



OFFICE OF ENVIRONMENTAL REMEDIATION

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NOTICE TO PROCEED
DOB Job Number B00614338-II

August 12, 2022

Re: 420-430 Carroll Street, 404-418 and 434-440 Carroll Street
Brooklyn Block 453, Lots 1 (Former Lot 21)
Hazardous Materials and Air Quality “E” Designation
E-601: Gowanus Neighborhood Plan - CEQR 19DCP157K - 11/23/2021
OER Project Number 22EH-A153K / 22CVCP045K

Dear Brooklyn Borough Commissioner:

The New York City Office of Environmental Remediation (OER) hereby issues a Notice to Proceed for the above-referenced Department of Buildings Job Numbers. This correspondence is provided pursuant to OER’s responsibilities as established in Subchapter 7 of Chapter 14 of Title 43 of the Rules of the City of New York and Section 11-15 of the Zoning Resolution of the City of New York. The Applicant has filed a Hazardous Materials remedial action work plan and Air Quality remedial action plan that are acceptable to this Office and has prepared a Construction Health and Safety Plan for implementation on this project. OER’s Decision Document that defines the remedial actions required for this project has been prepared and filed and is available on request.

At the conclusion of remedial activities required under this action, the Zoning Resolution and §43-1474 of the Rules of the City of New York requires that OER issue a Notice of Satisfaction signifying that all remedial action requirements established for this project have been satisfied prior to issuance of the Certificate of Occupancy or Temporary Certificate of Occupancy by Department of Buildings.

If you have any questions or comments, please feel free to contact Yolanda Chow at 212-788-7423.

Sincerely,

Zach Schreiber, Ph.D.
Assistant Director

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DECISION DOCUMENT

NYC VCP, E-Designation Hazardous Materials Remedial Action Work Plan Approval

August 12, 2022

Re: 420-430 Carroll Street, 404-418 and 434-440 Carroll Street
Brooklyn Block 453, Lots 1 (Former Lot 21)
Hazardous Materials, Air Quality E Designation,
E-601: Gowanus Neighborhood Plan - CEQR 19DCP157K - 11/23/2021
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The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated February 2022 with Stipulation Letter dated February 10, 2022, and the Remedial Action Plan for Air Quality dated July 31, 2022 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 03/06/2022. There were no public comments.

Project Description

The proposed future use of the Site will consist of construction of two [mixed-income (market rate/affordable) and residential rental] buildings. The proposed buildings will be surrounded by mews, public open space and a shore walkway. The proposed buildings will be at grade for the majority of the area; however, a limited cellar is proposed for the installation of elevator pits and a below ground tunnel interconnecting the two buildings.

The west tower will be 21-story high and include retail, storage and maintenance rooms (mailroom, trash room, telecom) on the ground floor; office/Gowanus mix and electrical room on the second floor; amenities on the third floor and residential (market/affordable) units starting from the fourth floor. The west building footprint will be approximately 16,000 square feet.

The east tower will be 16-story high and include retail, bike storage, trash room, building office management package room and parking on the ground floor and residential units starting from the second floor. The east building footprint will be approximately 19,500 square feet.

The building foundation slab thickness will be approximately 12 inches. The cellar slab thickness will be approximately 14 to 18 inches. The structural slab on ground will be comprised of a reinforced concrete slab underlain by a waterproofing layer, 3-inch mud slab and crushed stone.

The planned development entails the excavation of Site soils between 0 to 3 feet below grade for the slab on grade building foundation to a maximum of 13 feet below grade for the cellar area. Some areas of the site (open space) will be raised for grading/landscaping purposes. The estimated volume of soil to be excavated for the project is approximately 10,000 tons. Some excavation below the water table is anticipated, therefore, dewatering will be required.

Statement of Purpose and Basis

This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation Program

project known as “420-430 Carroll Street” 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 420-430 Carroll Street 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(s).
6. Excavation and removal of soil/fill exceeding Track 4 Site Specific SCOs. The following excavations will take place:
 - o The two building footprints of the Site will be excavated to a depth of approximately 2 to 3 feet below grade for development purposes;
 - o And an additional 3 to 5 feet below grade will be excavated for the automated parking area;
 - o and 6 to 7 feet below grade will be excavated locally for the foundation piles.
 - o A small portion of building (cellar/elevator pits and tunnel area) will be excavated to the depths of 13 to 23 feet below grade.
 - o Landscape areas will be excavated to approximately 1 to 5 feet below grade
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
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 USTs that are encountered during soil/fill removal actions.
10. Registration of tanks and reporting of any petroleum spills 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 29 end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
13. Demarcation of residual soil/fill in landscaped areas. Demarcation layer is not required underneath building slab or paved walkways.
14. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
15. Construction of an engineered composite cover consisting of:
 - 12-inch-thick concrete building slab underlain by 3-inch mud slab and clean granular sub-base beneath all building areas.
 - 14- to 18-inch-thick concrete building cellar slab underlain by clean granular sub-base.
 - For all open spaces and landscaped areas, the cover will consist of: vegetation (plantings/trees/lawn): underlain by 24-inch (min.) clean fill consisting of topsoil, 8-inch river stone, and/or drainage stone.
 - Decking (raised platform) over rip rap (16-inch armor stone, 8-inch granular sub-base and geotextile fabric.
 - Metal grate: a) vehicular, underlain by drainage stone, open graded drainage course and filter fabric and b) on top of the tunnel structure, underlain by 6inch open graded gravel.

- Cast-in-Place (CIP) concrete: a) 4- to 7-inch-thick CIP concrete underlain by 6-inch compacted aggregate, structural fill as needed, filter fabric on top of pile supported structure and b) 4- to 7-inch-thick CIP underlain by 6-inch compacted aggregate and compacted subgrade.
 - Stone unit pavers: a) on grade comprised of 6-inch granite cobbles over a 2-inch drypack setting bed underlain by 5-inch CIP concrete subbase, 6-inch compacted aggregate and 2) on structure comprised of 6-inch granite cobbles over a 2-inch drypack setting bed underlain by 6-inch compacted aggregate and structural fill as needed (on top of pile supported structures).
 - Precast porous paving underlain by 1-inch permeable setting bed aggregate, 6-inch (min.) open graded permeable base aggregate, 8-inch (min.) open graded subbase aggregate.
16. Installation of a vapor/waterproofing barrier system beneath the building slab and outside of sub-grade foundation sidewalls to mitigate soil vapor migration into the building and provide waterproofing. The vapor/waterproofing barrier system will consist of a 20-mil Florprufe (or approved equal), 46-mil Preprufe 300R (or approved equal) below the slab throughout the full building area and a 32-mil Preprufe 160R (or approved equal) outside all sub-grade foundation sidewalls to grade. 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 RAR that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.
 17. Installation of an active sub-slab depressurization system (SSDS) consisting of a network of sub-slab vapor collection loops (4-inch diameter perforated PVC pipe) installed within gas permeable layer immediately beneath the building slab and vapor barrier system. The vapor collection loops will be joined below the slab by solid PVC header pipes that connect to one vertical riser in each building. The vertical riser pipe will penetrate the slab and be routed upward through each floor level, along a building column or foundation wall, and terminate on the roof. A vacuum gauge and sample port will be installed on riser pipes and accessible via the roof. Each riser will ultimately connect to a roof-mounted regenerative blower, capable of providing the flowrate/vacuum required for depressurization of the sub-slab zone. The blower systems will have a low vacuum switch, knock-out tank with high level alarm, an in-line air filter, and effluent discharge stack. The blowers will operate continuously and include an alarm system capable of notifying appropriate building personnel of a shut-down incident. The alarm system will consist of a warning light located on the first floor, in either an office area or the main lobby. The active 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 acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.
 19. Dewatering 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) or equivalent permit from USEPA (to discharge to the Gowanus Canal) 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 a 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 describes all Engineering and Institutional Controls to be implemented at the Site.
 22. Submission of an approved Site Management Plan (SMP) in the Remedial Action Plan (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.
 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 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 420-430 Carroll Street site are as follows:

In order to satisfy the requirements of the E-designation, natural gas will be utilized at the site for space heating and hot water.

In order to satisfy the requirement to use low NOx burners (<30ppm), the building is furnished with one (1) natural gas-fired cogeneration unit. Cognen unit will be Tecogen Model Tecopower 75 kW module with integral burner and NOx level of 4.9 parts per million (ppm). The building is also furnished with 1 (one) backup natural gas-fired Laars (model – NTV-850) sealed-combustion water heater with an integral burner and NOx level less than 10 ppm located in the roof mechanical room.

The residential portion of the building (Apartments and Amenities) will be heated and cooled by electric variable refrigerant flow air-cooled heat pump systems (VRF) with outdoor condensing units (Mitsubishi – PUHY/PURY) that will be located on the main roofs on East and West Towers. VRF Indoor Vertical Unit (Mitsubishi - PVFY) will be installed in apartments, and ducted units (Mitsubishi - PEFY) will be installed in common areas. Room temperature control will be provided through unit-mounted thermostat control.

The remedies for Hazardous Materials, Air Quality 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.



08/12/2022

Date

Yolanda Chow
Project Manager



08/12/2022

Date

Zach Schreiber, Ph.D.
Assistant Director

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