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April 2, 2014

Mr. David Schwartz
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Re: **Decision Document**
NYC VCP Remedial Action Work Plan Approval
225-227 Boerum Street
Block 3073, Lot 97
VCP Project #14CVCP221K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated January 13, 2014 and Stipulation List dated February 27, 2014 for 225-227 Boerum Street, VCP Project #14CVCP221K. The Plan was submitted to OER under the NYC Voluntary Cleanup Program (VCP). The RAWP was released for public comment for 30 days as required by program rule. That comment period ended on February 22, 2014. There were no public comments.

Statement of Purpose and Basis

This document presents the remedy for a Voluntary Cleanup Program site known as "225-227 Boerum 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 www.nyc.gov/oer.

The New York City Office of Environmental Remediation (the Office or OER) 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.

The decision is based on the Administrative Record of the New York City Office of

Environmental Remediation (the Office or OER) for the "225-227 Boerum Street" site and the public's input to the proposed remedy presented by OER.

Description of Selected Remedy

The remedy selected for this "225-227 Boerum Street" site includes soil excavation, an engineered composite cover system, and installation of waterproofing/ vapor barrier.

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 CPP);

2- Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.

3- Establishment of Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs).

4- Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas;

5- Excavation and removal of soil/fill exceeding Track 4 SCOs. Planned development-based excavation will be to a depth of approximately 12 feet in the cellar area across the building footprint;

6- 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 onsite;

7- Removal of 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;

8- 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;

9- Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.

10- Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.

11- Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.

12- Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.

13- Submission of a Remedial action report (RAR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, and describes all Engineering and Institutional Controls to be implemented at the Site, and lists any changes from this RAWP.

If Track 1 is not achieved, the following construction elements will be implemented as Engineering and Institutional Controls:

14- As part of development, installation of a vapor barrier beneath the building slabs and behind the foundation walls of the proposed building. 46-mil Preprufe 300R waterproofing membrane by Grace will be installed beneath the footing slab. The vapor barrier will be extended up to grade level by attaching it to the exterior sides of foundation walls using 32-mil Preprufe 160R waterproofing membrane or 62.5 mil Grace Bituthene 4000 membrane.

15- As part of development, construction and maintenance of an engineered composite cover consisting of 6 inch thick concrete slab across the footprint of the new building installed on top of a 6 inch gravel bed;

16- As part of development, installation of a sub-grade air exchange and ventilation system in the parking cellar in accordance with the NYC Department Of Building's Code;

17- 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.

18- The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment 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. 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.

April 2, 2014

Date

Shaminder Chawla
Deputy Director

SITE BACKGROUND

Site Location and Current Usage:

The Site is located at 225-227 Boerum Street (aka 83 Bushwick Place) in East Williamsburg section of Brooklyn, New York and is identified as Block 3073 and Lot 97 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 5,559-square feet and is bounded by Bushwick Place to the west, Boerum Street to the south, a 2-story residential building to the east, and a 2-story warehouse to the north. A map of the site boundary is shown in Figure 2. Currently, the Site is vacant and undeveloped.

Past Uses and Areas of Concern:

Based upon the review of the Fire Insurance Maps and Regulatory Agency documents from the Phase I Environmental Site Assessment (ESA) Report prepared by Merritt Engineering Consultants, P.C. in January 2005, a Site history was established. The Site was utilized as a residential facility between 1933 and 1951 and mixed use residential and store facility between 1965 and 1981. The Site was vacant and undeveloped between 1992 and 1995 and was utilized as a parking lot in 2005. The Site has been vacant since 2007.

The AOCs identified for this site include:

1. Historic fill material present throughout the Site from surface to the depths of 8 feet.

Summary of Environmental Findings:

1- No anomalies consistent with USTs were identified at the Site by the GPR survey.
2- Elevation of the property ranges is approximately 24 feet.
3- Depth to groundwater ranges from 20 to 21 feet at the Site.
4- Groundwater flow is generally from east to west in the direction of the East River.
5- Depth to bedrock is in excess of 10 feet at the Site.
6- The stratigraphy of the site, from the surface down, consists of historic fill with variable thickness ranging between zero and 8 feet (brown fine grained sand with varying amounts of bricks and pebbles). The fill layer is underlain by a layer of sand to variable depths ranging from 2 to 10 feet bgs (brown fine to coarse grained sand with varying amount of pebbles)

PROPOSED DEVELOPMENT PLAN

The proposed future use of the Site will consist of a 4-story residential building with 20 dwelling units and a full cellar. The building will be identified as 83 Bushwick Place, Brooklyn NY. The proposed development will encompass the entire property footprints for a total gross floor area of approximately 13,191 square feet. The cellar at the site will consist of a mechanical space and a parking garage. The elevation of the cellar slab will be set at approximately 11.49 feet below grade or 10 feet below the first floor slab. The cellar slab will be approximately 6 inches in thickness and it will be installed on top of a 6-inch gravel bed.

SUMMARY OF REMEDIAL INVESTIGATION

The Remedial Investigation was conducted in December 2013. A full Remedial Investigation Report is available online in the document repository and the results are summarized below.

