

Project Name: 200 Water Street

Project Number: 14TMP0357K

Site Management Reporting Period: 2019 - 2020

Inspection Date: July 9, 2020

Inspector and Certifier: Denise Cosenza / Jed A. Myers

Report Submittal Date: August 13, 2020

Report Preparer: ATC Group Services LLC on behalf of: 200 Water Property Owner LLC

Site Inspection and Certification Letter Report

200 Water Property Owner LLC hereby submits a Site Management Inspection and Certification Report for the property located at 200 Water Street in the Dumbo section of Brooklyn, New York for the reporting period, 2019 to 2020, pursuant to the Site Management Plan (SMP) that is included in the OER approved Remedial Action Report (RAR), dated July 2017. The Site is identified as Block 41 and Lot 13 on the New York City Tax Map.

1.0 ENGINEERING CONTROLS

Engineering Controls were employed in the Remedial Action to assure permanent protection of public health by eliminating human exposure to residual materials remaining at the site. The Site has four (4) Engineering Control Systems. Engineering Controls for this property are:

Composite Cover System

Exposure to residual soil/fill is prevented by an engineered Composite Cover System that has been built on the Site. This Composite Cover System is comprised of following four items: (1) the existing concrete floor of the original building that is now the crawl space of the new building, (2) where the existing basement floor was lowered to match the grade of the existing sub-basement, a new 6-inch concrete slab underlain with the vapor barrier and 12 inches of 3/4-inch clean blue stone sub-base material; (3) the existing concrete floor of the sub-basement, except for those areas of the floor that were trenched to install the SSDS air extraction piping where a new 6-inch concrete slab was installed, underlain with the vapor barrier and 12 inches of 3/4-inch, clean blue stone; and (4) the open space where 3-inches of topsoil was placed over 1.5-inch thick concrete pavers space 1/2 to 1-inch a part underlain with another 7 inches of topsoil. . The contractor for the Composite Cover System construction was TRM Contracting.

Vapor Barrier System

Exposure to soil vapor is prevented by a Vapor Barrier System that has been built on the Site. The vapor barrier was installed beneath the entire area where the existing basement floor was lowered. This Vapor Barrier System was constructed on-Site and consisted of a 20-mil Stego Wrap Vapor Barrier, manufactured by Stego Industries LLC. The vapor barrier was installed underneath the building slab and along new foundation walls where the basement floor was lowered. All vapor barrier seams, penetrations, and repairs were sealed by the tape method, in accordance with the manufacturer's recommendations and instructions. The perimeter of the new concrete slab and trenches was to be sealed to the concrete per the manufacturer's specifications using the Stego Crete Claw tape. The proposed design/layout and oversight of the vapor barrier installation was performed by the consultant of record, ATC Group Services. The professional engineer for the Vapor Barrier System was Gilbert Gedeon. The contractor for the Vapor Barrier System construction was TRM Contracting.

Active Sub-Slab Depressurization System

Exposure to soil vapor is prevented by a Sub-Slab Depressurization System (SSDS) that has been built on the Site. This SSDS was installed beneath the new cellar level of the Site building. Perforated pipe consisting of 4 inch Schedule 40 PVC 20-slot well screen was installed horizontally approximately 4 inches beneath the concrete floor. The system consists of two zones connected to four separate 4-inch risers. Zone 1 was installed within a 1-foot trench dug beneath the former sub-cellar floor that was not removed. The perforated piping in this area of the Site was installed within horizontal trenches 1 foot deep by 1 foot wide, approximately 4 inches beneath the cellar floor within clean, coarse, ¾-inch blue stone. The trench was finished at grade with the 20-mil Stego vapor barrier underlying the 6" concrete floor. The other zone (Zone 2) was installed in the area where the former basement level was lowered to match the grade of the former sub-basement level. Therefore, the perforated pipe in this area of the Site was installed within ¾-inch clean blue stone that extends beneath the entire floor area. In addition, the entire floor area was finished at grade with the 20-mil Stego vapor barrier underlying the 6" concrete floor. Each zone has two vertical 4-inch pipes that traverses the building slab, which are attached to a common lateral. Vapors are conveyed via a 4-inch chase and vented above the roof of the building. The SSDS chase piping accessible inside the building is labeled "SSDS Vent – Do Not Tap". An Airtech Model 1-VE-3BA1500-2 vacuum blower, capable of 125 cfm at 22 inches W.C., was installed on the roof level and four vacuum gauges were installed in accessible areas of the basement to enable measurement of the vacuum pressure

