OFFICE OF ENVIRONMENTAL REMEDIATION
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NOTICE TO PROCEED
DOB Job Number NB M08015986-I1

April 26, 2023

Re: 80 Clarkson Street
Manhattan Block 596, Lot 1102
Hazardous Materials, Air Quality, and Noise "E" Designation
E-384: 550 Washington / Special Hudson River Park District - CEQR 16DCP031M
OER Project Number 23EHAN172M

Dear Manhattan 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 Number. 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, Noise remedial action 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 Kestana Anokye at 212-788-8319.

Sincerely,

Maurizio Bertini
Assistant Director

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DECISION DOCUMENT
E-Designation Remedial Action Work Plan Approval

May 04, 2023

Re: 80 Clarkson Street
Manhattan Block 596, Lot 1102
Hazardous Materials, Air Quality, and Noise "E" Designation
E-384: 550 Washington / Special Hudson River Park District - CEQR 16DCP031M
OER Project Number 23EHAN172M

The New York City Office of Environmental Remediation (OER) has completed its review of the NYCDEP Remedial Action Plan (RAP) dated June 2016 with Stipulation Letter dated December 2022 and the Remedial Action Plan for Air Quality and Noise dated March 2023 for the above-referenced project.

These Plans were submitted to OER under the E-Designation Program.

Project Description
The applicant is proposing to build a new 35-story building with a full cellar & sub-cellar. The building will be used for a Residential market rate condo with commercial uses; to include Parking & Mechanical Rooms in the Sub-cellar, Mechanical Utilities and Club in the Cellar Level, Retail and Residential Lobby and Accessory space at grade, Club and Mechanical Spaces on Levels 2-4, Residential units on floors 3-34, and Mechanical Bulkhead will be located on the 35th-story and above.

The building is approx. 430 ft tall and contains 133 market rate Dwelling Units. The building has a frontage on Clarkson Street to the north, West Houston to the south and West Street to the west. The east facing façade adjoins the lot line of a 16-story building and above the building contains lot line widows in accordance with building code allowances.

Statement of Purpose and Basis
This document presents the remedial action for the E-Designation Program project known as "80 CLARKSON STREET" pursuant to 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 80 Clarkson Street site is protective of public health and the environment. The elements of the selected remedy are as follows:

The additional requirements/procedures consist of the following Stipulation List below:

1. The proposed project consists of Clarkson Square, a 29 and 35-story two-building development of residential condominiums and affordable housing for seniors, to be constructed on the approximately 1.34-acre tax lot (current Tax Block 596, Lot 7502 will be subdivided to Lots 1102 and 1103 as shown on Figure 1). The proposed development will include approximately 169 senior affordable units (570 Washington Street/Lot 1103) with additional market rate condominium units (80 Clarkson Street/Lot 1102) totaling approximately 579,600 gross square feet. The Site is currently an undeveloped lot covered with crushed stone and gravel.

2. Procedures will be used if petroleum containing tank(s) or vessel(s) are identified during the remedial action or subsequent redevelopment excavation activities. All petroleum spills will be reported to the New York State Department of Environmental Conservation (NYSDEC) hotline as required by applicable laws and regulations. This contingency plan is designed for heating oil tanks and other small or moderately sized storage vessels. If larger tanks, or gasoline storage tanks are identified, OER will be notified before these procedures are used.

3. A pre-construction meeting is required prior to the start of remedial excavation work at the Site. The meeting will be held at the Site (or virtually) and will be attended by OER, the developer or developer representative, the consultant, excavation/general contractor, and if applicable, the soil broker.

4. A Historic Fill Transfer and Disposal Notification Form to each disposal facility and a pre-approval letter from all disposal facilities will be provided to OER prior to any soil/fill material removal from the Site. Documentation specified in the RAP – Sections 3.2 "Soil Disposal", 3.3 "Waste Management and Transportation" and 6.0 "Closure Report and Documentation" will be provided to OER. If a different disposal facility for soil/fill material is selected, OER will be notified immediately.

5. The new building foundation will extend below the water table, as such, collection and analysis of post-excavation confirmation soil samples will not be required. If project plans are altered to include a shallower foundation, the OER project manager will be notified prior to excavation.

