REMEDIAL INVESTIGATION WORK PLAN

for

129 Pearl Street
Port Chester, New York
NYSDEC BCP Site No. C360245

Prepared for:

Pearl Street Owner, LLC
C/O Shorewood Properties
201 West 17th Street, Apt. 3D
New York, New York, 10011

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15 December 2025

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CERTIFICATION

I, Michael D. Burke, certify that I am currently a Qualified Environmental Professional as defined in 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and that this Remedial Investigation Work Plan (RIWP) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation and DER-31 Green Remediation.

DRAFT

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Michael D. Burke, P.G., CHMM

1.0 INTRODUCTION

This Remedial Investigation Work Plan (RIWP) was prepared on behalf of Pearl Street Owner LLC (the Volunteer) for the property at 129 Pearl Street in Port Chester, New York (the site). The Volunteer will implement the RIWP for Site No. C360245 under the New York State Brownfield Cleanup Program (BCP), pursuant to a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC), executed on 12 November 2025.

The objective of the Remedial Investigation (RI) is to further investigate and characterize the nature and extent of environmental impacts at the site, to provide sufficient information to evaluate potential impacts to human health, and to provide sufficient information to evaluate remedial alternatives, as required. This RIWP was developed in accordance with the process and requirements identified in the NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (May 2010), Title 6 of the New York Codes, Rules, and Regulations (NYCRR) Part 375, Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023), and the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006, with subsequent updates).

2.0 SITE BACKGROUND

2.1 Site Description

The about 27,900-square-foot (0.64-acre) site is located within an urban, mixed-use area of Port Chester, New York and is identified on the Westchester County Tax Map as Parcel ID 142.38-1-58. The site is bound by a residential dwelling at 119 Pearl Street to the north, New Broad Street followed by vegetated land and Metro North railroad tracks to the east, a fencing club at 135 Pearl Street to the south, and Pearl Street followed by mixed-use residential and commercial properties to the west.

The site comprises the following mixed-use residential and commercial buildings:

- 123 Pearl Street: occupied three-story residential building with a full basement
- 125 Pearl Street: occupied two-story residential building with a full basement and a one-story (slab-on-grade) six-car garage
- 127 Pearl Street: occupied three story mixed-use residential and commercial building with a full basement and a one-story (slab-on-grade) three-car garage
- 131 Pearl Street: occupied one-story commercial building with a full basement

A site location map is provided as Figure 1 and a site plan is provided as Figure 2.

According to the Village of Port Chester Zoning Map, the site is located within an Urban Center Character District (CD-5). The Village of Port Chester Department of Planning and Economic Development indicates that the CD-5 zoning district is generally characterized as high-density, mixed-use district, complete with thoroughfares, wide sidewalks, streetlights, and sidewalk landscaping.

2.2 Proposed Redevelopment Plan

Development plans are in progress, but are expected to include construction of a multi-story residential building spanning the entirety of the site with two at-grade parking levels. Approximately 10 percent of the residential building will be designated as affordable housing.

2.3 Surrounding Property Land Use

According to the Village of Port Chester Zoning Map, the site is located within an area occupied with commercial, institutional, utility/transportation, residential, light industrial buildings and public parks. The following is a summary of surrounding property usage:

Direction	Parcel Number	Adjoining Properties	Surrounding Properties
North	142.38-1-19	Residential dwelling (119 Pearl Street)	Multi-family residential, commercial, and industrial buildings
East	142.38-1-43	New Broad Street followed by vegetated land Metro North Rail Tracks	Mixed-use residential and commercial buildings
South	142.38-1-23	One-story commercial building (fencing club) (135 Pearl Street)	Commercial and industrial buildings
West	142.38-1-10	Pearl Street followed by a three-story commercial building (114 Pearl Street)	Multi-family residential, commercial, and industrial buildings
	142.38-1-9	Pearl Street followed by a residential dwelling (122 Pearl Street)	Residential and commercial buildings

Land use within a half-mile radius is urban and includes commercial, institutional, utility/transportation, residential, light industrial buildings and public parks. The nearest ecological receptor is the Byram River, located approximately 0.4 miles east of the site.

No schools or day care facilities are located on the site. Sensitive receptors, as defined in DER-10, within a half-mile of the site include those listed below:

Number	Name (Approximate distance from site)	Address
1	Ladybug Family Preschool (about 0.1-miles north of the site)	141 William Street Port Chester, NY 10573
2	Kumon Math and Reading Center of Port Chester (about 0.2-miles northeast of the site)	32 South Main Street Port Chester, NY 10573
3	Port Chester Head Start (about 0.3-miles northwest of the site)	17 Spring Street Port Chester, NY 10573
4	Ladybug Family Daycare (about 0.3-miles southeast of the site)	95 Grace Church Street Port Chester, NY 10573
5	John F. Kennedy Magnet School (about 0.3-miles west of the site)	40 Olivia Street Port Chester, NY 10573
6	Rossy's Little Angels Family Day Care (about 0.3-miles northwest of the site)	43 Soundview Street Port Chester, NY 10573
7	Sunny Side Daycare Center (about 0.4-miles north of the site)	27 Smith Street Port Chester, NY 10573
8	Corpus Christi-Holy Rosary School – Father Rinaldi Campus (about 0.4-miles west of the site)	135 South Regent Street Port Chester, NY 10573
9	Tots Place (about 0.4-miles southwest of the site)	8 Bent Avenue Port Chester, NY 10573
10	Port Chester Children's Place (about 0.5-miles south of the site)	400 Westchester Avenue Port Chester, NY 10573

2.4 Site Physical Conditions

2.4.1 Topography

According to the August 2020 Geotechnical Engineering and Environmental Report prepared by Milone & MacBroom, Inc. (MMI), the elevation of the site ranges from about elevation (el) 76[1] in the northern part of the site along Pearl Street to el 65 in the southern part of the site along New Broad Street. The topography of the site and surrounding area gradually slopes toward the southeast.

2.4.2 Site Geology

The site stratigraphy consists of a surficial fill layer from 1 to 8 feet below grade surface (bgs). The fill comprises sand with varying amounts of gravel, silt, asphalt, slag, coal, coal ash, and other anthropogenic materials. The fill layer generally slopes from the northern and eastern parts of the site to the southwestern part of the site and is underlain by sand (glacial till) with varying amounts of silt and gravel extending between 2.5 and 18.5 feet bgs. The glacial till is underlain by weathered bedrock over competent bedrock.

