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, Summa® canister method"; and the 95th Percentile Indoor Air Values from "Table C-5, Health Effects Institute (HEI) 2005: Relationship of Indoor, Outdoor and Personal Air" (collectively referred to as the "range of published background concentrations").

The results of the analyses of the indoor air and soil vapor samples were also compared to Matrices A, B, and C of the May 2017 Vapor Intrusion Guidance Document Vapor Intrusion Decision Matrices updates for use in the evaluation of eight chlorinated VOCs (TCE, cis-1,2-dichloroethene, 1,1,-dichloroethene, carbon tetrachloride, tetrachloroethene (PCE), 1,1,1-trichloroethane, methylene chloride, and vinyl chloride) in paired sub-slab vapor and indoor air samples. Based upon the results, the matrices provide recommendations for "no further action," "additional monitoring," or "mitigation." Site sub-slab vapor results were compared to the minimum sub-slab vapor concentrations provided in the NYSDOH matrices. Use of the minimum concentrations represents a conservative evaluation of the potential vapor intrusion pathway.

In addition, ambient air sample results were compared to NYSDEC 2021 Annual VOC Data from Queens College, 65-30 Kissena Blvd., Parking Lot#6 Site, Queens County.

The results were also compared to the United State Environmental Protection Agency (USEPA) Vapor Intrusion Screening Levels (VISLs) for a commercial/industrial worker exposure scenario assuming workers may be present in the building for eight hours per day for 250 days per year (i.e., five days per week for 50 weeks per year). This exposure scenario is also protective of part time workers and visitors. The VISLs are risk-based, derived based on a target cancer risk of one x 10-6 (i.e., one in one million) and a target noncancer hazard quotient (HQ) of 0.1 (USEPA, 2021). These target risk/HQ levels are recommended by USEPA for use in performing conservative (i.e., health-protective) screening-level risk assessments when assessing potential exposure to multiple analytes. The sub-slab/soil gas screening levels are calculated by applying USEPA's generic sub-slab vapor to indoor air attenuation factor of 0.03 to risk-based indoor screening levels. This generic attenuation factor is recommended "for use in estimating potential upper-bound concentrations in indoor air that may arise from vapor intrusion" (USEPA, 2015). The presence of a sub-slab vapor or soil gas concentration above the associated screening level does not necessarily indicate that a complete vapor intrusion pathway or health concern exists, but only that further evaluation/consideration is necessary before the potential can be ruled out.

3. IAQ Survey

3.1 Indoor Air Sampling

The IAQ sampling was conducted in general accordance with the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 (NYSDOH Vapor Intrusion Guidance Document). The IAQ Survey field activities were performed on February 1, 2022, and included performance of a building inspection and chemical inventory, which was documented in the NYSDOH IAQ Questionnaire (**Appendix A**) and the collection of three indoor air samples and one ambient air sample for laboratory analysis. Indoor air and ambient samples were identified as IA-1 through IA-4 and were collected from the following locations, as shown on **Figure 2**:

- IA-1: was collected west of the boiler room and west of the metal covers of unknown origin
- IA-2: was collected northwest of the boiler room and northwest of the metal covers of unknown origin.
- IA-3: was collected on the north of the boiler room and northeast of the metal covers of unknown origin.
- One ambient air/background sample (herein identified as IA-4) was collected from outside of the Project Area building on the north exterior loading dock area.

During the inspection, a ppb-range photoionization detector (PID) was utilized to screen indoor air sample locations and adjacent spaces for the presence of organic vapors. No PID readings above background were detected in the areas evaluated.

Indoor and ambient air samples were collected utilizing individually certified-clean six-liter Summa® canisters. The samples were collected over an eight-hour time period from a height of approximately three to four feet above the floor to simulate the typical breathing zone. Initial and final canister vacuum readings (inches of mercury) and sampling times were recorded on the laboratory chain-of-custody forms. During sampling, there were no activities being performed in the Project Area that would interfere with the IAQ sampling.

The IAQ samples were analyzed for VOCs utilizing USEPA Method TO-15 Select Ion Monitoring (SIM) method in order to meet New York State Indoor Air screening levels on a standard turnaround basis (i.e., 7-14 days). The Summa® canisters were properly labeled and transported via courier to Eurofins Test America laboratory of Burlington, Vermont, for analysis. Eurofins Test America is a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory for air quality sample analyses. A summary of the analytical results is provided in **Table 1**, and a copy of the analytical laboratory results is attached in **Appendix B**. Photographs of the sampling locations are provided in **Appendix C**.

3.2 IAQ Findings

A review of the indoor air sample analytical results indicates that ten (10) of the 72 VOCs analyzed utilizing USEPA Method TO-15 were detected in one or more indoor and ambient air samples, respectively. No VOCs were detected in the indoor and ambient air samples above the corresponding NYSDOH AGVs or range of indoor published background concentrations with the exception of n-hexane detected in sample SV-1 at 16 ug/m^3. The reported n-hexane concentration is well below the human health risk-based screening level of 10,200 ug/m^3 for n-hexane for a commercial/industrial worker exposure scenario.

3.3 IAQ Conclusions and Recommendations

Only n-hexane was detected in one sample, SV-1, at a concentration above the corresponding NYSDOH AGVs or range of indoor published background concentrations. N-hexane is a common solvent used in select manufacturing operations, is a component of gasoline, and is found in automobile exhaust. Vehicles were observed staged at the north interior area of the leasehold, approximately 450-feet north of SV-1. However, no movement of DOT vehicles was noted during the sampling event. The reported n-hexane concentration of 16 ug/m^3 is well below the human health risk-based screening level of 10,200 ug/m^3 for n-hexane a commercial/industrial worker exposure scenario.

It is noted that the DOT leasehold is utilized for warehouse operations and vehicle storage only. On-site staff at the time of the indoor air assessment was limited to non-DOT building maintenance personnel with no full time DOT personnel observed in the Project Area. Inhalation of indoor air for commercial/industrial workers has a low potential to pose a health concern; however, based upon the findings, a confirmatory round of sampling and analysis is recommended.

4. Sub-Slab Soil Vapor Survey

A sub-slab soil vapor survey was conducted to evaluate the potential for vapor intrusion in the Project Area. **Figure 3** shows the locations of the soil vapor survey points advanced in the Project Area. A total of four soil vapor samples were collected for laboratory analysis. Photographs of the sampling locations are provided in **Appendix C**.

4.1 Sub-Slab Soil Vapor Sampling

The sub-slab soil vapor sampling program was completed on February 2, 2022, in conformance with the applicable procedures described in ASTM E 2600-10 "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" and the October 2006 NYSDOH Soil Vapor Intrusion Guidance Document protocols. AARCO was retained as a subcontractor by AECOM for drilling services. The sub-slab soil vapor samples were collected to provide special coverage in the Project Area to investigate potential impacts from Project Area RECs/VECs as follows:

- SV-1: was collected west of the boiler room and west of the metal covers of unknown origin.
- SV-2: was collected northwest of the boiler room and northwest of the metal covers of unknown origin.
- SV-3: was collected north of the boiler room and northeast of the metal covers of unknown origin.
- SV-4: was collected on the north interior side of the building in proximity to the loading dock area where two 4,000-gallon heating oil underground storage tanks were reportedly closed in place in 2002.

