



OFFICE OF ENVIRONMENTAL REMEDIATION

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DECISION DOCUMENT
NYC VCP, E-Designation
Remedial Action Work Plan Approval

March 23, 2018

Re: 794 Flatbush Avenue
Brooklyn Block 5063, Lots 58
Hazardous Materials and Noise “E” Designation
E-397: Caton Flats Development – CEQR 16DME004K – 4/25/2017
OER Project Number 18EH-N062K / 18CVCP011K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated October 2017 [with Stipulation Letter dated February 2018] and the Remedial Action Plan for Noise dated January 2018 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 11/05/2017. There were no public comments. NYS DEC and NYCDOHMH were briefed on this project on 9/28/2017.

Project Description

The proposed redevelopment consists of the demolition of the existing building followed by the construction of a new 14-story mixed-use building with affordable housing (255 units), a new community facility, and an expanded market. The proposed building’s cellar would occupy the entire Site and be used for parking and retail support (e.g., cold storage). The development is anticipated to require excavation to approximately 15 feet below street grade, with limited deeper excavation for the installation of footings, elevator pits, and other areas of deeper foundation elements.

Statement of Purpose and Basis

This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation Program project known as “794 Flatbush Avenue” pursuant to Title 43 of the Rules of the City of New York Chapter 14, Subchapter 1 and the Zoning Resolution and §24 - 07 of the Rules of the City of New York.

Description of Selected Remedy for Hazardous Materials

The remedial action selected for the 794 Flatbush 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. Selection of Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs).
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas. Demolition of the existing one-story structure covering a portion of the Site.
5. Performance of additional Site characterization sampling of soil and soil vapor in the area of the former dry cleaner (in the southwestern portion) and within the footprint of the existing building.

6. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency dictated by potential disposal facility(s).
7. Excavation and removal of soil/fill exceeding Unrestricted Use (Track 1) SCOs. The entire footprint of the building area will be excavated to a depth of approximately 15 feet below grade for development purposes. Approximately 27,000 tons of soil/fill will be removed from the Site and properly disposed of at an appropriately licensed or permitted facility.
8. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a photoionization detector (PID).
9. 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.
10. Removal of any USTs, if encountered, during excavation. Registration of tanks and reporting of any petroleum spills (if noted) associated with USTs and appropriate closure of these petroleum spills in compliance with applicable local, State and Federal laws and regulations.
11. Transportation and off-site disposal of all soil/fill material at licensed or 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. Appropriate segregation of excavated media on-site.
12. Collection and analysis of ten (10) end-point samples to determine the performance of the remedy with respect to attainment of Track 1 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 acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.
15. Dewatering (if required) 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.
16. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.

If Unrestricted Use Track 1 SCOs are not achieved, the following construction elements implemented will constitute Engineering and Institutional controls:

17. As part of development, installation of a vapor control/waterproofing system beneath the building slab and outside of foundation sidewalls below grade. The vapor barrier will consist of a minimum of 20-mil Stego® Wrap 20 system as manufactured by Stego Industries, LLC or equivalent system below the slab throughout the building area and outside of the subgrade walls. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The system would serve as both waterproofing and as a vapor barrier to protect against intrusion of soil gas. The remedial engineer will certify in the RAR that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.
18. As part of development, construction and operation of a cellar-level parking garage with high volume air exchange in conformance with NYC Building Code.
19. 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 lists any changes from this RAWP.

Description of Selected Remedy for Noise

The elements of the remedial action selected for Noise for the 794 Flatbush 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:

1. 33 dBA for all facades in residential spaces;
2. 28 dBA for all facades in the commercial and tenant amenity spaces based on an allowed reduction of 5 dBA from the attenuation requirement outlined in the E-Designation;

The following windows will be installed:

Façade Floor Range	OITC Rating	OITC Certification	Manufacturer and Model	Glazing
East Façade, South Façade Floor 1 Retail Windows SF-01, SF-03, SF-04, SF-05, SF-06	29	See ASTM E-90 acoustical report in Appendix F	YES 45FT Storefront manufactured by YKK AP America	1/4" laminated exterior, – 1/2" air space – 1/4" annealed interior
South Facade Floor 1 Retail Market Doors SF-06, SF-07, SF-08	30	See ASTM E-90 acoustical report in Appendix F	YSD 600T Sliding Storefront Doors manufactured by YKK AP America	5/16" laminated exterior, – 7/16" air space – 1/4" annealed interior
East, South, North, and Rear South Facades Floor 2 (partial) Commercial Office Area and Tenant Amenity Windows SF-10, SF-11, SF-13, SF-14, SF-15, SF-18, SF-20, SF-21, SFD-13	29	See ASTM E-90 acoustical report in Appendix F	YES 45FT Storefront manufactured by YKK AP America	1/4" laminated exterior, – 1/2" air space – 1/4" annealed interior
All Facades Floors 2 through 14 Residential Windows W1A, W1B, W1C, W1D, W1E, W2A, W2B, W2C, W3A, W3B, W4A, W4B, W4C, W4D, W4F, W4G, W4H, W-6, W- 6A	33	See ASTM E-90 acoustical report in Appendix F	2250i-XLT Invent Fixed window adjacent to Casement manufactured by Wausau	3/8" annealed exterior, – 3/4" air space – 1/2" laminated interior
West Facade Floors 2, 13 and 14 (partial) Tenant Amenity Windows W2A, W4B, W4C	33	See ASTM E-90 acoustical report in Appendix F	2250i-XLT Invent Fixed window adjacent to Casement manufactured by Wausau	3/8" annealed exterior, – 3/4" air space – 1/2" laminated interior

Façade Floor Range	OITC Rating	OITC Certification	Manufacturer and Model	Glazing
North, Rear North and West Façades Floor 2 North, East and South Façades Floor 11 (see A-620) Residential Doors W2A-SF, W4A-SF, W4B-SF, SFD-13	34	See ASTM E-90 acoustical report in Appendix F	TD 4250i Series Terrace Doors manufactured by Wausau	1/4" exterior lite – 1/2" air space – 5/16" interior lite

The acoustical reports described above are representative of the acoustical performance of all proposed windows/doors/curtain walls. Although the test report for the YKK YES 45FT storefront system indicates model YES 45TU, correspondence from the manufacturer's rep confirming the two models are the same is included in the Appendix. Color-coded elevations and the labeled window schedule attached in Appendix E show the locations of the window/door types.

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:** Installing Trimvent 90 model trickle vents manufactured by Titon in each bedroom and living room, as well as the second floor management office and conference room. Fresh air will be provided to all bedrooms and living rooms by the trickle vents. Floor plans showing the locations of trickle vents are included in Appendix A. Manufacturer specifications for the trickle vents are included as Appendix G.
2. **PTAC Units:** Installing EZ series hydronic hot water Packaged Terminal Air Conditioner (PTAC) units with manually-operated outside air dampers manufactured by Islandaire in residential units. Additionally, alternate means of ventilation is provided to the 13th floor lounge by two Islandaire EZ15LT Series hydronic hot water PTAC units that will also supply heating and cooling. The hot water will be provided to the PTAC units by three (3) LAARS Magnatherm MGH 4000 natural gas-fired condensing boilers. Floor plans showing the locations of PTAC units are included in Appendix H.
3. **Combination of Dedicated Fresh Air/ HVAC System.** The first floor market will be provided with fresh air by a dedicated gas-fired air-cooled rooftop unit RN-013-8-0-EB09-264 manufactured by Aeon. The first floor kitchen is provided with fresh air that is tempered by a gas-fired air-cooled rooftop unit model RN-015-8-0 manufactured by Aeon. Louvers will be provided for the first floor retail space for future tenants to use for mechanical ventilation.

Alternate means of ventilation is provided to the second floor office area by mechanical means through an ERV (Energy Recovery Ventilator) model ERV450-ECM manufactured by Renewair. Fresh outside air is provided to the second floor gym which is tempered by a VRF (Variable Refrigerant Volume) heat pump air handler model ARNU363NJA4 manufactured by LG.

P.E./R.A. certified mechanical drawings depicting the AMV system and how fresh air is delivered into each of the living spaces, market, and tenant amenity spaces are provided in Appendix H. A letter from the engineer who designed the dedicated fresh air/ HVAC system describing the system, the equipment involved (stating the manufacturer and model information), and how fresh air is delivered into each of the living spaces is attached as Appendix I.

4. **Compliance with Mechanical Code:** Providing outside air to commercial spaces and common areas such as lobbies and corridors in accordance with the NYC Mechanical Code.

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

3/23/2018



Date

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3/23/2018



Date

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