Borings conducted during the 2020 Geotechnical and Environmental Investigation by MMI were advanced to refusal at depths ranging between about 11 and 20 feet bgs. Weathered bedrock was encountered between 6 and 18.5 feet bgs, and competent bedrock was encountered at depths between 11 and 20 feet bgs and is presumed to slope from west to east. Bedrock generally consists of very poor to fair quality, medium to hard, very slightly to very severely weathered, sound to extremely fractured, gray, fine to coarse-grained schist.

2.4.3 Hydrogeology

Groundwater flow is typically topographically influenced, as shallow groundwater tends to originate in areas of topographic highs and flow toward areas of topographic lows, such as rivers, stream valleys, ponds, and wetlands. A broader, interconnected hydrogeologic network often governs groundwater flow at depth or in the bedrock aquifer. Groundwater depth and flow direction are also subject to hydrogeologic and anthropogenic variables such as precipitation, evaporation, extent of vegetative cover, and coverage by impervious surfaces. Other factors influencing groundwater include depth to bedrock, artificial fill, and variability in local geology and groundwater sources or sinks.

Groundwater is inferred to flow to the southeast, following the topography and bedrock. Groundwater (perched on bedrock) was observed at approximately 12 to 13 feet bgs during the 2018 Limited Phase II Subsurface Investigation performed by AEI Consultants (AEI), at approximately 8.5 feet bgs during the 2020 Geotechnical and Environmental Investigation performed by MMI, and between 4 to 9 feet bgs (based on soil boring logs and groundwater sampling logs) during a December 2020 Langan investigation.

[1] Elevations in this report are with respect to the North American Vertical Datum of 1988 (NAVD88).

2.4.4 Wetlands

Wetlands were evaluated by reviewing the National Wetlands Inventory and NYSDEC regulated wetlands map. There are no designated wetlands on the site.

2.5 Environmental History and Previous Investigations

The following previous environmental reports were prepared for the site (copies are provided under separate cover) (See Appendix A).

Phase I and II Environmental Site Assessments/Investigations

- *Phase I Environmental Site Assessment (ESA) - 131 Pearl Street, prepared by General Consolidated Industries, Inc., dated 28 April 2008*
- *Phase I ESA Update Report – 131 Pearl Street, prepared by Team Environmental Consultants, Inc. (TEAM), dated 30 June 2008*
- *Phase I ESA – 123, 125, and 127 Pearl Street, prepared by AEI, dated 31 July 2018*
- *Limited Phase II Subsurface Investigation Report – 127 Pearl Street, prepared by AEI, dated 28 August 2018*
- *Phase I ESA – 131 Pearl Street, prepared by AEI, dated August 2019*
- *Limited Phase II Subsurface Investigation Report – 131 Pearl Street, prepared by AEI, dated 23 September 2019*
- *Geotechnical Engineering and Environmental Report – 123-131 Pearl Street, prepared by MMI, dated 25 August 2020*

Subsurface Investigations

- *Subsurface Investigation – 129 Pearl Street, performed by Langan, 11 December 2020*
- *Supplemental Subsurface Investigation – 129 Pearl Street, performed by Langan, 22 November 2024*

Environmental conditions summarized in the above reports are discussed below.

General Site History

Historical Sanborn Fire Insurance Maps indicate that the site was located in a commercial and residential area as early as 1890. The following are summaries of historical uses of the northern and southern parts of the site.

In 1890, the northern part of the site was developed with the current three-story residential dwelling and a two-story outbuilding with a stable. Between 1908 and 1919 the stable in the northern part of the site is identified as a sale and exchange (1908), furniture storage (1915), and an automobile garage (1919). Between 1921 and 1933 a one-story store addition was added to the existing three-story residential building, with no significant changes until 1990 when the store portion of the building was demolished,

bringing the building to its current configuration. The current two-story residential dwelling with a one-story six-car garage, and the current three-story mixed-use building and one-story three-car garage (commercial and residential use) are both identified on the northern part of the site between 1934 and 1949. No significant changes occur to either building until 1950, when the two-story six-car garages were redeveloped, bringing the building to its current configuration as a two-story residential dwelling with a one-story six-car garage. City Directory documents also provide additional usage details within the northern part of the site including a limousine service (Preferred Limousine Service) (1992 to 2005), a contractor (T&C Araujo LLC) (2005 to 2014) and a construction corporation (Double R Construction Corp.) (1995 to 2000).

The southern part of the site is depicted as undeveloped until 1934 when one-story vulcanizing facility and filling station is depicted with six gasoline tanks within the western part of the site. By 1950, an additional one-story building had been constructed to the south of the original facility. By 1990, the former vulcanizing station is no longer identified as such, and the two one-story buildings in the southern part of the site appear in their current configuration as a one-story commercial building.

The southern part of the site was historically developed with residential structures (1890 to at least 2006) and was later utilized for commercial purposes as a sale and exchange facility (1908), a vulcanizing and filling station (1934 to 1969), and a lawn mower sales and repairs facility (1969 to 1989). Historic Sanborn Maps from 1934 to 1950 depict six gasoline tanks along the eastern and southeastern side of the former vulcanizing and filling station in the southern part of the site. Sanborn Maps were not available for the site between the years 1951 and 1961. According to building records, by 1969 use of the commercial building in the southern part of the site changed to lawn mower sales and repairs. Thus, it is assumed that between 1950 to 1968, the building would have remained utilized as a filling station and vulcanizing facility. A 30 June 2008 Phase I ESA prepared by TEAM indicates two 750-gallon USTs, two 550-gallon USTs, and one 275-gallon aboveground storage tank that were removed from the western part of the site on 2 December 2002.

Between 1969 and present day, no significant changes occurred to the current residential, commercial, and mixed-use commercial and residential buildings, and operations continue to include residential, and general mixed-use residential and commercial and entities. City directory records indicated that from 2005 through 2020, operations within the southern part of the site consisted of administrative activities associated with painting contractors under the entity name Service Unlimited Inc.

<u>Closed NYSDEC Spill No. 02008265 – 129 Pearl Street</u>

Because of petroleum-like staining in soil and petroleum-related volatile organic compounds (VOCs) detected in soil and groundwater during the 2020 subsurface investigation, a spill was reported to the NYSDEC and Spill No. 02008265 was assigned to 131 Pearl Street. The likely source of the documented petroleum release and associated soil and groundwater impacts was an out-of-service heating oil underground storage tank (UST) located on the southeastern exterior side of the mixed-use building at 127 Pearl Street.

