



OFFICE OF ENVIRONMENTAL REMEDIATION

100 Gold Street, 2nd Floor
New York, New York 10038

Daniel Walsh, Ph.D.

Director

Tel: (212) 788-8841

Fax: (212) 312-0885

DECISION DOCUMENT

NYC VCP and E-Designation Remedial Action Work Plan Approval

May 22, 2015

Re: **“Rheingold, Block 3141”**
1-37 Forrest Avenue; 2-36 Montieth Street; 479-499 Bushwick Avenue; 81-97 Stanwix Street
Brooklyn Block 3141, Lot 1 (formerly Lots 1, 5-8, 10-12, 14, 15, 18, 20, 21, 23, and 36)
Hazardous Materials, Air Quality, and Noise “E” Designation
E-315: 12/10/2013 – Rheingold Rezoning – CEQR 09 DCP 002K
OER Project Number 14EHAN365K / VCP Number 14CVCP225K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated March 2015 with Stipulation Letter dated May 2015 and the Remedial Action Plan for Air Quality and Noise dated May 2015 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 April 17, 2015. There were no public comments.

Project Description

The development project consists of a new 6-story mixed use (retail and residential) building. The building will have a partial sub-cellar level and a full cellar level. The sub-cellar level will consist of a parking garage, an underground retail space and mechanical rooms. The cellar level will consist of residential apartments that face a center courtyard, an open air dog park, a screening room, lounge, media room, fitness center consisting of a gym, climbing wall, and yoga room, the residential lobby that includes a lounge, library, leasing office, mail room, package room, laundry room and kids play room. The cellar level along Stanwix Street will consist of open storage space. The first floor will consist of residential apartments that face a center courtyard and the dog park, and retail space along Forrest Street, Bushwick Avenue and Montieth Street. Floors two through six will be residential apartments. The open courtyard and dog park will be partially constructed above the sub-cellar level parking garage.

The building’s sub-cellar will require excavation for the majority of the new lot to a depth of approximately 15 feet along Montieth Street sloping to an excavation depth of approximately 20 feet along Forrest Street. A portion of the new lot will require excavation to a depth of approximately 8 feet for construction of the dog park, and sloped excavation will be required for the vehicle ramp that provides access to the cellar parking level from Montieth Street. The remainder of the lot along Stanwix Street will require excavation to a depth of approximately 11 feet for a cellar. Assuming excavation of the 419 ft by 200 ft lot to an average depth of 17 feet below grade, a total of approximately 53,000 cubic yards (75,000 tons) of soil will require excavation. Assuming an excavation depth of approximately 11 feet for the 12,000 ft² cellar area along Stanwix Street, an additional 4,900 cubic yards (7,300 tons) of soil will be excavated. The water table is expected at a depth of approximately 42 feet below grade surface (bgs), and will therefore not be encountered during excavation.

Statement of Purpose and Basis

This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation project known as “Rheingold, Block 3141” 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 Hazmat

The remedial action selected for the Rheingold, Block 3141 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 Site-Specific (Track 4) 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, the majority of the Site will require excavation to a depth of approximately 15 feet along Montieth Street sloping to an excavation depth of approximately 20 feet along Forrest Street. Excavation for a portion of the dog park area not constructed over the sub-cellar parking garage will require excavation to a depth of approximately 8 feet below grade with additional excavation to 10 feet below grade for construction of a water tank, and sloped excavation ranging from 2 to 15 feet below grade for the parking garage ramp. Approximately 75,000 tons of soil will be removed;
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 to prevent co-mingling of contaminated material and non-contaminated materials;
9. Removal of underground storage tanks (USTs) (if encountered) and closure of petroleum spills (if evidence of a spill/leak is encountered during Site excavation) 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. Appropriate segregation of excavated media on-Site;
11. Collection and analysis of ten (10) end-point samples to determine the performance of the remedy with respect to attainment of Track 1 SCOs. Samples will be analyzed for contaminants of concern VOCs, SVOCs, Metals, PCBs, and Pesticides;

12. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations;
13. Installation of an active Sub-Slab Depressurization System (SSDS) with monitoring ports. The SSDS system will be installed in the gravel layer beneath the new building slab in the portion of the building not finished as a parking garage;
14. Installation of a vapor barrier system below the concrete slab of the building as well as behind all foundation walls of the proposed building. The vapor barrier will consist of Raven Industries' VaporBlock 20 Plus, which is a seven layer co-extruded barrier made from state-of-the-art polyethylene and EVOH resins;
15. Ventilation of the sub-cellar which will be utilized as a parking garage. The parking garage will be built and ventilated per requirements of NYC Building Department's codes;
16. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
17. Construction and maintenance of an engineered composite cover consisting of the 6 inch thick concrete cellar slab, 6 inch thick parking garage ramp, and 2ft of certified clean fill within the dog park area to prevent human exposure to residual soil/fill remaining under the Site;
18. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations;
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, lists any changes from this RAWP, and, if Track 1 SCOs are not achieved, describes all Engineering and Institutional Controls to be implemented at the Site;
20. If Track 1 is not achieved, submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual materials, including plans for operation, maintenance, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency; and
21. If Track 1 is not achieved, the property will continue to be registered with an E-Designation 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. 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.

Description of Selected Remedy for Air Quality

The elements of the remedial action selected for Air Quality for the Rheingold, Block 3141 site are as follows:

In order to satisfy the requirements of the E-designation, electric equipment will be utilized at the Site for space heating, and hot water for each of the 367 residential apartments. Space heating for the retail space and residential lobby will utilize natural gas.

The natural gas flue will be located on the roof of the proposed building, within the footprint of current Lot 15. Therefore, the Air E-Designation stack discharge height requirement, setback requirements, and low NOx burner requirement specified for Block 3141, Lots 20, 21, 22, 23, and 36 (Projected Development Site 2, Buildings E and

F) are not applicable to this project.

One stack will be located on the roof within the footprint of current Lot 15. The stack will be located 34.9 feet from the north line of Lot 15, 37.5 feet from the west line of Lot 15, 37.5 feet from the east line of Lot 15, and 65.1 feet from the south line of Lot 15. After the lots comprising the Site are merged, the stack will be located 167.95 feet from the south line of the lot, and 231.75 feet from the west line of the lot. The north lot line is closest to Montieth Street, the east lot line is closest to Stanwix Street, the south lot line is closest to Forrest Street, the west lot line is closest to Bushwick Avenue.

An Air Quality Installation Report (IR) will be submitted to OER following implementation of the remedial action defined in the RAP.

Description of Selected Remedy for Noise

The elements of the remedial action selected for Noise for the Rheingold, Block 3141 site are as follows:

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

1. 31 dBA in street-facing residential spaces;
2. 26 dBA in the commercial space based on an allowed reduction of 5 dBA from the attenuation requirement outlined in the E-Designation; and
3. 28 dBA for each of the residential inner courtyard façades, based on a reduction allowed due to shielding.

The following window(s) will be installed:

Façade Floor Range	OITC Rating	OITC Certification	Manufacturer and Model	Glazing
WINDOWS and BALCONY DOORS All Facades All Floors plus cellar (Residential)	31	See ASTM E90 Sound Transmission loss Test Report (D1170.01-113-11) in Appendix E of the RAP.	Series/Model CS68 Window manufactured by Reynaers Aluminum Systems, LTD	1-1/16" IG (5/16" annealed exterior, 1/2" air space, 1/4" annealed interior)
WINDOWS and BALCONY DOORS All Facades All Floors plus cellar (Residential)	32	See ASTM E90 Sound Transmission loss Test Report (E4499.01-113-11) in Appendix E of the RAP.	Series/Model CS68 Window manufactured by Reynaers Aluminum Systems, LTD	1-1/4" IG (3/8" tempered exterior, 1/2" air space, 3/8" tempered interior)
STOREFRONT WINDOWS and DOORS North, West and South Facades 1st Floor (Commercial and Lobby)	32	See ASTM E90 Sound Transmission loss Test Report (E4499.01-113-11) in Appendix E of the RAP.	Series/Model CS68 Window manufactured by Reynaers Aluminum Systems, LTD	1-1/4" IG (3/8" tempered exterior, 1/2" air space, 3/8" tempered interior)

The acoustical reports described above are representative of the acoustical performance of all proposed windows/doors/curtain walls.

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 Ventalis ventilation units manufactured by Reynaers Aluminum N.V. in each bedroom and living room at a rate of one Ventalis ventilation unit per room. Fresh air will be provided to all bedrooms and living rooms by the Ventalis ventilation units.
2. **Compliance with Mechanical Code:** Providing outside air to commercial spaces and common areas such as lobbies and corridors in accordance with the 2014 NYC Mechanical Code.

Alternate means of ventilation shall be provided for the non-residential portions of the building by ducted ventilation systems connected to louvers on the building exterior. Ventilation rates shall be as NYC Mechanical Code section MC 403.

Ventilation for the screening room, lounge and media room shall be taken from a louver in the building entrance overhang at the corner of Flushing Avenue and Forrest Street utilizing a 400 CFM Greenheck model BCF-106 ventilation system.

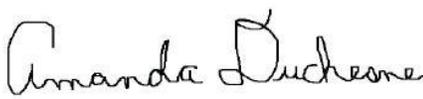
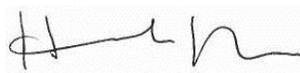
Ventilation for the fitness center consisting of a gym, climbing wall, and yoga room shall be taken from a louver in the building entrance overhang on Forrest Street utilizing a 600 CFM Greenheck model BCF-107 ventilation system.

Ventilation for the library, leasing office, mail room, package room and kids playroom shall be taken from a louver in the building entrance overhang at Montieth Street utilizing a 600 CFM Greenheck model BCF-107 ventilation system.

Ventilation for the laundry room shall be taken from a louver in the laundry room wall at the courtyard façade to provide make up air for the laundry as required for the dryer exhaust. The make-up air of 5500 CFM will be ducted to behind the dryers.

A Noise Attenuation Installation Report (IR) will be submitted to OER following implementation of the remedial action defined in this RAP. The IR will document that the remedial work required under this RAP has been completed and has been performed in compliance with this plan.

The remedies for Hazardous Materials, Air Quality, and Noise 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.

May 22, 2015	
Date	Amanda Duchesne, Project Manager
May 22, 2015	
Date	Shaminder Chawla, Deputy Director
May 22, 2015	
Date	Hannah Moore, Assistant Director

cc: Daniel Walsh, Maurizio Bertini, Zach Schreiber, PMA-OER
Izzy Newon, Bushwick Holdings I LLC – izzy.poa@gmail.com
Charles Kenzer, Rabsky Group – ch@rabskygroup.com
Kevin Brussee, Environmental Business Consultants – kbrussee@ebcincny.com
Eran Chen, R.A. – eran@oda-architecture.com
Ariel Czemerinski, P.E. – ariel@AMC-Engineering.com