The soil vapor points were installed using a manual slide hammer driven system. A concrete core was utilized to drill a one-inch diameter hole through the six-inch concrete slab. Soil vapor points were installed by advancing a 0.75-inch diameter hollow probe rod fitted with an expendable six-inch diameter stainless steel screened drive point to a depth of approximately three ft below ground surface (bgs). Dedicated Teflon tubing with threaded fittings was then connected to the probe. The hollow probe rod was then removed, and an airtight seal was created at the surface using hydrated bentonite.

The adequacy of each seal was tested using a shroud to seal the borehole from the ambient air. Helium tracer gas was then pumped into the shroud. The above grade end of the tubing, which is the sample

collection point, was then attached to a helium gas detector. The adequacy of the seal was verified by direct helium readings of less than ten percent. Each of the temporary soil vapor probes were then purged to evacuate three volumes of soil vapor. After purging, each probe was connected by means of Teflon tubing to a laboratory-supplied individually certified-clean, six-liter SUMMA® canister equipped with a flow regulator. Soil vapor samples were collected in SUMMA® canisters for an approximately one-hour sampling period. Immediately after opening each SUMMA® canister, the initial vacuum reading (inches of mercury) was noted. After one hour, final vacuum readings (inches of mercury) were noted and the SUMMA® canisters were closed.

During the sampling, there were no activities observed in the immediate vicinity of the sampling locations in the Project Area that would be expected to interfere with the soil vapor sampling.

Each soil vapor sample was analyzed by USEPA Method TO-15 for VOCs to evaluate soil vapor conditions in the Project Area.

After collection, the SUMMA® canisters were properly labeled and transported to Eurofin/TestAmerica - Burlington Laboratory in Burlington, Vermont, utilizing standard chain-of-custody procedures. Eurofin/TestAmerica - Burlington is a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory for air quality sample analyses.

Upon completion, each soil vapor point was backfilled to near grade surface with the bentonite and then the ground surface was restored to match the existing grade (i.e., concrete patch).

4.2 Soil Vapor Survey Findings

A review of the soil vapor sample analytical results indicates that 34 of the 72 VOCs analyzed utilizing USEPA Method TO-15 were detected in one or more of the samples; of which 21 of the VOCs were detected above published indoor air background concentrations. Detected VOCs include: 1,1,1-tricloroethane, 1,1-dichloroethane, 1,1-dichloroethene (1,1-DCE), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, acetone, benzene, carbon tetrachloride, chloroform, cyclohexane, ethylbenzene, m&p-xylenes, methyl ethyl ketone (MEK), methyl-isobutyl ketone (MIBK), methylene chloride, n-heptane, n-propylbenzene, PCE, toluene, TCE and o-xylene. A summary of the analytical results for VOCs in soil vapor are presented in **Table 2**. The laboratory analytical report is presented in **Appendix B**.

It is noted that the chlorinated solvent-related compounds 1,1,1-tricloroethane, 1,1-DCE, carbon tetrachloride, methylene chloride, PCE, and TCE were detected in one or more soil vapor samples at concentrations above the applicable range of published background levels and/or its AGV. Therefore, these constituents were also compared to Matrix A and B of the NYSDOH Soil Vapor Intrusion Guidance Document May 2017 Matrices Updates.

The soil vapor sampling results for carbon tetrachloride, 1,1-DCE, and TCE were compared to Matrix A of the NYSDOH Soil Vapor Intrusion Guidance Document May 2017 Matrices Updates. 1,1-DCE and cis-1,2-DCE were not detected in soil vapor samples SV-1 through SV-4. Carbon tetrachloride was detected in one soil vapor sample, SV-4, at 2.8 µg/m^3. TCE was detected in four soil vapor samples at concentrations ranging from 5.3 µg/m^3 to 1,600 µg/m^3. Based on Matrix A, for the corresponding indoor air concentration, the recommended action for the sub-slab vapor concentrations of carbon tetrachloride is “no further action”; however, “mitigation” is the recommended action for the concentration of TCE present.

The soil vapor sampling results for methylene chloride, PCE, and 1,1,1-trichloroethane were compared to Matrix B of the NYSDOH Soil Vapor Intrusion Guidance Document May 2017 Matrices Updates. Methylene chloride was detected in one soil vapor sample, SV-2, at a concentration of 8.4 µg/m^3. PCE was detected in all four soil vapor samples at concentrations ranging from 4.5 µg/m3 to 200 µg/m^3. 1,1,1-Trichloroethane was detected in all four soil vapor samples at concentrations ranging from 9.2 µg/m^3 to 710 µg/m^3. Based on Matrix B, the recommended action for these three constituents is "no further action."

Since vinyl chloride was not detected in soil vapor samples SV-1 through SV-4, a comparison of results to Matrix C of the NYSDOH Soil Vapor Intrusion Guidance Document May 2017 Matrices Updates was not conducted.

Other (non-chlorinated) VOCs including 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, acetone, benzene, cyclohexane, ethylbenzene, m&p-xylenes, methyl ethyl ketone (MEK), methyl-isobutyl ketone (MIBK), n-heptane, n-propylbenzene, toluene, and o-xylene were detected in one or more sub-slab vapor samples at concentrations above the applicable range of published background levels and/or its AGV. While concentration of benzene, ethylbenzene, methyl ethyl ketone (MEK), toluene, and o-xylene were detected in the paired indoor air samples collected in the Project Area, the indoor air concentrations were all below the published background concentrations and do not suggest a complete vapor intrusion pathway.

4.3 Sub-Slab Sampling Conclusions and Recommendations

Four sub-slab vapor samples were collected and analyzed for VOCs following EPA Method TO-15 and indicate the following:

- A review of the soil vapor sample analytical results indicates that 34 of the 72 VOCs analyzed utilizing USEPA Method TO-15 were detected in one or more of the samples; of which 21 of the VOCs were detected above published indoor air background concentrations. Of note are chlorinated solvent-related compounds 1,1,1-trichloroethane, PCE, TCE and methylene chloride which were detected in one or more soil vapor samples at concentrations above the applicable range of published background levels and its AGV.

- The soil vapor sampling results for carbon tetrachloride, 1,1-DCE, and TCE were compared to Matrix A of the NYSDOH Soil Vapor Intrusion Guidance Document May 2017 Matrices Updates. Carbon tetrachloride was detected in one soil vapor sample, SV-4, at 2.8 µg/m^3. TCE was detected in four soil vapor samples at concentrations ranging from 5.3 µg/m^3 to 1,600 µg/m^3. Based on Matrix A, for the corresponding indoor air concentration, the recommended action for the sub-slab vapor concentrations of carbon tetrachloride is "no further action"; however, "mitigation" is the recommended action for the concentration of TCE present.

