LANGAN

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October 5, 2026

Attn: Michael Squire
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Pre-Design Investigation Work Plan
City DPW Yard
224 East Main Street
New Rochelle, New York
BCP Site No.: C360101
Langan Project No.: 170331705

Dear Mr. Squire,

Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C. (Langan) prepared this Pre-Design Investigation (PDI) Work Plan on behalf of Pratt Landing Partners LLC (the Volunteer) for the City Department of Public Works (DPW) Yard Site at 224 East Main Street in New Rochelle, New York (the site). The Volunteer is enrolled in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) as Site No. C360101.

This PDI Work Plan supports the design and implementation of a groundwater remediation program for petroleum-impacted groundwater and evaluates the feasibility of achieving a Track 1 remedy in the northeastern part of the site.

Previous investigations identified petroleum-impacted soil and groundwater in the southern part of the site, which is defined as an Area of Concern in the NYSDEC-approved April 15, 2024 Remedial Action Work Plan (RAWP). The RAWP recommended a split Track 1/Track 4 remedy, with Track 1 within the proposed building footprints across the site and Track 4 in landscaped areas.

After the RAWP was approved, the Volunteer determined that excavation in the southern part of the site to achieve a Track 1 cleanup would no longer be feasible due to the significant support of excavation and dewatering required to reach the Track 1 excavation depth, and revised the redevelopment plans accordingly. In the southern part of the site, petroleum-impacted soil and groundwater will be addressed via hotspot excavations and in-situ groundwater treatment implemented as part of an expanded Track 4 remedial area. Separately, additional subsurface data collected during the PDI will be required to evaluate the feasibility of achieving a Track 1 cleanup in the northeastern part of the site. A PDI Report summarizing the revised remedy and PDI findings will be prepared and submitted to NYSDEC for review.

SITE BACKGROUND

The site is at 224 East Main Street in New Rochelle, New York and is identified as Section 1, Block 84, and Lot 5 on the Westchester County Tax Map. The mostly asphalt-paved site is 273,209 square feet (± 6.27 acres) in area. The site is currently vacant and improved with four buildings. The site is bound by East Main Street to the northwest, a one-story structure occupied by a vehicle repair and body shop to the northeast, the vacant New Rochelle armory to the southwest, and the surface waters of Echo Bay to the east and southeast. A site plan and location map is provided as Figure 1.

SCOPE OF WORK

The PDI will include the following:

- Completion of a preliminary site visit to evaluate the status of existing on-site monitoring wells and to conduct a geophysical survey;
- Advancement of at least six soil borings to bedrock or refusal in the northeastern part of the site and collection of up to three soil samples from three of the six borings to further delineate the extent of soil containing concentrations of compounds above Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCO);
- Advancement of up to four soil borings in the southern, southeastern, and south-central parts of the site in the vicinity of the historical fuel dispensing station/pump island and suspected underground storage tanks (UST) to inform the extents of proposed hotspot excavations and conversion of up to three soil borings into groundwater monitoring wells, if petroleum-related impacts are identified;
- Development of seven existing permanent monitoring wells located within the proposed groundwater treatment areas (EW04, EW10, EW14, EW15, EW19, EW21, and EW22); and,
- Collection and analysis of one groundwater sample from each of the existing and newly installed monitoring wells, plus quality assurance/quality control [QA/QC] samples for laboratory analysis.

Existing permanent monitoring wells installed during Langan's Remedial Investigation and associated analytical results that exceed their respective comparison criteria are presented on Figure 2.

Preliminary Site Visit and Geophysical Survey

A preliminary site visit will be completed to evaluate the condition of the existing permanent monitoring wells within the proposed treatment areas. A geophysical survey will also be conducted to pre-clear subsurface obstructions and locate any suspect USTs within the proposed subsurface investigation locations.

Soil Investigation

Soil Sampling and Analysis

An environmental drilling subcontractor will advance 6 soil borings (EB30 through EB32 and EB37 through EB39) in the northeastern part of the site and 4 soil borings (EB33 through EB36) in the southern, southeastern, and south-central part of the site surrounding the former fuel dispensing station to a maximum depth of 20 feet below grade surface (bgs) using direct-push drilling technology (e.g., Geoprobe). A sample location plan is included as Figure 3.

Langan field personnel will observe and document the work, screen the soil samples for environmental impacts, and collect environmental samples for laboratory analyses. Soil will be screened continuously to the boring termination depth with a photoionization detector (PID) equipped with a 10.6 electron volt (eV) bulb for visual and olfactory evidence of environmental impacts (e.g., staining and odor). Soil descriptions will be recorded in a field log. Boring logs will be provided in a PDI Report. Non-disposable, down-hole drilling equipment and sampling apparatus will be decontaminated between locations with Alconox and water. Work will comply with the soil management protocols and safety guidelines outlined in the RAWP and site-specific Construction Health and Safety Plan (Appendix D of the RAWP).

Up to three grab soil samples will be collected from EB30 through EB32 for laboratory analysis to vertically delineate soil containing compounds above the Track 1 UU SCOs. Samples will be collected in 2-foot intervals from sand and/or clay layers underlying fill. Up to two grab soil samples will be collected from EB33 through EB36 from the interval exhibiting the highest degree of visual and olfactory contamination and the interval underlying impacted soil (if encountered). Soil borings EB37 through EB39 will be advanced solely for visual characterization of subsurface conditions and identification of the native/fill interface; therefore, no soil samples are proposed from these locations.

The samples will be collected in laboratory-supplied containers and will be sealed, labeled, and placed in an ice-chilled cooler (to attempt to maintain a temperature of about 4 degrees Celsius) for delivery to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory. Soil samples from EB30 through EB32 will be analyzed for the following parameters, using the latest United States Environmental Protection Agency (USEPA) methods:

- Target Compound List (TCL) volatile organic compounds (VOC)
- TCL semivolatile organic compounds (SVOC)
- Polychlorinated biphenyls (PCB)
- Target Analyte List (TAL) metals (including hexavalent and trivalent chromium)
- Pesticides

Soil samples from EB30 through EB32 will be analyzed sequentially to minimize the amount of analysis required. Samples from shallow intervals will be analyzed first while the remaining samples will be placed on hold with the laboratory pending initial results of the shallower

intervals. If sample results contain compounds above the Track 1 UU SCOs, the next vertical sample interval would be released for analysis by the laboratory.

