OFFICE OF ENVIRONMENTAL REMEDIATION
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DECISION DOCUMENT
NYC VCP, E-Designation Remedial Action Work Plan Approval

February 28, 2023

Re: 676 Myrtle Avenue
Brooklyn Block 1914, Lot 22
Hazardous Materials, Air Quality, Noise E Designation ,
E-285: Bedford Stuyvesant North Rezoning - CEQR 12DCP156Y - 10/11/2012
OER Project Number 22EHAN392K / 23CVCP015K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated December 8, 2022 with Stipulation Letter dated February 13, 2023 and the Remedial Action Plan for Air Quality and Noise dated February 6, 2023 for the above-referenced project.

These Plans were submitted to OER under the NYC Voluntary Cleanup Program and E-Designation Program.

The RAWP was released for public comment for 30 days as required by program rule. That comment period ended on 1/2/2023. There were no public comments.

Project Description
The proposed redevelopment of the Site will consist of the construction of a new 5-story mixed-use commercial and residential building with a full cellar. The cellar and first floor will be set back approximately 11'-8" from the street and will extend to 89 ft from the front of the lot, leaving an 11 ft concrete capped rear courtyard. The cellar will consist of the building's water meter room, electrical meter room, pump room, trash compactor room, bicycle storage room, telecommunications room, and 2,557 SF of commercial space accessible by stairs from the first floor commercial space. The first floor will consist of the residential lobby and package room, and a 3,395 SF commercial space. A 12 ft by 50 ft brick paver courtyard will be constructed in front of the building. The 2nd through 5th floors will consist of residential apartments.

Statement of Purpose and Basis
This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation Program project known as "676 Myrtle Avenue" pursuant to Title 43 of the Rules of the City of New York Chapter 14, Subchapter 1 and the Zoning Resolution and §43-1474 of the Rules of the City of New York.

Description of Selected Remedy for Hazardous Materials
The remedial action selected for the 676 Myrtle Avenue site is protective of public health and the environment. The elements of the selected remedy are as follows:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan;
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds;
3. Establishment of Track 4 Site-Specific Soil Cleanup Objectives (SCOs);
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas;
5. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency dictated by disposal facility. A Waste Characterization Report

documenting sample procedures, location, analytical results shall be submitted to NYCOER prior to start of remedial action;

6. Excavation and removal of soil/fill exceeding Track 4 Site-Specific SCOs. For development purposes, excavation to a depth of approximately 11 ft below sidewalk grade (bsg) will be performed for the building's cellar, with additional excavation to 13 ft bsg for footings, and 15 ft bsg for the elevator pit. Sloped excavation from grade to approximately 13 ft below grade will be performed along the front and rear cellar walls. An estimated 2,150 cubic yards (3,225 tons) of soil/fill will be removed from the Site and properly disposed of at an appropriately licensed or permitted facility;
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID;
8. Management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials;
9. Removal of all underground storage tanks (UST's) encountered during soil/fill removal actions. Registration of tanks and reporting of any petroleum spills associated with UST's and appropriate closure of these petroleum spills in compliance with applicable local, State and Federal laws and regulations;
10. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities;
11. Collection and analysis of seven (7) site-wide end-point samples to determine the performance of the remedy with respect to attainment of Track 4 Site-Specific SCOs.
12. Collection and analysis for four (4) sidewall samples to in the area of SB5 hotspot for analysis of SVOCs and lead to determine the performance of the removal of the hotspot material with respect to attainment of Track 4 Site-Specific SCOs.
13. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations;
14. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
15. Installation of a vapor barrier system beneath the entire cellar slab, behind all cellar walls to grade, and below/around the elevator pit to mitigate soil vapor migration into the building. The vapor barrier system will consist of Raven Industries VaporBlock Plus® Series (VBP20) 20-mil vapor barrier system or OER-approved equivalent system. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The vapor barrier system is an Engineering Control for the Remedial Action. The remedial engineer will certify in the Remedial Action Report (RAR) that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building;
16. Construction and maintenance of an engineered composite cover consisting of the following to prevent human exposure to residual soil/fill remaining at the Site:
    a. The cellar will be capped with a 6-inch thick concrete slab underlain with Raven Industries VaporBlock Plus® Series (VBP20) 20-mil vapor barrier system (or OER-approved equivalent system), and a 6-inch layer of ASTM 5 (3/4" bluestone) over residual soil,
    b. The front courtyard will be capped with a 4-inch thick concrete slab (concrete pavers installed over concrete slab) underlain with residual and/or imported/reused clean soil; and
    c. The rear courtyard will be capped with a 4-inch thick concrete slab underlain with residual and/or imported/reused clean soil.
17. Installation of an active sub-slab depressurization system (SSDS). The active SSDS will consist of a single zone installed below cellar slab. The SSDS zone will consist of a horizontal pipe set in the middle of a gas permeable layer immediately beneath the building slab and vapor barrier system. The horizontal piping will consist of fabric wrapped, perforated 4-inch PVC pipe connected to a 6-inch cast iron riser pipe that penetrates the slab and travels through the building to the roof. The gas permeable layer will consistent of a 6-inch layer of ASTM 5 (3/4" bluestone). The SSDS will be hardwired and will include a RadonAway RP265 blower installed above the roof line and a separate set of a pressure gauge and alarm installed in a protective case located in an accessible area in the building. A total of three permanent monitoring points will be installed. The SSDS exhaust location will be located on the roof level and will be 10 feet from any operable window, operable doors, intakes, operable hatches or recreational spaces. The SSDS is an Engineering Control for the Remedial Action. The remedial engineer will certify in the RAR that the active SSDS was designed and properly installed to establish a vacuum in the gas permeable