- The soil vapor sampling results for methylene chloride, PCE, and 1,1,1-trichloroethane were compared to Matrix B of the NYSDOH Soil Vapor Intrusion Guidance Document May 2017 Matrices Updates. Methylene chloride was detected in one soil vapor sample, SV-2, at a concentration of 8.4 µg/m^3. PCE was detected in all four soil vapor samples at concentrations ranging from 4.5 µg/m^3 to 200 µg/m^3. 1,1,1-Trichloroethane was detected in all four soil vapor samples at concentrations ranging from 9.2 µg/m^3 to 710 µg/m^3. Based on Matrix B, the recommended action for these three constituents is "no further action." It is noted that these constituents were not detected in the indoor air samples collected in the Project Area. The data does not suggest a complete vapor intrusion pathway.

- The VOCs chloroform and TCE were detected at concentrations above the USEPA VISLs in sample SV-2, SV-3, and SV-4. Chloroform was detected in SV-3 at 34 µg/m^3. TCE was detected in samples SV-2, SV-3 and SV-4 at 1400 µg/m^3, 890 µg/m^3, and 1600 µg/m^3, respectively. It is noted that these constituents were not detected in the indoor air samples collected in the Project Area. The data does not suggest a complete vapor intrusion pathway.

- Other (non-chlorinated) VOCs including 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, acetone, benzene, cyclohexane, ethylbenzene, m&p-xylenes, MEK, MIBK, n-heptane, n-propylbenzene, toluene, and o-xylene were detected in one or more sub-slab vapor samples at concentrations above the applicable range of published background levels and/or its AGV. While concentration of benzene, ethylbenzene, MEK, toluene, and o-xylene were detected in the paired indoor air samples collected in the Project Area, the indoor air concentrations were all below the published background concentrations and do not suggest a complete vapor intrusion pathway.

5. Summary of Conclusions and Recommendations

AECOM performed an assessment of indoor air and sub-slab vapor concentrations of the ground level leasehold area of the property identified as 47-25 34th Street in Long Island City, New York. Three indoor air samples, one ambient air sample, and four sub-slab vapor samples were collected and analyzed for VOCs following USEPA Method TO-15 SIM.

Limited VOCs were detected in the indoor air samples. With the exception of n-hexane, the detected VOC concentrations in indoor air fell below the corresponding NYSDOH AGVs or range of indoor published background concentrations. The reported n-hexane detection in sample SV-1 is well below the human health risk-based screening levels for a commercial/industrial worker exposure scenario. It is noted that n-hexane was detected in the corresponding sub-slab vapor samples at similar or lower concentrations. The data for n-hexane in indoor air suggests an indoor source and does not suggest a complete vapor intrusion pathway. Based upon these findings a confirmatory round of indoor air sampling and analysis is recommended.

Chlorinated solvent-related compounds including carbon tetrachloride, chloroform, 1,1,1-trichloroethane, PCE, TCE and methylene chloride were detected in one or more soil vapor samples at concentrations above the applicable range of published background levels and its AGV. Based on Matrix A and Matrix B, the recommended action for the sub-slab vapor concentrations of carbon tetrachloride, methylene chloride, PCE, and 1,1,1-trichloroethane is “no further action.”

When the decision Matrix A is applied to the TCE data, the recommended action for the sub-slab vapor concentrations of TCE is “mitigation.” TCE and chloroform were detected at concentrations above the USEPA VISLs in sample SV-2, SV-3, and SV-4. It is noted that these chlorinated VOCs were not detected in the corresponding indoor air samples. The data does not suggest a complete vapor intrusion pathway is present in the Project Area at this time. Based upon the reported sub-slab vapor concentrations, a confirmatory round of sub-slab sampling and analysis is recommended.

Other (non-chlorinated) VOCs were detected in the sub-slab vapor samples at including concentrations above the applicable range of published background levels and/or its AGV. While concentration of benzene, ethylbenzene, MEK, toluene, and o-xylene were detected in the paired indoor air samples collected in the Project Area, the indoor air concentrations were all below the published background concentrations and do not suggest a complete vapor intrusion pathway.

Limitations

AECOM's services were provided in accordance with generally accepted environmental science, industrial hygiene, and engineering practices at the time the work was performed. No expressed or intended representation of warranty is included or intended in our reports, except that our services were performed with the customary thoroughness and competence of our profession.

This report is based on data, Project Area conditions and other information that is applicable as of the date of this report, and the conclusions and recommendations herein are therefore applicable only to that timeframe. The scope of services performed by AECOM may not be appropriate to satisfy the needs of other users, and any use or re-use of this document, or of the findings, conclusions or recommendations herein is at the sole risk of the user.

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If you have any questions or require additional information, please do not hesitate to contact Deborah Howes at 503-544-7171 or Christine Wagner at 908-419-0827.

Sincerely,
AECOM USA

Prepared By:
Christine Wagner
Senior Environmental Scientist

Reviewed By:
Deborah Howes, AICP
Client Community Manager

Enclosures:

Table 1: Summary of Results of Analysis of Indoor and Ambient Air Samples for Volatile Organic Compounds – Hits Only
Table 2: Summary of Results of Analysis of Sub-Slab Samples for Volatile Organic Compounds – Hits Only

Figure 1: Project Area Map
Figure 2: Sample Location and Results of Analysis of Indoor and Ambient Air Samples for Volatile Organic Compounds
Figure 3: Summary of Results of Analysis of Sub-Slab Samples for Volatile Organic Compounds

Appendix A: NYSDOH Indoor Air Quality Questionnaire
Appendix B: Laboratory Analytical Report
Appendix C: Sampling Photographs

Tables

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
INDOOR AIR SAMPLES - HITS ONLY
47-25 34TH STREET, LONG ISLAND CITY, NEW YORK 11101

							Client ID	IA-1		IA-2		IA-3		IA-4	
							Lab Sample ID	200-61976-1		200-61976-2		200-61976-3		200-61976-4	
							Sampling Date	2/1/2022		2/1/2022		2/1/2022		2/1/2022	
VOLATILE ORGANIC COMPOUND (ug/m^3)	Published Background Concentrations			NYSDOH AGV[4]	USEPA VIRLs Commercial/ Industrial	Queens County Monitor Values 95th Percentile	Matrix	Indoor Air		Indoor Air		Indoor Air		Outdoor Air	
	NYSDOH Fuel Oil 2003 Upper Fence Limit[1]	USEPA BASE Data 90th	HEI RIOPA 2005 95th				Dilution Factor	1		1		1		1	
	Indoor	Indoor	Indoor				Unit	ug/m^3		ug/m^3		ug/m^3		ug/m^3	
								Result	Q	Result	Q	Result	Q	Result	Q
AIR BY TO-15															
Benzene	13	9.4	10	-	52.4	1.22	Benzene	0.9		0.64	U	1		0.75	
Chloromethane	4.2	3.7	-	-	1310	-	Chloromethane	1.3		1.4		1.5		1.4	
Ethylbenzene	6.4	5.7	7.62	-	164	-	Ethylbenzene	1.3		0.87	U	0.98		0.87	U
m,p-Xylene	11	22.2	22.2	-	1460	-	m,p-Xylene	5.3		2.2	U	3.6		2.2	U
Methyl Ethyl Ketone	16	12	-	-	73000	-	Methyl Ethyl Ketone	1.5	U	1.5	U	1.6		1.5	U
Methylene Chloride	16	10	7.5	60	876	-	Methylene Chloride	2		1.7	U	1.7	U	1.7	U
n-Butane	-	-	-	-	-	-	n-Butane	67		44		36		2.6	
n-Hexane	14	10.2	-	-	10200	-	n-Hexane	16		1.8	U	7.5		1.8	U
Toluene	57	43	39.8	-	73000	-	Toluene	5.6		0.75	U	9.8		2.4	
Xylene, o-	7.1	7.9	7.24	-	1460	-	Xylene, o-	1.4		0.87	U	1		0.87	U

