LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

13 September 2022

Mr. Christopher Allan
New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, New York 11101

Re: Supplemental Remedial Investigation Work Plan
990-1026 Rossville Avenue
Staten Island, New York
BCP Site No. C243043
Langan Project No.: 100849501

Dear Mr. Allan:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C (Langan) prepared this Supplemental Remedial Investigation Work Plan (SRIWP) on behalf of Allied Rossville LLC (the Participant) for the property at 990-1026 Rossville Avenue in Staten Island, New York (the site) (Figure 1). The site was accepted into the New York State Brownfield Cleanup Program (BCP) (BCP Site No. C243043) and a Brownfield Cleanup Agreement (BCA) was executed on 10 August 2020.

The New York Department of Environmental Conservation (NYSDEC) has requested that the scope of work outlined in the draft 18 May 2022 Remedial Action Work Plan (RAWP) include a soil remedy in the area of exceedances above the NYSDEC Protection of Groundwater Soil Cleanup Objectives (SCOs) behind the on-site dry cleaner. The Subsurface Investigation completed at the site in 2020 revealed the presence of chlorinated volatile organic compounds (CVOCs), including tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride, at boring location LSB-1 at 2.5 to 3 feet below ground surface (bgs) in the vadose zone at concentrations above the NYSDEC Protection of Groundwater SCOs. The LSB-1 location is shown on Figure 2.

Additional investigation is proposed to delineate the impacts in the area of LSB-1 and the SRIWP provides for this assessment. The proposed work scope will be implemented in accordance with the provisions provided in the 27 January 2021 NYSDEC-approved Remedial Investigation Work Plan (RIWP).

SCOPE OF WORK

A delineation investigation will be completed to supplement the draft February 2022 Remedial Investigation Report (RIR) and determine the extents of the CVOC impacts in the vadose zone above the NYSDEC Protection of Groundwater SCOs behind the dry cleaner. An environmental drilling subcontractor will advance 18 soil borings on-site (LSB-23 through LSB-40) to the water table (anticipated to be up to 10 feet bgs) as part of the investigation. A proposed sample location plan is provided as Figure 3. Soil borings will be advanced using direct push drilling or Sonic drilling methods in compliance with Section 3.3.1 of the RIWP. A Langan field engineer, scientist, or geologist will document the work, screen the soil samples for environmental impacts, and collect soil samples for laboratory analyses in compliance with Sections 3.3.1 and 3.3.2 of the RIWP. Soil will be screened continuously to the boring termination depth for total organic vapor (TOV) concentration using a photoionization detector (PID) equipped with a 10.6 electron volt (eV) bulb, and for visual and olfactory indications of environmental impacts (e.g., staining and odor). Soil descriptions will be recorded in boring logs.

Four samples will be collected at each of the soil borings in compliance with Section 3.3.2 of the RIWP: at the interval of CVOC impacts detected at LSB-1 (2.5 to 3 feet bgs); 4.5 to 5 feet bgs; 6.5 to 7 feet bgs; and immediately above observed groundwater, anticipated to be 9.5 to 10 feet bgs. The samples collected at the borings advanced at the previous LSB-1 location (LSB-23) and at the four nearest offset locations (LSB-24 through LSB-27) will be submitted to the laboratory for CVOC analysis. The 52 CVOC samples collected from the remaining 13 borings will be collected, submitted to the laboratory, and held by the laboratory. Their CVOC analysis will be activated as needed pending review of the analytical results for the 20 samples collected across LSB-23 through LSB-27 in order to delineate the NYSDEC Protection of Groundwater SCOs exceedances. Field blanks, duplicate soil samples, and Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples will be collected at a rate of one per 20 samples and will be analyzed for CVOCs in accordance with the Quality Assurance Project Plan (QAPP). Trip blanks will also be collected at a rate of one per day per the QAPP.

Soil samples will be collected in laboratory-supplied containers and will be sealed, labeled, and placed in a cooler containing ice (to maintain a temperature of approximately 4 degrees Celsius) for delivery to Alpha Analytical, Inc. (Alpha), a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory.

The SRIWP will be implemented in accordance with the procedures outlined in the January 2021 NYSDEC-approved RIWP, including the Health and Safety Plan (HASP), Community Air Monitoring Plan (CAMP), and QAPP, and will begin within 45 days of NYSDEC-approval of this work plan.