established by the system. An alarm is located at the roof stairwell bulkhead to notify building management if the system is not operational. The proposed design/layout and oversight of the SSDS installation was performed by the consultant of record, ATC Group Services. The contractor for the Active Sub-Slab Depressurization System construction was TRM Contracting. The PE for the Remedial Action has inspected the system and confirmed that the effluent discharge point is a minimum of 10 feet from any operable window or air intake for any building.

Crawl Space System

The crawl space within the Site building has an approximate volume of 11,980 cubic feet. A mechanical ventilation system was installed to provide 400 cubic feet per minute of ventilation supply air into the space continuously, which positively pressurizes the crawl space with an equivalent of two air changes per hour.

2.0 INSTITUTIONAL CONTROLS

A series of Institutional Controls are required under the Remedial Action to assure permanent protection of public health by eliminating human exposure to residual materials remaining at the site. The Institutional Controls for the Remedial Action are:

- (1) The property will continue to be registered with an E-Designation by the NYC Department of Buildings. Property owner and property owner's successors and assigns are required to comply with the approved SMP;
- (2) Compliance with an OER-approved Site Management Plan including procedures for appropriate operation, maintenance, inspection, and certification of performance of ECs and ICs. The property owner and property owner's successors and assigns will inspect ECs and ICs and submit to OER a written certification that evaluates their performance in a manner and at a frequency to be determined by OER;
- (3) Engineering Controls will not be discontinued without prior OER approval;
- (4) OER has the right to enter the Site upon notice for the purpose of evaluating the performance of EC's and IC's;
- (5) Vegetable gardens and farming in residual soil/fill on the Site are prohibited;
- (6) Use of groundwater underlying the Site without treatment rendering it safe for its intended use is prohibited;

- (7) All future activities on the Site that will disturb residual soil/fill must be conducted pursuant to the Soil/Materials Management provisions of the SMP, or otherwise approved by OER;
- (8) The Site is intended to be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.

3.0 INSPECTION NARRATIVE

The site inspection was performed by Denise Cosenza, with ATC Group Service LLC (ATC), and the date of the inspection was July 9, 2020. Photographic documentation of the inspection is present in Appendix A.

During the site inspection, Ms. Cosenza was escorted by Foad Choudhury, Building Superintendent. ATC inspected the clean-fill cover in the rear courtyard of the Site building, which was found to be undisturbed with no evidence of prior excavation (Photos 1 & 2). In addition, the composite cover system consisting of the concrete basement slab and foundation walls, and vapor barrier, was inspected. The system was found to be intact with no evidence of physical damage or cracks equal to or greater than 1/8-inch in diameter (Photos 3 through 9). ATC visually inspected the crawl space (Photo 10) and verified that the ventilation blower was operating properly with no unusual or excessive noise.

ATC inspected the operation of the sub-slab depressurization system (SSDS). The SSDS blower was observed to be operating properly with no unusual or excessive noise (Photo 11). No air leaks were observed in accessible air conveyance piping and fittings (Photos 12 through 14). Proper operation of the blower alarm was verified. However, the sign on the blower alarm still needs to be replaced (Photo 15). It currently reads "Alarm if Blower Malfunction is Lit Service Blower Immediately". The sign will be replaced to read "Blower Malfunction if Not Lit - Service Blower Immediately". Vacuum gauges on the blower and at each zone (Photo 14) were within proper operational range (Table 1, Appendix B). In addition, communication beneath the cellar floor was demonstrated by measured differential pressures greater than the design goal of 0.016 inches water column (W.C.) at the vapor monitoring points V-1 through V-10 (Table 1, Appendix B). However, differential pressure at vapor monitoring point V-8 could not be measured. The lever to operate the ball joint valve was no longer present and the pressure could not be gauged.