6. Daily reports will be provided during soil disturbance and installation of engineering controls. Raw Community Air Monitoring data (upwind and downwind for both PID and particulates) shall be provided for the first week of daily reporting. Additionally, trucking manifests shall be provided for the first week of daily reporting. If no work is performed for an extended time period, daily report frequency may be reduced to weekly basis upon OER determination.

7. Monthly reports are required on the project's status and schedule to the OER project manager after this RAP Stipulation List is approved and/or NTP issued and until the Remedial Closure Report is received. This will be the responsibility of AKRF (or another environmental consultant retained by ownership). If AKRF is not retained through completion of the project, AKRF is required to notify OER regarding this. After excavation work is complete, monthly reports are still required to be provided by the consultant or owner/developer for the remainder of the construction period.

8. Trucking log sheets will be utilized for trucks transporting soil/wastes off-site and completed logs should be attached to the Remedial Closure Report (RCR) as an appendix. The goal of this log is to clearly document the destination of material leaving the site, the parties responsible for its transfer, and other pertinent details.

9. A 46-mil vapor barrier, GCP Preprufe® 300R PLUS, will be installed beneath the structure's cellar slab with a 32-mil vapor barrier, GCP Preprufe® 160R PLUS, on the vertical blindside foundation sidewalls, and GCP Preprufe® 800PA membrane outside of the subgrade foundation walls to meet grade. Crystalline waterproofing will also be applied to the house trap pits, elevator pits and sump pits within the cellar. **Appendix 6** provides manufacturers specifications and PE/RA certified building plans with the extent of the vapor barrier installation details (penetrations, joints, etc.) with respect to the proposed foundation, footings, etc.

10. An engineered composite site cover will be placed over the entire footprint of the Site. The composite cover system will be comprised of the buildings' concrete foundation/slabs.

11. Follow proposed truck route.

12. Truck routing to the Site shall only occur in accordance with the approved RAP. The applicant, applicant's consultant and contractors are responsible for maintaining proper traffic maintenance and protection in the vicinity of the site during all field operations, truck loading/unloading, etc.

13. If necessary, dewatering will be performed in full compliance with applicable laws, rules and regulations. A dewatering permit will be obtained from NYCDEP/NYSDEC prior to construction activities.

14. A stabilized construction entrance and decontamination area will be constructed. All vehicles leaving the Site will be cleaned on-site to avoid any tracked materials (e.g., soils) spilling on roadways. Also, erosion controls must be installed, if necessary.

15. The developer/owner and the developer/owner's consultant and contractors are responsible for obtaining all permits necessary for the performance of the work (e.g., demolition, temporary water connection, dewatering, and temporary electric connection), as well as, paying all associated fees.

16. The developer/owner and the developer/owner's consultant shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. A copy of the Health and Safety Plan (HASP) (Appendix A of the RAP) must be provided to the subcontractor (s). A Copy of this HASP should be available at the Site at all times.

Description of Selected Remedy for Air Quality

The elements of the remedial action selected for Air Quality for the 80 CLARKSON STREET site are as follows:

In order to satisfy the requirements of the E-designation, Con Edison steam will be utilized at the site for space heating and domestic hot water. Cooling will be accomplished through the use of chillers, and local Fan Coil Units throughout the building. The Chillers and FCU's will be fully electric, drawing power from the ConEd electrical service to the building. No gas or oil-fired heating or hot water equipment will be used for HVAC systems.

Domestic hot water for the entire building will be provided by the following:

- One 92.4 GPM domestic water heater (DWH-1) serving Zone 1 manufactured by QuickDraw, Model AquaPLEX 2400.
- One 147 GPM domestic water heater (DWH-2) serving Zone 2 manufactured by QuickDraw, Model AquaPLEX 4500.
- One 94.4 GPM domestic water heater (DWH-3) serving Zone 3 manufactured by QuickDraw, Model AquaPLEX 2400.
- One 54 GPM domestic water heater (DWH-4) serving Zone 4 manufactured by QuickDraw, Model AquaPLEX 700.

Remaining systems, including space heating, and HVAC systems, will be fully electric, drawing power from the ConEd electrical service to the building.

A copy of the stamped chilled water riser diagrams showing the Con Edison steam services are provided in Appendix G. A copy of the stamped Mechanical Equipment Schedule and Specifications are provided in Appendix G.