Notes:
- : No Criterion/Guideline Value
U : Indicates the analyte was analyzed for but not detected
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
< : Less Than
ug/m3: micrograms per cubic meter
[1] Upper fence indoor air values from Table C1. NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C (October 2006)
[2] 90th Percentile indoor air values from "Table C-2. EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C (October 2006).
[3] 95th Percentile Indoor Air Values from "Table C-5, Health Effects Institute (HEI) 2005: Relationship of Indoor, Outdoor and Personal Air", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C (October 2006)
[4] NYSDOH Air Guideline Values (AGVs) presented in the Final Guidance for Evaluating Soil Vapor Instrusion in the State of New York, dated October 2006. ("NYSDOH Vpor Instrusion Guidance Document")
BASE: Building Assessment and Survey Evaluation
US EPA: US Environmenral Protection Agency
HEI RIOPA: Health Effects Institue - Relationship of Indoor, Outdoor, and Personal Air
VISL: USEPA Vapor Intrusioon Screening Levels for a commercial/industrial worker exposure based on a target cancer risk of 1E-06 and a target non-cancer hazard of 0.1 (USEPA, 2022)
Sample results shown in SHADE font exceed the range of published background concentrations in indoor air.
Sample results shown on *BOLD* font exceeds the USEP LISLs for commercial/industrial worker exposure scenario.

TABLE 2
SUMMARY OF ANLYTICAL RESULTS
SUB-SLAB SAMPLE RESULTS - HITS ONLY
37-25 34TH STREET, LONG ISLAND CITY, NEW YORK 11101

							Client ID	SV-1		SV-2		SV-3		SV-4	
							Lab Sample ID	200-61972-1		200-61972-2		200-61972-3		200-61972-4	
							Sampling Date	2/2/2022		2/2/2022		2/2/2022		2/2/2022	
VOLATILE ORGANIC COMPOUND (ug/m^3)	Published Background Concentrations				USEPA VISL Commercial / Industrial		Matrix	Air		Air		Air		Air	
	NYSDOH Fuel Oil 2003 Upper Fence Limit[1]	USEPA BASE Data 90th Percentile Value [2]	HEI RIOPA 2005 95th Percentile Value [3]	NYSDOH AGV[4]			Dilution Factor	1; 2		2; 10		2; 10		2; 10	
	Indoor	Indoor	Indoor				Unit	ug/m^3		ug/m^3		ug/m^3		ug/m^3	
								Result	Q	Result	Q	Result	Q	Result	Q
AIR BY TO-15							AIR BY TO-15								
1,1,1-Trichloroethane	2.5	20.6	-	-	73000		1,1,1-Trichloroethane	9.2		710	D	69		78	
1,1-Dichloroethane	0.4	<0.7	-	-	256		1,1-Dichloroethane	0.81	U	38		5.5		15	
1,1-Dichloroethene	0.4	<1.4	-	-	2920		1,1-Dichloroethene	0.79	U	1.6	U	5.7		1.6	U
1,2,4-Trimethylbenzene	9.8	9.5	-	-	876		1,2,4-Trimethylbenzene	7.1		26		19		9.1	
1,2-Dichloroethene, Total	-	-	-	-	-		1,2-Dichloroethene, Total	1.6	U	19		11		3.2	U
1,3,5-Trimethylbenzene	3.9	3.7	-	-	876		1,3,5-Trimethylbenzene	2.5		8.9		5.8		4.7	
1,3-Butadiene	-	-	-	-	13.6		1,3-Butadiene	1.4		0.88	U	1.7		4.6	
1,3-Dichlorobenzene	0.5	<2.4	-	-	-		1,3-Dichlorobenzene	1.2	U	20		2.4	U	4.9	
2,2,4-Trimethylpentane	-	-	-	-	-		2,2,4-Trimethylpentane	4.3		1.9	U	2.3		1.9	U
4-Ethyltoluene	-	-	-	-	-		4-Ethyltoluene	1.6		7		5.4		2.6	
4-Isopropyltoluene	-	-	-	-	-		4-Isopropyltoluene	3.5		3		2.4		2.2	U
Acetone	115	98.9	45.8	-	-		Acetone	130	D	110		36		70	
Benzene	0.5	9.4	10	-	52.4		Benzene	5.3		3.3		5.7		31	
Carbon disulfide	-	-	-	-	10200		Carbon disulfide	10		5		6.1		11	
Carbon tetrachloride	1.3	<1.3	1.1	-	68.1		Carbon tetrachloride	1.3	U	2.5	U	2.5	U	2.8	
Chloroform	1.2	1.1	-	-	17.8		Chloroform	0.98	U	9.8		*34*		12	
Cumene	-	-	-	-	5840		Cumene	1.1		2	U	2	U	2	U
Cyclohexane	6.3	-	-	-	5840		Cyclohexane	4.1		7.6		2.2		2.6	
Ethylbenzene	6.4	5.7	7.62	-	164		Ethylbenzene	4.6		6.5		8		4.7	
Isopropyl alcohol	-	-	-	-	2920		Isopropyl alcohol	46		51		25	U	25	U
m,p-Xylene	11	22.2	22.2	-	1460		m,p-Xylene	16		28		34		20	
Methyl Butyl Ketone (2-Hexanone)	-	-	-	-	438		Methyl Butyl Ketone (2-Hexanone)	2	U	8.8		4.1	U	4.1	U
Methyl Ethyl Ketone	16	12	-	-	73000		Methyl Ethyl Ketone	8.6		16		5.5		6.7	
Methyl isobutyl ketone	1.9	-	-	-	43800		Methyl isobutyl ketone	2	U	5.6		4.1	U	4.1	U
Methylene Chloride	16	10	7.5	60	8760		Methylene Chloride	7		8.4		3.5	U	3.5	U
n-Butane	-	-	-	-	-		n-Butane	16		16		18		17	
n-Heptane	18	-	-	-	5840		n-Heptane	31		5.5		8.8		7.7	
n-Hexane	14	10.2	-	-	10200		n-Hexane	9.7		6.6		8.7		4.8	
n-Propylbenzene	1.5	-	-	-	14600		n-Propylbenzene	1.3		4.5		3.7		2	U
Tetrachloroethene	2.5	15.9	6.01	30	584		Tetrachloroethene	4.5		200		67		18	
Toluene	57	43	39.8	-	73000		Toluene	27		21		29		110	
Trichloroethene	0.5	4.2	1.36	2	29.2		Trichloroethene	5.3		*1400*	D	*890*	D	*1600*	D
Trichlorofluoromethane	12	3.5	-	-	-		Trichlorofluoromethane	1.3		2.2	U	2.2	U	2.2	U
Xylene, o-	7.1	7.9	7.24	-	1460		Xylene, o-	4.9		11		12		8.3	

