

**Progress/Inspection Report No. 21**  
J&H Holding Company, LLC  
491 Wortman Avenue, Brooklyn, NY 11208  
Brownfield Cleanup Program Site No. C224139  
Reporting Period: January – March 2019

**1. Introduction**

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) submits this progress/inspection report on behalf of J&H Holding Company, LLC (the "Participant"). The Final Engineering Report (FER) for the Former Watermark Designs Facility (the "Site") was submitted to the New York State Department of Environmental Conservation (NYSDEC) on May 25, 2017. On June 28, 2017, NYSDEC approved the Site Management Plan (SMP) which outlined a monthly submittal schedule for progress/inspection reports. In accordance with an email from Alicia Barraza dated January 11, 2019, the schedule for progress/inspection reports was recently modified to quarterly. This progress/inspection report covers the period between January and March, 2019.

The Site (Block 4384, Lots 31 & 36) is located at 491 Wortman Avenue in Brooklyn, New York (Figure 1) and consists of a rectangular shaped lot that is about 19,000 square feet ( $\pm 0.44$  acres). The Site is located in an area zoned for industrial/manufacturing use and is bound by Wortman Street to the south, Linwood Street to the west, Essex Street to the east, and a one-story building to the north. Currently, a one-story building with a partial basement covers the entire Site footprint. The one-story building was previously used as a warehouse and office space and is currently vacant.

**2. Remedial Actions Relative to the Site during this Reporting Period**

Continued operation of the air sparge and soil vapor extraction (AS/SVE) system. Langan performed operation, maintenance, and monitoring (OM&M) activities for the AS/SVE system on February 19, 2019.

A Supplemental Design Investigation (SDI) was conducted concurrent to the March 2019 Quarterly Groundwater Sampling event between March 5 and 8, 2019. Follow-up well gauging was completed on March 28, 2019. The purpose of the SDI was to further investigate the chlorinated volatile organic compound (CVOC) concentrations observed at MW-6. The SDI consisted of the advancement of three soil borings, installation of four permanent monitoring wells (MW-17, MW-18S, MW-18M, and MW-19), collection of two in-situ soil samples for visual assessment for AS/SVE design parameters, and collection of 13 groundwater samples for laboratory analysis. Groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs). The sampled monitoring wells are shown on Figures 2A through 2C.

**3. Actions Relative to the Site Anticipated for the Next Reporting Period**

The following activities are planned:

- Continued operation of the AS/SVE system.
- Submission of a letter documenting the results of the SDI.
- Submission of an SMP modification request to modify the post-remediation sampling requirements and schedule (Table 4.5 – Post Remediation Media Monitoring and Sampling of the SMP).
- Performance of AS/SVE system OM&M between April and June, 2019.
- Performance of the Quarterly Groundwater Monitoring Event between April and June, 2019, pending NYSDEC review of the SDI Report.

**4. Approved Activity Modifications (changes of work scope and/or schedule)**

None

**5. Results of Sampling, Testing and Other Relevant Data**

Validated analytical results for the March 2019 Quarterly Groundwater Sampling Event will be submitted to the NYSDEC.

**6. Deliverables Submitted During This Reporting Period**

The aforementioned SDI Work Plan was submitted to the NYSDEC in February 2019 to investigate the persistent CVOC concentrations observed at MW-6 and collect design data to assess if and how the existing AS/SVE system could be modified to more effectively remediate the Site.

**7. Information Regarding Percentage of Completion**

As of March 31, 2019 and since the system was first started, the SVE system operated for 25,495 hours (96% uptime), and the AS system operated for 25,025 hours (94% uptime).