Reporting

The results of the delineation investigation will be incorporated into a revised draft of the RAWP. The revised draft will also incorporate a vadose zone remedy to address the confirmed extents of the CVOC impacts that exceed the protection of groundwater SCOs. Analytical Service Protocol (ASP) Category B deliverables will be prepared by the laboratory, the soil analytical results will be validated in accordance with our QAPP and analytical the results will also be uploaded to the NYSDEC's EQuIS environmental information management system.

Certification

I, Christopher McMahon, 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 SRIWP was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation.

Sincerely,
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

Christopher McMahon, CHMM
Associate

Steven Ciambruschini, P.G.
Senior Principal / Senior Vice President

SAC:JF:kn
Attachments: Figures

cc: Mandy Yau, Cris-Sandra Maycock, Jane O'Connell – NYSDEC
Jeff Kay, Ken Konfong – Allied Rossville LLC
Jennifer Coghlan – Sive, Paget & Riesel P.C.
Jessica Friscia – Langan

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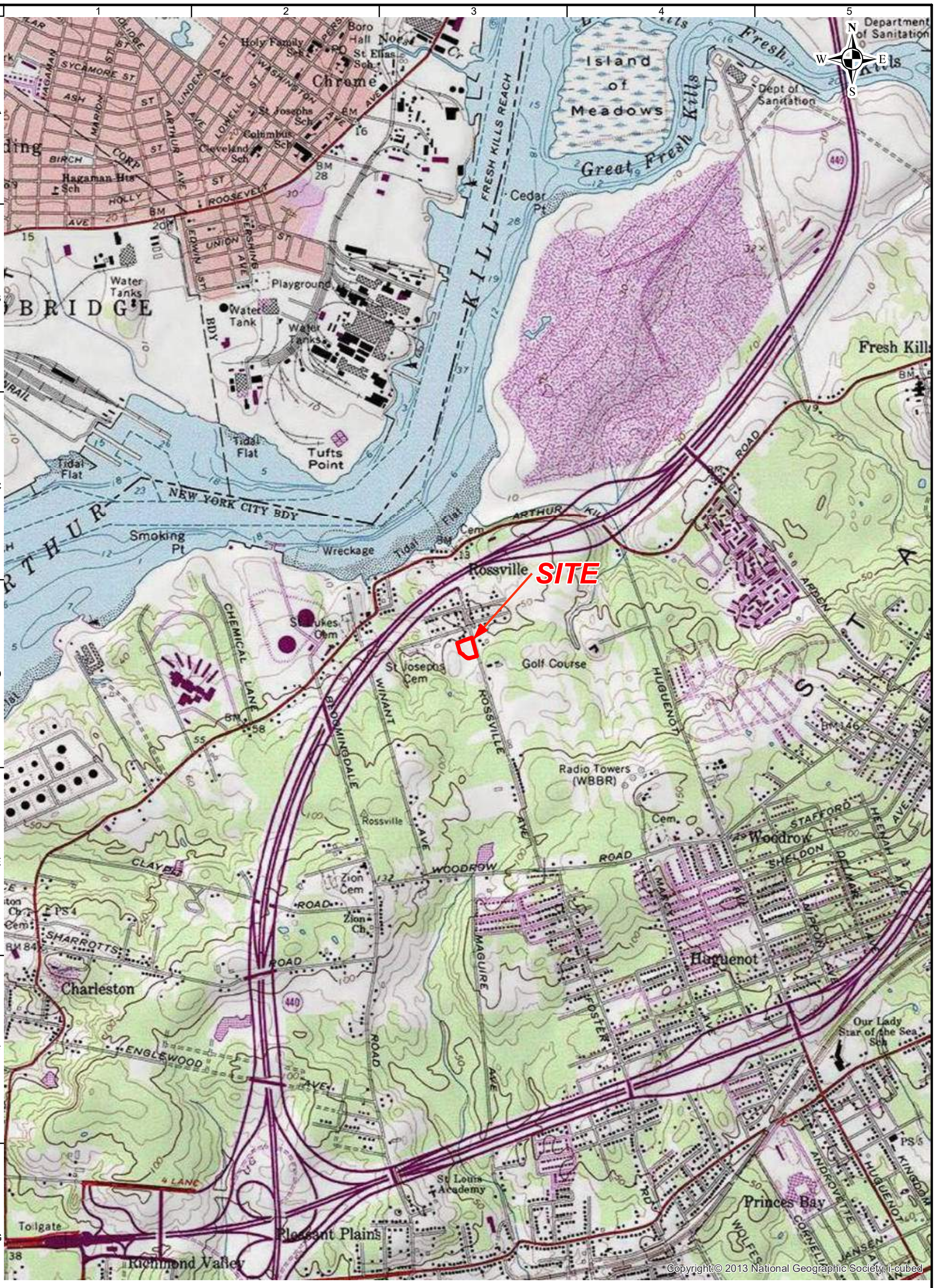
FIGURES



