Project Name: Washington Plaza, 445 East 163rd Street, Bronx, New York 10451

Project Number: 10EHAZ232X

Site Management Reporting Period: October 2019 – September 2020

Inspection Date: September 30, 2020

Inspector and Certifier: Evan Greenberg, EIT and Spiro Dongaris, PE

Report Submittal Date: September 30, 2020

Report Preparer: Athenica Environmental Services, on behalf of Bogopa Service Corp.

Site Inspection and Certification Letter Report

Bogopa Service Corp. hereby submits a Site Management Inspection and Certification Report for the property located at 445 East 163rd Street in the Morrisania section of the Bronx, 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 June 2016. The Site is identified as Block 2385, Lots 1 and 15 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 two Protective Construction Elements (#1 and #2 below) and one Engineering Control System (#3 below). The Controls employed at the Site are:

- (1) Composite Cover System consisting of asphalt covered roads, concrete covered sidewalks, and concrete building slabs;
- (2) Vapor Barrier System; and
- (3) Active Sub-Slab Depressurization System.

Composite Cover System

The Composite Cover System is comprised of 6 inches of reinforced concrete slab underlain by 8 inches of clean sub-base material in building areas; 5 inches of asphalt pavement underlain by 6 inches of clean sub-base material in parking areas, 4 inches of concrete pavement underlain by 8 inches of sub-base aggregate in the building basement., and 2 feet of clean fill in a fenced-in open space area. The contractor for construction of the Composite Cover System was MCM Paving and Excavation Inc., West Haverstraw, NY.

Vapor Barrier System

The Vapor Barrier System consists of a Vapor Block Plus 20 (20 mil) vapor barrier beneath the footprint of the building cellar. Penetrations were sealed with Raven VaporBoot Plus pre-formed pipe boots for 1-4 inch pipes. The boots were sealed in place using 2-sided Butyl Seal Tape and 4-inch VaporBond Plus

Tape allowing for 1-inch overlap at the seams. The design engineer for the Vapor Barrier System was Nicholas Pressly. The contractor for construction of the Vapor Barrier System was RD2 Demolition and Construction, LLC, Staten Island, NY.

The Vapor Barrier System was not installed in the area of the building to the southwest of the primary supermarket structure. This area is used as a loading dock. The loading dock is a space that is well ventilated.

Active Sub-Slab Depressurization System

An Active SSDS was installed consisting of two pipe laterals utilizing 4-inch Schedule 40 PVC well screen (0.020 slot) each attached to vertical (riser) pipes that traverse the building slab and vent above the roof of the building. The lateral pipes are aligned horizontally beneath the building slab and embedded in an 8" layer of 3/4 inch virgin blue stone sub-base aggregate. An AMG Force vacuum blower was installed inline on the roof level for each lateral and riser configuration. Sub-slab vapor sample ports were installed in accessible areas in the basement to enable measurement of the vacuum pressure established by the system, as well as to allow for collection of sub-slab vapor samples at a later date. A low vacuum alarm was installed at a visible section of each vertical stack pipe within the building.

The design engineer for the Active SSDS was Nicholas Pressly. The contractor for installation of the well screen piping was JD Plumbing and Heating, LLC and for the vertical stacks was Peak Mechanical Solutions. The contractor for the installation of the vacuum blowers and low vacuum alarm systems was Pressly Associates, LLC. The effluent discharge point is a minimum of 10 feet from any operable window or air intake for any building. The System has operated since March 15, 2016.

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:

- 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 EC's and IC's. The property owner and property owner's successors and assigns will inspect EC's and IC's and submit to OER a periodic written certification that evaluates their performance;
- (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 commercial 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 Evan Greenberg, EIT, and Spiro Dongaris, PE of Athenica Environmental Services. The date of the inspections was September 30, 2020.