Soil samples from EB33 through EB36 will be analyzed for TCL VOCs and SVOCs. A sample summary table is included as Table 1.

Grossly contaminated or excess soil cuttings will be containerized and managed in accordance with the NYSDEC-approved RAWP. Soil cuttings with no apparent staining, odors, or PID readings above background conditions will be used to backfill boreholes.

Groundwater Investigation

Monitoring Well Redevelopment

At least one week before sampling, the drilling subcontractor will redevelop the existing monitoring wells by surging using either a weighted bailer or surge block across the well screen and casing to agitate and remove fines. After surging, the wells will be purged via pumping until the water becomes visually clear. Purged groundwater will be containerized in United Nations/Department of Transportation (UN/DOT) 55-gallon drums and managed in accordance with the NYSDEC-approved RAWP.

Monitoring Well Installation (Contingency)

If any of the previously installed monitoring wells are not located or are determined to be damaged during the preliminary site visit, a drilling subcontractor will reinstall monitoring wells near the original well locations. Additionally, if impacted soil is identified in EB33 through EB35, the soil borings will be converted into permanent monitoring wells. Soil borings will be advanced using direct-push drilling technology and a 4.5-inch-outer-diameter (3.75-inch-inner-diameter) steel casing. Following completion of the borings, the steel casing will be removed and the boreholes will be converted to permanent groundwater monitoring wells. The wells will be constructed using 2-inch-diameter, threaded, flush-joint, polyvinyl chloride casing, and 10-foot-long, 0.01-inch pre-packed well screens in accordance with NYSDEC guidance. A 6-inch bedding layer of No. 1 sand filter pack will be placed at the bottom of each borehole before placing the well screen. The proposed monitoring wells will be installed such that the well screens straddle the observed groundwater table. Clean sand (e.g., No. 1 or #000 filter pack) will be used to fill the annulus around the screen up to about 2 feet above the top of the screened interval. 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. A summary of the proposed monitoring well construction details is provided in Table 2. Monitoring well construction details will be provided in the PDI Report.

Following installation, the newly installed monitoring 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 wells will be purged via pumping until the water becomes visually clear.

The wells will then be allowed to stabilize for a minimum of one week prior to sampling. Purged groundwater will be containerized in UN/DOT 55-gallon drums and managed in accordance with the RAWP.

Groundwater Sampling and Analysis

Prior to purging, the headspace of each monitoring well will be screened with a PID, and the monitoring well will be gauged using an oil-water interface probe to determine the depth to groundwater and screen for the presence of petroleum product. Before groundwater sample collection, each monitoring well will be purged until water quality parameters (e.g., temperature, dissolved oxygen, oxygen-reduction potential, turbidity) stabilize, or after one hour has elapsed, in accordance with USEPA guidance ("Low Stress [low flow] Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells", EQASOP-GW4, September 19, 2017).

One groundwater sample will be collected from each well with a peristaltic pump and dedicated polyethylene tubing. Seven groundwater samples (one per well) plus QA/QC samples (one field duplicate, one field blank, one matrix spike/matrix spike duplicate, and one trip blank sample) will be collected for laboratory analysis. The samples will be transported to a NYSDOH ELAP-certified laboratory to be analyzed for VOCs, SVOCs, calcium, magnesium, aluminum, sulfate, methane, and carbon dioxide. These parameters were selected to establish baseline groundwater geochemical conditions and support evaluation of the groundwater treatment program. If evidence of petroleum impacts (e.g., sheen) is observed during purging, groundwater quality parameters will not be measured, and the groundwater samples will additionally be analyzed for total petroleum hydrocarbons – gasoline and diesel range organics, in addition to the parameters listed above. If separate-phase product (e.g., non-aqueous phase liquid [NAPL]) is identified during purging, the thickness of NAPL will be measured, and a groundwater sample will not be collected.

Monitoring Well Decommissioning (Contingency)

If any monitoring wells are observed to be damaged during the preliminary site visit, a drilling subcontractor will decommission the damaged wells in accordance with NYSDEC Commissioner's Policy-43: Groundwater Monitoring Well Decommissioning Policy. Decommissioning documentation will be provided in the PDI Report.

Community Air Monitoring Plan

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.

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.

Data Management and Validation

Laboratory analysis of groundwater and soil samples will be conducted by a NYSDOH ELAP-approved laboratory in accordance with USEPA SW-846 methods and NYSDEC Analytical Services Protocol Category B deliverable format. Environmental data will be reported electronically using the database software application EQuIS as part of NYSDEC's Environmental Information Management System. Data validation will be performed in accordance with the RAWP. Additional details on data management and validation are provided in the Quality Assurance Project Plan, provided as Appendix F of the RAWP.

REPORTING

Daily field reports will be submitted to NYSDEC and NYSDOH project managers by the end of the next business day, in accordance with the RAWP.

PDI Report

The April 15, 2024 RAWP proposed a split Track 1/Track 4 remedy. Subsequent design changes to the redevelopment will require revisions to the proposed remedy. The results of the PDI will inform the details of the revised cleanup approach. The updated proposed remedy, together with the PDI findings, will be summarized in a PDI Report and submitted to NYSDEC for review. The PDI Report will include:

- A description of current site conditions
- The revised development plans
- PDI sampling methodology and field observations
- A summary of the results of the PDI
- A description and evaluation of the revised remedial approach
- An updated excavation and groundwater treatment plan
- An updated remediation schedule

The PDI Report will also include soil boring logs, sampling logs, tabulated analytical results, figures, and laboratory data packages. The tabulated analytical results will include sample locations, media sampled, sample depth, field/laboratory identification numbers, analytical results compared to the applicable Standards, Criteria, and Guidance (SCG) pertaining to the site and contaminants of concern. The report will include scaled figures showing the locations of the soil borings and monitoring wells and sample concentrations above SCGs. The PDI Report will be provided in an electronic format to NYSDEC.