The presence of this UST was first identified and documented in the Phase I ESA prepared by AEI dated 31 July 2018, based on site reconnaissance and owner interview; the UST was reported to have been taken out of service in approximately 2004 following conversion of the building to natural gas. The UST was subsequently evaluated during a Limited Phase II Subsurface Investigation completed by AEI in August 2018, which noted that the size and closure status of the UST were unknown.

Although spill remediation was not performed, Spill No. 02008265 was administratively closed by the NYSDEC on March 19, 2024; additional details regarding the basis for closure were not available.

Previous Environmental Sampling

A summary of environmental features and documented soil, groundwater, and soil vapor contamination from the Phase II ESIs, Geotechnical Engineering and Environmental Report, and subsurface investigations are provided below.

Geophysical Survey

Geophysical surveys were conducted in June 2008, August 2018, and September 2019. Anomalous findings, as interpreted by the geophysical surveyors, are summarized below:

- During the August 2018 Limited Phase II Subsurface Investigation at 127 Pearl Street, a subsurface anomaly consisting of scattered geophysical responses was identified along the southeastern side of the building. The anomaly was interpreted as being potentially associated with the documented out-of-service heating oil UST or a former UST excavation/backfilled area.
- Aside from the anomaly described above, the August 2018 geophysical survey did not identify additional UST-related anomalies elsewhere on the 127 Pearl Street portion of the site.
- The September 2019 geophysical investigation did not identify UST-like anomalies, but did observe what appeared to be fill material and related debris.

Soil

Evidence of petroleum-like impacts was observed in several borings as described in the following table:

Consultant	Boring ID	Evidence of Impacts	Depth of Impacts (ft. bgs)	Maximum PID Reading
2019 Limited Phase II Subsurface Investigation				
AEI	SB-1	Petroleum-like odors and PID readings above background	10 to 20	1,121 ppm at 18 ft. bgs
	SB-2		15 to 20	1,048 ppm at 19 ft. bgs
2020 Geotechnical and Environmental Investigation				
MMI	MM-3	PID readings above background	1 to 4	3.6 ppm at 3 to 4 ft. bgs
			10 to 11	2.9 ppm at 10 to 11 ft. bgs
	MM-4		1 to 7	6.4 ppm at 5 to 7 ft. bgs
			10 to 11	11.3 ppm at 10 to 11 ft. bgs
	MM-5		10 to 12	8.0 ppm at 10 to 11 ft. bgs
2020 Subsurface Investigation				
Langan	SB4	Petroleum-like odor, black staining, and PID readings above background	13 to 16	914 ppm at 15 ft. bgs
	SB5	PID readings above background	0 to 2	4.6 ppm at 0.5 ft. bgs
		Petroleum-like odor, black staining, and PID readings above background	7 to 9	385.9 ppm at 8 ft. bgs
2024 Subsurface Investigation				
Langan	SB14	Petroleum-like odors, black staining, positive sheen test	4 to 6	30.7 ppm at 4 ft. bgs

ppm = part per million

The VOC n-propylbenzene was detected in SB-1 at 11 milligrams per kilogram (mg/kg) which exceeds the UU SCO of 1 mg/kg, but not the RURR SCOs. Other VOCs and SVOCs were detected, but not at concentrations above UU SCOs.

Three pesticides, including 4,4'-DDD (maximum concentration of 0.0201 mg/kg), 4,4'-DDE (maximum concentration of 0.167 mg/kg), and 4,4'-DDT (maximum concentration of 0.271 mg/kg) were detected in soil samples exceeding UU SCOs.

Several SVOCs, including benzo(a)anthracene (maximum concentration of 14 mg/kg), benzo(a)pyrene (maximum concentration of 10.7 mg/kg), benzo(b)fluoranthene (maximum concentration of 9.55 mg/kg), benzo(k)fluoranthene (maximum concentration of 10.5 mg/kg), chrysene (maximum concentration of 13.2 mg/kg), dibenzo(a,h)anthracene (maximum concentration of 0.855 mg/kg), indeno(1,2,3-cd)pyrene (maximum concentration of 5.4 mg/kg) were detected in soil samples exceeding UU and/or Restricted Use Restricted-Residential (RURR) SCOs.

PCBs were detected at a maximum concentration of 2.54 mg/kg, which exceeds the RURR SCO.

Metals including arsenic (maximum concentration of 32.6 mg/kg), barium (maximum concentration of 1,250 mg/kg), trivalent chromium (maximum concentration of 54 mg/kg), hexavalent chromium (maximum concentration of 36.7 mg/kg, copper (maximum concentration of 182 mg/kg), lead (maximum concentration of 2,370 mg/kg), mercury (maximum concentration of 1.5 mg/kg), selenium (maximum concentration of 14.8 mg/kg), and zinc (maximum concentration of 1,570 mg/kg) were detected at concentrations above UU and/or RURR SCOs.

Previous soil sample locations and analytical results are presented on Figure 3.

Groundwater

VOCs and total and dissolved metals were detected at concentrations above the NYSDEC SGVs in groundwater samples collected at TMW05. In particular, the following VOCs were detected at concentrations above the NYSDEC SGVs: acetone (maximum concentration of 53 micrograms per liter [µg/L]), ethylbenzene (maximum concentration of 5.5 µg/L), isopropylbenzene (maximum concentration of 14 µg/L), m,p-xylene (maximum concentration of 19 µg/L), n-butylbenzene (maximum concentration of 110 µg/L), n-propylbenzene (maximum concentration of 32 µg/L), o-xylene (1,2-dimethylbenzene) (maximum concentration of 6.6 µg/L), sec-butylbenzene (maximum concentration of 150 µg/L), t-butylbenzene (maximum concentration of 20 µg/L) and total xylenes (maximum concentration of 26 µg/L). N-propylbenzene was also identified in soil at a concentration above the PGW SCO, indicating soil contaminants have impacted groundwater. The VOC exceedances in groundwater coincide with the petroleum-like impacts observed in SB5. Based on the in-field observations in which petroleum-like impacts were apparent and laboratory analytical results in which petroleum-related compounds were detected at concentrations exceeding applicable soil and groundwater standards, a spill was reported to the NYSDEC and Spill No. 2008265 was assigned. Dissolved metals including iron (maximum concentration of 7,530 µg/L) and manganese (maximum concentration of 1,570 µg/L) were detected at concentrations above the NYSDEC SGVs in groundwater samples at TMW05, but appear related to regional conditions.