Inspection logs of the SSDS and Crawl Space Ventilation System were provided for September 2019 through June 2020 (Appendix C). No issues were identified.

4.0 STATUS of ENGINEERING AND INSTITUTIONAL CONTROLS

- Are the Engineering Controls and Institutional Controls employed at the Site continuing to perform as designed and continuing to be protective of human health and the environment?

Response: Yes

- Has anything occurred that impairs the ability of the Engineering Controls or Institutional Controls to protect public health and the environment?

Response: No

- Are any changes needed to the remedial systems or controls?

Response: No

- Has compliance with this SMP been maintained during this reporting period?

Response: Yes

- Are site records complete and up to date?

Response: Yes

- Have monthly SSDS inspections by building superintendents been performed, certified on inspection checklists, and maintained on file on site?

Response: Yes

5.0 DEVIATIONS in PERFORMANCE of ENGINEERING and INSTITUTIONAL CONTROLS

No deviations in the performance of the engineering and institutional controls were identified.

6.0 NEXT INSPECTION

The next Site Management Inspection will be performed in June 2021, and the Site Inspection and Certification Letter Report will be submitted by July 30, 2021.

7.0 CERTIFICATION

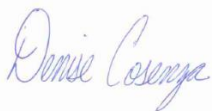
I, Denise Cosenza certify the following:

- I am a Qualified Environmental Professional;
- I inspected 200 Water Street, Brooklyn, NY site, site number 14TMP0357K on July 9, 2020;

- I prepared this Site Inspection and Certification Letter Report;
- Engineering Controls or Institutional Controls employed at the Site continue to be in place and perform as designed and continue to be protective of human health and the environment;
- Activities on the Site that have disturbed residual soil/fill material have been in accordance with the Soil/Materials Management Plan in the SMP;
- Site records are complete and up to date;
- Nothing has occurred on the Site that impairs the ability of Engineering Controls or Institutional Controls to protect public health and the environment;
- No changes are needed to the remedial systems or engineering controls;
- Compliance with the Site Management Plan has been maintained;
- Vegetable gardening and farming in residual soils has been prevented;
- Groundwater underlying the Site is not being utilized without treatment rendering it safe for the intended purpose has been prevented;
- The Site has not been used for a higher level of use other than the restricted residential, use addressed by the Remedial Action;
- The Site continues to be registered as an E-Designated property by the NYC Department of Buildings;

Denise Cosenza

QEP Name



QEP Signature

August 13, 2020

Date

APPENDIX A

PHOTO LOG



Photo 1: View of Clean-Fill Cover in rear courtyard looking east.



Photo 2: View of Clean-Fill Cover in rear courtyard looking west.



Photo 3: View of concrete floor in cellar Bicycle Storage Room.