SCHEDULE

Mobilization for the PDI will commence within 30 days of NYSDEC approval of this work plan, pending driller and contractor availability and scheduling. The work is anticipated to take about two weeks to complete. NYSDEC will be notified a minimum of seven days before implementation of this work plan.

CERTIFICATION

I Gerald Nicholls certify that I am currently a New York State registered professional engineer as defined in 6 NYCRR Part 375 and that this Work Plan was prepared in accordance with all applicable statues and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

STATE OF NEW YORK
GERALD F. NICHOLLS
092433
LICENSED PROFESSIONAL ENGINEER

NYS Professional Engineer #092433	10/05/2026	Gerry Nicholls
	Date	Signature

Enclosure(s):

Table 1	Proposed Sample Collection Summary
Table 2	Proposed Monitoring Well Construction Details Summary
Figure 1	Site Plan and Location Map
Figure 2	Groundwater Sample Analytical Results Map
Figure 3	Sample Location Plan

cc: B. Hong – Pratt Landing Partners LLC
M. Raygorodetsky, E. Adkins, L. Grose, F. Charles – Langan

TABLES

Table 1
Sample Collection Summary
Pre-Design Investigation Work Plan

City DPW Yard
New Rochelle, New York
NYSDEC BCP Site No.: C360101
Langan Project No.: 170331705

GROUNDWATER				
No.	**Location**	**Sample ID**	**Sample Depth**	**Analysis***
1	EW04	EW04_DATE	Midpoint of Observed Water Column	Part 375/TCL VOCs and SVOCs, Calcium, Magnesium, Aluminum, Sulfate, Methane, and Carbon Dioxide
2	EW14	EW14_DATE		
3	EW15	EW15_DATE		
4	EW19	EW19_DATE		
5	EW20	EW20_DATE		
6	EW21	EW21_DATE		
7	EW22	EW22_DATE		
GROUNDWATER QA/QC				
	Rationale	**Sample ID**	**Sample Depth**	**Analysis***
1	Duplicate	GWDUP01_DATE	Midpoint of Observed Water Column	Part 375/TCL VOCs and SVOCs, Calcium, Magnesium, Aluminum, Sulfate, Methane, and Carbon Dioxide
2	MS/MSD	EWXX_DATE	TBD	
3	Field Blank	GWFB01_DATE	-	
4	Trip Blank	TB01_DATE		Part 375/TCL VOCs
5		TB02_DATE		
SOIL				
	Location	**Sample ID**	**Sample Depth (feet bgs)**	**Analysis**
1	EB30	EB30_DEPTH	0-2-foot interval below native soil / fill interface	Part 375/TCL VOCs, SVOCs, PCBs, Pesticides, TAL Metals (including Hexalavent and Trivalent Chromium)
2		EB30_DEPTH	2-4-foot interval below native soil / fill interface	
3		EB30_DEPTH	4-6-foot interval below native soil / fill interface	
4	EB31	EB31_DEPTH	0-2-foot interval below native soil / fill interface	
5		EB31_DEPTH	2-4-foot interval below native soil / fill interface	
6		EB31_DEPTH	4-6-foot interval below native soil / fill interface	
7	EB32	EB32_DEPTH	0-2-foot interval below native soil / fill interface	
8		EB32_DEPTH	2-4-foot interval below native soil / fill interface	
9		EB32_DEPTH	4-6-foot interval below native soil / fill interface	
10	EB33	EB33_DEPTH	Greatest degree of impacts	Part 375/TCL VOCs and SVOCs
11		EB33_DEPTH	Interval below impacts	
12	EB34	EB34_DEPTH	Greatest degree of impacts	
13		EB34_DEPTH	Interval below impacts	
14	EB35	EB35_DEPTH	Greatest degree of impacts	
15		EB35_DEPTH	Interval below impacts	
16	EB36	EB36_DEPTH	Greatest degree of impacts	
17		EB36_DEPTH	Interval below impacts	
18	EB37	Visual characterization only		
19	EB38			
20	EB39			
SOIL QA/QC SAMPLES				
	Rationale	**Sample ID**	**Sample Depth (feet bgs)**	**Analysis**
1	Duplicate	SODUP01_DATE	TBD	Part 375/TCL VOCs, SVOCs, PCBs, Pesticides, TAL Metals (including Hexalavent and Trivalent Chromium)
2	MS/MSD	EBXX_DEPTH	TBD	
3	Field Blank	SOFB01_DATE	-	

*If evidence of petroleum impacts (e.g., sheen) is observed during purging, groundwater samples will additionally be analyzed for Total Petroleum Hydrocarbons (TPH)- Gasoline Range Organics and TPH-Diesel Range Organics.

Notes:
1. BCP = Brownfield Cleanup Program
2. bgs = below grade surface
3. TAL = Target Analyte List
4. TCL = Target Compound List
5. VOC = volatile organic compound
6. SVOC = semivolatile organic compound
7. PCB = polychlorinated biphenyl
8. QA/QC = quality assurance/quality control
9. MS/MSD = matrix spike/matrix spike duplicate
10. TBD = to be determined in the field

Table 2
Proposed Monitoring Well Construction Details Summary
Pre-Design Investigation Work Plan