Previous Groundwater Sample Location and Analytical Results are presented on Figure 4.

Soil Vapor

No regulatory standard currently exists for soil vapor samples in New York State. Twenty-two VOCs were detected in the three soil vapor samples (SV03 through SV05) collected during the December 2020 subsurface investigation. Several petroleum-related VOCs including cyclohexane [up to 75 micrograms per cubic meter (µg/m^3)], ethylbenzene (up to 190 µg/m^3), m,p-xylene (up to 420 µg/m^3), o-xylene (up to 180 µg/m^3), and n-heptane (up to 250 µg/m^3) exceeded concentrations in the NYSDOH Decision Matrices for which monitoring or mitigation is recommended, regardless of indoor air concentration. The presence of petroleum-related VOCs in soil vapor is attributed to historical site uses and historical petroleum bulk storage (PBS). Previous Soil Vapor Sample Location and Analytical Results are presented on Figure 5.

2.6 Areas of Concern

Based on the site history and the findings of previous studies, the areas of concern (AOC) to be further investigated by this RI are shown on Figure 6 and are described below.

AOC 1: Historical Site Operations

Previous environmental reports and historical records indicate a limousine service operated in the northern part of the site from 1992 to 2005. Historical operation of the southern part of the site included a vulcanizing and filling station from 1934 to 1969 and a lawn mower sales and repairs facility from 1969 to 1989.

AOC 2: Soil Impacted with SVOCs, Metals, Pesticides, and PCBs

Soil mixed with anthropogenic materials on site had been found to contain SVOCs, metals, pesticides, and PCBs at concentrations exceeding NYCRR Part 375 UU and RURR SCOs and may be attributed to historical site uses and/or anthropogenic materials.

AOC 3: Historical Petroleum Bulk Storage and Petroleum-Related Impacts

Previous environmental reports and historical records two 750-gallon USTs, two 550-gallon USTs, and one 275-gallon aboveground storage tank that were removed from the western part of the site on 2 December 2002. Evidence of a release was not observed during this tank removal; however, EnviroShield, Inc. collected two endpoint soil samples from each of the four UST excavations and submitted the samples for analysis of VOCs. The soil sample analytical results did not exceed NYSDEC guidance values. During the September 2019 Limited Phase II Subsurface Investigation performed by AEI, field evidence of petroleum-like impacts (petroleum-like odors and PID readings of up to 1,121 ppm) were observed in soil borings advanced proximate to the former locations of the four removed USTs. During the December 2020 subsurface investigation by Langan, petroleum-like odors and/or PID readings of up to 914 ppm were observed in two soil borings advanced in the southern part of the site, including SB4 (914 ppm at 15 feet bgs) and SB5 (385.9 ppm at 8 feet bgs). Petroleum-related compounds were detected in SB4_14-16, SB5_7-8, and SB6_0-1.5 at concentrations exceeding the UU and/or RURR SCOs. Petroleum-related compounds were detected in TMW05 at concentrations exceeding the SGVs; and detected in the three soil vapor samples (SV3, SV4, and SV5).

During the November 2024 supplemental subsurface investigation by Langan, petroleum-like odors and/or PID readings of up to 30.7 were observed in soil boring SB14 in the southern part of the site. Petroleum-related compounds were detected in SB8_0-2 and SB11_0-2 at concentrations exceeding the UU and/or RURR SCOs.

3.0 SCOPE OF WORK

The objective of this RIWP is to supplement existing data to investigate and characterize "the nature and extent of the contamination at and/or emanating from a brownfield site", as required to satisfy New York Environmental Conservation Law 27-1411.1.

The field investigation will include the tasks summarized below, which are discussed in more detail in the following sections. The rationale for each sampling location, in relation to the AOCs and analytical parameters for each proposed sample, is provided in Table 1.

Geophysical Survey

- Perform a supplemental geophysical survey to locate USTs, underground structures, geophysical anomalies and utilities across accessible areas of the site, including in the vicinity of proposed sampling locations and in previously inaccessible areas of the site.

Soil Borings and Sampling

- Advance at least 10 soil borings (SB15 to SB24) to 16 feet bgs, refusal due to presumed bedrock, or the termination of observed contamination. If petroleum-related impacts are observed, the vertical and horizontal extent of these impacts will be delineated by advancement of additional soil borings.
- Collect a minimum of three soil samples from each boring (plus quality assurance/quality control [QA/QC] samples) for laboratory analysis to further characterize and delineate the nature and extent of soil contamination at the site.
- Soil samples will not be collected during monitoring well installation (discussed in the following subsection) unless petroleum-related impacts are observed.

Monitoring Well Installation and Sampling

- Install and develop at least seven permanent monitoring wells; bedrock wells will be installed where groundwater is not encountered above bedrock.
- Collect one groundwater sample from each monitoring well (plus QA/QC samples) for laboratory analysis to further evaluate groundwater quality across the site and delineate known impacted areas.
- If three or more overburden wells are installed; Survey and gauge newly-installed and existing monitoring wells to evaluate groundwater elevations and flow direction and the potential presence of non-aqueous phase liquids (NAPL).

Soil Vapor/Sub-slab Soil Vapor/Indoor Air Sampling

- Install three sub-surface soil vapor sampling points to five feet bgs or two feet above the observed groundwater table; whichever is shallower.
- Install five sub-slab soil vapor sampling points immediately below the existing building slab, each coupled with a co-located indoor air sample

- One outdoor, ambient air sample (AA01)

Groundwater f

Modifications to this scope of work may be required: 1) due to site operations, equipment, or restrictions; 2) if unexpected contamination is detected and additional analytical data is needed to characterize the site; and 3) to confirm that impacts are adequately characterized and delineated in compliance with the Brownfield Law, regulations, and applicable investigation guidance documents (e.g., DER-10). NYSDEC and NYSDOH will be contacted to obtain approval for these modifications and all modifications will be reflected in the Remedial Investigation Report (RIR).