**8. Unresolved Delays Encountered or Anticipated That May Affect the Schedule and Mitigation Efforts**

None

**9. Citizen Participation Plan Activities during This Reporting Period**

None

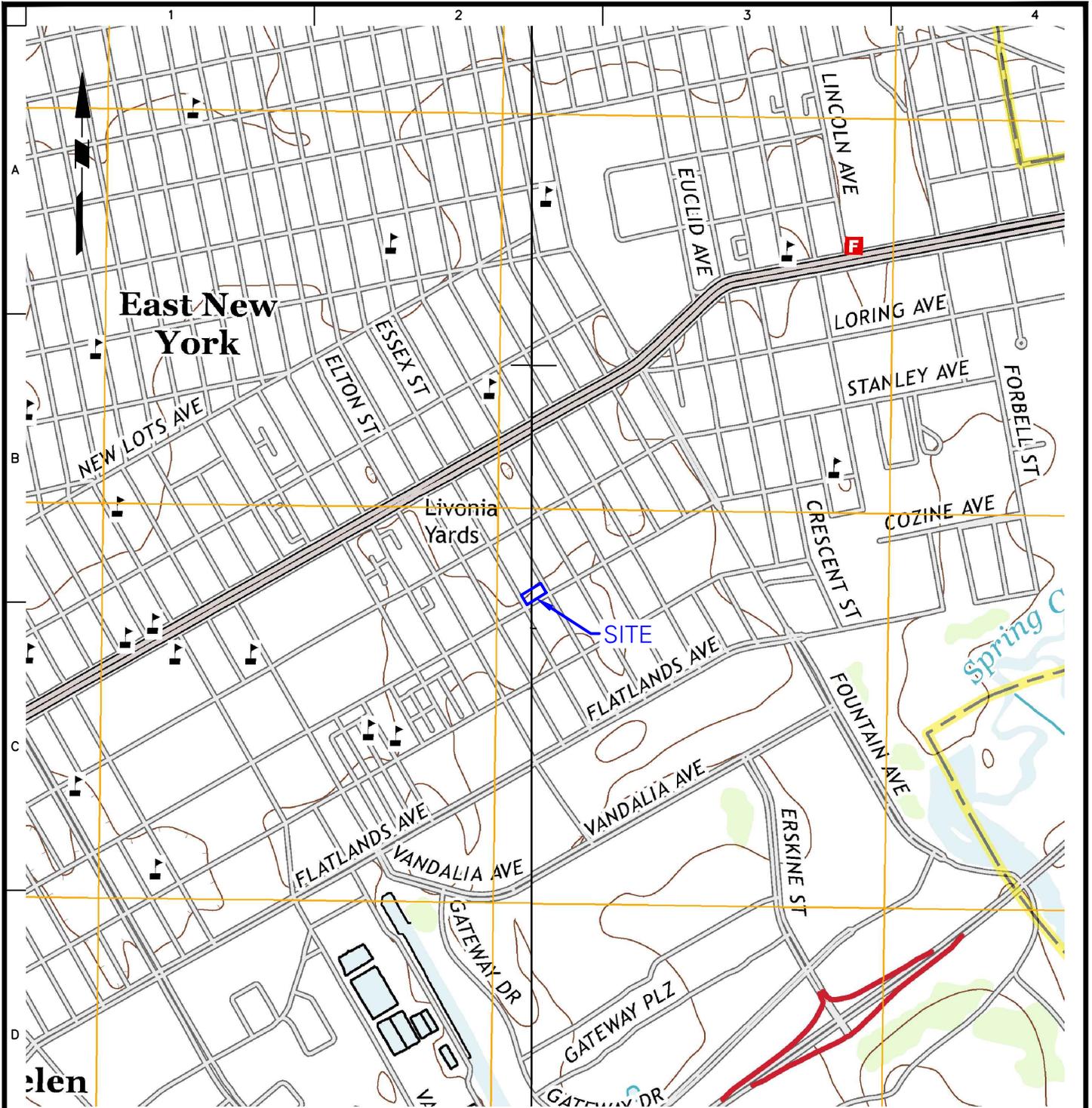
**10. Activities Anticipated in Support of the CPP for the Next Reporting Period**

None

## **11. Miscellaneous Information**

On March 1, 2019, a 60-Day Advance Notification of Site Change of Use was submitted to the NYSDEC. The proposed date for the Change of Use was May 4, 2019; the tentative closing date for sale of the property is April 30, 2019. The Participant responsible for AS/SVE system maintenance and Brownfield Cleanup Program reporting will remain J&H Holding Company, LLC.