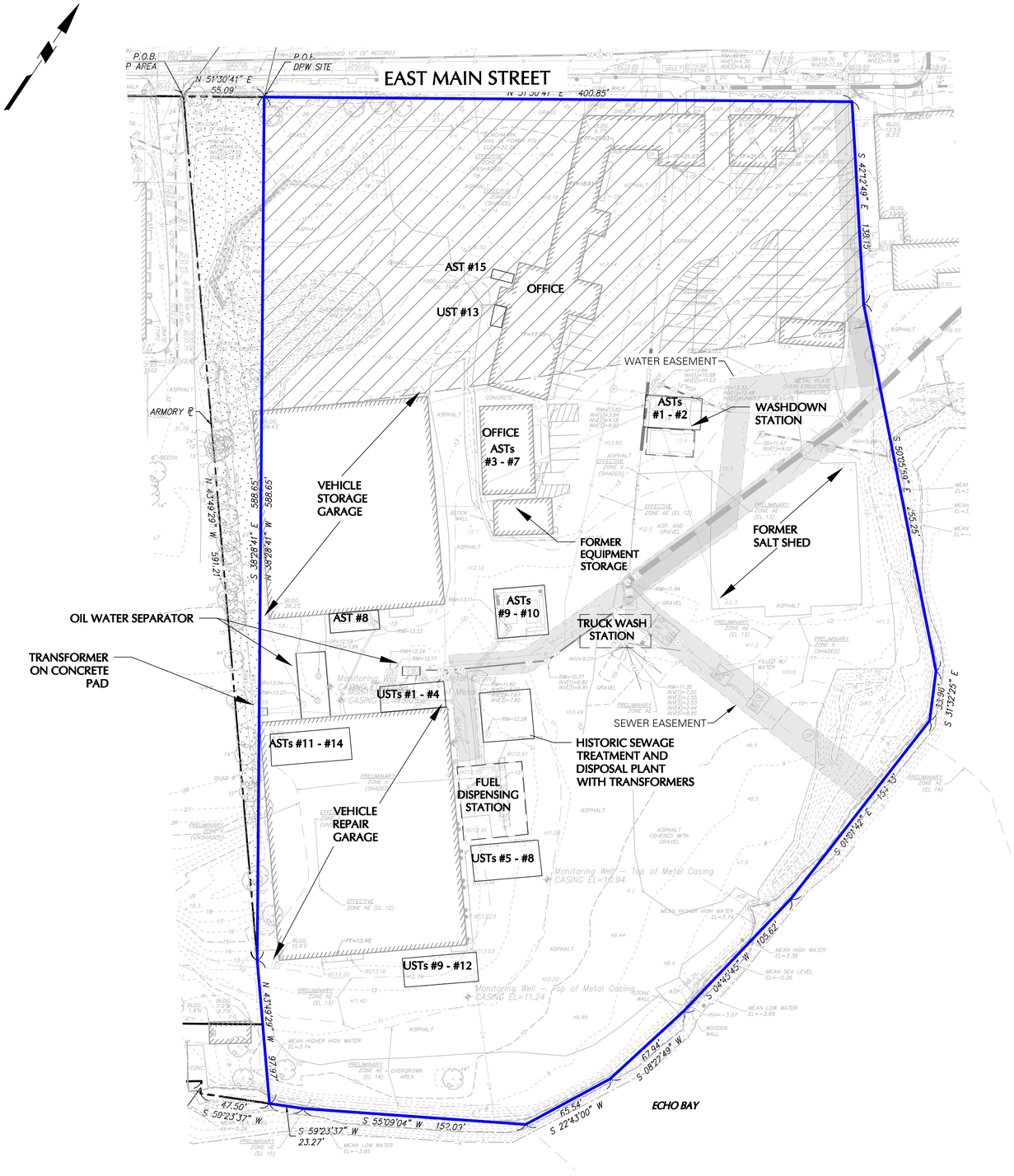
City DPW Yard
New Rochelle, New York
NYSDEC BCP Site No.: C360101
Langan Project No.: 170331705

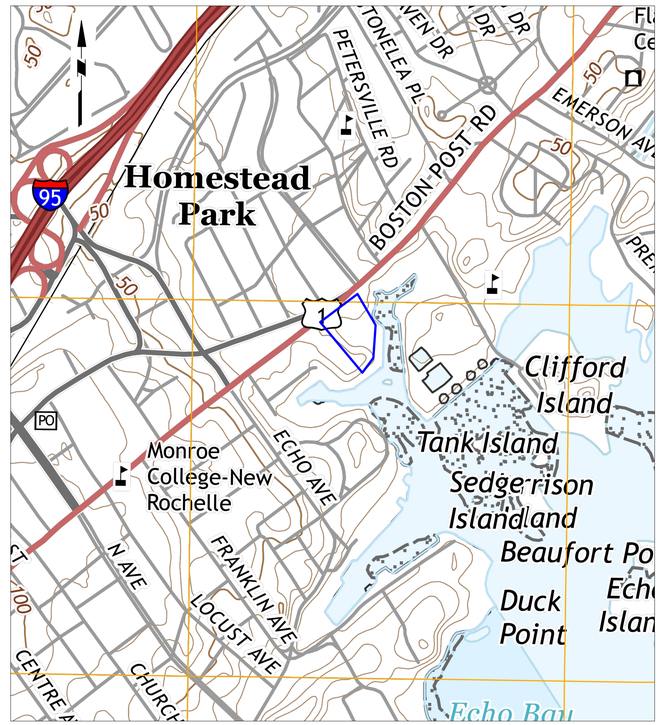
Monitoring Well ID	Physical Access Limitations	Well Inner Diameter (inch)	Well Casing and Screen Type	Pre-Packed Well Screen	Well Screen Slot Size (inch)	Well Screen Length (ft)	Approx. Borehole Diameter (inch)	Filter Pack Thickness (inch)	Filter Pack Type	Drilling/Installation Method	Drill Casing ID (inch)	Drill Casing OD (inch)
EW33	No	2	Sch. 40 PVC	Yes	0.01	10	4.5	1.25	WG #000	Direct Push	3.75	4.5
EW34	No	2	Sch. 40 PVC	Yes	0.01	10	4.5	1.25	WG #000	Direct Push	3.75	4.5
EW35	No	2	Sch. 40 PVC	Yes	0.01	10	4.5	1.25	WG #000	Direct Push	3.75	4.5

General Well Construction Notes:

1. A 6-inch bedding layer of filter pack will be placed at bottom of each borehole before placing well screen
2. The top of the well screen will be installed about 2 to 3 feet above the observed water table to account for seasonal fluctuations of the water table elevation.
3. Filter pack will extend about 2 feet above top of well screen
4. Filter pack will be clean, inert, manufactured filtration sand/gravel media
5. A 2-foot thick bentonite (sodium bentonite) seal will be placed above the top of filter pack. Bentonite seal will be hydrated using drinking water from a public water supply source and allowed to set for a minimum of 30-60 minutes (or as directed by manufacturer) before continuing with the remainder of well construction.
6. Well annulus above bentonite seal to be filled with filter pack or a cement-bentonite mixture.
7. Monitoring wells to be completed with an 8-inch-diameter flush mounted manhole cover and well plug.