The field investigation will be completed in accordance with the procedures specified in Langan's Health and Safety Plan (HASP) and Quality Assurance Project Plan (QAPP) provided in Appendices B and C, respectively. A Community Air Monitoring Plan (CAMP) will be implemented during this investigation (see Section 3.8.2 and Appendix D).

The names, contact information and roles of the principal personnel who will participate in the investigation are listed below. Résumés for Langan employees involved in the project are included in the QAPP (Appendix C).

Personnel	Investigation Role	Contact Information
Gerald Nicholls, PE, CHMM Langan Engineering	Project Engineer	Phone – 212-479-5559 Email – gnicholls@langan.com
Jennifer Armstrong, CHMM Langan	Project Manager	Phone – 212-479-5537 Email jarmstrong@langan.com
Laura Grose Langan Engineering	Field Team Leader	Phone – 914-323-7432 Email – lgrose@langan.com
Tony Moffa, CHMM Langan Engineering	Langan Health & Safety Officer	Phone – 215-491-6500 Email – tmoffa@langan.com
Bill Bohrer, PG Langan Engineering	Field Safety Officer	Phone – 212-479-5533 Email – wbohrer@langan.com
Michael Burke, PG, CHMM Langan Engineering	Qualified Environmental Professional and Quality Assurance Officer	Phone – 212-479-5413 Email – mburke@Langan.com
Lea Sherman York Analytical Laboratory	Laboratory Contractor	Phone – 201-847-9100 Email – brao@pacelabs.com
Joe Conboy Langan Engineering	Program Quality Assurance Monitor / Data Validator	Phone – 609-282-8055 Email – jconboy@langan.com

3.1 Geophysical Survey

A geophysical contractor will perform a geophysical survey to locate USTs, underground structures, geophysical anomalies, identify utilities across previously inaccessible areas of the site, and clear subsurface testing locations of potential subsurface obstructions. The geophysical survey will be completed using a collection of geophysical instruments, including electromagnetic and utility line locator instruments and ground-penetrating radar (GPR). The results of the survey may require relocating subsurface testing locations.

3.2 Soil Investigation

3.2.1 Soil Boring Installation

The drilling subcontractor will advance at least 10 soil borings to further investigate the AOCs identified in Section 2.6. Borings will be advanced to about 16 feet bgs, or shallower if refusal due to presumed bedrock is encountered, or to the termination of observed contamination. A plan showing the proposed sample locations is included as Figure 6, and a summary of the proposed laboratory analyses for each sample is included as Table 1. The following table associates borings and/or monitoring wells with AOCs and describes the rationale for each.

AOC	Associated Soil Boring(s) and Monitoring Wells	Rationale
AOC 1	SB15, SB16, SB18, SB19, SB21, SB22, SB23	Investigate areas of historical operations
AOC 2	SB15 through SB24	Investigate soil impacted with SVOCs, metals, PCBs, and pesticides throughout the site
AOC 3	SB20, SB22, SB23	Investigate areas of former on-site historical PBS and petroleum-related impacts observed during previous investigations

Soil borings will be advanced using direct-push drilling technology. The direct-push drill rig will be equipped with a closed-point Macro-Core sampler to prevent the collapse of sidewall material as borings are advanced. Langan personnel will document the work, screen soil samples for environmental impacts, and collect representative environmental soil samples for laboratory analyses. Soil will be screened continuously to the boring termination depth for organic vapors with a PID equipped with a 10.6 electron volt (eV) bulb and for visual and olfactory evidence of environmental impacts (e.g., NAPL, staining, odor). Soil will be visually classified for color, grain size, texture, and moisture content, and will be recorded in a field log. Site operations will comply with the safety guidelines outlined in the HASP in Appendix B. Non-disposable, down-hole drilling equipment and sampling apparatus will be decontaminated between locations with Alconox and water. Water used for decontamination and rinsate will be containerized into United Nations/Department of Transportation (UN/DOT)-approved 55-gallon drums, labeled, and staged for off-site disposal.

3.2.2 Soil Sampling and Analysis

A minimum of three soil samples will be collected for laboratory analysis from each boring from the following intervals:

1. Shallow soil samples from within the top two feet of recovery and a sample will be collected from the terminus of soil with apparent anthropogenic impacts (e.g., anthropogenic materials, construction and demolition debris), if observed above the groundwater interface;

2. From the interval exhibiting the greatest degree of impacts, if encountered, or the groundwater interface; and,
3. From one-foot interval below the vertical extents of impacts, if encountered.

Depending on the site conditions (e.g., fill depth, presence/absence of impacts) and recovery, the number of samples collected at each boring may vary.

If petroleum-related impacts are observed in any boring, additional soil samples supporting a horizontal and vertical delineation will be collected. If petroleum-related impacts are observed while advancing monitoring wells (see section 3.3), soil samples will be collected.

Soil samples will be collected in laboratory-supplied containers and will be sealed, labeled, and placed in a chilled cooler (to attempt to maintain a temperature of <4ºC) for delivery to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory. Soil samples will be analyzed for one or more of the following using the latest USEPA methods:

- 6 NYCRR Part 375 VOCs by USEPA Methods 8260
- 6 NYCRR Part 375 SVOCs by USEPA Method 8270, including 1,4-dioxane
- PCB by USEPA Method 8082
- 6 NYCRR Part 375 metals (including cyanide and hexavalent and trivalent chromium) by USEPA Methods 6010/7471/9010/7196
- 6 NYCRR Part 375 Pesticides and herbicides by USEPA Methods 8081 and 8151, respectively
- PFAS (40-compound list) by USEPA Method 1633

The proposed RI soil samples are summarized in Table 1. QA/QC procedures to be followed and sampling frequency are described in the QAPP in Appendix C.

3.3 Groundwater Investigation

3.3.1 Monitoring Well Installation

Seven permanent groundwater monitoring wells (MW1 through MW6, and MW16) will be installed with a Sonic Drill Rig. A plan showing the proposed well locations is included as Figure 6. As indicated in Table 1, groundwater samples from the seven monitoring wells will be used to investigate and characterize the nature and extent of contamination associated with the AOCs.

Soil conditions will be screened and logged as described in Section 3.2; however additional soil samples are not proposed unless petroleum-like impacts are observed, based on proximity to prior soil samples. Well installation methods for overburden and bedrock wells are presented herein:

- If groundwater is observed in overburden, monitoring wells will be constructed using 2-inch-diameter, threaded, flush-joint, polyvinyl chloride casing, and 10-foot-long, pre-packed well screens that will terminate about 5 feet below the observed groundwater table. Clean sand (e.g., Morie No. 2) will be used to fill the minimum 2-inch-thick annulus around the screen up to about 2 feet above the top of the screened interval, including to 6 inches below the screen. A 2-foot-

thick bentonite seal will be installed above the sand, and the remaining borehole annulus will be backfilled with drill cuttings with no evidence of chemical or petroleum impacts (i.e., staining, odors, or PID readings above background conditions) to within 12 inches of the surface and/or grouted to the surface with a bentonite and cement slurry. Monitoring wells will be finished at the surface with flush-mounted access covers.

- If groundwater is not encountered above bedrock, open bedrock monitoring wells will be installed by coring with a 2.875-inch or 3.875-inch HQ core bit to about 5 to 15 feet into competent rock, depending on water level. A 4-inch-diameter stainless steel casing will be advanced a minimum of 2 feet into competent bedrock, and the borehole will be grouted to seal the well from potential overburden impacts. The grout will be allowed to cure for a minimum of 24 hours. Screens and sand packs will not be installed in open rock wells.

After installation, the wells will be developed by surging using either a weighted bailer or surge block across the well screen and casing to agitate and remove fines. After surging, the well will be purged via pumping until the water becomes clear (having turbidity less than 50 Nephelometric Turbidity Units). The wells will then be allowed to equilibrate for a minimum of one week before collecting groundwater samples.

3.3.2 Groundwater Sampling and Analysis

Before sampling, the headspace of each well will be measured with a PID. Because groundwater samples will be analyzed for PFAS, wells will be gauged with an interface probe to determine the depth to groundwater and thickness of any NAPL after groundwater samples are collected and the water table elevation stabilizes to avoid potential cross contamination. If NAPL is encountered, representative samples of the product will be collected for laboratory fingerprint analysis. If NAPL is observed on purged groundwater prior to sampling, groundwater samples will not be collected from monitoring wells that contain NAPL.

One groundwater sample will be collected from each of the seven monitoring wells as summarized in Table 1. Prior to sampling, one round of synoptic gauging for static water levels will be performed and the monitoring wells will be purged. Purging will consist of pumping, at a minimum, the stabilized drawdown volume plus the pump's tubing volume, and waiting until the physical and chemical parameters (e.g., temperature, dissolved oxygen, oxygen reduction potential, turbidity) stabilize within the ranges specified in the USEPA's Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (dated 30 July 1996, and 4th revision 19 September 2017). If physical and chemical parameters do not stabilize within one hour of purging, sample collection will proceed. Samples will be collected with a submersible pump and dedicated polyethylene tubing (or similar pump apparatus). Non-disposal components of the pump will be decontaminated with Alconox and water between each sample location. Development and purge water will be containerized for off-site disposal.

Groundwater samples will be collected in laboratory-supplied containers and will be sealed, labeled, and placed in an ice-chilled cooler (to maintain a temperature of approximately 4ºC) for delivery to the

laboratory. Groundwater samples from both newly installed and existing well locations will be analyzed using the latest USEPA methods as follows:

- TCL VOCs by USEPA Method 8260
- TCL SVOCs by USEPA Method 8270
- PCBs by USEPA Method 8082
- Metals (total and dissolved) by USEPA Method 6010/7470
- Pesticides by USEPA Method 8081
- Herbicides by USEPA Method 8151
- NYSDEC-List PFAS by EPA Method 1633
- 1,4-dioxane by EPA Method 8270 with selected ion monitoring (SIM)

QA/QC procedures to be followed are described in the QAPP in Appendix C.

3.3.3 Monitoring Well Survey and Synoptic Gauging

Langan will survey the vertical location of the monitoring wells, including ground surface elevation and the top of well casing to the nearest 0.01 foot. Vertical control will be established by surveying performed relative to NAVD88 by a New York State-licensed land surveyor. The horizontal well locations will be established using field measurements. A synoptic gauging event will be performed after the wells are installed to document static water levels across the site. Survey data will be used to prepare a groundwater contour map depicting the elevation of the water table across the site.

3.4 Soil Vapor Investigation

3.4.1 Soil Vapor and Sub-Slab Soil Vapor Point Installation

Three temporary soil vapor points (SV16, SV18, and SV23) and five temporary sub-slab soil vapor points (SSV15, SSV17, SSV19, SSV20, and SSV22) will be installed using direct-push technology in accordance with the NYSDOH's Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006). A plan showing the proposed soil vapor and sub-slab soil vapor point locations is included as Figure 6. As indicated in Table 1, soil vapor and sub-slab soil vapor samples from each sampling location will be used to investigate and characterize the nature and extent of contamination associated with the AOCs.

Sub-surface soil vapor points will be installed by advancing a probe implant to five feet bgs or two feet above the groundwater table, whichever is shallower, and the sub-slab soil vapor points will be installed immediately below the existing building slab. Sub-surface soil vapor collection points will consist of a 1.875-inch polyethylene implant with inert sample tubing (e.g., Teflon or Teflon-lined polyethylene), and sub-slab soil vapor points will consist of inert sample tubing. The annulus (i.e., the sampling zone) around the soil vapor and sub-slab soil vapor implant and tubing will be filled with a clean, coarse sand pack

followed by a hydrated bentonite seal to surface grade. Hydrated bentonite will also be used to create a seal around the tubing at the surface of the soil vapor and sub-slab soil vapor points.

Sub-slab soil vapor samples will be co-located with indoor air samples. Soil vapor and indoor air samples will be collected in accordance with the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006, with updates).

3.4.2 Soil Vapor and Sub-slab Soil Vapor Sampling and Analysis

Samples will be collected in general accordance with the NYSDOH's Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006, with updates). Before collecting vapor samples, a minimum of three vapor point volumes (i.e., the volume of the sample implant and tubing) will be purged from each sample location at a rate of less than 0.2 liters per minute using a RAE Systems MultiRAE meter set at a low flow setting. The purged vapor will be monitored for VOCs with the MultiRAE during purging.

A helium tracer gas will be used to serve as a QA/QC technique to document the integrity of each vapor point seal before and after sampling. The tracer gas will be introduced into a container, which will shroud the vapor point and seal. Helium will be measured from the sampling tube and inside the container. If the sample tubing contains more than 10% of the tracer gas concentration that was introduced into the container, then the seal will be considered compromised and will be enhanced or reconstructed to prevent outdoor air infiltration.