## FIGURES



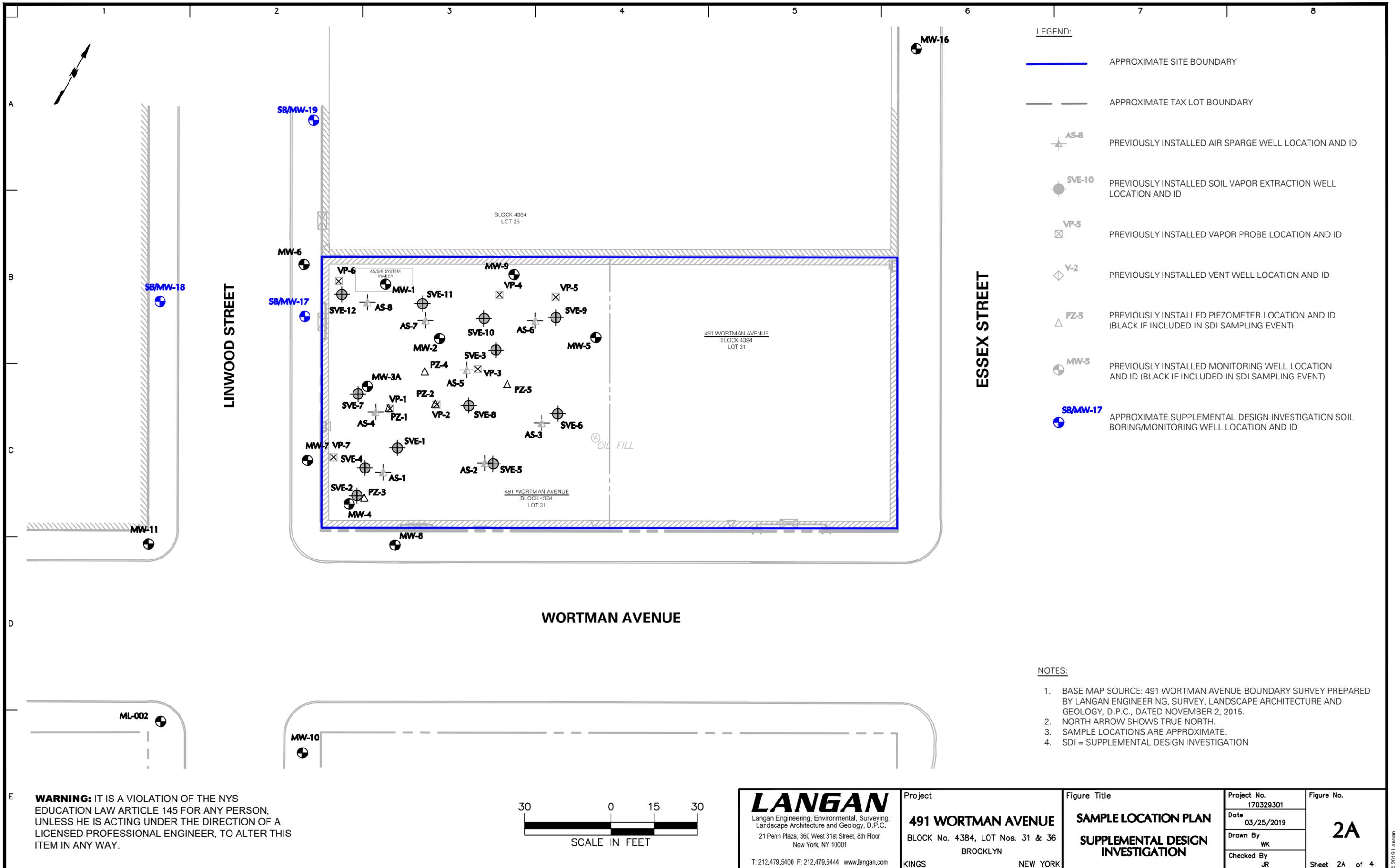
**LEGEND:**

 APPROXIMATE SITE BOUNDARY

NOTE: BASE MAPS ARE REFERENCED FROM THE UNITED STATES GEOLOGICAL SURVEY (USGS) TOPOGRAPHIC QUADRANGLE MAPS FOR BROOKLYN AND JAMAICA.