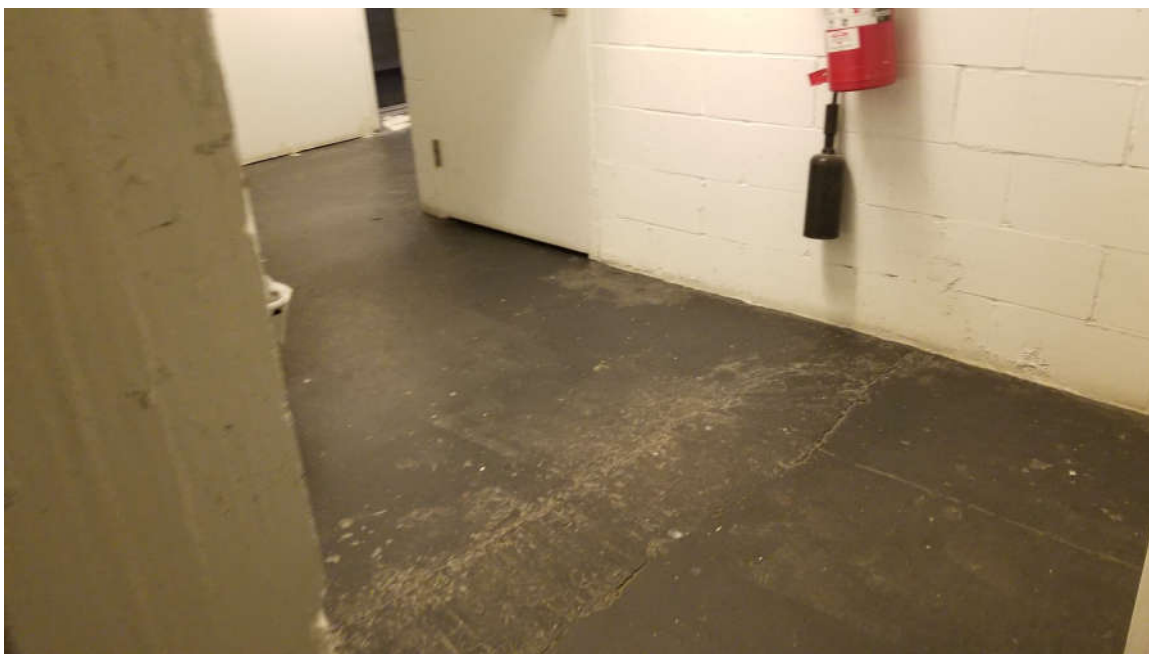


Photo 4: View of concrete floor in cellar Compactor/Recycling Room.

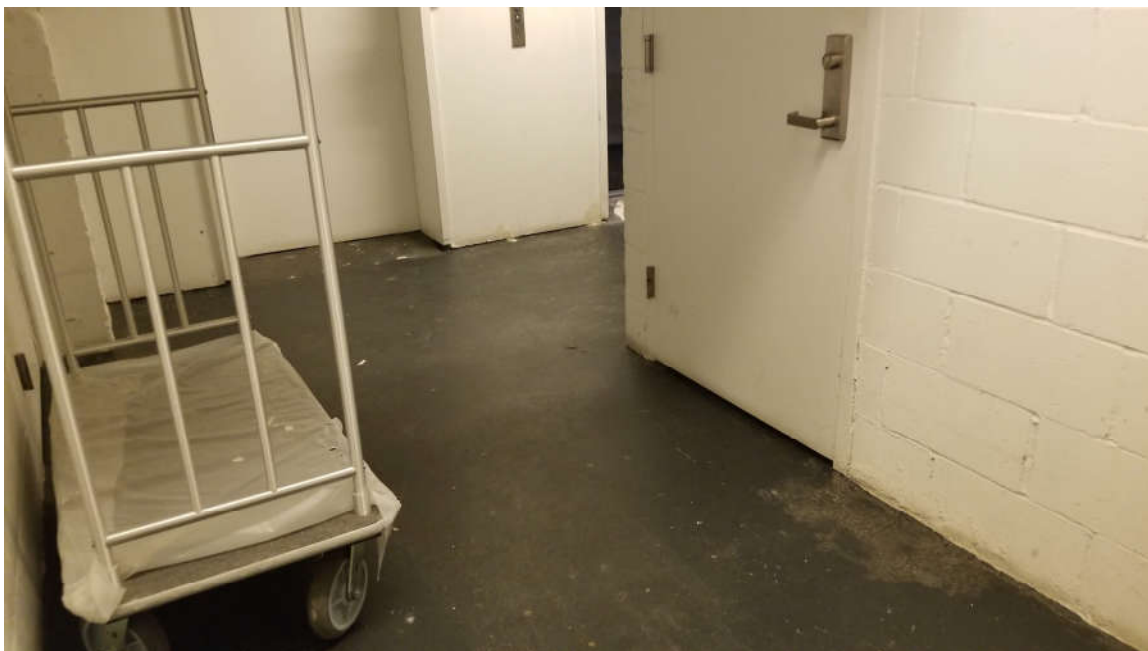


Photo 5: Center Public Corridor within cellar.

