



OFFICE OF ENVIRONMENTAL REMEDIATION

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September 21, 2013

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Re: **Decision Document**
NYC VCP Remedial Action Work Plan Approval
1512 Boone Avenue
Block 3013, Lot 29 (formerly lots 12, 29, 31, 35, 37 & 46)
VCP Project #13CVCP141X

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated June 26, 2013 and Stipulation List dated September 20, 2013 for 1512 Boone Avenue, VCP Project #13CVCP141X. 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 July 26, 2013. There were no public comments.

Statement of Purpose and Basis

This document presents the remedy for a Voluntary Cleanup Program site known as “1512 Boone Avenue” 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 “1512 Boone Avenue” site and the public's input to the proposed remedy presented by OER.

Description of Selected Remedy

The remedy selected for this “1512 Boone Avenue” 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 implementation 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. In situ delineation of lead hotspot identified in the northwest portion of the Site during the initial phase of the remedial action.
6. Excavation and removal of soil/fill that exceeds Track 4 Site-Specific SCOs. Excavation would be approximately 12 feet below existing grade in the northwest section, 2 feet below existing grade in the northeast section and 2 feet below existing grade in the southeast section of the Site;
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID;
8. Removal of underground storage tanks (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;
9. 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;
10. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs;
11. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations;
12. Demarcation of residual soil/fill;
13. Installation of a vapor barrier system beneath the building slab and outside foundation sidewalls below grade;
14. Construction and maintenance of an engineered composite cover consisting of a 4 inch thick building foundation slab, 12 inch thick concrete foundation walls, 2 foot thick certified clean fill cover over all open space landscape areas located over any residual site soil/fill and 4 inch thick concrete walkways to prevent human exposure to residual soil/fill remaining under the Site;

15. Installation of parking ventilation system, as part of building construction;
16. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations;
17. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
18. 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;
19. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual contamination, including plans for maintenance, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency;
20. Continued registration of the property with a Restrictive Declaration; 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.

9/21/2013

Date

Shaminder Chawla

Shaminder Chawla
Deputy Director

SITE BACKGROUND

Site Location and Current Usage:

1512 Boone Avenue is in the Crotona Park East neighborhood of Bronx, New York and is identified as Block 3013 and Lots 12, 29, 31, 35, 37, and 46 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 37,833-square feet and is bound by East 172nd Street to the north, a New York City public high school (1021 Boone Avenue) to the south, West Farms Road to the east, and Boone Avenue to the west. A map of the site boundary is depicted in Figure 2. Currently, the Site is unoccupied and contains one (1) single-story former auto repair shop with a parking lot, one (1) two-story masonry steel manufacturing building, and two (2) residential dwellings. The surface area of the Sites consists of asphalt parking areas, concrete walkways, exposed soils, exposed bedrock, and natural vegetation.

Past Uses and Areas of Concern:

A Phase I Environmental Site Assessment prepared in 2007 by Impact Environmental revealed through investigation of historic Sanborn maps that the Site has been developed as early as 1896 with several residential buildings and a mill yard. Commercial and industrial use buildings began to appear on the site as early as 1951 including auto repair shops, auto junk yard with filling stations and iron work shops.

The AOCs identified for this site include:

1. Historical usage of property with auto junk yard, auto body shop since 1977 and a filling station.
2. Closed spill #0300164 associated with this property.
3. Historical site usage as a steel manufacturing plant/ iron works.
4. Presence of historic fill ranging from 0 to 6 feet below grade, which was primarily comprised of concrete, brick, stone, gravel, wood, and trace coal and slag in a brown silty sand matrix.

Summary of Environmental Findings:

1. Elevation of the property ranges from 17 to 45 feet.
2. Depth to groundwater ranges from 2.5 to 11.5 feet at the Site.
3. Groundwater flow is generally from west to east beneath the Site.
4. Depth to bedrock is ranges throughout the site from approximately 3 feet to 14 feet at the Site. There is also an approximate 20 foot high bedrock outcrop in the southeast portion of the site.
5. Subsurface soil at the Site consisted of historic fill, which was primarily comprised of concrete, brick, stone, gravel, wood, and trace coal and slag in a brown silty sand matrix. Existing grade elevations vary greatly throughout the site due to shallow depth of bedrock outcrops. Historic fill was encountered at a depth interval ranging from 0 to 2 feet below grade surface (bgs) at borings SB-1, SB-7 and SB-8, 0 to 4 feet bgs at borings SB-2, SB-3, SB-5 and SB-6, 0 to 8 feet bgs at boring SB-4, 0 to 3 feet bgs at boring SB-9. Native material consisted of light brown medium-coarse sand and silty sand with decomposed rock fragments. Native material was encountered at a depth of 5 feet bgs at borings SB-2, SB-3, SB-5 and SB-6, 9 feet bgs at boring SB-4, 4 feet bgs at boring SB-9. Decomposed rock and bedrock was encountered at 3 feet bgs at borings SB-1, SB-7 and SB-8, 14 feet bgs at boring SB-2, 5 feet bgs at boring SB-3, 9 feet bgs at boring SB-4, 11

feet bgs at borings SB-5 and SB-6, 13 feet bgs at boring SB-9. A predominant rock outcrop approximately 20 feet in height is located in the south western portion of the site.