During the inspection, Athenica performed visual inspection of the engineering controls. Several minor cracks were observed in the composite slab. Vapor barrier was not exposed in any area. There were no observable cracks in any of the concrete sidewalls. Several areas of the composite cover were not visible due to the presence of multiple walk-in refrigeration units in the cellar. Additionally, Athenica inspected the composite cover in the loading dock and parking lot portions of the Site. No major cracks or damage was visible.

Athenica inspected the SSDS piping to verify operation. One of the two risers was not visibly accessible due to the presence of a walk-in refrigerator. There appeared to be no cracks or leaks in any accessible portions of the visible riser. The blower units, located on the roof, appeared to be operating, with no observable leaks. The blowers were operating at the time of inspection, and according to the Site manager have not been shut off since their initial activations, excluding periodic testing. Additionally, the blower discharges were confirmed to be located at least 10 feet from any air intake or frequently occupied space. The alarm systems on both risers were briefly tested to ensure the units emitted red lights and audible alarms when the vacuum pressure dropped. Vacuum release was done by briefly shutting down the blower fans. The system was immediately reactivated following this testing. As specified, the alarms use separate electrical circuits from the blower units. Both alarms functioned as specified.

Athenica measured vacuum readings from the three permanent monitoring points located in the cellar slab, using a handheld manometer. The vacuum pressure at SP-1 was -0.82 inwc. The vacuum pressure at SP-2 was -0.67 inwc. The vacuum pressure at SP-3 was -0.88 inwc. A figure depicting the monitoring point locations is attached below.

Athenica previously installed a Dwyer Minihelic[®] differential pressure gauge on each of the two risers, located on the roof. The vacuum pressure on the northern riser was observed to be -3.2 inwc. The vacuum pressure on the southern riser was observed to be -3.75 inwc.

Following the installation of the two gauges in September, Athenica trained the Site manager to perform monthly inspections and provided copies of the monthly inspection checklist, to be kept on file at the Site. Monthly checklists have been completed by the Site manager or superintendent since September 2019. Athenica confirmed with the Site manager that all institutional controls are being followed. The site use has not changed, and the Site is still registered with an "E" designation.

Photographs of the inspections are attached below.

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: Records have been kept on file since September 2019.

• 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 are anticipated in the expected performance of Engineering and Institutional Controls as described in the SMP.

6.0 NEXT INSPECTION

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

7.0 CERTIFICATION

I, Spiro Dongaris certify the following:

- I am a Professional Engineer;
- I inspected 445 East 163rd Street, site number 10EHAZ232X, on September 30, 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 have been maintained, with a checklist completed monthly by a Site manager;
- 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;
- The Site continues to be registered as an E-Designated property by the NYC Department of Buildings;
- Engineering Controls have not been discontinued without prior OER approval;
- OER has the right to enter the Site upon notice for the purpose of evaluating the performance of EC's and IC's.

PE Name NEW OF YQ. Spiro I. Dongaris SARIS PE Signature 095954 Date ROFESS 09/30/2020



NY nt Locations Layout

		Date:	09/03/2020	Site:	445 East 163rd Street, Bronx N
ATHENICA	ENVIRONMENTAL NC	Drawn by:	Evan Greenberg		
Environmental	Engineering Consultants	Checked by:	Ken Wenz		1
45-09 GREE	NROBTAVESUE	Drawing Scale:	Not to Scale	Figure:	SSDS and Monitoring Poin
LONG ISL 11104 TEL: FAX: (71	ANU LIT, AT (718) 784 - 400 8) 784 - 4085	Project No.:	20-134-0864	1 1.00	5555 and Monitoring Fom



View of the parking lot of the Site. The parking lot's composite cover appeared to be in good condition.



Overview of the basement floor's composite cover, which appeared to be in good condition.



View of minor cracks in the basement floor. No vapor barrier is exposed.



View of an SSDS monitoring point with a flush-mount steel cap.



View of monitoring point SP-1, showing a vacuum reading of -0.82 inches water column.