Notes:
1. USGS Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS Online.
2. Parcel information from MapPLUTO 18v2 copyrighted by the New York City Department of Planning, last updated 2018.

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SCALE IN FEET

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

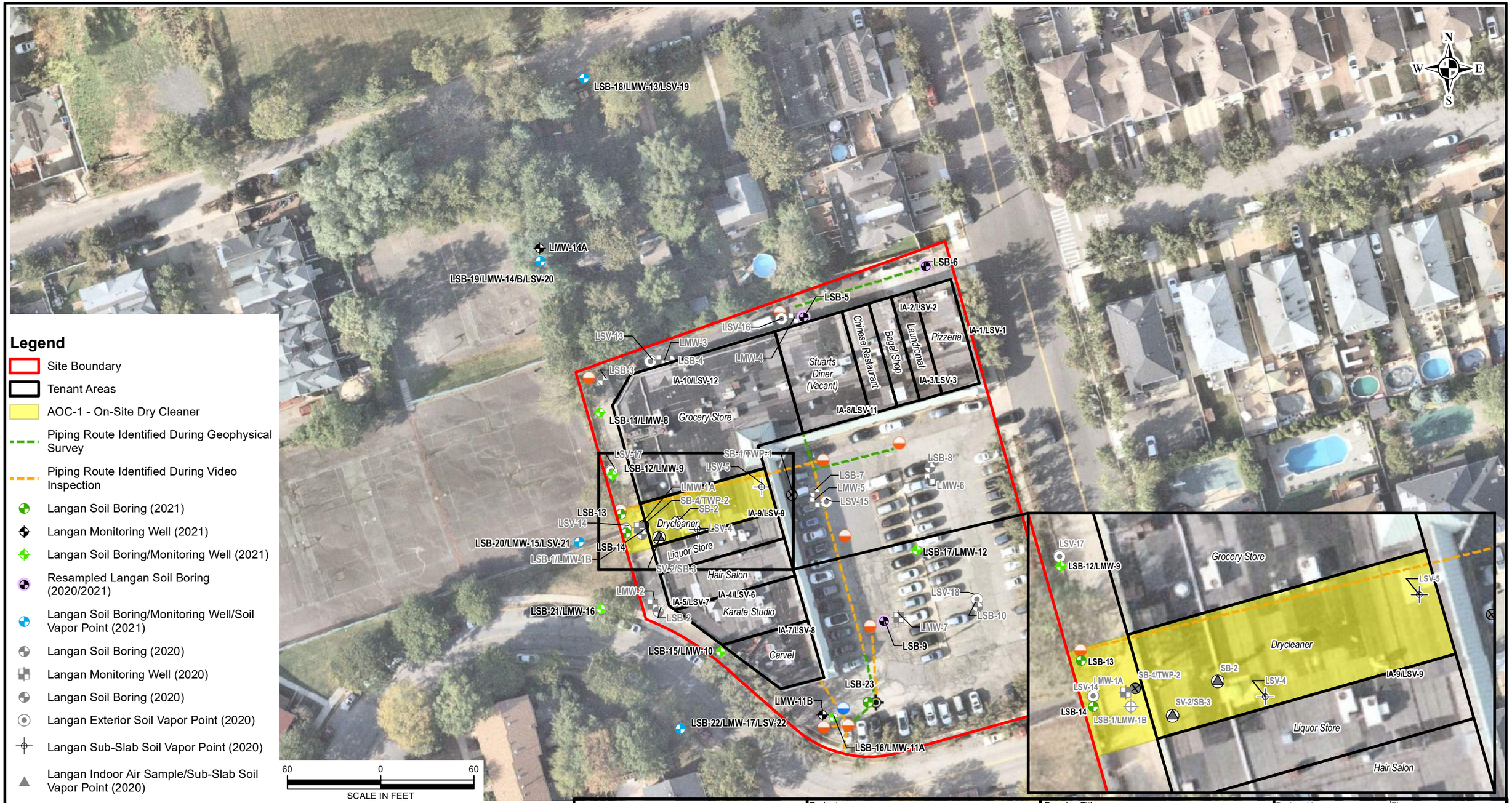
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
990-1026
ROSSVILLE AVENUE
BLOCK No. 7054, LOT No. 518
STATEN ISLAND NEW YORK