FIGURES





SITE LOCATION MAP

SCALE: 1" = 570'

LEGEND

- APPROXIMATE SITE BOUNDARY
- EXISTING ABOVE GRADE STRUCTURE
- APPROXIMATE LOCATION OF WATER AND SEWER EASEMENTS
- APPROXIMATE EXTENT OF SHALLOW BEDROCK (1 TO 4 FEET BSG)
- APPROXIMATE EXTENT OF ON-SITE PETROLEUM BULK STORAGE
- APPROXIMATE EXTENT OF VEHICLE FUELING AND WASHDOWN STATIONS
- APPROXIMATE EXTENTS OF BCP SWAP AREA

NOTES:

1. BASE MAP OF SITE LOCATION MAP IS TAKEN FROM UNITED STATES GEOLOGIC SURVEY (USGS) MOUNT VERNON QUADRANGLE NEW YORK 7.5-MINUTE SERIES, DATED 2016.
2. BASE MAP OF THE SITE PLAN IS REFERENCED FROM APRIL 21, 2020 (REVISED JULY 26, 2022) PROPOSED BROWNFIELD FIGURE SURVEY PREPARED BY LANGAN.
3. ALL ELEVATIONS PRESENTED ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. DEVELOPMENT PLAN REFERENCED FROM AUGUST 17, 2022 BROWNFIELD OVERLAY PROVIDED BY EDI INTERNATIONAL PC.
5. BSG - BELOW SITE GRADE
6. UST - UNDERGROUND STORAGE TANK
7. AST - ABOVEGROUND STORAGE TANK
8. BROWNFIELD CLEANUP PROGRAM (BCP) SWAP AREA CONSISTS OF AN APPROXIMATELY 16,215 SQUARE FOOT AREA PREVIOUSLY WITHIN THE CITY DEPARTMENT OF PUBLIC WORKS (DPW) YARD BCP SITE (C360101) BOUNDARY THAT WAS TRANSFERRED TO THE AMN SITE (C360201) VIA A BROWNFIELD CLEANUP AGREEMENT (BCA) AMENDMENT).

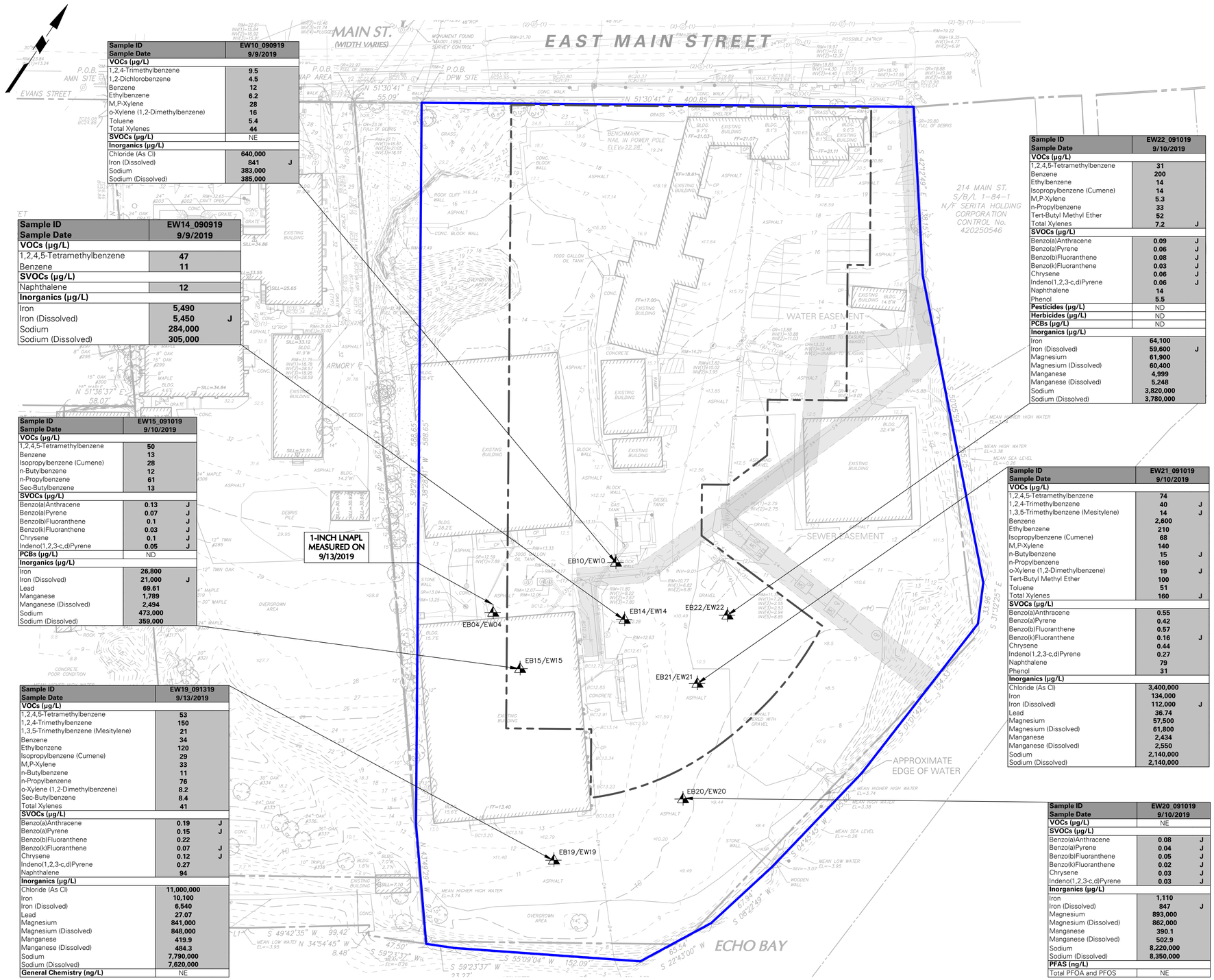
WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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Project	CITY DPW YARD 224 EAST MAIN STREET SECTION 1, BLOCK No. 84, LOT No. 5 NEW ROCHELLE WESTCHESTER NEW YORK
Figure Title	SITE PLAN AND LOCATION MAP
Project No.	170331705
Date	5/13/2026
Drawn By	FC
Checked By	LPG
Figure No.	1
Sheet	1 of 3