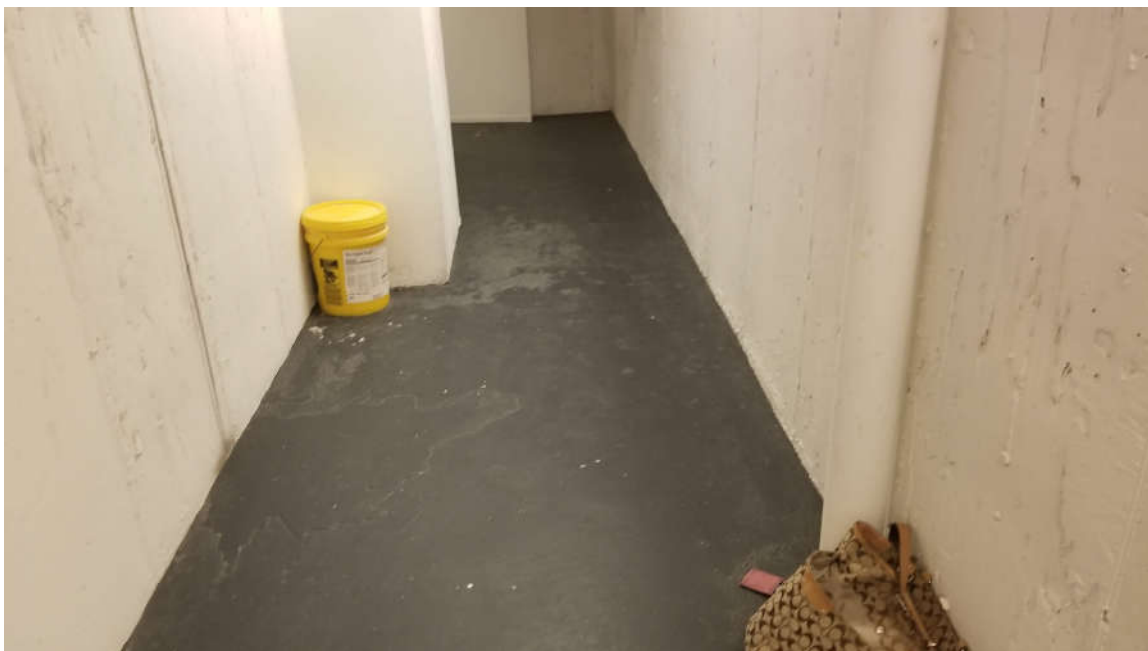


Photo 6: Public Corridor near Stairwell A within cellar.