Drawing Title
USGS SITE LOCATION MAP

Project No.	Figure
100849501	1
Date: 5/17/2022	
Scale: 1 " = 2,000 '	
Drawn By: ATR	

Path: \\langan.com\data\PAR\data5\100849501\Project Data\ArcGIS\MXD\Environmental_Figures\2022-05 RAWP\Figure 1 - Site Location Map.mxd Date: 5/17/2022 User: ibaker Time: 2:45:18 PM



Legend

- Site Boundary
- Tenant Areas
- AOC-1 - On-Site Dry Cleaner
- Piping Route Identified During Geophysical Survey
- Piping Route Identified During Video Inspection
- Langan Soil Boring (2021)
- Langan Monitoring Well (2021)
- Langan Soil Boring/Monitoring Well (2021)
- Resampled Langan Soil Boring (2020/2021)
- Langan Soil Boring/Monitoring Well/Soil Vapor Point (2021)
- Langan Soil Boring (2020)
- Langan Monitoring Well (2020)
- Langan Soil Boring (2020)
- Langan Exterior Soil Vapor Point (2020)
- Langan Sub-Slab Soil Vapor Point (2020)
- Langan Indoor Air Sample/Sub-Slab Soil Vapor Point (2020)
- EBI Soil Boring/Monitoring Well (2019)
- EBI Soil Boring/Sub-Slab Soil Vapor Point (2019)
- Catch Basin
- Dry Well
- Inaccessible Manhole Cover

Notes:
1. Aerial imagery provided through Langan's subscription to NearMap, imagery dated September 27, 2019.
2. Parcel information from MapPLUTO 20v1 copyrighted by the New York City Department of Planning.
3. Langan soil boring, 2021 monitoring well, soil vapor point, indoor air/sub-slab soil vapor point, catch basin, dry well, and drainage piping locations are approximate and based on field measurements.
4. Langan 2020 monitoring well locations are based on locations surveyed by a licensed surveyor.
5. EBI sample locations obtained from "Figure 3 - Sample Location Map" provided in the Phase II Environmental Assessment dated 28 October 2019.

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Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
990-1026 ROSSVILLE AVENUE