A log sheet for each vapor sample will be completed to record sample identification; date and time of sample collection; sampling depth; name of the field engineer, geologist or scientist responsible for sampling; sampling methods and equipment; vapor purge volumes; volume of vapor extracted; flow rate; and vacuum of canisters before and after sample collection.

After the integrity of each seal is confirmed, vapor samples will be collected into laboratory-supplied batch-certified clean 2.7- or 6-liter Summa canisters with calibrated flow controllers. Soil vapor samples will be collected over a 2-hour sampling period, and sub-slab soil vapor and indoor air samples will be collected over a 24-hour sampling period and analyzed for VOCs by USEPA Method TO-15.

The proposed vapor samples are summarized in Table 1. QA/QC sample collection procedures and sampling frequency are described in the QAPP in Appendix C.

3.4.3 Indoor Air Sampling

Five indoor air samples (IA15, IA17, IA19, IA20, and IA22) will be collected about 3 to 5 feet above grade concurrently with co-located sub-slab vapor samples. Prior to sample collection, an NYSDOH Indoor Air Quality Questionnaire and Building Survey will be completed to document the potential presence of equipment or chemicals that could interfere with the laboratory analytical results. The buildings will be screened with a PID that can detect organic vapors at concentrations of parts per billion during the indoor air survey.

The site buildings will remain in normal operation prior to and during sample collection. One outdoor, ambient air sample will be concurrently collected from the breathing zone (about 3 to 5 feet above grade)

to provide information regarding background air conditions. The ambient air sample will be collected into laboratory-supplied, batch-certified clean 2.7- or 6-liter Summa canisters with a calibrated flow controller over an 8-hour sampling period, concurrent with the soil vapor samples. The samples will be submitted to an NYSDOH Environmental Laboratory Approval Program-certified laboratory for analysis of VOCs via USEPA Method TO-15.

QA/QC procedures to be followed are described in the QAPP in Appendix C.

3.5 Sampling Contingency

Additional soil, groundwater, or vapor sampling locations may be completed, as needed, to evaluate unanticipated contamination and to horizontally and vertically delineate identified contamination (e.g., NAPL, VOCs, SVOCs, metals, or other analytes) based on field observations and analytical results. The objective of a sampling contingency is to provide adequate delineation of AOCs during a single mobilization event, if possible. The decision to complete additional sampling and delineation (including step-out distances and target-depth intervals) based on field observations and/or preliminary (non-validated) laboratory data will be made by Langan, potentially in consultation with NYSDEC and/or NYSDOH Project Managers. The location of any step-out soil borings and additional monitoring wells will be based on field observations and analytical data from adjacent borings and wells, site access and drilling considerations. Sampling depths and analyses will be contingent on observations/findings.

3.6 Data Management and Validation

York, a NYSDOH ELAP-approved laboratory, will analyze soil, groundwater, and soil vapor samples. Laboratory analyses will be conducted in accordance with USEPA SW-846 methods and NYSDEC Analytical Services Protocol (ASP) B deliverable format. Environmental data will be reported electronically using the database software application EQuIS as part of NYSDEC's Environmental Information Management System.

Table 1 summarizes the anticipated samples and analytical methodology. QA/QC procedures required by the NYSDEC ASP and SW-846 methods, including initial and continuing instrument calibrations, surrogate compound spikes, and analysis of other samples (blanks, laboratory control samples, and matrix spikes/matrix spike duplicates) will be followed in accordance with the QAPP (Appendix C). The laboratory will provide pre-cleaned and preserved sample bottles in accordance with the SW-846 methods. Where there are differences in the SW-846 and NYSDEC ASP requirements, the NYSDEC ASP shall take precedence.

Data validation will be performed in accordance with the USEPA Region 2 Standard Operating Procedures (SOP) for data validation and USEPA's National Functional Guidelines for Organic and Inorganic Data Review, Technical and Administrative Guidance Memorandum (TAGM) Solid Waste Guidance (SW-96-09) Development and Review of Site Analytical Plans, and DER-10 Appendix 2B Section 2.0. Tier 1 data validation (the equivalent of USEPA's Stage 2A validation) will be performed to evaluate data quality. Tier 1 data validation is based on completeness and compliance checks of sample-related quality control results including:

- Holding times
- Sample preservation
- Blank results (method, trip, and field blanks)
- Surrogate recovery compounds and extracted internal standards (as applicable)
- Laboratory control samples and laboratory control sample duplicates recoveries and relative percent difference (RPD)
- Matrix spike and matrix spike duplicate recoveries and RPDs
- Laboratory duplicate RPDs
- Field duplicate RPDs

The Data Usability Summary Reports (DUSR) will be prepared and then reviewed by the Program Quality Assurance Monitor before issuance. The DUSRs will provide a detailed assessment of each sample delivery group (SDG) and present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and Chain of Custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. Additional details on the DUSRs are provided in the QAPP in Appendix C.

3.7 Management of Investigation-Derived Waste

Grossly-contaminated or excess soil cuttings and purge water will be containerized and staged on site, pending proper disposal at an off-site waste management facility. Soil cuttings with no apparent staining, odors, or PID readings above background conditions will be used to backfill boreholes. Soil to be disposed of off site will be placed in 55-gallon, UN/DOT-approved drums. Decontamination fluids, if necessary, will be placed in UN/DOT-approved fluid drums with closed tops. Drums will be properly labeled, sealed, and characterized as necessary. Drums will be labeled as nonhazardous waste pending analysis and stored in a manner to prevent contents from discharging to the environment. Investigative derived waste will be disposed of off site at one or more selected disposal facilities within 90 days of generation. If RI analytical data is insufficient to gain disposal facility acceptance, additional waste characterization samples will be collected. Additional sampling and analyses may be required based on the selected disposal facility. Waste characterization samples will be submitted to by a NYSDOH ELAP-approved laboratory for analysis in accordance with the QAPP provided in Appendix C. Management of investigation-derived waste (IDW) will comply with NYSDEC DER-10 3.3(e) and DER-31 (Section 3.11).

3.8 Air Monitoring

Air monitoring will be conducted for site personnel (HASP) and the community (CAMP) (Appendix D). Fugitive particulate (dust) generation that could affect site personnel or the public is not expected because intrusive work is limited to boring, monitoring well, and vapor point installation, which does not disturb large volumes of soil.