 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan	Project <b>491 WORTMAN AVENUE</b> BLOCK No. 4384, LOT Nos. 31 & 36 BROOKLYN KINGS NEW YORK	Figure Title <b>SITE LOCATION MAP</b>	Project No. 170329301	Figure <b>1</b>	
			Date 04/18/2015		
				Scale N.T.S.	
				Drawn By MLR	Checked By GN
				Submission Date	Sheet 1 of 3

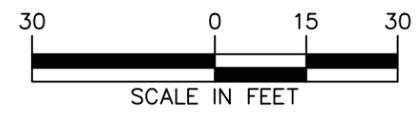
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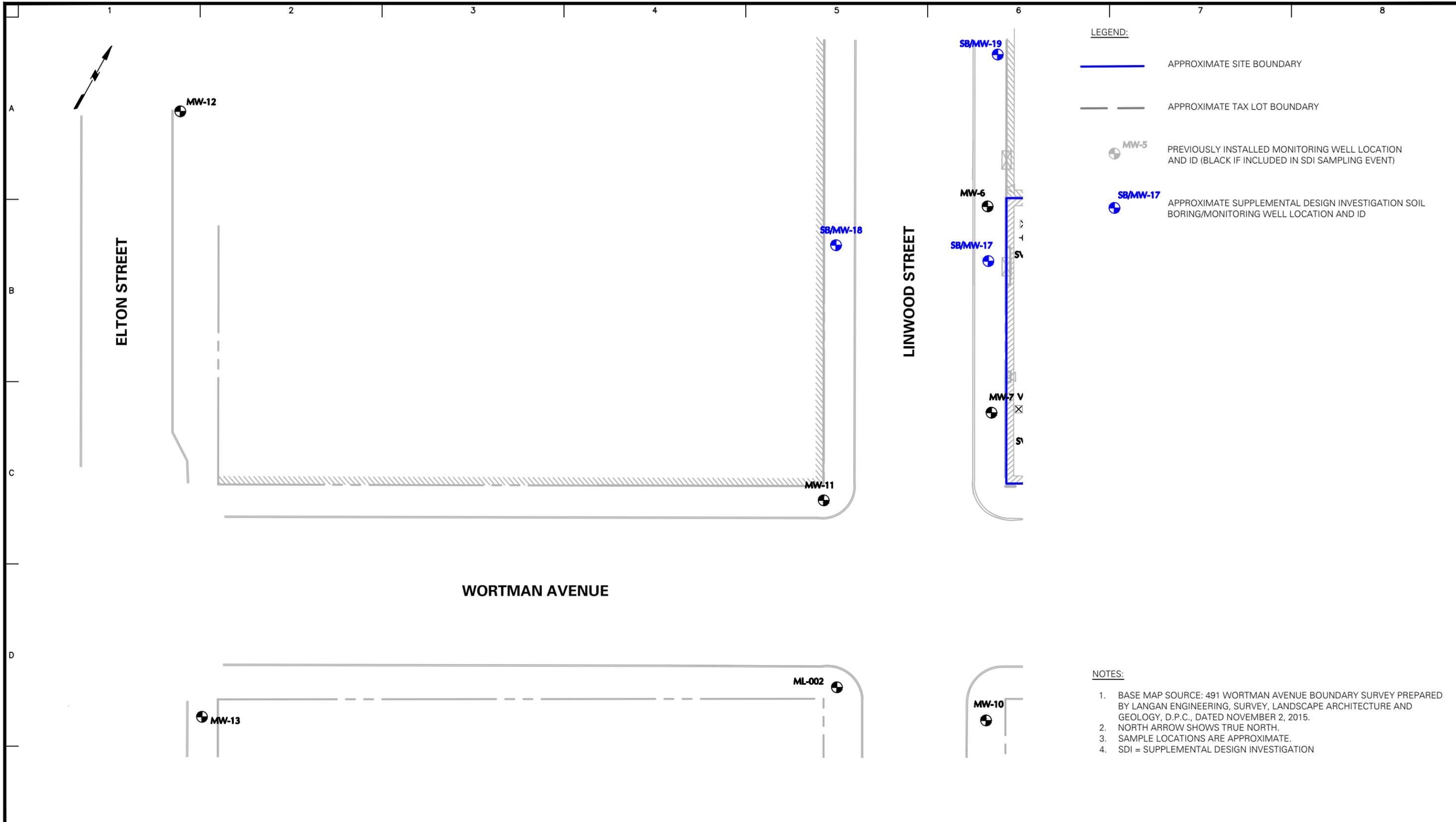
- LEGEND:**
- APPROXIMATE SITE BOUNDARY
  - APPROXIMATE TAX LOT BOUNDARY
  - AS-8 PREVIOUSLY INSTALLED AIR SPARGE WELL LOCATION AND ID
  - SVE-10 PREVIOUSLY INSTALLED SOIL VAPOR EXTRACTION WELL LOCATION AND ID
  - VP-5 PREVIOUSLY INSTALLED VAPOR PROBE LOCATION AND ID
  - V-2 PREVIOUSLY INSTALLED VENT WELL LOCATION AND ID
  - PZ-5 PREVIOUSLY INSTALLED PIEZOMETER LOCATION AND ID (BLACK IF INCLUDED IN SDI SAMPLING EVENT)
  - MW-5 PREVIOUSLY INSTALLED MONITORING WELL LOCATION AND ID (BLACK IF INCLUDED IN SDI SAMPLING EVENT)
  - SB/MW-17 APPROXIMATE SUPPLEMENTAL DESIGN INVESTIGATION SOIL BORING/MONITORING WELL LOCATION AND ID