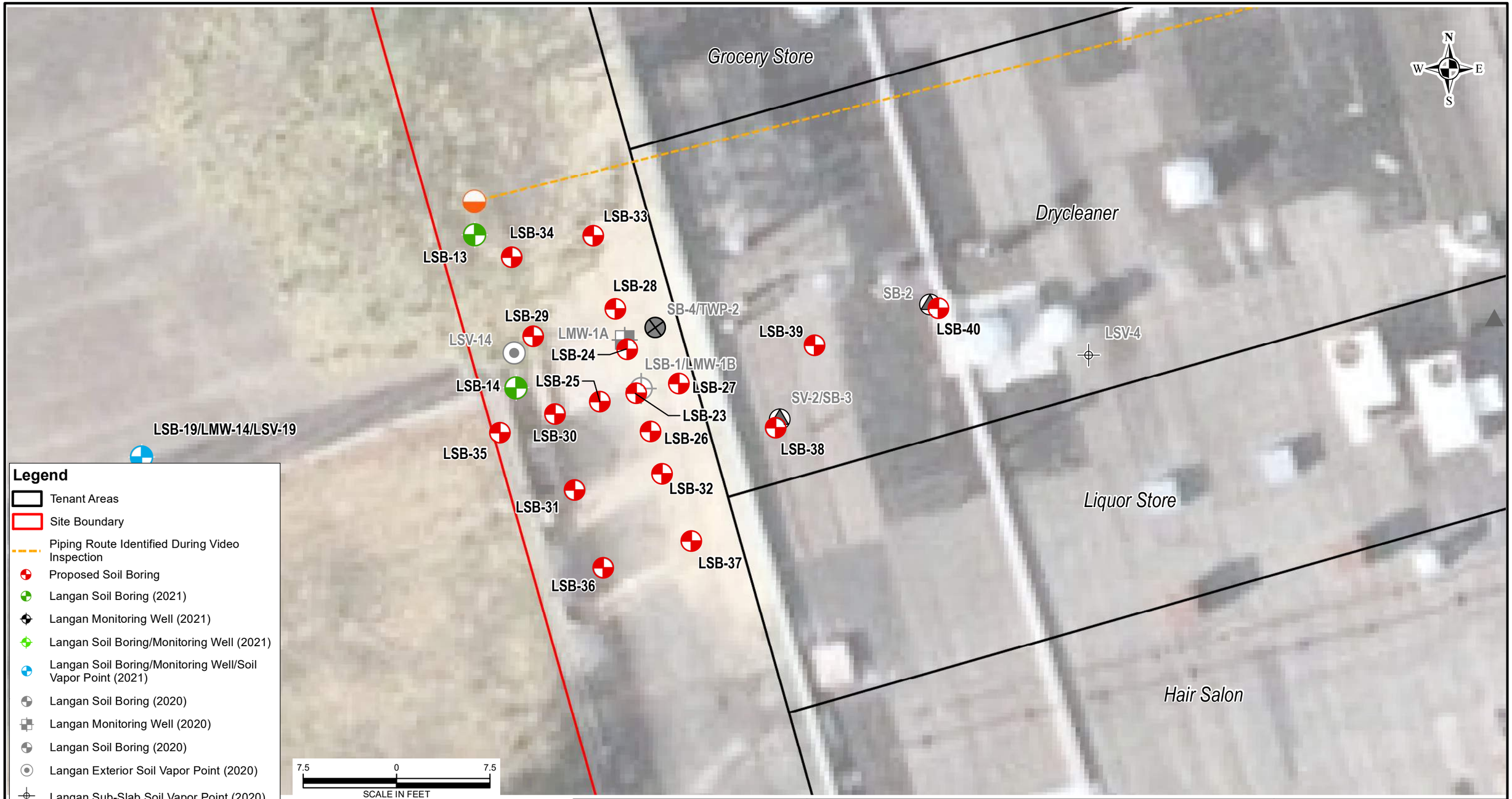
BLOCK No. 7054, LOT No. 518

STATEN ISLAND NEW YORK

Drawing Title
SITE PLAN

Project No.	100849501
Date	5/17/2022
Scale	As Noted
Drawn By	ATR
Figure	2

Path: \\langan.com\data\PAR\data5\100849501\Project Data\ArcGIS\MXD\Environmental Figures\2022-05 RAWP\Figure 2 - Site Plan.mxd Date: 5/17/2022 User: ibaker Time: 2:22:31 PM



Legend

- Tenant Areas
- Site Boundary
- Piping Route Identified During Video Inspection
- Proposed Soil Boring
- Langan Soil Boring (2021)
- Langan Monitoring Well (2021)
- Langan Soil Boring/Monitoring Well (2021)
- Langan Soil Boring/Monitoring Well/Soil Vapor Point (2021)
- Langan Soil Boring (2020)
- Langan Monitoring Well (2020)
- Langan Soil Boring (2020)
- Langan Exterior Soil Vapor Point (2020)
- Langan Sub-Slab Soil Vapor Point (2020)
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- EBI Soil Boring/Monitoring Well (2019)
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- Catch Basin

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Project
990-1026 ROSSVILLE AVENUE
BLOCK No. 7054, LOT No. 518
STATEN ISLAND NEW YORK

Drawing Title
PROPOSED BORING LOCATIONS

Project No.	Figure
100849501	3
Date: 9/1/2022	
Scale: 1" = 7.5'	
Drawn By: IHB	
Submission Date:	

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