Dust emissions will be monitored using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10). Organic vapors will be monitored with a PID. Odors will

be periodically monitored by site personnel at and beyond the site perimeter. Dust and odor suppression measures (e.g., water misting, odor suppressant) will be implemented as needed. All PIDs used will be equipped with a 10.6 eV bulb.

3.8.1 Personnel Air Monitoring

Langan will conduct air monitoring of the breathing zone periodically during drilling and sampling activities to evaluate health and safety protection for the Langan field personnel. Initially, ambient air monitoring will be performed within the work area. Langan will monitor VOCs with a PID (MultiRAE 3000 or similar) in accordance with the HASP (Appendix B). If air monitoring during intrusive operations identifies the presence of VOCs, on-site personnel will follow the guidelines outlined in the HASP regarding action levels, permissible exposure, engineering controls, and personal protective equipment. If the VOC action level is exceeded, work will cease and the work location will be evacuated. Monitoring will be continued until the levels drop to safe limits. At that time, work can resume with continued monitoring. If high levels persist, field activities will be halted and the work relocated to another area. If dust emissions are observed, work will stop and dust suppression measures will be used.

3.8.2 Community Air Monitoring Plan

In addition to air monitoring in the worker breathing zone, Langan will conduct community air monitoring in compliance with the NYSDOH Generic CAMP. CAMP deployment will comply with NYSDEC DER-10 Appendix 1A and Appendix 1B. The CAMP is included as Appendix D of this RIWP.

Langan will conduct periodic monitoring for VOCs during non-intrusive work such as the collection of groundwater samples. Periodic monitoring may include obtaining measurements upon arrival at a location, when opening a monitoring well cap, when bailing/purging a well, and upon departure from a location.

Langan will also conduct continuous monitoring for VOCs and dust during ground-intrusive work (i.e., soil boring advancement and monitoring well installation). During ground-intrusive work, Langan will measure upwind concentrations at the start of each workday to establish background concentrations. Langan will monitor VOCs and dust at the downwind perimeter of the work zone, which will be established at a point on the site where the general public or site employees may be present. Monitoring for VOCs will be conducted with a PID. Dust emissions will be monitored using real-time monitoring equipment capable of measuring PM-10 (e.g., DustTrak). If dust emissions are observed, work will stop and dust suppression measures will be used. Odors will be periodically monitored by site personnel at and beyond the site perimeter.

If work activities occur within 20 feet of occupied structures and total VOC concentrations exceed 1 ppm or particulate concentrations exceed 150 µg/m³ at building walls or air intakes, monitoring within the occupied structures and implementation of appropriate engineering controls will be performed as required.

3.9 Fish and Wildlife Resources Impact Analysis

A Fish and Wildlife Resources Impact Analysis (FWRIA) screening-level review will be conducted in accordance with Section 3.10 and Appendix 3C of the NYSDEC DER-10, Technical Guidance for Site Investigation and Remediation. If necessary, based on the results of the screening-level review, a full FWRIA will be performed. The assessment will be included in the RIR.

3.10 Green and Sustainable Remediation

The NYSDEC DER-31 Green and Sustainable Remediation Initiative requires that green remediation concepts and techniques be considered during all stages of the remedial program, including investigation, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. The following measures will be implemented during the RI:

1. Limit use of generators, drilling equipment, and vehicles to reduce emissions to the atmosphere
2. Minimize IDW generated by reusing soil/fill that does not exhibit visual, olfactory, or PID evidence of contamination to backfill boreholes after sampling
3. Minimize truck travel for disposal of IDW by selecting local disposal facilities for IDW
4. Request that the environmental drillers use clean diesel equipment to reduce emissions to the atmosphere
5. Utilize public transportation to access the site during implementation of the RI, to the extent practicable

3.11 Qualitative Human Health Exposure Assessment

A Qualitative Human Health Exposure Assessment (QHHEA) will be conducted in accordance with Appendix 3B of the NYSDEC DER-10, Technical Guidance for Site Investigation and Remediation. The assessment will be submitted in the RIR.

4.0 REMEDIAL INVESTIGATION REPORT

Following completion of the RI and receipt of analytical data, an RIR will be prepared in accordance with the applicable requirements of DER-10 Section 3.14. The report will include:

(1) A summary of the site history and previous investigations

(2) A description of site conditions and the remedial investigation

(3) Sampling methodology and field observations

(4) Evaluation of the results and findings

(5) Conclusions

(6) Recommendations for any further assessment, if warranted

The report will summarize the nature and extent of contamination for each AOC and identify complete and potentially complete exposure pathways (as determined through the QHHEA). DUSRs will be included in the RIR and electronic data deliverables will be submitted to the NYSDEC EQuIS database prior to submission of the draft RIR.

The report will include soil boring and well construction logs, sampling logs, tabulated analytical results, figures, and laboratory data packages. The analytical results will be organized in table format and include sample location; media sampled; sample depth; field/laboratory identification numbers; analytical results; and applicable Standards, Criteria, and Guidance (SCG) pertaining to the site and contaminants of concern for comparison. The report will include scaled figures showing the locations of soil borings, monitoring wells, and vapor points; sample concentrations above SCGs for each media; groundwater elevation contours and flow direction; and, if appropriate, groundwater contaminant concentration contours.

Soil analytical results will be compared to the UU, PGW, and RURR SCOs and the guidance values set forth in the NYSDEC Part 375 Remedial Programs guidance for Sampling, Analysis, and Assessment of PFAS (April 2023). Groundwater analytical results will be compared to the NYSDEC SGVs for Class GA water. Soil vapor results will be tabulated. Co-located sub-slab and indoor air samples will be compared against Decision Matrices in the 2006 NYSDOH Guidance (updated in 2024). The RIR will be provided in an electronic format to the NYSDEC.

5.0 SCHEDULE

The table below presents an anticipated schedule for the proposed RI and reporting following the approval of the RIWP. If the schedules changes, it will be updated and submitted to the NYSDEC.

Milestone	Weeks from NYSDEC Approval of RIWP	Estimated Duration (weeks)
RI Mobilization	4 to 8	2
RI Field Investigation	4 to 8	3
Laboratory Analysis	6 to 10	2
Remedial Investigation Report Preparation and Submission to the NYSDEC	12 to 16	6