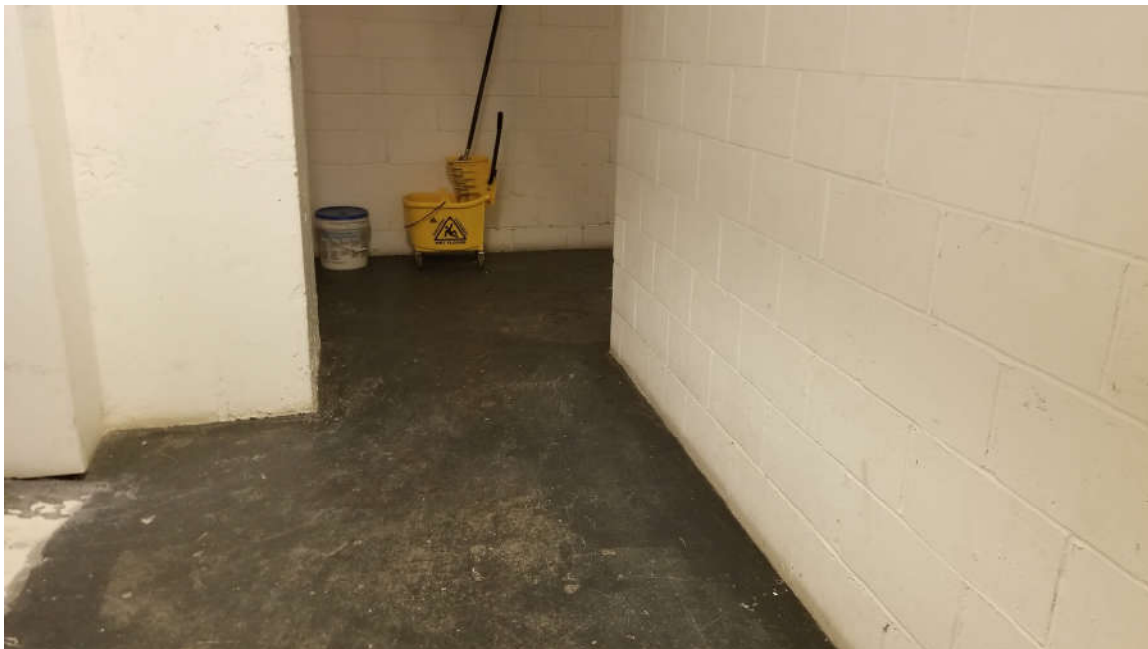


Photo 7: Corridor at south side of the cellar.

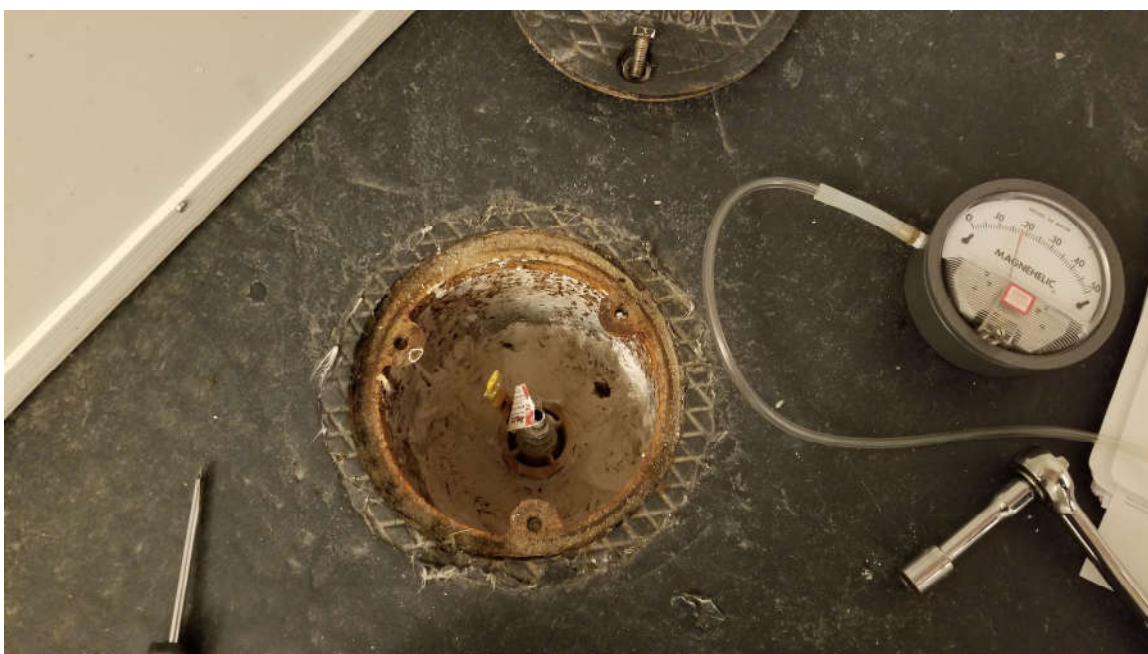


Photo 8: Soil Vapor Monitoring Point V-9.

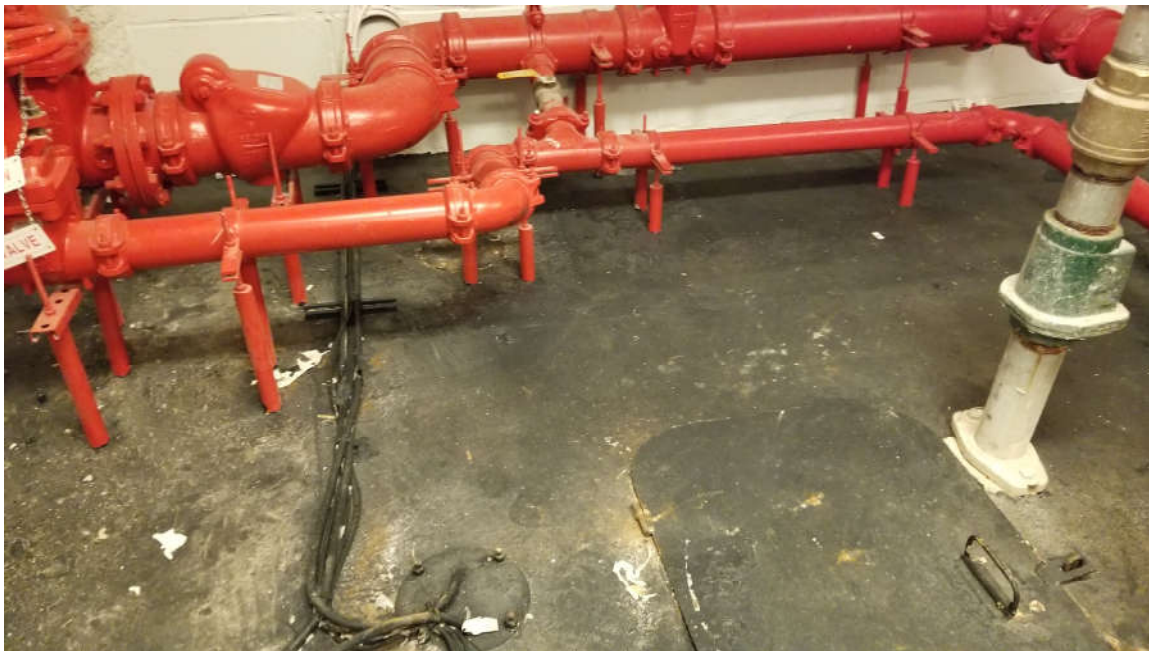


Photo 9: View of Water Meter/Fire Pump Room within cellar.



Photo 10: View of Crawl Space.



Photo 11: SSDS Blower on roof of stairwell bulkhead.



Photo 12: SSDS air conveyance piping and control valve at riser E2.

