October 7th, 2025

Christopher Allan, PE
New York State Department of Environmental Conservation
Division of Environmental Remediation - Region 2
47-40 21st Street, Long Island City, NY 11101

Re: **Soil Vapor Extraction (SVE) Pilot Test Work Plan**
223-220 Braddock Avenue, Queens Village, NY 11428

Dear Mr. Allan:

EnviroTrac has prepared this work plan to detail the work required to perform an SVE pilot test at the above referenced site. The purpose of the pilot test is to determine the operating parameters required for the proposed SVE system to be installed to address the remaining soil contamination in the former UST area. A site location map is included as **Figure 1**.

Task #1 - Remedial Well Installations

Two (2) SVE wells constructed of 2" SCH 40 PVC screen (0.020" screen size) and riser pipe will be installed in the area of the former. SVE well SVE-1S will be installed to a depth of 10-ft and screened from 2-10'. SVE well SVE-1D will be installed to a depth of 20-ft and screened from 10-20'. Two (2) vacuum monitoring points constructed of 1" SCH 40 PVC screen (0.020" screen size) and riser pipe will also be installed to test for vacuum influence during the pilot test. Monitoring point VMP-1S will be installed to a depth of 10-ft and screened from 2-10'. Monitoring point VMP-1D will be installed to a depth of 20-ft and screened from 10-20'. The locations of the proposed remedial wells are shown in **Figure 2.** Construction details for the proposed wells are shown in **Figure 3** and **Figure 4.**

Prior to well installation activities EnviroTrac will notify 811 and have a private utility markout performed. Following markouts and before drilling activities begin each well location will be pre-cleared to 6-ft using manual and vacuum extraction methods.

EnviroTrac will subcontract a driller to install the four (4) proposed wells using a telescoping mast rig that will not require disturbance to the roof above each drill location. Wells will be installed using direct push technology therefore no drill cuttings will be generated.

Task #2 – SVE Well Piping and Surface Restoration

SVE wells SVE-1S and SVE-1D will each be finished with a 2" tee connection and bolt-down manhole. 2" SCH 40 PVC pipe will be installed below grade from each well to the nearby wall where it will transition to 2" SCH 40 Galvanized steel pipe. The 2" galvanized steel pipe will stub up along the wall at a height of approximately 1-ft and capped with a gripper plug. Following installation of the subsurface piping an 8" bolt-down manhole will be installed over each well and the currently exposed floor area where the former UST was located will be sealed with concrete. To prevent settlement of the new concrete rebar will be dowelled into the surrounding concrete floor.

Task #3 – SVE Pilot Testing

EnviroTrac will provide the equipment and labor required to perform an SVE pilot test. The purpose of the pilot test will be to provide critical data needed to determine the SVE system performance requirements, and thus to be used to finalize the design of the system vacuum blower(s) and any ancillary equipment.

The SVE test equipment will consist of the following:

- 3.0-hp Regenerative Vacuum Blower (140 cfm @ 40" H2O vacuum).
- RadonAway High Suction Inline Fan Model #HS-5000
- Digital Manometer
- Digital Air Flow Meter
- Photoionization Detector (PID)
- 50' of 3-inch diameter vacuum hose and related connections
- 10kW Portable Generator

EnviroTrac will apply vacuum to each extraction well via the 2-inch diameter galvanized steel riser pipe utilizing the provided blower, fans, hose, and fittings. During the test, vacuum, flow, and VOC monitoring will be performed at the extraction well, with vacuum influence readings collected from the monitoring points and existing monitoring wells. Each extraction well will be tested at a minimum of four different steps of increasing flow and vacuum.

In order to gauge potential VOC recovery rates associated with the proposed SVE system, an off-gas sample will be collected from the well and test step that produces the highest PID reading. The sample will be collected in a 1L summa canister from the sample port located on the discharge piping of the test equipment. The sample will be transported to a certified laboratory and analyzed for relevant VOCs via a modified EPA TO-15 analysis.

Task #4 – SVE Pilot Test Analysis and System Design

Based on the results of the test, EnviroTrac will prepare a report summarizing the findings of the test and provide SVE equipment design documents. A sample SVE system process and instrumentation diagram (P&ID) is included as **Figure 5**.

SVE Design Documents to Include:

- Site Plan with Proposed Radius of Influence
- Layout drawing depicting locations of SVE components including the extraction wells, vacuum blower, discharge stack, vacuum and pressure piping, and vacuum influence points.
- P&ID depicting the SVE equipment and instrumentation locations in the system's process flow, piping configurations, and control interlocks.
- Single Line Electrical Power Diagram – specifying circuit breakers, wire, and conduit sizes for the SVE system electrical motors and controls.
- Specification sheets for SVE blower and all associated instrumentation and controls.

Sincerely,

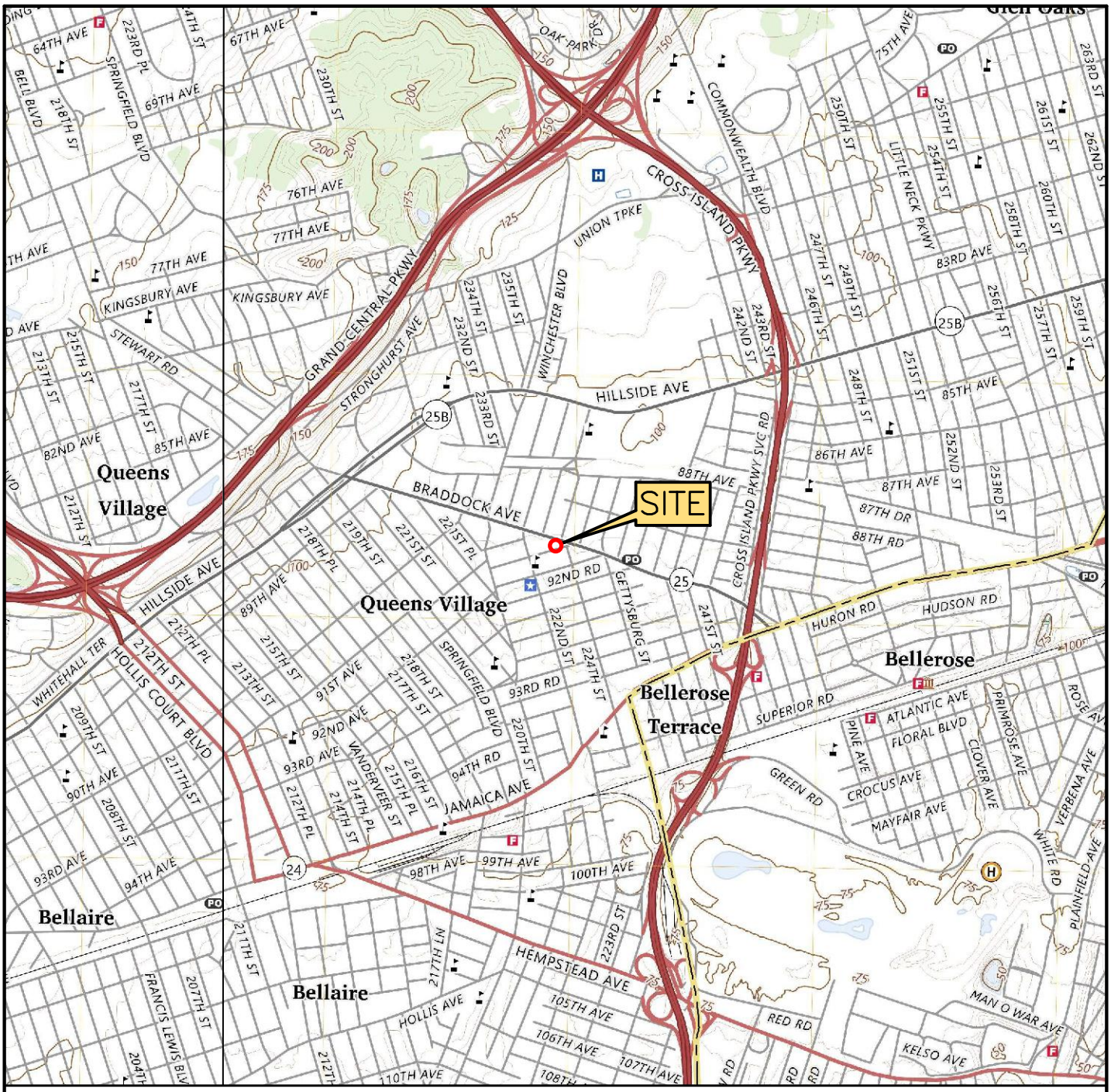
EnviroTrac Ltd.