- NOTES:**
1. BASE MAP SOURCE: 491 WORTMAN AVENUE BOUNDARY SURVEY PREPARED BY LANGAN ENGINEERING, SURVEY, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C., DATED NOVEMBER 2, 2015.
  2. NORTH ARROW SHOWS TRUE NORTH.
  3. SAMPLE LOCATIONS ARE APPROXIMATE.
  4. SDI = SUPPLEMENTAL DESIGN INVESTIGATION

**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.



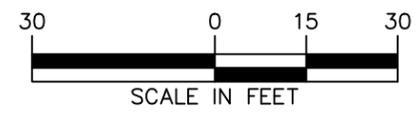
 Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com	<b>Project</b> <b>491 WORTMAN AVENUE</b> BLOCK No. 4384, LOT Nos. 31 & 36 BROOKLYN KINGS NEW YORK	<b>Figure Title</b> <b>SAMPLE LOCATION PLAN</b> <b>SUPPLEMENTAL DESIGN INVESTIGATION</b>	<b>Project No.</b> 170329301 <b>Date</b> 03/25/2019 <b>Drawn By</b> WK <b>Checked By</b> JR	<b>Figure No.</b> <span style="font-size: 2em; font-weight: bold;">2A</span> Sheet 2A of 4
	© 2019 Langan			



