



OFFICE OF ENVIRONMENTAL REMEDIATION
253 Broadway - 14th Floor
New York, New York 10007

Daniel Walsh, Ph.D.
Director

Tel: (212) 788-8841
Fax: (212) 788-2941

February 14, 2012

Tell Metzger
L+M Development Partners, Inc.
419 Park Avenue South, 18th Floor
New York, NY 10016

Paul H. Ciminello
Ecosystems Strategies, Inc.
24 Davis Avenue
Poughkeepsie, NY 12603

Re: **NYC BCP Remedial Action Work Plan Approval**
23 West 116th Street
Block 1600, Lot 120
BCP Project #12CBCP033M & 12CBCP034M / OER Project # 12RH-A116M

Dear Mr. Metzger:

The New York City Office of Environmental Remediation (OER), in consultation with the New York City Department of Health and Mental Hygiene (DOHMH), has completed its review of the Remedial Action Work Plan (RAWP) and Stipulation List for the 23 West 116th Street, BCP Project #12CBCP033M & 12CBCP034M, dated February 14, 2012. The Plan was submitted to OER under the NYC Brownfield Cleanup Program (BCP). The RAWP was released for public comment for 30 days as required by program rule. That comment period ended on February 12, 2012. There were no public comments.

The following remedial action elements will be implemented at the project site:

Statement of Purpose and Basis

This document presents the remedy for a Brownfield Cleanup site known as “23 West 116th Street” site. This document is a summary of the information that can be found in the site-related reports and documents in the document repository at OER’s website:

<http://www.nyc.gov/html/oer/html/repository/RManhattan.shtml#23 West 116th Street - 12CBCP033M & 12CBCP034M>

The New York City Office of Environmental Remediation (the Office or OER), in consultation with the New York City Department of Health and Mental Hygiene (DOHMH), has established a remedy for the above referenced site. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous substances.

The decision is based on the Administrative Record of the New York City Office of Environmental Remediation (the Office or OER) for the 23 West 116th Street Site and the public's input to the proposed remedy presented by the Office.

Description of Selected Remedy

The remedy selected for this 23 West 116th Street Site includes soil excavation, cover system, vapor barrier and sub slab parking garage, institutional controls, and site management.

The elements of the selected remedy are as follows:

1. Preparation of a Community Protection Statement and implementation of a Citizen Participation Plan.
2. Perform a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establish Track 1 Soil Cleanup Objectives (SCOs). Excavation and removal of soil/fill exceeding SCOs.
4. Construction and maintenance of an engineered composite cover consisting of a six-inch (minimum) concrete building slab to prevent human exposure to residual soil/fill remaining under the Site, if Track 1 is not achieved.
5. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
6. 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 onsite.
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
8. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
9. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
10. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
11. Submission of a RAR that describes the remedial activities, and certifies that the remedial requirements have been achieved.

12. The installation of a vapor barrier.
13. If Track 1 cleanup is not achieved, the presence of the sub-grade parking with a ventilation system will serve to prevent human exposure to soil vapor from off-site sources.
14. If Track 1 cleanup is not achieved, submission of an approved Site Management Plan (SMP) in the 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.
15. If Track 1 cleanup is not achieved, recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and a requirement that management of these controls must be in compliance with an approved SMP; and Institutional Controls including 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.

Remedial activities will be performed at the Site in accordance with this OER-approved RAWP. All deviations from the RAWP will be promptly reported to OER. Changes will be documented in the RAR.

This remedy 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. The remedy is protective of public health and the environment.

Date

3/27/12



Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:

The Site is located at 23 West 116th Street in Manhattan, New York and is identified as Block 1600 and Lot 120 on the New York City Tax Map. **Figure 1** shows the Site location.

Site Features:

The 23 West 116th Street Site is 37,303-square feet and is bounded by West 117th Street to the north, West 116th Street to the south, multi-family residential structures to the east, and a multi-family residential structure to the west. Currently, the Site is a regularly shaped lot, approximately 37,303 square feet in size, utilized as an ancillary property associated with the eastern adjoining residential structure located at 1428 Fifth Avenue. It contains a courtyard, a private basketball court, and a paved parking area. The topography of the combine Site and its vicinity is generally level. The surrounding property uses are predominantly residential and commercial.