James Wilkinson, P.E.
Senior Engineer

ATTACHMENTS

1. Figure 1: Site Location Map
2. Figure 2: Site Plan with Proposed Pilot Test Well Locations
3. Figure 3: SVE Well Construction Details
4. Figure 4: VMP Construction Details
5. Figure 5: Typical SVE System P&ID

ATTACHMENTS



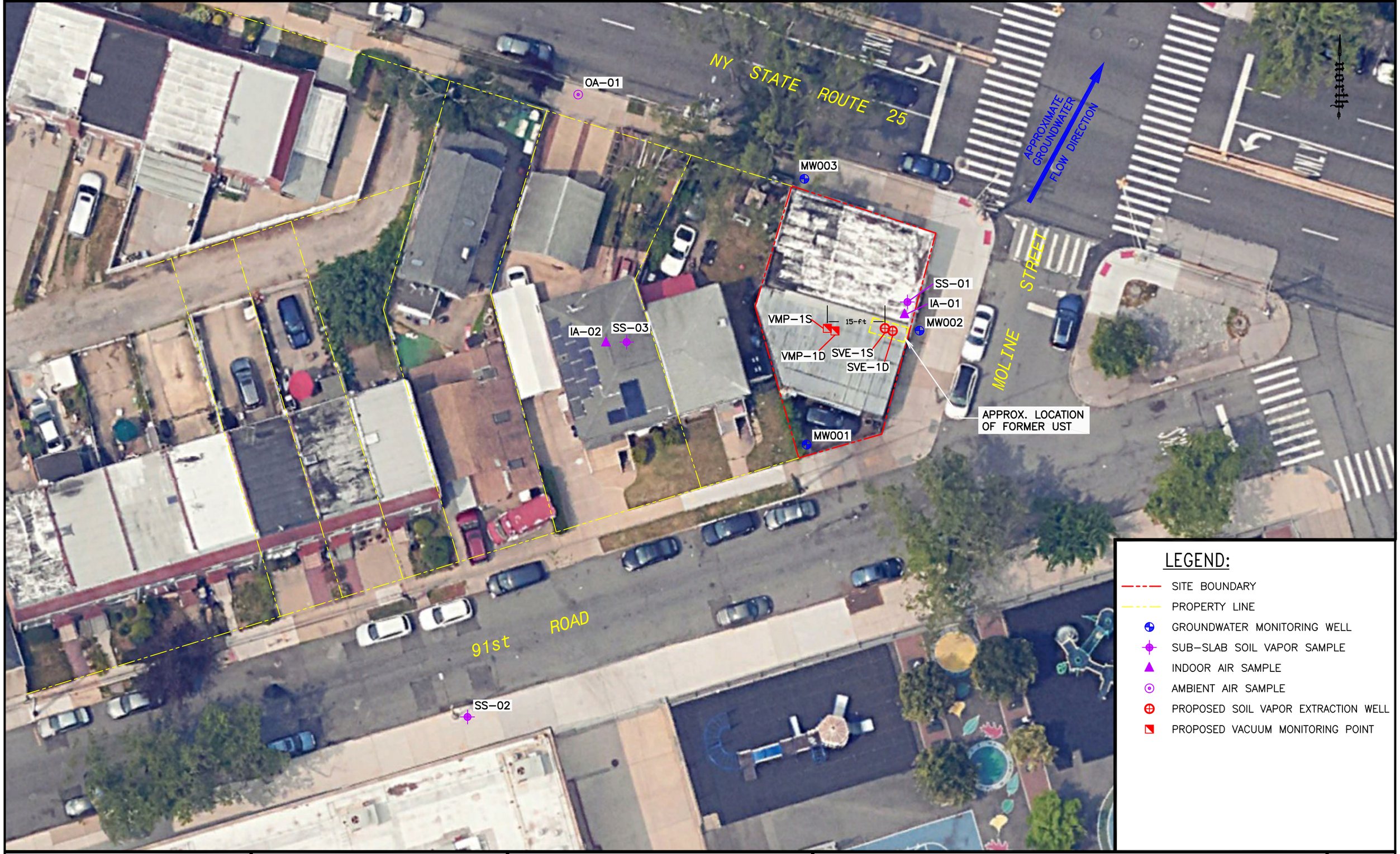
QUADRANGLE LOCATION:
LYNBROOK, NEW YORK

APPROXIMATE ELEVATION:
90 FT.

SOURCE:
USGS 7.5 MINUTE SERIES

0 2,000 6,000 FEET
1,000 4,000

FIGURE #	SITE LOCATION MAP	DRAWN BY: B.S.	EnviroTrac ENVIRONMENTAL SERVICES