View of monitoring point SP-2, showing a vacuum reading of -0.67 inches water column.



View of monitoring point SP-3, showing a vacuum reading of -0.88 inches water column.



View of the alarm unit for the northern riser.



View of the alarm unit for the southern riser.



View of the northern blower fan unit on the roof, which read -3.2 inches water column.



View of the southern blower fan unit on the roof, which read -3.75 inches water column.



View of the gauge for the southern riser showing a vacuum pressure of -3.75 inches water column.

This system protects public safety and must be operating properly to ensure the safety of occupants of the building. If you identify any problems with this system, contact the SSDS maintenance team at Athenica Environmental Services at 718-784-7490. If there is no answer, call OER at 212-788-8841.

Question		Yes	Directions	Comments	
Is the system pressure gauge operational?	~		lf "No," call number below.	100 I.	
Does the system pressure gauge indicate proper vacuum?		If "No," call number below.	1		
What is the pressure gauge reading?		If reading is below 0.1, ok.	3-2,	3:45	
Is the system alarm operational?	\checkmark		If "No," call number below.	-	
Is the system blower operating?			If "No," call number below.		
Is air being discharged from the system vent?			If "No," call number below.		
Are clamps in system piping properly fastened and seals near the blower intact and properly sealed?			If "No," call number below.		4
Are there any holes, cracks, or other physical deficiencies in SSDS piping?			If "Yes," call number below.		
Are there any blockages in SSDS piping?			If "Yes," call number below.		

Name of Building Superintendent Performing Inspection:	Mohammad Rahman
Signature of Building Superintendent Performing Inspection:	WVI
Date of Inspection:	9/2/2019

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What is the pressure gauge reading?		If reading is below 0.1, ok.	3.2, 3.4	
Is the system alarm operational?	\checkmark		If "No," call number below.	ж. ²
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Name of Building Superintendent Performing Inspection:	Mohammad	Rahman
Signature of Building Superintendent Performing Inspection:	V	m
Date of Inspection:	10/01/2010	1

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What is the pressure gauge reading?		If reading is below 0.1, ok.	3.2, 3.5	
Is the system alarm operational?	\checkmark		If "No," call number below.	
Is the system blower operating?	\checkmark		If "No," call number below.	
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Name of Building Superintendent Performing Inspection:	Mohammad	Rahman
Signature of Building Superintendent Performing Inspection:	W	
Date of Inspection:	11	01/2019

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Is the system alarm operational?	\checkmark		If "No," call number below.	
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Name of Building Superintendent Performing Inspection:	Mohammad	Rahman
Signature of Building Superintendent Performing Inspection:	MA	
Date of Inspection:	1-	2/02/2019

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Name of Building Superintendent Performing Inspection:	Mohammad Rahman
Signature of Building Superintendent Performing Inspection:	
Date of Inspection:	01/02/2020

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Name of Building Superintendent Performing Inspection:	Mohammad	Rahman
Signature of Building Superintendent Performing Inspection:	WV .	
Date of Inspection:	02/03/2	020

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Name of Building Superintendent Performing Inspection:	Mohammad	Rahman
Signature of Building Superintendent Performing Inspection:	M	
Date of Inspection:	03/02/	2020

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Signature of Building Superintendent Performing Inspection:	Ma
Date of Inspection:	04/02/2020

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Signature of Building Superintendent Performing Inspection:	1 1	In
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lame of Building Superintendent Performing Inspection:	Mohammad	Rahman
Signature of Building Superintendent Performing Inspection:	W	2
Date of Inspection:	06/01/.	2020

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Name of Building Superintendent Performing Inspection:	Mohammad	Rahman	_
Signature of Building Superintendent Performing Inspection:	M	/	
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Rahman Mohammad Name of Building Superintendent Performing Inspection: Signature of Building Superintendent Performing Inspection: 08/03 2020 Date of Inspection: