



October 14, 2022

Mandy Yau
Project Manager
Region 2
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101

**Re: Brownfield Cleanup Program Interim Remedial Measures Work Plan Addendum #2
650 Waring Avenue, Bronx, New York 10467
Block 4341, Lot 13
NYSDEC BCP Site No. 203068 SCA
LLW #109666
TRC Project No. 446981.0000.0000**

Dear Ms. Yau:

On behalf of the New York City School Construction Authority (NYCSCA), TRC Engineers, Inc. (TRC) has prepared this second addendum to the Brownfield Cleanup Program (BCP) Interim Remedial Measures (IRM) Work Plan. Work Plan Addendum #2 describes the remedial work planned to be performed at the site and immediately downgradient of Public School (P.S.) 96, located at 650 Waring Avenue, Bronx, New York 10467 (the "Site"). The Work Plan Addendum will be implemented under the BCP. *Figure 1* presents the Site Location Map.

Addendum to the BCP IRM Work Plan Scope of Work

The activities described in this Work Plan addendum will be performed in accordance with applicable federal, state, and local regulations, and the Quality Assurance Project Plan (QAPP) and site-specific Health and Safety Plan (HASP), presented in the first IRM Work Plan Addendum, dated September 4, 2020.

The scope of this Work Plan includes the following:

1. Installation and development of new 4" diameter off-site monitoring wells PS96X-TRC-MW-25 and PS96X-TRC-MW-26 in the parking lot of the southern adjacent CenterLight property to serve as monitoring wells and potential injection/extraction wells.
2. Collection and laboratory analysis of groundwater samples from the newly installed monitoring wells (PS96X-TRC-MW-25 and -26) and select existing monitoring wells (PS96X-TRC-MW-10R, -19, -20, -21, -22, -23, -24, -101, and -102) after installation and development of PS96X-TRC-MW-25 and -26.

Refer to Figure 2 for a Site Plan showing the proposed monitoring well locations.

Task 1 – Monitoring Well Installation

Groundwater monitoring well installation will consist of the following:

- Two (2) groundwater monitoring wells (PS96X-TRC-MW-25 and PS96X-TRC-MW-26) will be installed in the parking lot of the southern adjacent CenterLight property. PS96X-TRC-MW-25 and PS96X-TRC-MW-26 will be installed between existing monitoring wells PS96X-TRC-MW-10R and PS96X-TRC-MW-22. The new wells will be constructed of threaded 4-inch diameter Schedule 40 PVC well casing and 20-slot well screen. The proposed groundwater monitoring well locations are shown on *Figure 2*. The existing access agreement with the 2275 Olinville Avenue property owner, CenterLight, will be amended to accommodate the work.
- Prior to installation, a geophysical survey will be performed utilizing electro-magnetic detection and ground penetrating radar methods to confirm the proposed monitoring well locations are clear of underground utilities and underground structures.
- The boreholes for the permanent groundwater monitoring wells will be advanced through overburden soils to the depth of bedrock using hollow stem auger drilling methods. From the depth bedrock is encountered to the well completion depths, air or mud rotary drilling methods will be used. Subsurface geology will be logged continuously during well drilling activities. Based on prior investigations, bedrock is expected to be within 13 feet of the ground surface and groundwater is expected to be encountered between 10 and 13 feet below ground surface (bgs). Soil boring logs will be prepared for boreholes associated with each new monitoring well location.
- The permanent groundwater monitoring wells will be advanced approximately 13 feet below the bedrock surface and will be constructed of 10 feet of 4-inch diameter threaded 20-slot Schedule 40 PVC well screen (approximately 16 to 26 feet bgs) and completed to grade with Schedule 40 PVC well casing. Clean silica sand, Morie No. 2 or equivalent, will be placed in the annular space around the permanent groundwater monitoring well to one foot above the top of the well screen. A 1-foot thick bentonite pellet seal will be placed above the sand pack and the remaining annular space above the seal will be grouted to the ground surface. Each permanent groundwater monitoring well will be completed with a concrete pad, secure locking plug and flush-mounted protective manhole. Well construction diagrams will be prepared for the permanent groundwater monitoring wells.
- The monitoring wells will be developed using a submersible or peristaltic pump until the water is reasonably free of turbidity and field parameter readings (pH, conductivity, temperature, and dissolved oxygen) sufficiently stabilize. Turbidity measurements of 50 nephelometric turbidity units (NTUs), or lower, will be the goal. A surge block will also be used during monitoring well development.
- In addition to being used as monitoring wells, the construction of PS96X-TRC-MW-25 and PS96X-TRC-MW-26 has been specified to be conducive for the wells to serve as injection and groundwater extraction wells. During groundwater extraction, a vacuum truck would be connected to a drop tube which is placed in each well. NYSDEC will be notified prior to performance of a groundwater extraction event.
- The location and elevation of the top of the PVC casing (cap off) and ground surface adjacent to the newly installed permanent monitoring wells will be surveyed by a professional land surveyor licensed to practice in the State of New York. Coordinates and