In addition, one diesel fired 1,250 KW emergency generator manufactured by CAT, Model C32 will be installed. The generator will only operate for testing purposes outside of an emergency condition due to a loss of utility power. The emergency generator will be each tested once a month for half an hour.

The proposed building will not utilize fossil fuel-fired equipment for heating and domestic hot water systems. Since the building's heating and hot water systems do not have exhaust stacks, the stack requirements of the E-Designation are satisfied.

Description of Selected Remedy for Noise

The elements of the remedial action selected for Noise for the 80 CLARKSON STREET site are as follows:

The following window(s) will be installed:

Façade Floor Range	**OITC Rating**	**OITC Certification**	**Manufacturer and Model**	**Glazing**
Storefront: Western, Northern and Southern Facades Storefront; Floor 1 (0' to 100')	OITC-35 33-35dBA required	See ASTM E-90 acoustical report for casement window as placeholder for Storefront. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: F8651.02-113-11-R0	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon, ½" laminated interior)
Western Façade and North and South Facades within 50 feet of the Western Façade Residential; Floors 2 to 7 (0' to 100') *fixed windows*	OITC-35 35dBA required	See ASTM E-90 acoustical report for casement window as placeholder for fixed windows. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: F8651.02-113-11-R0	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon, ½" laminated interior)
Western Façade and North and South Facades within 50 feet of the Western Façade Residential; Floors 2 to 7 (0' to 100') *operable windows*	OITC-35 35dBA required	See ASTM E-90 acoustical report in Appendix I. Test report: F8651.02-113-11-R0	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon, ½" laminated interior)
Western Façade and North and South Facades within 50 feet of the Western Façade Residential; Floors 2 to 7 (0' to 100') *terrace doors*	OITC-35 35dBA required	See ASTM E-90 acoustical report for casement window as placeholder for terrace doors. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: F8651.02-113-11-R0	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon, ½" laminated interior)
Eastern Façade and North and South Facades more than 50	OITC-35	See ASTM E-90 acoustical report in Appendix I for casement window as placeholder for	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon,

Façade Floor Range	**OITC Rating**	**OITC Certification**	**Manufacturer and Model**	**Glazing**
feet of the Western Façade Residential; Floors 2 to 5 (0 to 75') *fixed windows*	33dBA required	fixed windows. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: F8651.02-113-11-R0		½" laminated interior)
Eastern Façade and North and South Facades more than 50 feet of the Western Façade Residential; Floors 2 to 5 (0 to 75') *operable windows*	OITC-35 33dBA required	See ASTM E-90 acoustical report Test report: F8651.02-113-11-R0	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon, ½" laminated interior)
Eastern Façade and North and South Facades more than 50 feet of the Western Façade Residential; Floors 2 to 5 (0 to 75') *terrace doors*	OITC-35 33dBA required	See ASTM E-90 acoustical report for casement window as placeholder for terrace doors. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: F8651.02-113-11-R0	Skyline 1000 SG (500-C)	1—5/16" IG (5/16" annealed interior, ½" argon, ½" laminated interior)
Western Façade and North and South Facades within 50 feet of the Western Façade Residential; Floors 8 to 34 (100+') *fixed windows*	OITC-33 28-33dBA required	See ASTM E-90 acoustical report in Appendix I for casement window as placeholder for fixed windows. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: E1511.02-113-11-R0	Skyline 500-C	32 mm IG (6 mm annealed exterior, 18 mm air space, 8 mm annealed interior)
Western Façade and North and South Facades within 50 feet of the Western Façade Residential;	OITC-33	See ASTM E-90 acoustical report Test report: E1511.02-113-11-R0	Skyline 500-C	32 mm IG (6 mm annealed exterior, 18 mm air space, 8 mm annealed interior)

Façade Floor Range	**OITC Rating**	**OITC Certification**	**Manufacturer and Model**	**Glazing**
Floors 8 to 34 (100+') *operable windows*	28-33dBA required			
Western Façade and North and South Facades within 50 feet of the Western Façade Residential; Floors 8 to 34 (100+') *terrace doors*	OITC-33 28-33dBA required	See ASTM E-90 acoustical report for casement window as placeholder for terrace doors. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: E1511.02-113-11-R0	Skyline 500-C	32 mm IG (6 mm annealed exterior, 18 mm air space, 8 mm annealed interior)
Eastern Façade and North and South Facades more than 50 feet of the Western Façade Residential; Floors 6 to 34 (75+') *fixed windows*	OITC-33 28-33dBA required	See ASTM E-90 acoustical report for casement window as placeholder for fixed windows. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: E1511.02-113-11-R0	Skyline 500-C	32 mm IG (6 mm annealed exterior, 18 mm air space, 8 mm annealed interior)
Eastern Façade and North and South Facades more than 50 feet of the Western Façade Residential; Floors 6 to 34 (75+') *operable windows*	OITC-33 28-33dBA required	See ASTM E-90 acoustical report Test report: E1511.02-113-11-R0	Skyline 500-C	32 mm IG (6 mm annealed exterior, 18 mm air space, 8 mm annealed interior)
Eastern Façade and North and South Facades more than 50 feet of the Western Façade Residential; Floors 6 to 34 (75+') *terrace doors*	OITC-33 28-33dBA required	See ASTM E-90 acoustical report in Appendix I for casement window as placeholder for terrace doors. Full assembly ASTM E-90 test report to be provided to OER prior to installation. Test report: E1511.02-113-11-R0	Skyline 500-C	32 mm IG (6 mm annealed exterior, 18 mm air space, 8 mm annealed interior)

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

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.

Alternate Means of Ventilation

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 providing fresh air by means of a Combination of Dedicated Fresh Air/HVAC System.

Fresh air is intended to be provided to each dwelling unit through the installation of a central ducted system from Air Handling Units (AHUs). The basis of design AHUs are to be manufactured by Air2O and ducted to each condominium from units located in mechanical rooms on the 3rd and 4th floors that serve the bottom halves of each residential tower, as well as units in top-of-house mechanical rooms in each tower serving the upper halves of their respective towers.

- Two 17,000 CFM air handling unit (MAU-4-1,2) manufactured by Air2O for ventilation of the lower-level condos.
- One 7,250 CFM air handling unit (MAU-37-1) manufactured by Air2O for ventilation of the upper level condos.

The design intent for this project, as shown in the attached air flow diagrams, is for conditioned outside air to be supplied into the plenum above the ceiling. The outside air is pulled from the ceiling plenum by Fan Coil Units (FCUs) and distributed throughout each room in each apartment. While the FCUs supply and return an equal amount of air, exhaust registers are dispersed throughout each of the residential units for kitchen and toilet exhaust that create a negative pressurization that allow for the outside air to travel throughout all rooms in the residential units. In locations where there is not a local exhaust to create a flow of air in the desirable direction, the outside air will be directly ducted into the return plenums of the FCUs for those spaces.

The FCUs will be 4-pipe type with a heating and cooling coil to accomplish comfort heating and cooling throughout all of the residential units. The chilled water will be generated by water cooled chillers on the 3rd floor and distributed throughout the building. The mechanical hot water will be generated from ConEd steam in the 2nd floor mechanical room and distributed throughout the building for heating.

- One 614 CFM fan coil unit (FCU-A) manufactured by IEC, Model HPY06.
- One 783 CFM fan coil unit (FCU-B) manufactured by IEC, Model HPY08.
- One 971 CFM fan coil unit (FCU-C) manufactured by IEC, Model HPY10.
- One 1,117 CFM fan coil unit (FCU-D) manufactured by IEC, Model HPY12.

Ventilation of the common areas will be achieved through the following:

- One 2,150 CFM air handling unit (AHU-4-3) manufactured by Air2O for ventilation of the corridors.
- One 1,850 CFM air handling unit (AHU-4-5) manufactured by Air2O for ventilation of the lobby.
- One 8,500 CFM air handling unit (AHU-4-6) manufactured by Air2O for ventilation of the health club.
- One 7,250 CFM air handling unit (AHU-4-7) manufactured by Air2O for ventilation of the back of the house.
- One 2,250 CFM air handling unit (AHU-4-8) manufactured by Air2O for ventilation of the back of the house.
- One 2,650 CFM air handling unit (AHU-4-9) by Air2O for ventilation of the sports areas.

The remedies for Hazardous Materials, Air Quality, 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.

5/04/23

Date

Kestana Anokye
Project Manager

5/04/23

Date

Maurizio Bertini
Assistant Director

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