Filename: \\Langan.com\data\NYC\data7\170331701\Cadd Data - 170331701\SheetFiles\Environmental\DPW - RD\WP\Figure 1 - Site Plan and Location Map.dwg Date: 5/13/2026 Time: 16:46 User: lgrose Style Table: Langan.stb Layout: Site Plan And Location Map

LANGAN PROJECT NO. 170331702



Sample ID	EW10_090919	
Sample Date	9/9/2019	
VOCs (µg/L)		
1,2,4-Trimethylbenzene	9.5	
1,2-Dichlorobenzene	4.5	
Benzene	12	
Ethylbenzene	6.2	
M,P-Xylene	28	
o-Xylene (1,2-Dimethylbenzene)	16	
Toluene	5.4	
Total Xylenes	44	
SVOCs (µg/L)	NE	
Inorganics (µg/L)		
Chloride (As Cl)	640,000	
Iron (Dissolved)	841	J
Sodium	383,000	
Sodium (Dissolved)	385,000	

Sample ID	EW14_090919	
Sample Date	9/9/2019	
VOCs (µg/L)		
1,2,4,5-Tetramethylbenzene	47	
Benzene	11	
SVOCs (µg/L)		
Naphthalene	12	
Inorganics (µg/L)		
Iron	5,490	
Iron (Dissolved)	5,450	J
Sodium	284,000	
Sodium (Dissolved)	305,000	

Sample ID	EW15_091019	
Sample Date	9/10/2019	
VOCs (µg/L)		
1,2,4,5-Tetramethylbenzene	50	
Benzene	13	
Isopropylbenzene (Cumene)	28	
n-Butylbenzene	12	
n-Propylbenzene	61	
Sec-Butylbenzene	13	
SVOCs (µg/L)		
Benzo(a)Anthracene	0.13	J
Benzo(a)Pyrene	0.07	J
Benzo(b)Fluoranthene	0.1	J
Benzo(k)Fluoranthene	0.03	J
Chrysene	0.1	J
Indeno(1,2,3-c,d)Pyrene	0.05	J
PCBs (µg/L)	ND	
Inorganics (µg/L)		
Iron	26,800	
Iron (Dissolved)	21,000	J
Lead	69.61	
Manganese	1,789	
Manganese (Dissolved)	2,494	
Sodium	473,000	
Sodium (Dissolved)	359,000	

Sample ID	EW19_091319	
Sample Date	9/13/2019	
VOCs (µg/L)		
1,2,4,5-Tetramethylbenzene	53	
1,2,4-Trimethylbenzene	150	
1,3,5-Trimethylbenzene (Mesitylene)	21	
Benzene	34	
Ethylbenzene	120	
Isopropylbenzene (Cumene)	29	
M,P-Xylene	33	
n-Butylbenzene	11	
n-Propylbenzene	76	
o-Xylene (1,2-Dimethylbenzene)	8.2	
Sec-Butylbenzene	8.4	
Total Xylenes	41	
SVOCs (µg/L)		
Benzo(a)Anthracene	0.19	J
Benzo(a)Pyrene	0.15	J
Benzo(b)Fluoranthene	0.22	
Benzo(k)Fluoranthene	0.07	J
Chrysene	0.12	J
Indeno(1,2,3-c,d)Pyrene	0.27	
Naphthalene	94	
Inorganics (µg/L)		
Chloride (As Cl)	11,000,000	
Iron	10,100	
Iron (Dissolved)	6,540	
Lead	27.07	
Magnesium	841,000	
Magnesium (Dissolved)	848,000	
Manganese	419.9	
Manganese (Dissolved)	494.3	
Sodium	7,790,000	
Sodium (Dissolved)	7,620,000	
General Chemistry (ng/L)	NE	

Sample ID	EW22_091019	
Sample Date	9/10/2019	
VOCs (µg/L)		
1,2,4,5-Tetramethylbenzene	31	
Benzene	200	
Ethylbenzene	14	
Isopropylbenzene (Cumene)	14	
M,P-Xylene	5.3	
n-Propylbenzene	33	
Tert-Butyl Methyl Ether	52	
Total Xylenes	7.2	J
SVOCs (µg/L)		
Benzo(a)Anthracene	0.09	J
Benzo(a)Pyrene	0.06	J
Benzo(b)Fluoranthene	0.08	J
Benzo(k)Fluoranthene	0.03	J
Chrysene	0.06	J
Indeno(1,2,3-c,d)Pyrene	0.06	J
Naphthalene	14	
Phenol	5.5	
Pesticides (µg/L)	ND	
Herbicides (µg/L)	ND	
PCBs (µg/L)	ND	
Inorganics (µg/L)		
Iron	64,100	
Iron (Dissolved)	59,600	J
Magnesium	61,900	
Magnesium (Dissolved)	60,400	
Manganese	4,999	
Manganese (Dissolved)	5,248	
Sodium	3,820,000	
Sodium (Dissolved)	3,780,000	

Sample ID	EW21_091019	
Sample Date	9/10/2019	
VOCs (µg/L)		
1,2,4,5-Tetramethylbenzene	74	
1,2,4-Trimethylbenzene	40	J
1,3,5-Trimethylbenzene (Mesitylene)	14	J
Benzene	2,600	
Ethylbenzene	210	
Isopropylbenzene (Cumene)	68	
M,P-Xylene	140	
n-Butylbenzene	15	J
n-Propylbenzene	160	
o-Xylene (1,2-Dimethylbenzene)	19	J
Tert-Butyl Methyl Ether	100	
Toluene	51	
Total Xylenes	160	J
SVOCs (µg/L)		
Benzo(a)Anthracene	0.55	
Benzo(a)Pyrene	0.42	
Benzo(b)Fluoranthene	0.57	
Benzo(k)Fluoranthene	0.16	J
Chrysene	0.44	
Indeno(1,2,3-c,d)Pyrene	0.27	
Naphthalene	79	
Phenol	31	
Inorganics (µg/L)		
Chloride (As Cl)	3,400,000	
Iron	134,000	
Iron (Dissolved)	112,000	J
Lead	36.74	
Magnesium	57,500	
Magnesium (Dissolved)	61,800	
Manganese	2,434	
Manganese (Dissolved)	2,550	
Sodium	2,140,000	
Sodium (Dissolved)	2,140,000	