Current Zoning/uses:

The current zoning designation is C4-5X, contextual zoning districts. The proposed use is consistent with existing zoning for the property.

Historical Use:

A review of historic records revealed that the western portion of the subject property historically contained "Public School No. 184" from prior to 1902 until sometime between 1951 and 1976. The northeastern portion of the subject property formerly contained mixed-use structures from sometime between 1902 and 1976.

Summary of Environmental Findings:

1. Elevation of the property is approximately 30 feet above sea level.
2. Depth to groundwater ranges from 15.0 to 15.3 feet at the Site.
3. Groundwater flow is generally from northeast to southwest beneath the Site.
4. Depth to bedrock is greater than 23 feet at the Site.
5. The stratigraphy of the site, from the surface down, consists of up to 10 feet of urban fill and/or brown, dry, medium to coarse sands with gravel and brick fragments underlain by 7-9' feet of brown, moist, firm sandy silt with weathered rock. The total volume of urban fill estimated to be present on this Site is 12,500 cubic yards.

A site location map is attached as **Figure 1**.

LAND USE AND PHYSICAL SETTING

The Office may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For 23 West 116th Street, a Track 1 remedial action alternative was considered in alternative analysis. The Track 1 alternative involves the removal of all soil above Track 1 SCOs. Excavation and removal of soil/fill to a depth of approximately

11 feet below grade for the cellar area for parking space and approximately 16 feet for the elevator pit beneath the proposed building where Track 1 SCOs are proposed. Attainment of Track 1 would be assessed after the conclusion of the excavation activities through end point sampling.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

PROPOSED DEVELOPMENT PLAN

The current zoning designation is C4-5X, which is part of the contextual zoning districts. The proposed use is consistent with current zoning for the property.

The proposed future use of the Site will consist of a 9-story and 12-story mixed-use building (north and south buildings) with a total of 251,600 gross square footage (SF), containing approximately 221,149 SF of residential space (194 units), approximately 20,000 SF of commercial retail space, and approximately 10,418 SF of community facility space on 23 West 116th Street (project site). In addition, the proposed action would also include approximately 112 accessory parking spaces located in the cellar.

According to proposed development plans provided by West 116 Residential LLC, the 9-story north building and 12-story south building are planned to be built over the entire lot of the Site and will be approximately 100 (North building) and 125 (South building) feet tall, respectively. The north and south buildings will include a contiguous cellar used for parking space and a contiguous first story used for commercial retail space in both the North and South buildings, community facility space in the North building and a central portion open space. It is estimated that the cellar area will be excavated to a depth of approximately 11 feet below surface grade (bsg). Final excavation depth could vary however, excavation below the water table is not anticipated at this time. An estimated 16,600 cubic yards of soil is anticipated to be excavated as part of construction activities. No demolition activities are included in the plans for development.

The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

SUMMARY OF REMEDIAL INVESTIGATION

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface

water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 5.4.

Nature and Extent of Contamination:

Soil: The environmental investigation identified no PCBs in the soil. VOCs were detected below applicable soil cleanup standards. Soil is contaminated with semi volatile organic compounds (SVOCs - PAH) including benzo(a)anthracene at 19 ppm, benzo(a)pyrene at 17 ppm, Benzo(b)fluoranthane at 11.6 ppm and chrysene at 22.6 ppm, several metals including barium, cadmium, lead, and zinc, and low levels of pesticides were in shallow soils associated with historical fill material.

Groundwater: No SVOCs, pesticides and PCBs were identified in any well. Groundwater results indicate VOC contaminants including MTBE at 16 ppb, cis1,2-Dichloroethylene at 37 ppb and naphthalene detected in all wells. PCE at 9.3 ppb and TCE at 4.4 ppb were also detected above GQS. Low levels of metals were detected below GQS. The anticipated removal of all on-site fill soils will eliminate any on-site contributions to groundwater contamination.

Soil vapor: Soil gas testing documents no VOC concentrations in excess of guidance values as established by the NYSDOH. Detectable levels of VOCs in on-site soil gas may be related to on-site fill. These include acetone (160 to 260ug/m³), TCE (4 ug/m³) and PCE (8.0 to 90 ug/m³).

Figure 1: Site Map