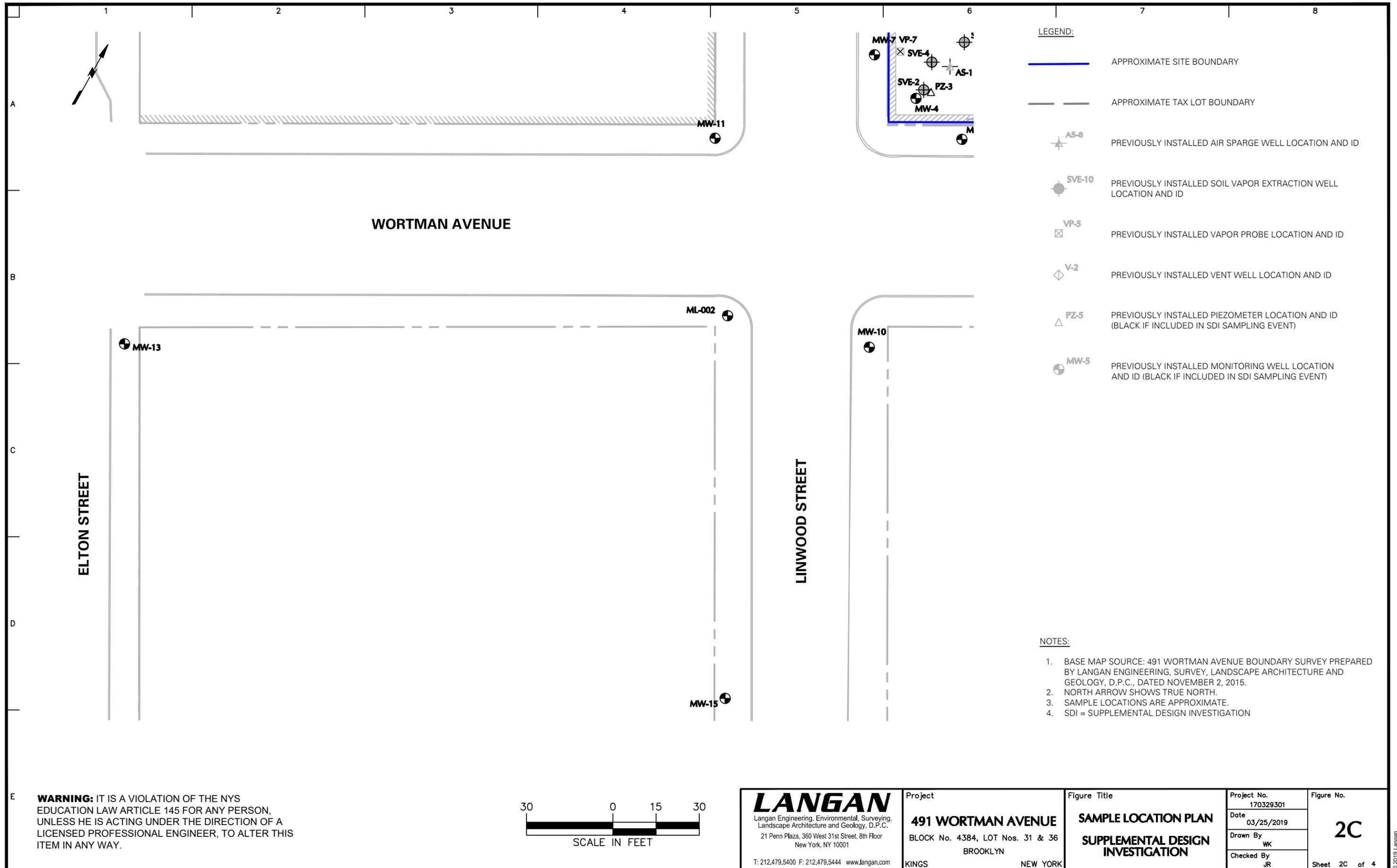
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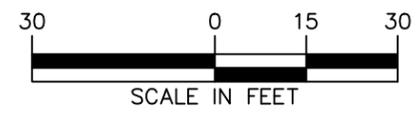
 <small>Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.          21 Penn Plaza, 360 West 31st Street, 8th Floor          New York, NY 10001          T: 212.479.5400 F: 212.479.5444 www.langan.com</small>	<b>Project</b>	<b>Figure Title</b>	<b>Project No.</b>
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		<b>Checked By</b>	<b>Figure No.</b>
		JR	<b>2B</b>
			Sheet 2B of 4



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	BROOKLYN		03/25/2019	
KINGS	NEW YORK		Drawn By	Checked By
			WK	JR
			Sheet	2C of 4