Sample ID	EW20_091019	
Sample Date	9/10/2019	
VOCs (µg/L)	NE	
SVOCs (µg/L)		
Benzo(a)Anthracene	0.08	J
Benzo(a)Pyrene	0.04	J
Benzo(b)Fluoranthene	0.05	J
Benzo(k)Fluoranthene	0.02	J
Chrysene	0.03	J
Indeno(1,2,3-c,d)Pyrene	0.03	J
Inorganics (µg/L)		
Iron	1,110	
Iron (Dissolved)	847	J
Magnesium	893,000	
Magnesium (Dissolved)	862,000	
Manganese	390.1	
Manganese (Dissolved)	502.9	
Sodium	8,220,000	
Sodium (Dissolved)	8,350,000	
PFAS (ng/L)		
Total PFOA and PFOS	NE	

LEGEND

APPROXIMATE SITE BOUNDARY

EB14/EW14 APPROXIMATE SOIL BORING AND MONITORING WELL LOCATION (RI, LANGAN, 2019)

Analyte	NYSDEG SGVs	USEPA Health Advisory for Emerging Contaminants
VOCs (µg/L)		
1,2,4,5-Tetramethylbenzene	5	~
1,2,4-Trimethylbenzene	5	~
1,2-Dichlorobenzene	3	~
1,3,5-Trimethylbenzene (Mesitylene)	5	~
Benzene	1	~
Ethylbenzene	5	~
Isopropylbenzene (Cumene)	5	~
M,P-Xylene	5	~
Naphthalene	10	~
n-Butylbenzene	5	~
n-Propylbenzene	5	~
o-Xylene (1,2-Dimethylbenzene)	5	~
Sec-Butylbenzene	5	~
Tert-Butyl Methyl Ether	10	~
Toluene	5	~
Total Xylenes	5	~
SVOCs (µg/L)		
Benzo(a)Anthracene	0.002	~
Benzo(a)Pyrene	0	~
Benzo(b)Fluoranthene	0.002	~
Benzo(k)Fluoranthene	0.002	~
Chrysene	0.002	~
Indeno(1,2,3-c,d)Pyrene	0.002	~
Naphthalene	10	~
Phenol	1	~
Inorganics (µg/L)		
Antimony	3	~
Chloride (As Cl)	250,000	~
Iron	300	~
Lead	25	~
Magnesium	35,000	~
Manganese	300	~
Sodium	20,000	~
PFAS (ng/L)		
Perfluorooctanesulfonic acid (PFOS)	~	70
Perfluorooctanoic Acid (PFOA)	~	70
Total PFOA and PFOS	~	70

GENERAL NOTES

1. BASE MAP IS TAKEN FROM THE DRAFT BOUNDARY & TOPOGRAPHIC SURVEY, PREPARED BY LANGAN, DATED 10/4/2019.
2. ALL ELEVATIONS PRESENTED HEREIN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. SAMPLE LOCATIONS ARE APPROXIMATE AND WERE MEASURED OFF OF SURVEYED BUILDINGS.
4. ANALYTICAL RESULTS ARE PRESENTED IN MICROGRAMS PER LITER (µg/L).
5. ND - NOT DETECTED
6. NE - NO EXCEEDANCE
7. RL - REPORTING LIMIT
8. RI - REMEDIAL INVESTIGATION
9. SRI - SUPPLEMENTAL REMEDIAL INVESTIGATION
10. VOC - VOLATILE ORGANIC COMPOUNDS
11. SVOC - SEMIVOLATILE ORGANIC COMPOUNDS
12. <RL - NOT DETECTED
13. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 703.5 AND THE NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES FOR GLASS GA WATER (COLLECTIVELY REFERENCED AS 'NYSDEC SGVs').
14. REGULATORY CRITERIA DO NOT EXIST FOR PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) AND 1,4-DIOXANE IN NEW YORK STATE. PERFLUOROOCTANOIC ACID (PFOA) AND PERFLUOROOCTANESULFONIC ACID (PFOS) ARE COMPARED TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) HEALTH ADVISORY LIMIT OF 70 PARTS PER TRILLION, WHICH IS EQUIVALENT TO 70 NANOGRAMS PER LITER (ng/L).
15. ABOUT 1-INCH THICK LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) PETROLEUM WAS OBSERVED IN EW04 (9/13/2019) AND WAS ANALYZED FOR PETROLEUM IDENTIFICATION FINGERPRINT.
16. DETECTED ANALYTICAL RESULTS ABOVE THE NYSDEC SGVs ARE BOLDED AND SHADED.
17. DETECTED ANALYTICAL RESULTS ABOVE THE USEPA HEALTH ADVISORY LIMIT ARE BOLDED.

QUALIFIERS

J - THE ANALYTE WAS DETECTED ABOVE THE METHOD DETECTION LIMIT (MDL), BUT BELOW THE RL; THEREFORE, THE RESULT IS AN ESTIMATED CONCENTRATION.
U - THE ANALYTE WAS ANALYZED FOR, BUT WAS NOT DETECTED AT A LEVEL GREATER THAN OR EQUAL TO THE RL; THE VALUE SHOWN IN THE TABLE IS THE RL.