Notes:
- : No Criterion/Guideline Value
U : Indicates the analyte was analyzed for but not detected
J : Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
D : Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
ug/m3: micrograms per cubic meter
[1] Upper fence indoor air values from Table C1. NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C (October 2006)
[2] 90th Percentile indoor air values from "Table C-2. EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C (October 2006).
[3] 95th Percentile Indoor Air Values from "Table C-5, Health Effects Institute (HEI) 2005: Relationship of Indoor, Outdoor and Personal Air", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C (October 2006)
[4] NYSDOH Air Guideline Values (AGVs) presented in the Final Guidance for Evaluating Soil Vapor Instrusion in the State of New York, dated October 2006. ("NYSDOH Vpor Instrusion Guidance Document")
BASE: Building Assessment and Survey Evaluation
US EPA: US Environmenral Protection Agency
HEI RIOPA: Health Effects Institue - Relationship of Indoor, Outdoor, and Personal Air
VISL: USEPA Vapor Intrusioon Screening Levels for a commercial/industrial worker exposure based on a target cancer risk of 1E-06 and a target non-cancer hazard of 0.1 (USEPA, 2022)
Sample results shown in SHADE font exceed the range of published background concentrations in indoor air.
Sample results shown on *BOLD* exceeds the USEP LISLs for commercial/industrial worker exposure scenario.

Figures



Legend

Project Area

Feet

0 250 500 1,000

AECOM
605 Third Avenue, Third Floor
New York, NY 10158
Phone: (212) 736-4444

Job: 60602814

Prepared by: DA

Checked by: CW

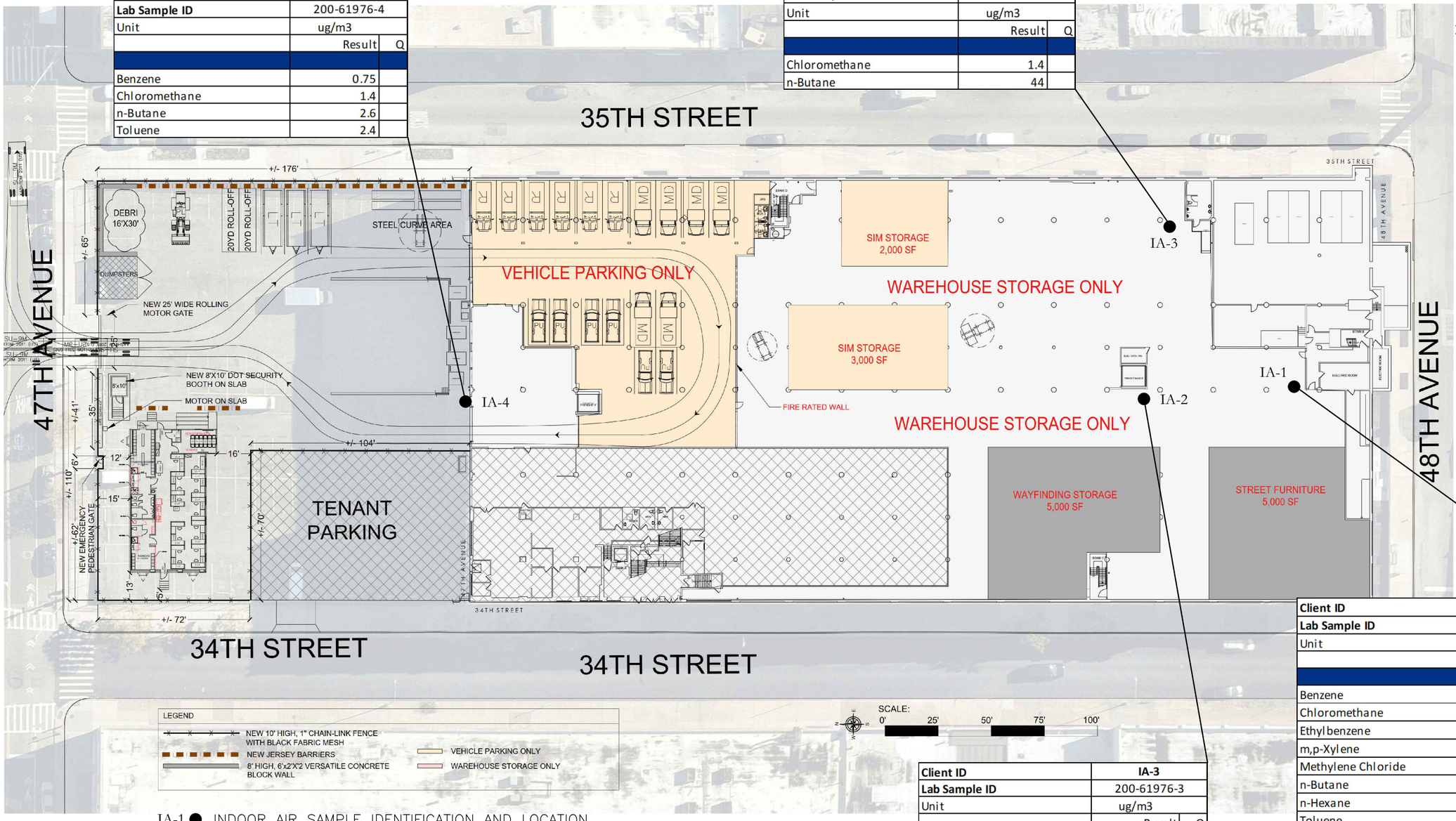
Date: 4/1/2022

FIGURE 1
PROJECT AREA MAP

47-25 34th Street
Long Island City, New York
11101

Client ID	IA-4	
Lab Sample ID	200-61976-4	
Unit	ug/m3	
	Result	Q
Benzene	0.75	
Chloromethane	1.4	
n-Butane	2.6	
Toluene	2.4	

Client ID	IA-2	
Lab Sample ID	200-61976-2	
Unit	ug/m3	
	Result	Q
Chloromethane	1.4	
n-Butane	44	



IA-1 ● INDOOR AIR SAMPLE IDENTIFICATION AND LOCATION

Client ID	IA-3	
Lab Sample ID	200-61976-3	
Unit	ug/m3	
	Result	Q
Benzene	1	
Chloromethane	1.5	
Ethylbenzene	0.98	
m,p-Xylene	3.6	
Methyl Ethyl Ketone	1.6	
n-Butane	36	
n-Hexane	7.5	
Toluene	9.8	
Xylene (total)	4.6	
Xylene, o-	1	

Client ID	IA-1	
Lab Sample ID	200-61976-1	
Unit	ug/m3	
	Result	Q
Benzene	0.9	
Chloromethane	1.3	
Ethylbenzene	1.3	
m,p-Xylene	5.3	
Methylene Chloride	2	
n-Butane	67	
n-Hexane	16	
Toluene	5.6	
Xylene, o-	1.4	

Notes:
ug/m3 = micrograms per cubic meter

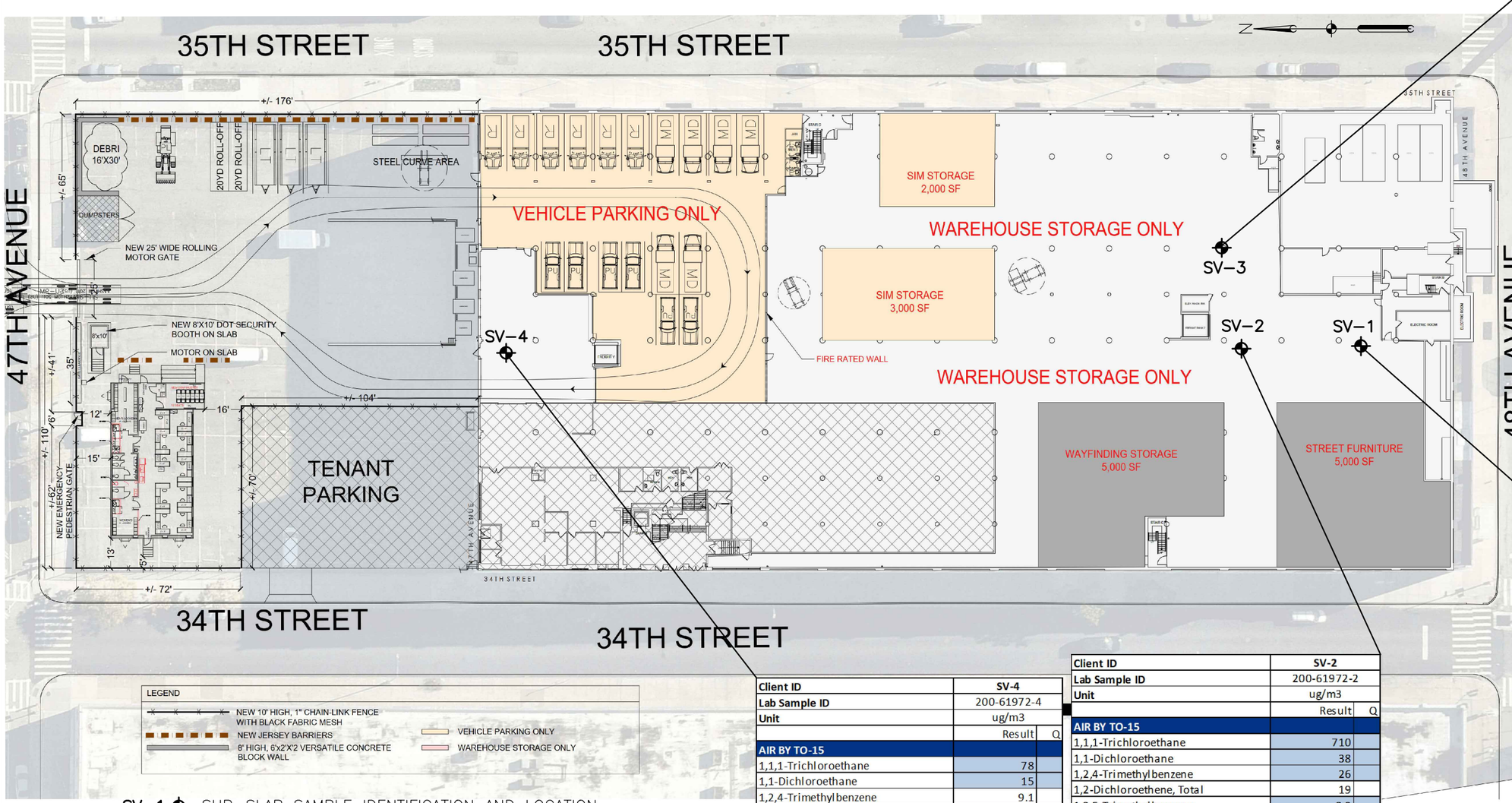
Indoor air sample results shown in SHADE font exceed the range of published background concentrations in indoor air.

INDOOR AIR SAMPLE LOCATIONS AND RESULTS
47–25 34TH STREET
LONG ISLAND CITY, NY LEASEHOLD

AECOM
CLIFTON, NEW JERSEY

DR. BY	ET	SCALE	1"=50'	DWG. NO. 60602814.01	PROJ. NO. 60602814
CK'D. BY	CW	DATE	MARCH 25, 2022	FIG. NO.	2

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LEGEND

- NEW 10' HIGH, 1" CHAIN-LINK FENCE WITH BLACK FABRIC MESH
- NEW JERSEY BARRIERS
- 8' HIGH, 6'x2'X'2 VERSATILE CONCRETE BLOCK WALL
- VEHICLE PARKING ONLY
- WAREHOUSE STORAGE ONLY

SV–1 SUB–SLAB SAMPLE IDENTIFICATION AND LOCATION

LEGEND:
ug/m3: micrograms per cubic meter

Indoor air sample results shown in SHADE font exceed the range of published VOC background concentrations in indoor air.

VOC: Volatile Organic Compounds

0 25 50 100
SCALE (FEET)

Client ID	SV-3	
Lab Sample ID	200-61972-3	
Unit	ug/m3	
	Result	Q
AIR BY TO-15		
1,1,1-Trichloroethane	69	
1,1-Dichloroethane	5.5	
1,1-Dichloroethene	5.7	
1,2,4-Trimethylbenzene	19	
1,2-Dichloroethene, Total	11	
1,3,5-Trimethylbenzene	5.8	
1,3-Butadiene	1.7	
2,2,4-Trimethylpentane	2.3	
4-Ethyltoluene	5.4	
4-Isopropyltoluene	2.4	
Acetone	36	
Benzene	5.7	
Carbon disulfide	6.1	
Chloroform	34	
Cyclohexane	2.2	
Ethylbenzene	8	
m,p-Xylene	34	
Methyl Ethyl Ketone	5.5	
n-Butane	18	
n-Heptane	8.8	
n-Hexane	8.7	
n-Propylbenzene	3.7	
Tetrachloroethene	67	
Toluene	29	
Trichloroethene	890	
Xylene, o-	12	

Client ID	SV-1	
Lab Sample ID	200-61972-1	
Unit	ug/m3	
	Result	Q
AIR BY TO-15		
1,1,1-Trichloroethane	9.2	
1,2,4-Trimethylbenzene	7.1	
1,3,5-Trimethylbenzene	2.5	
1,3-Butadiene	1.4	
2,2,4-Trimethylpentane	4.3	
4-Ethyltoluene	1.6	
4-Isopropyltoluene	3.5	
Acetone	130	
Benzene	5.3	
Carbon disulfide	10	
Cumene	1.1	
Cyclohexane	4.1	
Ethylbenzene	4.6	
Isopropyl alcohol	46	
m,p-Xylene	16	
Methyl Ethyl Ketone	8.6	
Methylene Chloride	7	
n-Butane	16	
n-Heptane	31	
n-Hexane	9.7	
n-Propylbenzene	1.3	
Tetrachloroethene	4.5	
Toluene	27	
Trichloroethene	5.3	
Trichlorofluoromethane	1.3	
Xylene, o-	4.9	

Client ID	SV-4	
Lab Sample ID	200-61972-4	
Unit	ug/m3	
	Result	Q
AIR BY TO-15		
1,1,1-Trichloroethane	78	
1,1-Dichloroethane	15	
1,2,4-Trimethylbenzene	9.1	
1,3,5-Trimethylbenzene	4.7	
1,3-Butadiene	4.6	
1,3-Dichlorobenzene	4.9	
4-Ethyltoluene	2.6	
Acetone	70	
Benzene	31	
Carbon disulfide	11	
Carbon tetrachloride	2.8	
Chloroform	12	
Cyclohexane	2.6	
Ethylbenzene	4.7	
m,p-Xylene	20	
Methyl Ethyl Ketone	6.7	
n-Butane	17	
n-Heptane	7.7	
n-Hexane	4.8	
Tetrachloroethene	18	
Toluene	110	
Trichloroethene	1600	
Xylene, o-	8.3	

Client ID	SV-2	
Lab Sample ID	200-61972-2	
Unit	ug/m3	
	Result	Q
AIR BY TO-15		
1,1,1-Trichloroethane	710	
1,1-Dichloroethane	38	
1,2,4-Trimethylbenzene	26	
1,2-Dichloroethene, Total	19	
1,3,5-Trimethylbenzene	8.9	
1,3-Dichlorobenzene	20	
4-Ethyltoluene	7	
4-Isopropyltoluene	3	
Acetone	110	
Benzene	3.3	
Carbon disulfide	5	
Chloroform	9.8	
Cyclohexane	7.6	
Ethylbenzene	6.5	
Isopropyl alcohol	51	
m,p-Xylene	28	
Methyl Butyl Ketone (2-Hexanone)	8.8	
Methyl Ethyl Ketone	16	
methyl isobutyl ketone	5.6	
Methylene Chloride	8.4	
n-Butane	16	
n-Heptane	5.5	
n-Hexane	6.6	
n-Propylbenzene	4.5	
Tetrachloroethene	200	
Toluene	21	
Trichloroethene	1400	
Xylene, o-	11	

SUB–SLAB SAMPLE LOCATIONS AND RESULTS
47–25 34TH STREET
LONG ISLAND CITY, NY LEASEHOLD

AECOM
CLIFTON, NEW JERSEY

DR. BY	ET	SCALE	1"=50'	DWG. NO. 60602814.02	PROJ. NO. 60602814
CK'D. BY	CW	DATE	MARCH 25, 2022	FIG. NO.	3

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Appendix A – NYSDOH Indoor Air Quality Questionnaire

Soil Vapor Intrusion - Structure Sampling Building Questionnaire **Structure ID :** HUB Bldg.

Site No. : _____ **Site Name :** HUB Bldg; 47-25 34th St. LIC, NY

Date: February 1, 2022 **Time:** 8:30AM

Structure Address : 47-25 34th Street, Long Island City, NY

Preparer's Name & Affiliation : Christine Wagner / Aleksandra Mallon, AECOM

Residential ? ☐ Yes ☒ No **Owner Occupied ?** ☒ Yes ☐ No **Owner Interviewed ?** ☐ Yes ☒ No

Commercial ? ☒ Yes ☐ No **Industrial ?** ☐ Yes ☒ No **Mixed Uses ?** ☐ Yes ☒ No

Identify all non-residential use(s) : NYC DOT Storage Warehouse & Vehicle Parking

Owner Name : Metropolitan Realty Assoc LLC **Owner Phone :** (212) 350 - 3771

c/o Joe Farkas, Facility Mgr. **Secondary Owner Phone :** ( ) _____ - _____

Owner Address (if different) : 555 Madison Ave. 16th Fl., NY, NY, 10022

Occupant Name : NY City Dept. of Transportation **Occupant Phone :** (212) 839-8894

c/o Dorrit Blakeslee, PM Facilities **Secondary Occupant Phone :** ( ) _____ - _____

Number & Age of All Persons Residing at this Location : N/A

Additional Owner/Occupant Information : Occupant is tenant. Space used for storage

Describe Structure (style, number floors, size) : Commercial 4 floor Bldg. Lease hold includes ground level (55,000 sf) an 1st Floor (81,000 sf) of Warehouse Structure

Approximate **Year Built :** 1924 Is the building **Insulated?** ☐ Yes ☐ No

Lowest level : ☒ Slab-on-grade ☐ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : Concrete floor & Cinderblock walls with concrete decking.

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed : _____

Floor Condition : ☐ Good (few or no cracks) ☒ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : Multiple floor drains

Identify other floor penetrations & details : Utility trenches & ~~fuel~~ former equipment/ fuel access pits.

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : _____

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : None observed.

Heating Fuel : ☐ Oil ☒ Gas ☐ Wood ☐ Electric ☐ Other : _____

Heating System : ☒ Forced Air ☐ Hot Water ☐ Other : Radiators

Hot Water System : ☐ Combustion ☒ Electric ☐ Boilermate ☐ Other: _____

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer **vented** to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : Natural Gas-Fired Boiler in boiler Room.

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Garage doors maintained open during daytime hours.

Soil Vapor Intrusion - Structure Sampling Building Questionnaire **Structure ID :** HUB Bldg.

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):
One pallet with seven (7) pails (5-gallon) of latex paints near SV. 3.

Attached garage ? ☒ Yes ☐ No Air fresheners ? ☐ Yes ☐ No

New carpet or furniture ? ☐ Yes ☐ No What/Where ? N/A

Recent **painting** or **staining** ? ☐ Yes ☒ No Where ? : _____

Any **solvent** or **chemical-like** odors ? ☐ Yes ☒ No Describe : _____

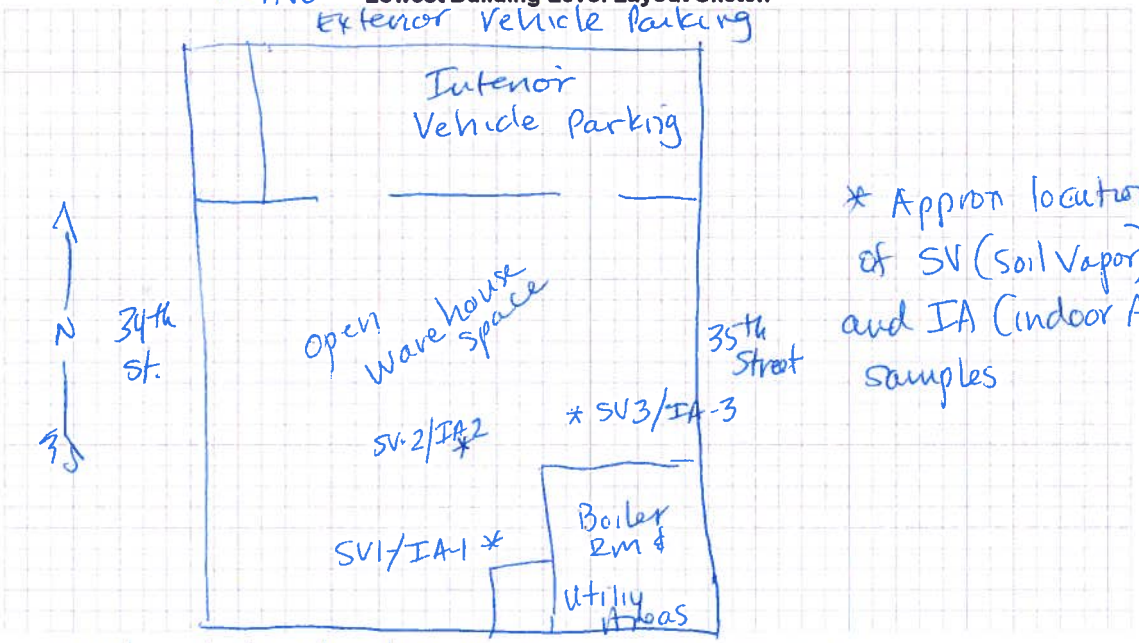
Last time **Dry Cleaned** fabrics brought in ? _____ What / Where ? N/A

Do any building occupants use solvents at work ? ☐ Yes ☒ No Describe : Not in DOT leasehold.

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☐ Yes ☐ No If yes, describe below

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	######	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Homeowner Name & Address: _____ **Date:** 2/1/22

Samplers & Company: Alexandra Mallon, AECOM **Structure ID:** _____

Site Number & Name: 47-25 34th Street, LIC, NY **Phone Number:** _____

Make & Model of PID: _____ **Date of PID Calibration:** 2/1/22

Identify any Changes from Original Building Questionnaire : _____

	Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
①	Mercury Duravshield Rust Preventative Maintenance Enamel/Gray	3 5gallon pails	Contains: Alkyd resin, titanium dioxide, Calcium Carbonate, Mineral, High-Flash Naphtha & Proprietary	Ø	North of Column AZ CN of SV-3)
②	BEHR Premium Textured Deck Over	2 5gallon pails	Silica, crystalline-quartz 30-60% Glass, oxide 1-5% Magnesium Potassium Silicate - 1-5% 2,2,4-Trimethyl-1,3-Pentanediol Monoiso butyrate 1-5%	Ø	
③	Benjamin Moore-Eco Spec Zero VOC-Waterborne formula - Latex Finish	2 5gallon pails	Titanium dioxide - 20-25% Kaolin, calcined 1-5% Nepheline syenite 1-5% Trimethylolpropane 0.1-0.5% Sodium C14-C16 olefin 0.1-0.5%	Ø	

Appendix B – Laboratory Analytical Report

Appendix C -Sampling Photographs

AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
NYCDOT	47-25 34th Street, Long Island City, New York 11101	60602814

Photo No.	Date:
1	02/01/22

Direction Photo Taken:

Looking South-Southeast

Description:

South side of warehouse area. Area with metal plates is located beneath pallets observe between columns and wall to utility area/boiler room.



Photo No.	Date:
2	02/01/22

Direction Photo Taken:

Looking South-Southeast

Description:

View of indoor air sample IA-1



AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
NYCDOT	47-25 34th Street, Long Island City, New York 11101	60602814

Photo No.	Date:
3	02/01/22

Direction Photo Taken:

Looking North

Description:

View of indoor air sample IA-2. Mark out in foreground is proposed SV-2 sub-slab location.



Photo No.	Date:
4	02/01/22

Direction Photo Taken:

Looking North

Description:

View of indoor air sample location IA-3.
Note pallet with five-gallon cans of paint in background.



AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
NYCDOT	47-25 34th Street, Long Island City, New York 11101	60602814

Photo No.	Date:
5	02/01/22

Direction Photo Taken:

Looking South

Description:

View of ambient air sample IA-4 collected on loading dock area.



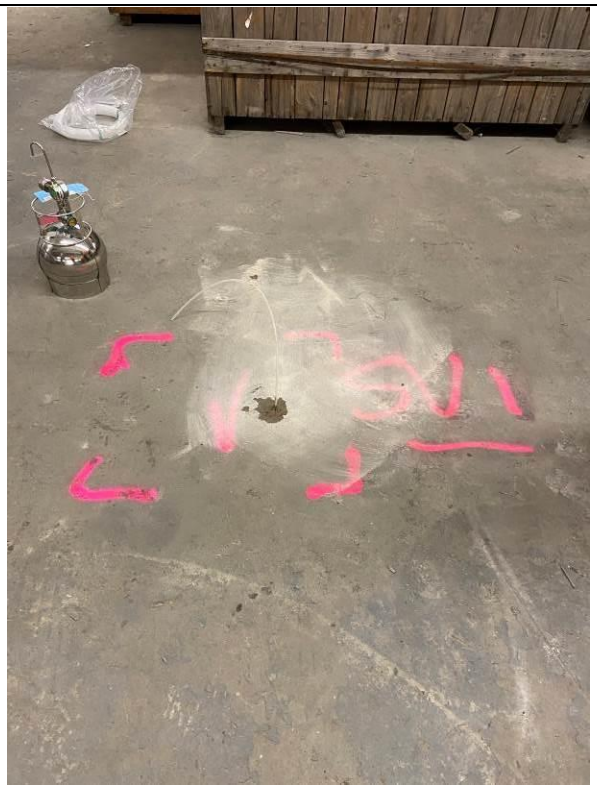
Photo No.	Date:
6	02/02/22

Direction Photo Taken:

Looking South

Description:

View of sub-slab location of sample SV-1 prior to helium check and attachment of Summa Canister for collection of sub-slab vapors.



AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
NYCDOT	47-25 34th Street, Long Island City, New York 11101	60602814

Photo No.	Date:
7	02/02/22

Direction Photo Taken:

Looking West

Description:

View of sub-slab sample SV-2 collected northwest of pits with pipes of unknown origin.



Photo No.	Date:
8	02/02/22

Direction Photo Taken:

Looking South

Description:

View of sub-slab sample SV-3 collected north of boiler room.



AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
NYCDOT	47-25 34th Street, Long Island City, New York 11101	60602814

Photo No.	Date:
9	02/02/22

Direction Photo Taken:

Looking North

Description:

View of sub-slab sample SV-4 collected in loading dock area in proximity to closed USTs.



Photo No.	Date:
10	02/02/22

Direction Photo Taken:

Looking West

Description:

View of concrete patch after removal of sub-slab sample SV-4.



AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
NYCDOT	47-25 34th Street, Long Island City, New York 11101	60602814

Photo No.	Date:
11	02/02/22

Direction Photo Taken:

Looking North

Description:

View of sample canister information tag post sampling.



Photo No.	Date:
12	02/02/22

Direction Photo Taken:

Looking East

Description:

View of vehicle storage area at north end of leasehold.