1	223-20 BRADDOCK AVENUE QUEENS, NEW YORK	REVISION DATE: 9/8/2025	5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980 PHONE: (631)924-3001 FAX: (631)924-5001



LEGEND:

- SITE BOUNDARY
- PROPERTY LINE
- GROUNDWATER MONITORING WELL
- SUB-SLAB SOIL VAPOR SAMPLE
- INDOOR AIR SAMPLE
- AMBIENT AIR SAMPLE
- PROPOSED SOIL VAPOR EXTRACTION WELL
- PROPOSED VACUUM MONITORING POINT

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ENVIRONMENTAL SERVICES
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0 25
APPROXIMATE SCALE IN FEET

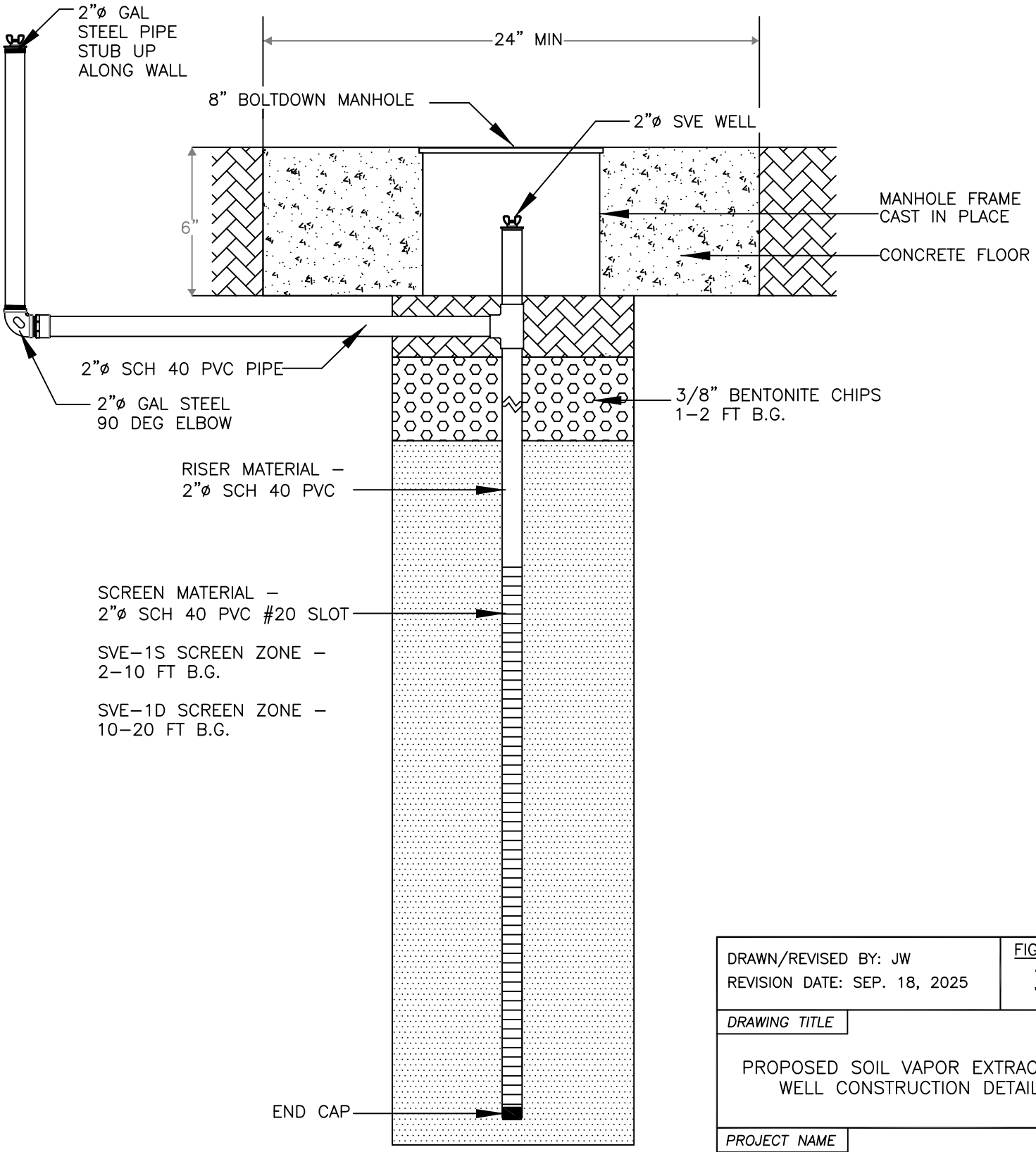
REVISION DATE: 9/17/2025 REVISED BY: J.W.