PROPOSED DEVELOPMENT PLAN

The proposed future use of the Site will consist of mixed-use residential and commercial retail. A nine-story building and an adjacent fifteen-story building, which together form over 250,000 square feet of residential space (237 apartment units) and 4,700 square feet of retail space will be constructed. One level of partial sub-grade parking is proposed. In addition to parking, the basement level will also include building utilities and bicycle storage. Two grade-level open spaces are proposed for the site; a landscaped 8,000 square foot mid-block open area and a landscaped 7,800 square foot resident courtyard between the two proposed buildings. The proposed buildings, including landscaped courtyard will be built out to the northern, eastern and western property lines of the site. The building footprint will be set back 60'-7" from the southern property line on Boone Avenue and 60'-11" from the southern property line on West Farms Road. The set-back area will contain the landscaped mid-block open area.

Existing grade at the western boundary of the site on Boone Avenue is higher than existing grade at the eastern boundary of the site on West Farms Road; therefore, the bottom of excavation will be approximately 18.5 feet below grade at the western boundary and approximately 5.5 feet below grade at the eastern boundary. The groundwater table is located approximately 11 feet below grade at the western portion of the site and approximately 3 feet below grade at the eastern portion of the site; therefore, soil excavation is expected below the groundwater table.

Demolition of all existing structures including removal of sub-grade utilities and drainage structures is proposed prior to redevelopment.

As per the New York City Department of Planning, the site was previously zoned M1-1. However, the Site is located within the Crotona Park East/West Farms Rezoning Resolution which has been rezoned it as R7A and R8-X with a C2-4 overlay. Therefore, the proposed use is consistent with existing rezoning for the property. The remedial action contemplated under this RAWP may be implemented independently of the proposed redevelopment plan.

SUMMARY OF REMEDIAL INVESTIGATION

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

Soil: BTEX and other petroleum associated volatile organic compounds (VOCs) were detected at trace levels and below Track 1 SCOs in 8 of 15 soil samples. The only VOC exceedence of Track 1 Unrestricted Use SCOs was acetone at 130 ppb in one soil sample. Several SVOC including benzo(a)anthracene (40 ppm), benzo(a)pyrene (39 ppm), benzo(b)fluoranthene (46 ppm), benzo(k)fluoranthene (22 ppm), chrysene (37 ppm), dibenzo(a,h)anthracene (5.8 ppm), and indeno(1,2,3-cd)pyrene (20 ppm) were detected above Track 2 Restricted Residential SCOs within one shallow soil sample (SB9). SVOCs were not detected above Track 1 Unrestricted Use SCOs in any other samples. Four pesticides including 4,4'-DDD (max. of 27 ppb); 4,4'-DDE (max. of 17 ppb); 4,4'-DDT (max. of 227 ppb) and dieldrin (max. of 5.5 ppb) were detected above Track 1 Unrestricted Use SCOs. Polychlorinated biphenyls (PCBs) were detected above Track 1 Unrestricted Use SCOs in one shallow soil sample (109 ppb). Several metals including

arsenic (max. of 48 ppm), barium (max. of 560 ppm), lead (max. of 3,000 ppm), and mercury (max. of 0.85 ppm), were detected above Track 2 Restricted Residential Use SCOs in shallow soil samples. In addition, chromium (trivalent), copper, nickel, silver, and zinc were detected above Track 1 Unrestricted Use SCOs, but below Track 2 Restricted Residential Use SCOs in 8 shallow and 2 deep soil samples. Overall, the results were consistent with observations of historic fill material at Sites throughout NYC, with the exception of shallow soil sample SB-9 which showed the highest concentrations of metals and SVOCs and will be treated as a hotspot.

Groundwater: Laboratory analysis of groundwater samples collected during the RI did not detect PCBs in any groundwater sample, and no pesticides, metals, or SVOCs were detected above GQSS. Five VOCs including 1,2,4-trimethylbenzene (17 ug/L), benzene (2.1 ug/L), ethylbenzene (6.8 ug/L), methylene chloride (40 ug/L) and vinyl chloride (3.7 ug/L) were detected exceeding their respective GQSS. The chlorinated VOCs PCE, TCE, and cis-1,2-dichloroethene, as well as petroleum-related VOCs, and acetone were also detected in groundwater at trace-to-low levels below Groundwater Quality Standards (GQSS). Petroleum-related VOCs were detected in the area of the historic petroleum spill and gas station operations, however separate phase product was not detected in any of the monitoring wells.

Soil vapor: Laboratory analysis of soil vapor samples indicated low level detections of several petroleum-related and chlorinated VOCs in all soil vapor samples. Concentrations of all compounds were below 20 ug/m³ except, one detection of trichlorofluoromethane at a concentration of 618,000 ug/m³. TCA, TCE and carbon tetrachloride were not detected in any of the soil vapor samples; and, PCE was detected at low concentrations (maximum of 12.5 ug/m³).

Figure 1 – Site Map



Figure 2 – Site Location Map