elevations of the survey will be in the New York State Plane Coordinate System (North American Datum [NAD 1983] and North American Vertical Datum [NAVD] of 1988). All horizontal measurements will be within 0.1-foot accuracy and vertical measurements shall be within 0.01-foot accuracy. The survey information will be used to determine groundwater surface elevations.

Task 2 – Groundwater Sampling

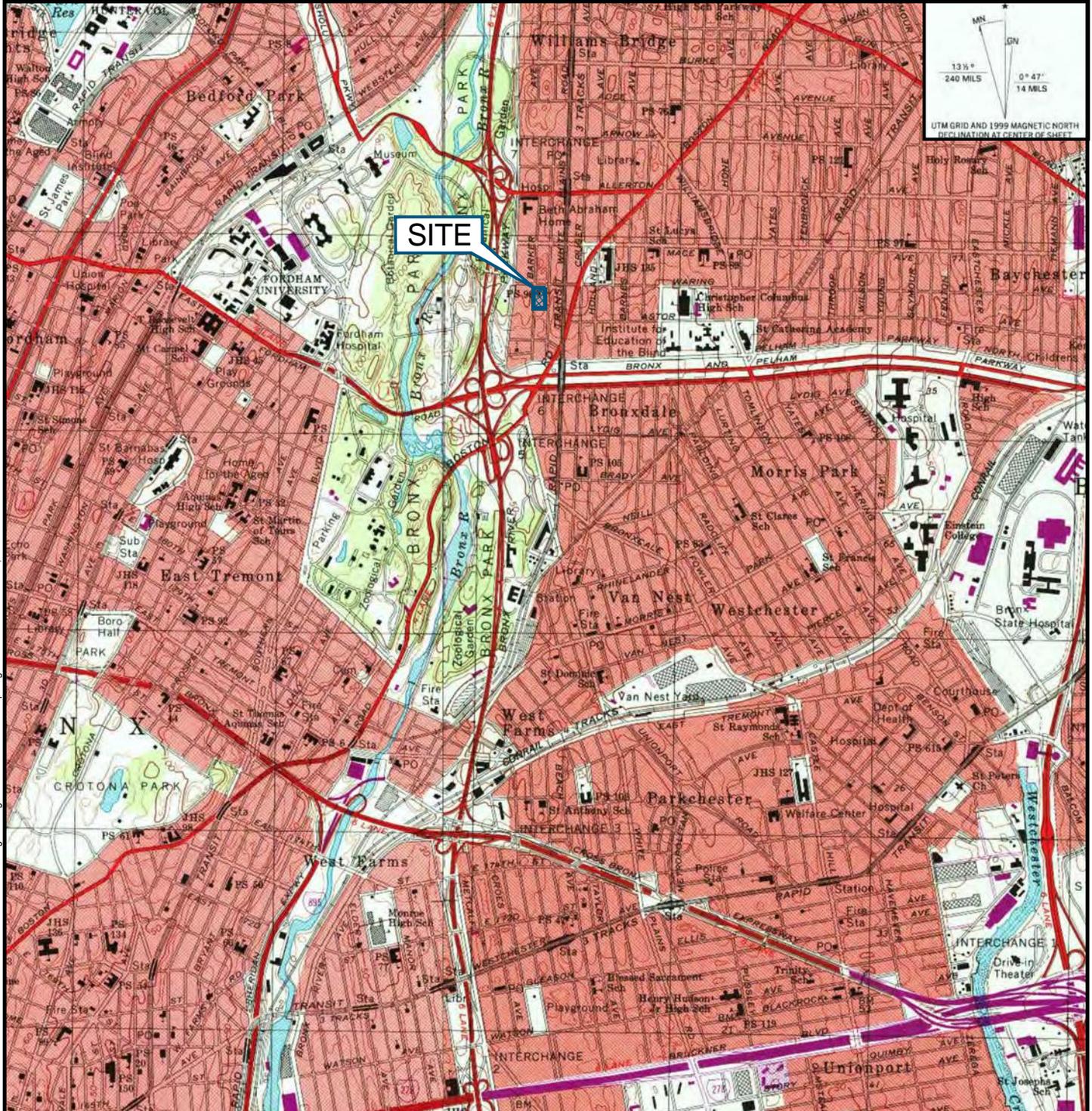
The monitoring wells, PS96X-TRC-MW-25 and PS96X-TRC-MW-26 will be sampled within two weeks of development to establish groundwater quality. Monitoring wells PS96X-TRC-MW-10R, -19, -20, -21, -22, -23, -24, -101, and -102 will also be sampled during the groundwater sampling event. Water chemistry parameters (i.e., dissolved oxygen, specific conductivity, temperature, pH, and oxidation reduction potential) will be monitored during sampling event. Groundwater samples will be analyzed by the Environmental Laboratory Approval Program (ELAP)-certified laboratory for USEPA Target Compound List (TCL) volatile organic compounds (VOCs) and monitored natural attenuation parameters (sulfate, chloride, total organic carbon, and volatile fatty acids) on a 5-day turnaround time (TAT). Groundwater sampling procedures, analytical methods, and QA/QC requirements are presented in the QAPP of the IRM Work Plan Addendum, dated September 4, 2020. Following receipt of NYSDEC ASP Category B data deliverables, a data usability summary report (DUSR) will be prepared, which will include an evaluation of the quality of the analytical data and the reliability of the data for its intended use.

Schedule

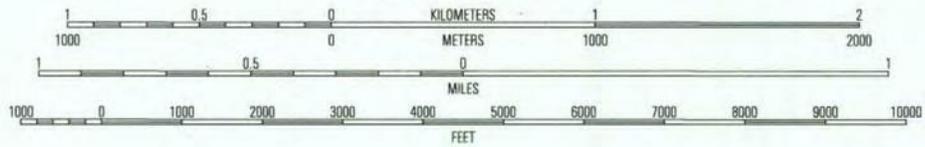
Following approval from NYSDEC to proceed, TRC will arrange for the well installation activities at a time that is convenient for the property owner, CenterLight Health Systems. The monitoring wells will then be sampled 2 weeks after development.

FIGURES

8.5.11 -- USER: R. Bowden -- ATTACHED IMAGES: -- ATTACHED XREFS: -- DRAWING NAME: \\nyc-tip\Projects\NYCSCA Contract C00001434297653 - X096 BCPIRM Work Plans\BCP IRM - MW Installation\Figures\Figure 1 - Site Location Map.dwg --- PLOT DATE: June 22, 2022 - 12:03PM --- LAYOUT: 8.5x11



SCALE: 1:2400



MAP INCLUDES INFORMATION FROM THE FOLLOWING MAP SHEET(S):
 TP, FLUSHING, NY, 7.5 MINUTE, DATED 1995
 W, CENTRAL PARK, NY-NJ, 7.5 MINUTE, DATED 1995

QUADRANGLE LOCATION

MAP OBTAINED THROUGH USE OF MAPTECH TERRAIN NAVIGATOR PRO SOFTWARE.

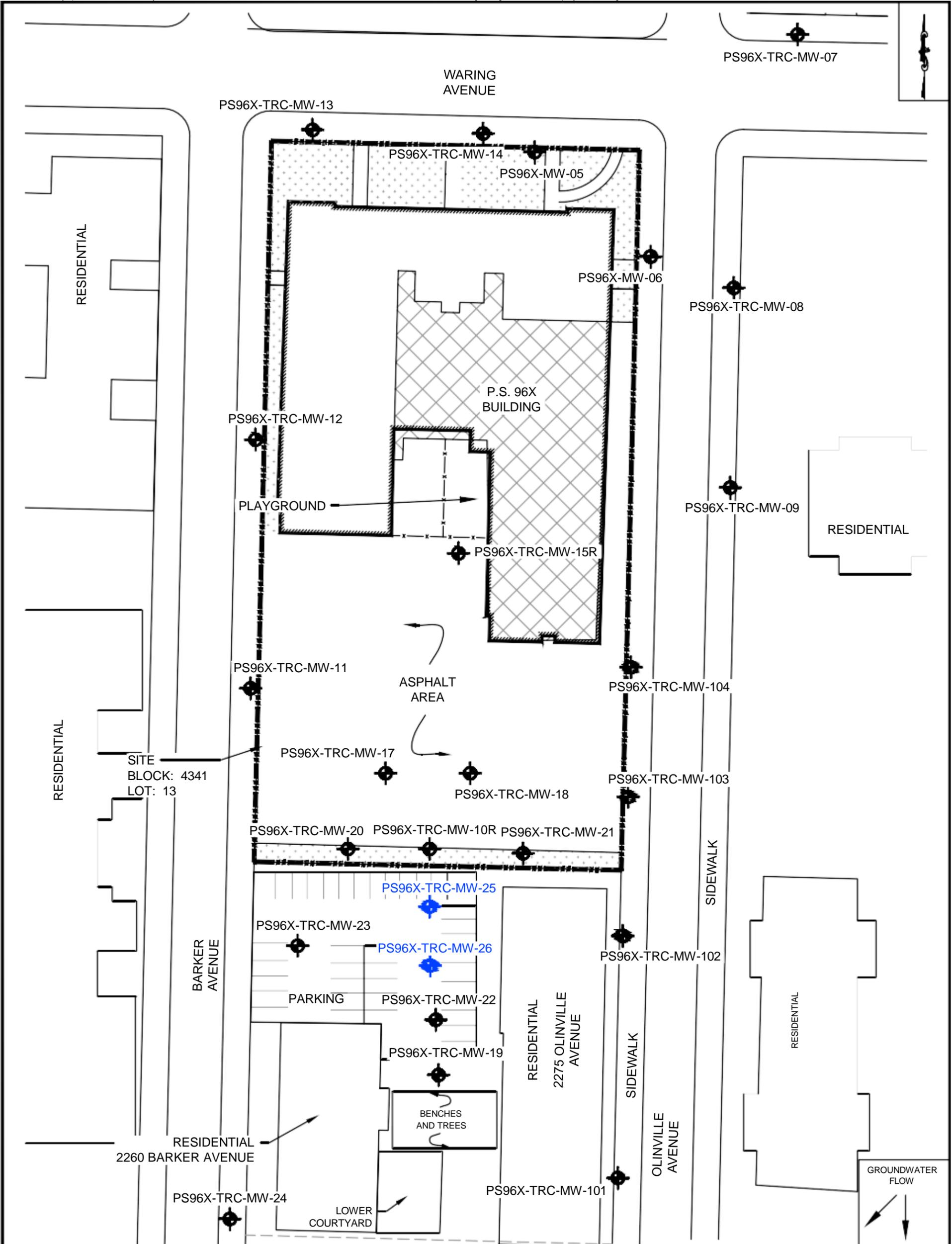
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PROJECT:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
P.S. 96X - 650 WARING AVENUE
BRONX, NEW YORK 10467

TITLE:
SITE LOCATION MAP

DRAWN BY:	H. DELGADO
CHECKED BY:	R. BOWDEN
APPROVED BY:	K. BOGER
DATE:	OCTOBER 2022
PROJ. NO.:	446981.0000.0000
FILE:	Figure 1 - Site Location Map.dwg

FIGURE 1



LEGEND (SYMBOLS NOT TO SCALE):

- PS 96X BUILDING BOUNDARY
- SITE BOUNDARY
- FENCE
- LOT BOUNDARY
- PS 96X ADDITION
- LANDSCAPED AREA
- EXISTING MONITORING WELL AND IDENTIFICATION NUMBER
- PROPOSED NEW MONITORING WELL LOCATION AND IDENTIFICATION NUMBER



PROJECT: NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY BROWNFIELD CLEANUP PROGRAM P.S. 96X - 650 WARING AVENUE BRONX, NEW YORK 10467	
TITLE: SITE PLAN - PROPOSED MONITORING WELL LOCATIONS	
DRAWN BY: H. DELGADO	PROJ NO: 446981.0000.0000
CHECKED BY: R. BOWDEN	FIGURE 2
APPROVED BY: K. BOGER	
DATE: OCTOBER 2022	
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