223-20 BRADDOCK AVENUE
QUEENS, NEW YORK

SITE PLAN PROPOSED PILOT TEST WELL LOCATIONS

FIGURE # 2

SOIL VAPOR EXTRACTION WELL



DRAWN/REVISED BY: JW
REVISION DATE: SEP. 18, 2025

FIGURE: 3

DRAWING TITLE

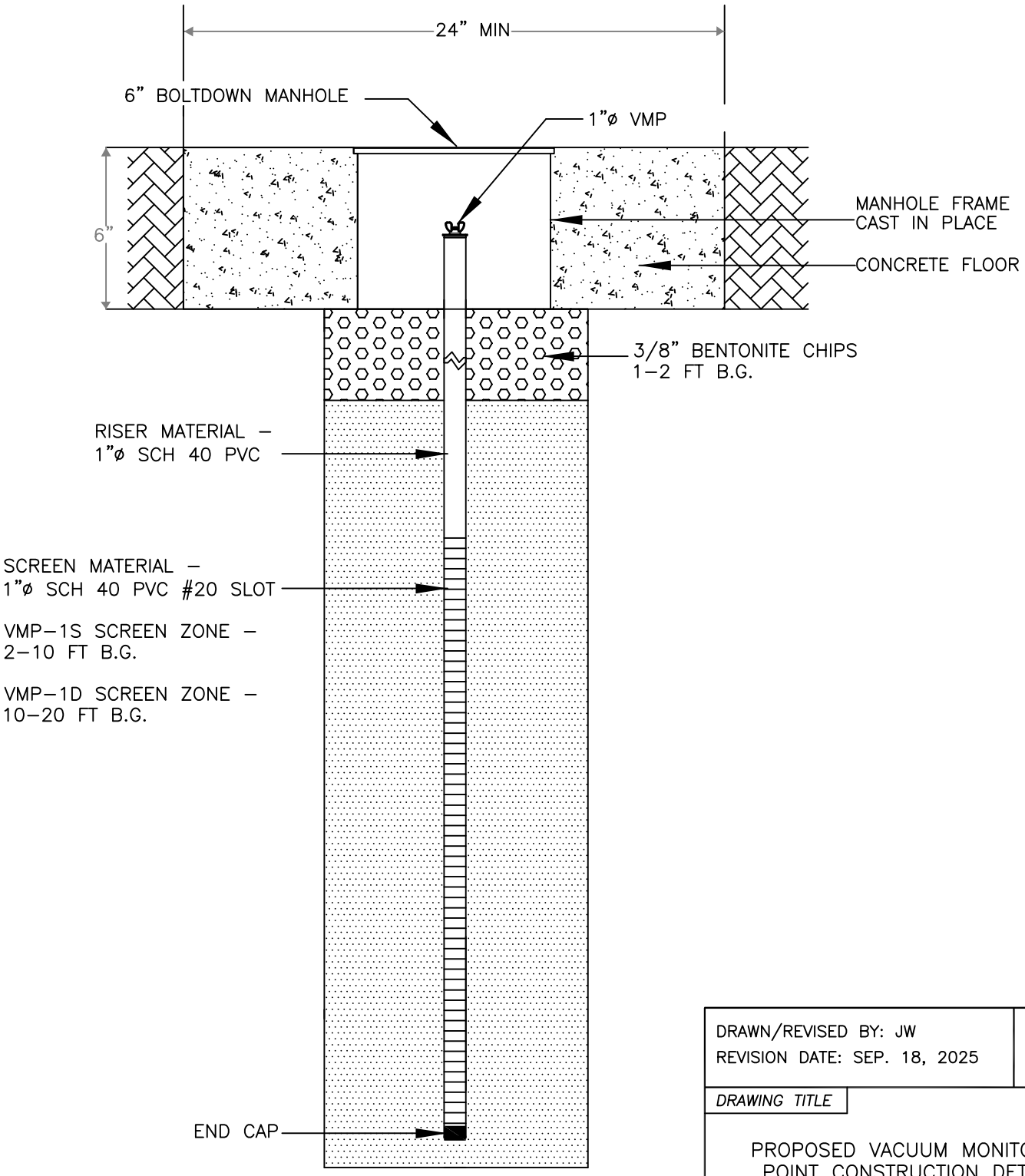
PROPOSED SOIL VAPOR EXTRACTION WELL CONSTRUCTION DETAIL

PROJECT NAME

223-20 BRADDOCK AVENUE
QUEENS, NEW YORK

EnviroTrac
ENVIRONMENTAL SERVICES
5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924–3001 FAX: (631)924–5001