Soil:

Soil/fill samples collected during the RI show trace levels of one VOC, isoptopyltoluene in one shallow soil sample at a concentration below Track 1 Unrestricted Use SCO (UUSCO). No PCE

or TCE were detected in any shallow or deep soil samples. SVOC's including benzo(a)pyrene (max. of 1.14 parts per million (ppm)), benzo(b)fluoranthene (max. of 1.07 ppm) and indeno(1,2,3-cd) pyrene (max. of 0.977 ppm) were detected in two deep and one shallow samples, at concentrations that exceeded Restricted Residential SCOs. One pesticide, 4,4, DDT (0.0525 ppm), was detected in 1 of 5 shallow soil samples and in 1 of 5 deep samples at concentrations that exceeded Unrestricted Use SCOs. There were no PCBs detected in any of ten soil samples. Several Metals exceeded Unrestricted Use SCOs in shallow and deep soils at the Site and included barium (maximum of 454 ppm), lead (maximum of 421 ppm), zinc (maximum of 241 ppm) and mercury (maximum of 1.58 ppm). Barium, lead and mercury also exceeded Restricted Residential SCOs in shallow soils. Only lead exceeded Restricted Residential SCOs in one deep sample (6-8' depths). Overall soil chemistry was unremarkable and does not indicate disposal of waste.

Groundwater:
Groundwater samples collected during the RI show one chlorinated VOC, TCE (max. 10.7 µg/L) exceeding NYSDEC 6NYCRR Part 703.5 Groundwater Quality Standards (GQS). A gasoline VOC, methyl tert-butyl ether was detected in 1 groundwater sample below its GQS. One SVOCs, bis(2-ethylhexyl)phthalate (max 10.8 µg/L) was detected in the 2 groundwater samples at concentrations exceeding GQS. No pesticide or PCBs were detected in any groundwater samples. Dissolved metals were not analyzed during the RI investigation. Several total metals exceeded their respective GQS.

Soil vapor:
Soil vapor samples collected during the RI show a wide range of compounds throughout the property including BTEX and associated petroleum related compounds as well as chlorinated hydrocarbons. BTEX and associated derivatives were found in all 3 soil vapor samples. The concentration of these compounds ranged from 0.69 ug/m^3 to 100 ug/m^3. These compounds were not detected in the soil or groundwater samples collected beneath the property and are not believed to be associated with an on-site source area. Among the chlorinated compounds, PCE was detected in 1 of 3 vapor samples at a concentration of 54 ug/m^3 and 1,1,1-TCA was also detected in 1 of 3 vapor samples at a concentration of 16 ug/m^3. Other chlorinated hydrocarbon compounds that were identified in soil vapor samples included carbon tetrachloride (0.45 ug/m^3), methylene chloride (13 ug/m^3) and acetone (maximum 220 ug/m^3). The NYSDOH has established AGVs for three of the chlorinated VOCs analyzed: PCE, 111-TCA, and methylene chloride. The PCE and TCA concentrations are below the monitoring level ranges established within the State DOH soil vapor guidance matrix.

Figure 1 – Site Map

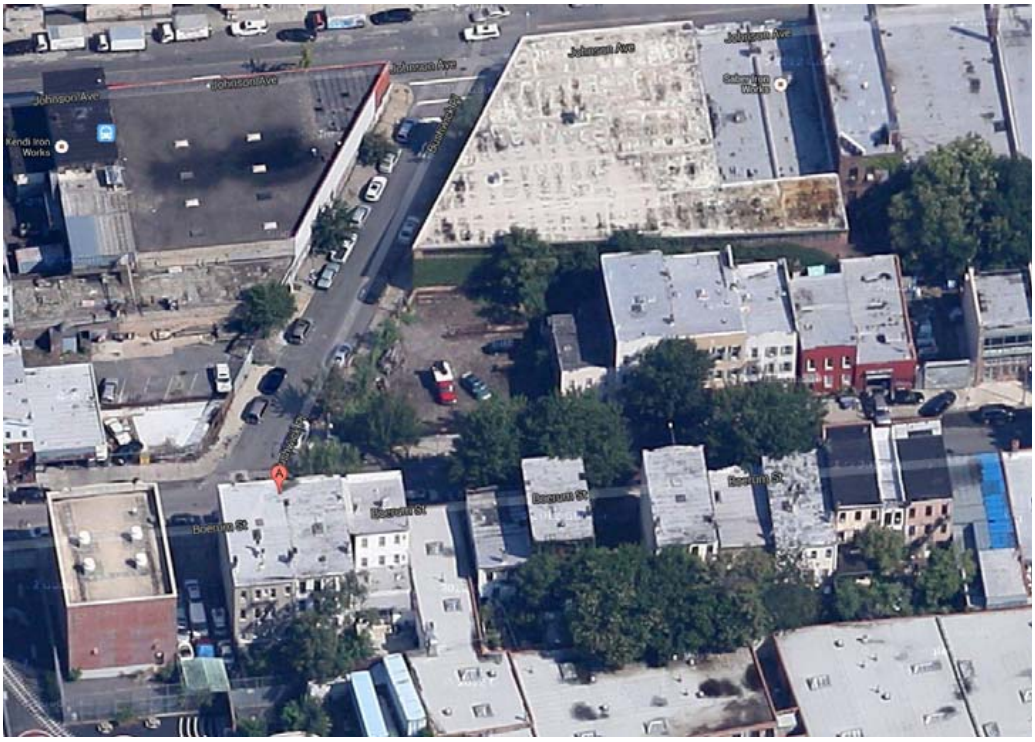

Figure 2 – Site Location Map