



OFFICE OF ENVIRONMENTAL REMEDIATION

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

Mark P. McIntyre, Esq.
Director

Tel: (212) 788-8841

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

June 3, 2021

Re: 1504 Macombs Road: 1504-1508 and 1518-1530 Macombs Road; 1511-1515 and 1521 Inwood Avenue
Bronx Block 2865, Lots 15 and 19
Hazardous Materials, Air Quality, Noise “E” Designation
E-442: Jerome Avenue Rezoning - CEQR 17DCP019X - 3/21/2018
OER Project Number 21EHAN004X / 21CVCP034X

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated January 2021 with Stipulation Letter dated January 26, 2021 and the Remedial Action Plan for Air Quality and Noise dated May 2021 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. The comment period ended on February 25, 2021. There were no public comments.

Project Description

The redevelopment project consists of constructing a new 6-story, 96,600 square foot (SF) institutional building, with a partial cellar, a mezzanine level and rooftop recreational space.

The cellar level will occupy approximately 70% of the site footprint and consist of a gymnasium, locker rooms, staff offices, storage and mechanical space, including a storm water detention tank. The ground floor level will occupy the entire site footprint, although it will have a smaller square footage (17,610 SF) due to open floor space occupied by the upper portions of the gymnasium. In addition to the gymnasium, the first floor will consist of the main entrance lobby, a cafeteria/auditorium, a kitchen/severy, music classroom, offices and storage space. The mezzanine level will comprise of open, upper portions of the gymnasium and cafeteria, and mechanical and void space. The second through the 5th floors are comprised of classrooms, restrooms, offices and storage space, with outdoor play areas at the northern and southern sides of the building at the second floor level. The 6th floor (roof level) will consist of restrooms and a boiler room, with outdoor recreational space and mechanical areas.

Statement of Purpose and Basis

This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation Program project known as “1504 Macombs Road” 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 1504 Macombs Road 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. 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 and analytical results shall be submitted to NYCOER prior to start of Remedial Action;
5. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas;
6. Excavation and removal of soil/fill exceeding Track 4 Site-Specific SCOs. For development purposes, the entire Site will be excavated to a minimum of 2 feet below grade. The area within the cellar footprint will be excavated to a depth of 12 feet with deeper excavation between 14 and 15 feet for footings and pile caps, 17 feet for the elevator pit and 20 feet to accommodate the detention tank. Therefore, an estimated 9,700 cubic yards (14,550 tons) of soil will require excavation for the new building's construction. Soil will be 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 USTs, if encountered, during soil/fill removal actions. 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.
 - a. If identified tanks and potential oil-water separator in the northeast corner of the site are not removed as part of demolition, then they will be removed during remedial action;
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 nine (9) post-excavation confirmation soil samples to determine the performance of the remedy with respect to attainment of Track 4 Site-Specific SCOs. Samples will be analyzed for contaminants of concern VOCs, SVOCs, Metals, Pesticides, and PCBs;
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. It is anticipated that the existing cellar will be demolished and backfilled prior to the start of remedial action. The material used for this backfill will meet the SCOs established for this remedial action;
14. A sub-slab depressurization system (SSDS) consisting of six loops of horizontal pipe set in the middle of a gas permeable layer will be installed immediately beneath the building's cellar and first floor slabs and vapor barrier system. If the building slab intersects groundwater, installation of the SSDS will be re-evaluated with OER. The horizontal piping will consist of fabric wrapped, perforated schedule 40 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 consist of a minimum 6-inch thick layer of ¾ inch blue stone. The pipe will be finished at the roof line with a 6-inch goose neck/rain cap to prevent rain infiltration. If an active system is installed, the SSDS will be hardwired and will include a blower installed on the roof line and a pressure gauge and alarm located in an accessible area in the cellar. 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;
15. A full soil vapor intrusion study will be performed after installation of sub-slab components of the SSDS and the building foundation slab. Three sub-slab soil vapor samples will be collected from permanent monitoring points installed in the slab in the areas of samples SV-EBC2 (collected during the EBC Remedial Investigation), SSV-05, and SSV-07 (collected during the Langan Phase II) to determine whether an active SSDS or passive venting system will be required to mitigate soil vapor contamination at the Site;
16. Installation of a vapor barrier system consisting of vapor barrier beneath the building slab, elevator pit, and outside of sub-grade foundation sidewalls up to grade to mitigate soil vapor migration into the building. The vapor barrier system will consist of Stego Industries® Stego® Wrap 20-mil Vapor Barrier system installed below the slab throughout the building area, below/around the elevator pit and outside all

sub-grade foundation sidewalls to grade. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. If Stego Industries® Stego® Wrap 20-mil Vapor Barrier is not available then one of the follow vapor barriers will be installed: Raven Industries Vaporblock® Plus™ VBP20, Americover Builds Vaporblock® Plus™, Husky Yellow Guard, Grace Industries Preprufe 300R & 16, or W.R. Meadows© Sealtight PROCOR. 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 engineered composite cover system. The composite cover system consists of the following:
 - a. Building Footprint: 5-inch thick concrete building slab underlain by a 20-mil vapor barrier on a 6-inch layer of $\frac{3}{4}$ inch bluestone;
 - b. Elevator Pit: 24-inch mat slab over 20-mil vapor barrier; and
 - c. Detention Tank: 5-inch thick concrete slab over 20-mil Vapor Barrier;
18. 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) to meet pretreatment requirements prior to discharge to the sewer system;
19. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations;
20. Performance of all activities required for the Remedial Action, including permitting requirements and pretreatment requirements, 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 RAR that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from the RAWP, and describes all Engineering and Institutional Controls to be implemented at the Site;
23. The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls in the 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; (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; and
24. If an active SSDS is installed, then a deed restriction will be placed on the property to document the installation and continued operation of the system.

Description of Selected Remedy for Air Quality

The elements of the remedial action selected for Air Quality for the 1504 Macombs Road site are as follows:

In order to satisfy the requirements of the E-designation, natural gas-fired and electrically powered equipment will be utilized at the site for space heating, hot water, and/or HVAC systems. Space heating and air conditioning will be supplied by four pipe fan coils, connected via hydronic piping to two Aerco Model BMK4000 natural gas-fired hot water boilers and electric packaged air-cooled chiller water plants. These units range in cooling capacity from 0.5 to 4 tons and in heating capacity from 4.9 thousand BTUs per house (MBH) to 46.8 MBH.

Fresh air for all occupiable space (offices, corridors, utility rooms and classrooms) will be provided by a natural gas-fired and an electrical cooling energy recovery unit (ERV) manufactured by AAON Model RN-090 (Energy Recovery Unit (ERU-R-1)). The remaining areas (Cafeteria and Gymnasium) will be heated and cooled by four pipe indoor air handlers (hot and chilled water) connected directly to louvers on the mezzanine level for outside air. These units (AHU-1M-1 and AHU-1M-2) manufactured by Pace. Direct-fired gas heating and ventilating units (MAU-1M-1 and MAU-1M-2) manufactured by Thermotek (Model T2-D250-20D) shall be located on mezzanine level. The orientation of these units shall be horizontal discharge, with no recirculation and do not require separate flues to the outdoors. MAU-1M-1 serves makeup air to pressurize the lobby (6,521 square foot area) and MAU-1M-2 serves makeup air directly to commercial kitchen hood (311 square foot area).

In order to satisfy the requirements of the E-Designation, three stacks will each be located above the roof. Stack 1 for ERU-R-1 will be located 136' 9" from Lot No. 23 (north), 35' 11" from Inwood Avenue (east), 66' 7" from Lot No. 88 (south) and 90' 0" from Macombs Road (south). Stacks 2 and 3 for HVAC boilers B-1 and B-2 will be located 70' 9" from Lot No. 23 (north), 123' 4" from Inwood Avenue (east), 80' 1" from Lot No. 88 (south) and 70' 9" from Macombs Road (south).

The proposed development plan includes a different pair of lots than that outlined as a proposed redevelopment site in the Jerome Avenue Rezoning. As such, a stack setback distance was determined using the graph from the CEQR Technical Manual Appendix: Air Quality (Figure App 17-8 – NO₂ Boiler Screen Commercial and Other Non-Residential Development – Natural Gas). Based upon the proposed development size (approximately 101,740 square feet) and the height of the proposed development (75 feet), the graph indicated that the stack locations need to be at least 65 feet from the nearest building of similar or greater height than the proposed stack height. For makeup air units MAU-1M-1 and MAU-1M-2, there is no venting to the outdoors. These units are direct-fired appliances installed in accordance with NYCFCG 611 "Nonrecirculating Direct-Fired Industrial Air Heaters". The units shall be tested in accordance with ANSI Standard Z83.4 and CSA 3.7 and shall bear the ETL label. There is no venting for unit nor is venting required by code.

Description of Selected Remedy for Noise

The elements of the remedial action selected for Noise for the 1504 Macombs Road site are as follows:

The requirements of the E-Designation are as follows:

1. 28 dBA for all facades in the community/school spaces Floors 1 through 6.

Façade Floor Range	OITC Rating	OITC Certification	Manufacturer and Model	Glazing
West and East Façades, 1 st through 6 th Floor (CW1 and CW2) Corridors, Lobbies and Staircases - Community (School) Space	28 (assumed framing loss 3 dBA) Full Assembly	Full assembly rating based on glass only OITC 31 dBA manufacturer data in Test No. TL85-192. Full assembly ASTM E90 test report to be provided to OER prior to purchase and installation.	Kawneer Company, Inc., 1600 UT System 1, Curtain Wall with glass manufactured by Saflex or OER approved equivalent.	1-1/8" IG (3/8" laminated heat strengthened exterior, 1/2" argon gas space, 1/4" heat strengthened interior)
All Façades, 2 nd through 6 th Floor; (WA1 and WB1) Classrooms & Offices - Community (School) Space	28 (assumed framing loss 3 dBA) Full Assembly	Full assembly rating based on glass only OITC 31 dBA manufacturer data in Test No. TL85-238. Full assembly ASTM E90 test report to be provided to OER prior to purchase and installation.	Peerless Architectural Windows & Doors, G500 Series, Inswing Casement Windows with glass manufactured by Saflex or OER approved equivalent.	15/16" IG (1/2" laminated exterior, 1/2" argon gas space, 3/16" tempered interior)
All Façades, 2 nd through 6 th Floor; (WA2, WB2 and WT) Classrooms & Offices - Community (School) Space	28 (assumed framing loss 3 dBA) Full Assembly	Full assembly rating based on glass only OITC 31 dBA manufacturer data in Test No. TL85-235. Full assembly ASTM E90 test report to be provided to OER prior to purchase and installation.	Peerless Architectural Windows & Doors, G500 Series, Fixed Windows with glass manufactured by Saflex or OER approved equivalent.	1" IG (1/4" laminated exterior, 1/2" argon gas space, 1/4" heat-strengthened interior)

Façade Floor Range	OITC Rating	OITC Certification	Manufacturer and Model	Glazing
North Façade, 1 st Floor (WF1) Cafeteria - Community (School) Space	30 (assumed framing loss 3 dBA) Full Assembly	Full assembly rating based on glass only OITC 33 dBA manufacturer data in Test No. TL85-239. Full assembly ASTM E90 test report to be provided to OER prior to purchase and installation.	O'Keefe's Safti First, GPX Architectural Series Fire Resistant Framing with glass manufactured by Saflex or OER approved equivalent.	1-7/16" fire resistive insulated glazing, 1/4" laminated exterior, 1" air space, 3/16" tempered interior
West Façade, 1 st Floor (WC1) Classrooms & Offices - Community (School) Space	28 (assumed framing loss 3 dBA) Full Assembly	Full assembly rating based on glass only OITC 31 dBA manufacturer data in Test No. TL85-192. Full assembly ASTM E90 test report to be provided to OER prior to purchase and installation.	Kawneer Company, Inc., GLASSvent UT, Awning Windows – Curtain Wall with glass manufactured by Saflex or OER approved equivalent.	1-1/8" IG (3/8" laminated heat strengthened exterior, 1/2" argon gas space, 1/4" heat strengthened exterior)

The applicant commits to demonstrating that the selected manufacturer's window products achieve the minimum OITC requirement outlined in the table above. If the selected manufacturer does not have ASTM E90 test on file for the specific window assemblies to be installed, a mockup will be laboratory tested as per ASTM E90 to demonstrate compliance with the minimum OITC requirement. The mockup will be provided to OER prior to purchase and laboratory testing.

The glazing-only OITC ratings presented in the table may reduce substantially once noise transmission through the window frames is evaluated. The glazing presented above may need to be reevaluated if the attenuation losses due to framing elements render the window attenuation performance inadequate to satisfy the requirements.

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. **Combination of Dedicated Fresh Air/ HVAC System.** Fresh air will be provided primarily by a gas-fired heating, electric cooling AAON Model RN-090 energy recovery unit (ERU-1). This unit will provide fresh air to circulate naturally throughout the occupied spaces eliminating the need for natural ventilation through operable windows. The system is comprised of a central duct riser with takeoffs per floor to several constant volume boxes which provide code mandated cubic feet per minute (cfm) quantity to the return plenum connection at each fan coil unit per each zone. The remaining spaces not connected to the central ERV, which includes the Cafeteria and Gymnasium are connected directly to louvers on the mezzanine level for outside air intake with capacity also in compliance with NYC Mechanical Code table 403.3.
2. **Compliance with Mechanical Code:** All remaining spaces including corridors, lobbies, and offices will be provided with mechanical fresh air in compliance with the NYC Mechanical Code 2014 (Table 403.3).

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

June 3, 2021



Date

Shirley Chen
Project Manager

June 3, 2021



Date

Sarah Pong
Assistant Director

cc: Ahkilak Johnson, Macombs 1504, LLC – KIPPdob@dbi-projects.com
Laura Yang, DBI Projects - ly@dbi-projects.com
Greg Pucillo, DBI Projects - gp@dbi-projects.com
Robert Rogers, R.A., Rogers Partners Architects - asolk@rogersarchitects.com
Karyssa Halstead, Rogers Partners Architects - khalstead@rogersarchitects.com
Peter Kokoszka, Icor Associates - pkokoszka@icorassociates.com
Keith Butler, Environmental Business Consultants - kbutler@ebcincny.com
Mark McIntyre, Shaminder Chawla, Zach Schreiber, Maurizio Bertini
Shirley Chen, PMA-OER