layer and a negative (decreasing outward) pressure gradient across the building slab to prevent vapor migration into the building;

18. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
19. Dewatering is not anticipated, but if needed will be performed in compliance with city, state, and federal laws and regulations. Extracted groundwater will either be containerized for off-site licensed or permitted disposal or will be treated under a permit from New York City Department of Environmental Protection (NYCDEP) to meet pretreatment requirements prior to discharge to the sewer system.
20. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations;
21. Submission of an approved Site Management Plan (SMP) in the Remedial Action Report (RAR) for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
22. Submission of a Remedial Action Report (RAR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, and describes all Engineering and Institutional Controls to be implemented at the Site, and lists any changes from this RAWP;
23. Recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and Institutional Controls and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.
24. The property will continue to be registered with an E-Designation or Restrictive Declaration at the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls in this RAWP and a requirement that management of these controls must be in compliance with an approved SMP.

Description of Selected Remedy for Air Quality

The elements of the remedial action selected for Air Quality for the 676 Myrtle Avenue site are as follows:
In order to satisfy the requirements of E-285, electric will be used for space heating and hot water (HVAC) systems. No gas will be provided to the building.

The HVAC system for the dwelling units will be comprised of an electric operated heat pump system that consists of indoor wall mounted air handling units and outside condensing units. The outdoor condensers to be installed on the roof will consist of Mitsubishi model PUMYP36NKMU3. The indoor air handling units installed in each apartment will consist of Mitsubishi models PKFY-P06NLMU-E, PKFY-P12NLMU-E, and PKFY-P18NLMU-E.

Each residential unit will produce hot water by an individual electrical, storage type hot water heater HWH-1. The HWHs, manufactured by A.O. SMITH, model #ENT-50, have a storage capacity of 46 gallons and will be installed in dedicated closets inside the apartments.

The commercial space in the cellar & 1st floor will be provided with cooling and heating by future tenant fit out constructor with condensers installed on 2nd floor roof with 1700 fresh air intake, provided via ductwork from rear yard. No gas will be provided to the building. All future equipment will be electric. An electric instantaneous type, water heater made by EEMAX, model SPEX55T-ML will be installed or the commercial restrooms, refuse storage and trash compactor room.

Description of Selected Remedy for Noise

The elements of the remedial action selected for Noise for the 676 Myrtle Avenue site are as follows:

In order to meet the requirements of the E-Designation, the following window/wall attenuation will be achieved at the locations described below:

- 28 dBA for all façades.

The following windows and doors will be installed:

Window/Door Types	**OITC Rating**	**OITC Certification**	**Manufacturer and Model**	**Glazing**
Operable Residential Windows Myrtle Avenue Facade 2nd – 6th Floors Rear Facade 1st – 6th Floors	30 28 Required	See ASTM E90 Sound Transmission Loss Test Report Report No. L1561.01-113-11-R0 Report Date: 08/27/20 Data File No. L1561.01C for dual action tilt-turn window.	Zephyr Windows, Inc. Series/Model uPVC Super 82 tilt/turn window	32 mm IG (4 mm annealed exterior, 22 mm argon, 6 mm annealed interior)
Fixed Residential Windows Myrtle Avenue Facade 2nd – 6th Floors Rear Facade 1st – 6th Floors	30 28 Required	See ASTM E90 Sound Transmission Loss Test Report Report No. L1561.01-113-11-R0 Report Date: 08/27/20 Data File No. L1561.01C for the tilt-turn window. Manufacturer letter and window profiles for tilt-turn and casement windows provided in RAP.	Zephyr Windows, Inc. Series/Model uPVC Super 82 Fixed Window	32 mm IG (4 mm annealed exterior, 22 mm argon, 6 mm annealed interior)
Residential Sliding Doors Myrtle Avenue Facade 2nd – 6th Floors Rear Facade 2nd - 6th Floors	31 28 Required	See ASTM E90 Sound Transmission Loss Test Report Report No. J5755.01-113-11-R0 Report Date: 07/29/20 Data File No. J5755.01B for the exact door and glazing.	Zephyr Windows, Inc. Series/Model Super 82 Sliding Glass Door	28.8 mm IG (8.8 mm laminated exterior, 16 mm argon, 4 mm annealed)
Commercial Doors Myrtle Avenue Facade 1st Floor Rear Facade 1st Floor	31 23 Required	See ASTM E90 Sound Transmission Loss Test Report Report No. J2951.01-113-11-R0 Report Date: 07/15/19 Data File No. J2951.01B for the exact door and glazing	Zephyr Windows, Inc. Series/Model Super 82 UPVC Swing Door	32 mm IG (8 mm Laminated exterior, 20 mm argon, 4 mm annealed)
Commercial Windows Myrtle Avenue Facade – 1st Floor	30 23 Required	See ASTM E90 Sound Transmission Loss Test Report Report No. L1561.01-113-11-R0 Report Date: 08/27/20 Data File No. L1561.01C for the tilt-turn window. Manufacturer letter and window profiles for tilt-turn and fixed windows provided in RAP.	Zephyr Windows, Inc. Series/Model uPVC Super 82 Fixed Window	32 mm IG (4 mm annealed exterior, 22 mm argon, 6 mm annealed interior)

In order to satisfy the requirements of the E-Designation, Alternate Means of Ventilation (AMV) will be installed in order to maintain a closed window condition. AMV for this project will be achieved by:

1. Trickle Vents: Alternate means of ventilation (AMV) will be provided by installing Renson, model AP75 self-regulating window vents in each bedroom and living room with a minimum rate of one AP75 self-regulating window vent per room. Fresh air will be provided to all bedrooms and living rooms by the AP75 self-regulating window vents. Heating and cooling will be provided to residential spaces receiving fresh air via window vents by a heat pump system with wall-mounted air handling units. The HVAC system for the dwelling units will be comprised of an electric operated heat pump system that consists of indoor wall mounted air handling units and outside condensing units. The outdoor condensers to be installed on the roof will consist of Mitsubishi model PUMYP36NKMU3. The indoor air handling units installed in each apartment will consist of Mitsubishi models PKFY-P06NLMU-E, PKFY-P12NLMU-E, and PKFY-P18NLMU-E. The residential lobby and corridor on the 1st floor will be provided with cooling and heating via VRV system with condenser CU-LOB, model #PUMY-P36NKMU3, installed on the roof, cassette air handler AH-LO, model #PEFY-18NLMU-E. Fresh air (50cfm) in the lobby comes from ERV-1, mounted on the main roof. The elevator machine room is provided with wall mounted air handler AH-EMR, model #RKA-A12HA7 and condenser CU-EMR, model #PUY-A12NKA7, are installed on the main roof. The ventilation of the residential corridors and trash compactor rooms are achieved by ERV-1, installed on the main roof, providing 50 CFM corridor supply per floor & 50 CFM exhaust per trash room per floor. Energy recovery ventilator, model #HE1XRT, manufactured by RenewAire.
2. Compliance with 2014 NYC Mechanical Code: Providing outside air to residential common areas such as the lobbies and corridors in accordance with the 2014 NYC Mechanical Code. The commercial space in the cellar & 1st floor will be provided with cooling and heating by future tenant fit out constructor with condensers installed on 2nd floor roof with 1700 fresh air intake, provided via ductwork from rear yard.

The remedies for Hazardous Materials, Air Quality, Noise E Designation described above conform to the promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration OER guidance, as appropriate.

2/28/23
Date

Adrian Singleton
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02/28/2023
Date

Zach Schreiber, Ph.D.
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