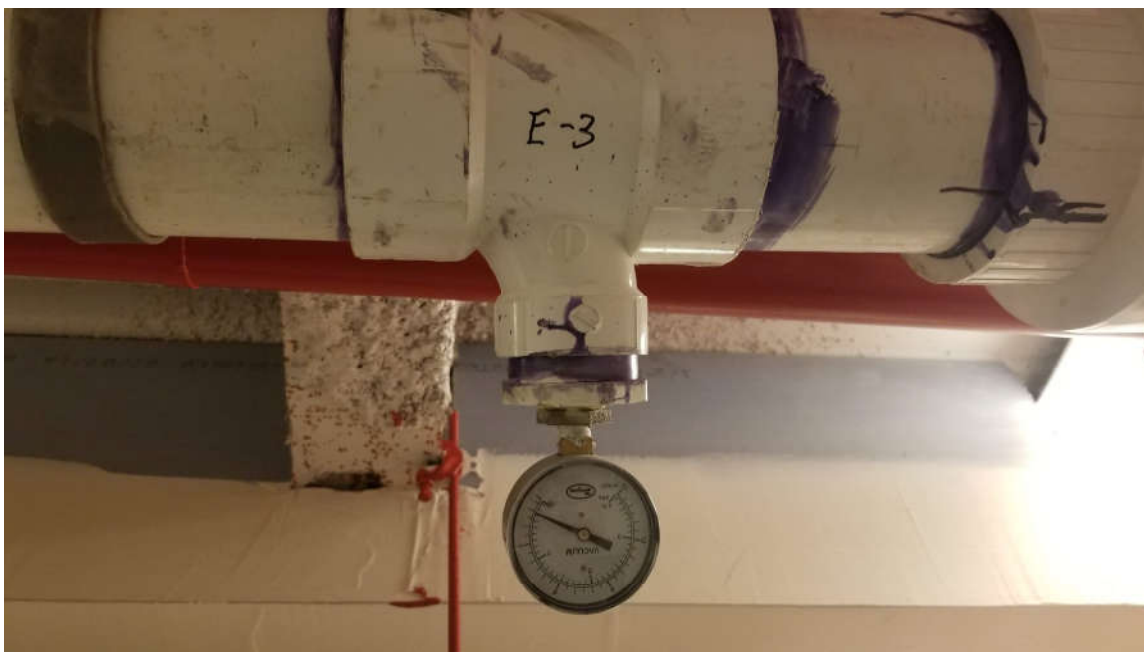


Photo 13: SSDS air conveyance piping and vacuum gauge at riser E3.



Photo 14: SSDS air conveyance piping and vacuum gauge at riser E1A.



Photo 15: View of SSDS alarm panel.

APPENDIX B

SSDS MONITORING RESULTS

TABLE 1
SUB-SLAB DEPRESSURIZATION SYSTEM MONITORING RESULTS

PROJECT NAME	200 Water Street	DATE:	7/9/2020	
LOCATION	200 Water Street, Brooklyn New York	RUN LIGHT STATUS:	On	
BLOWER	AirTech 1-VE-3BA1500-2			
BLOWER CAPACITY	125 cfm @ 22 inches W.C.			
Blower	Vacuum (in. Hg)	COMMENTS		
Inlet	> 1	Blower assembly located on roof		
Soil Vapor Monitoring Point	Vacuum (in. W.C.)	COMMENTS		
E-1A	0.75	Vapor Extraction Point E-1A Located in Cellar Storage Room		
E-1B	0.50	Vapor Extraction Point E-1B Located in Cellar Bicycle Storage Room		
E-2	1.00	Vapor Extraction Point E-2 Located in Cellar Recycling/Compactor Room		
E-3	1.00	Vapor Extraction Point E-3 Located in Cellar Public Corridor Near Stairwell		
V-1	> 0.50	Vapor Montoring Point Located Near South Wall of Storage Room		
V-2	0.29	Vapor Montoring Point Located in Southwest Corner of South Public Corridor		
V-3	> 0.50	Vapor Montoring Point Located in Bicycle Storage Room		
V-4	> 0.50	Vapor Montoring Point Located North of Water Tank Room		
V-6	> 0.50	Vapor Montoring Point Located in Water Meter/Fire Pump Room		
V-8	Undetermined*	Vapor Montoring Point Located in Center Public Corridor		
V-9	> 0.50	Vapor Montoring Point Located in Southeast Corner of South Public Corridor		
V-10	>0.50	Vapor Monitoring Point Located in Cellar Public Corridor Near Stairwell A		

* : Control valve broken and could not get a measurement