VACUUM MONITORING POINT



DRAWN/REVISED BY: JW REVISION DATE: SEP. 18, 2025	FIGURE: 4

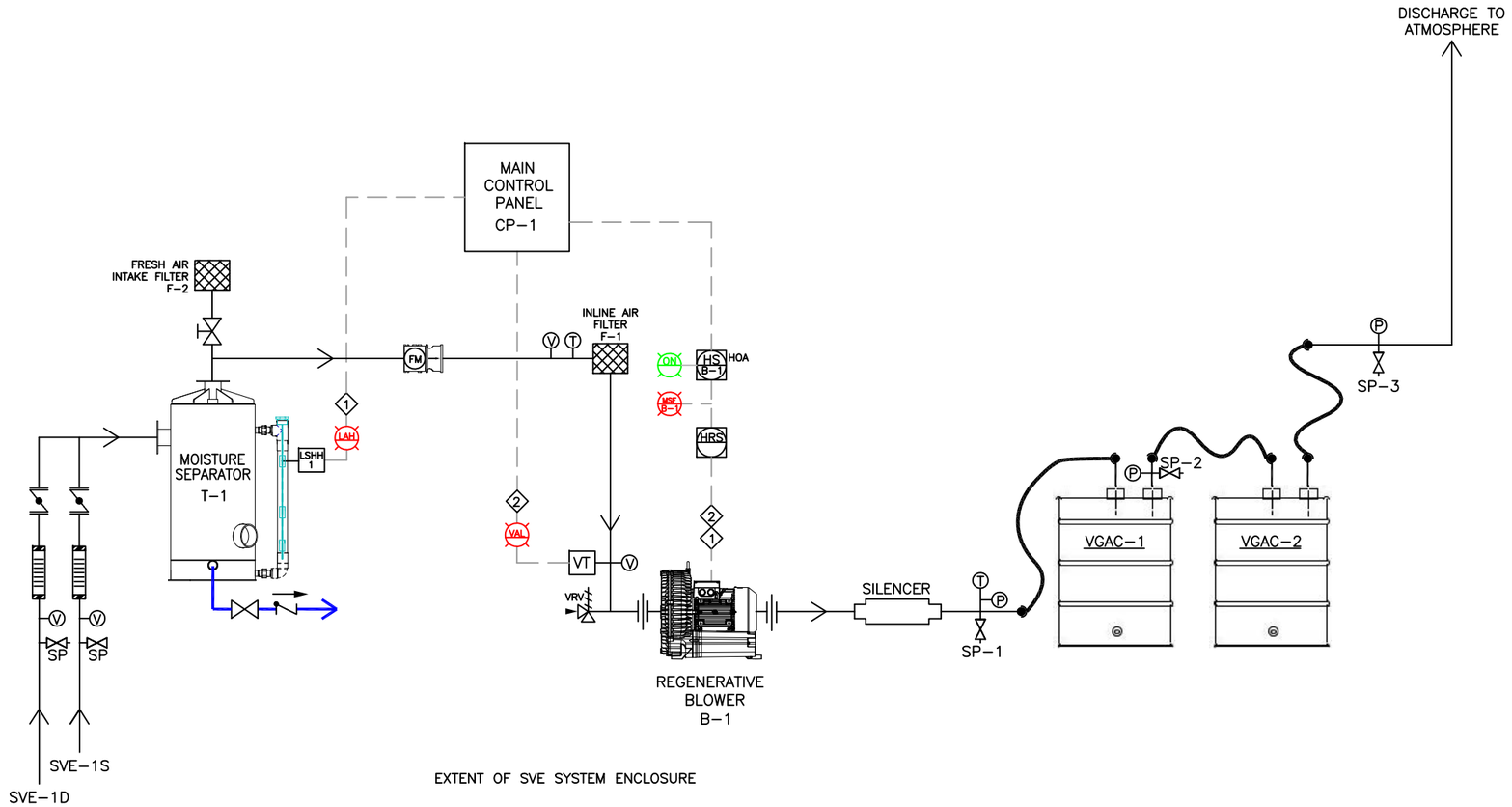
DRAWING TITLE

PROPOSED VACUUM MONITORING POINT CONSTRUCTION DETAILS

PROJECT NAME

223-20 BRADDOCK AVENUE
QUEENS, NEW YORK

EnviroTrac
ENVIRONMENTAL SERVICES
5 OLD DOCK ROAD, YAPHANK, NEW YORK 11980
PHONE: (631)924–3001 FAX: (631)924–5001



SYSTEM LEGEND:

- VACUUM GAUGE
- TEMPERATURE GAUGE
- PRESSURE GAUGE
- VENTURI FLOW METER
- ROTAMETER FLOW METER
- LS — LEVEL SWITCH
- VT — VACUUM TRANSMITTER
- BUTTERFLY VALVE
- BALL VALVE
- GATE VALVE
- SP — SAMPLE PORT
- VRV — VACUUM RELIEF VALVE
- CHECK VALVE
- UNION
- HS — HAND SWITCH PANEL MOUNTED
- HRS — RUN TIME METER
- CONTROL PANEL INDICATOR LIGHT
- CONTROL PANEL INTERLOCK
- ELECTRIC LINE
- AIR FLOW DIRECTION
- CONDENSATE WATER FLOW DIRECTION
- ENCLOSURE LIMITS

HMI INDICATOR INDEX:

- LAH — LEVEL ALARM HIGH
- VAL — VACUUM ALARM LOW
- MSF B–1 — MOTOR STARTER FAULT
- ON — MOTOR RUN INDICATOR

INTERLOCK SCHEDULE:

1. HIGH LEVEL IN T–1 – SHUT DOWN B–1, SEND ALARM NOTIFICATION..
2. LOW OR HIGH BLOWER VACUUM – SHUT DOWN B–1, SEND ALARM NOTIFICATION.

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REVISION DATE: 9/18/2025

REVISED BY: JW

223–20 BRADDOCK AVENUE
QUEENS, NY

TYPICAL SVE SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM

FIGURE # 5