40 0 10 25 40
SCALE IN FEET

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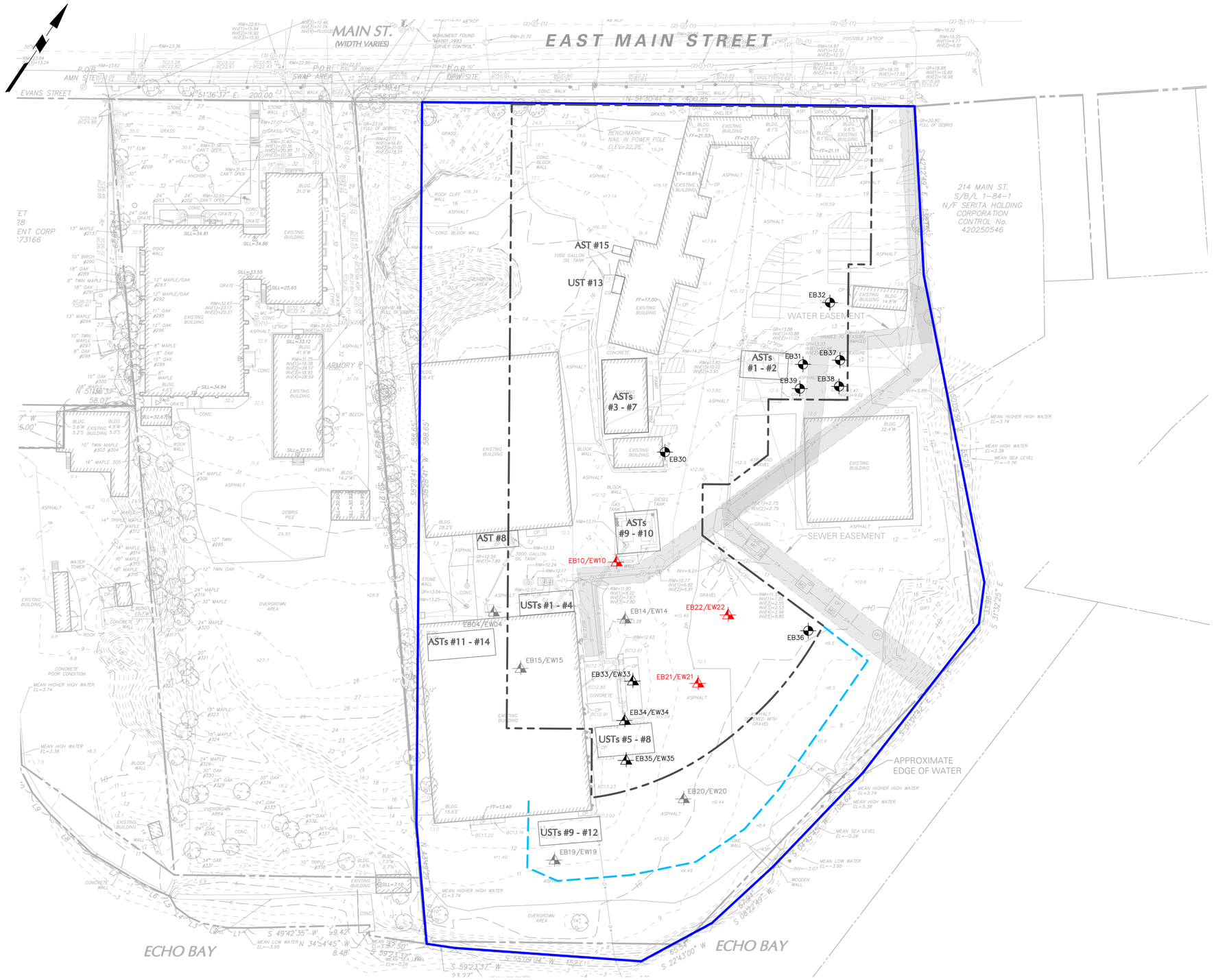
Project
CITY DPW YARD
224 EAST MAIN STREET
SECTION 1, BLOCK No. 84, LOT No. 5
NEW ROCHELLE
WESTCHESTER NEW YORK

Figure Title
GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP

Project No. 170331705
Date 6/18/2026
Drawn By FC
Checked By LPG
Figure No. 2
Sheet 2 of 3

PROJECT NO. 170331702

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LEGEND

- APPROXIMATE SITE BOUNDARY
- APPROXIMATE EXTENTS OF PROPOSED CELLAR AND SUB-CELLAR AND DEVELOPMENT RELATED EXCAVATION TO EL +6
- EB14/EW14 — APPROXIMATE SOIL BORING AND MONITORING WELL LOCATION (RI, LANGAN, 2019)
- EB10/EW10 — APPROXIMATE SOIL BORING AND MONITORING WELL LOCATION WITH PETROLEUM-LIKE IMPACTS (RI, LANGAN, 2019)
- EB30 — PROPOSED SOIL BORING LOCATION
- EB33/EW33 — PROPOSED SOIL BORING AND MONITORING WELL LOCATION
- APPROXIMATE PROPOSED IN-SITU GROUNDWATER TREATMENT BARRIER

GENERAL NOTES

1. BASE MAP IS TAKEN FROM THE DRAFT BOUNDARY & TOPOGRAPHIC SURVEY, PREPARED BY LANGAN, DATED 10/4/2019.
2. ALL ELEVATIONS PRESENTED HEREIN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. SAMPLE LOCATIONS ARE APPROXIMATE AND WERE MEASURED OFF OF SURVEYED BUILDINGS.
4. PROPOSED REMEDIAL DESIGN INVESTIGATION SAMPLING LOCATIONS ARE APPROXIMATE AND MAY CHANGE BASED ON FIELD CONDITIONS.
5. BCP - BROWNFIELD CLEANUP PROGRAM
6. RI - REMEDIAL INVESTIGATION
7. SRI - SUPPLEMENTAL REMEDIAL INVESTIGATION
8. EL - ELEVATION
9. PROPOSED IN-SITU GROUNDWATER TREATMENT BARRIER ENCOMPASSES AN APPROXIMATELY 450-LINEAR-FOOT EXTENT.

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PROJECT NO. 170331705

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Project	CITY DPW YARD 224 EAST MAIN STREET SECTION 1, BLOCK No. 84, LOT No. 5 NEW ROCHELLE
Figure Title	SAMPLE LOCATION PLAN
Project No.	170331705
Date	9/1/2026
Drawn By	FC
Checked By	LPG
Figure No.	3
	Sheet 3 of 3

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