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 22, 2012

Isaac Schwartz
ADIR Group Holdings LLC
181 North 11th Street, Suite 101
Brooklyn, NY 11211

Mr. Charles Sosik
Environmental Business Consultants
1808 Middle Country Road
Ridge, NY 11961

Re: **Decision Document**
NYC BCP Remedial Action Work Plan Approval
210 North 12th Street
Block 2291, Lot 17
BCP Project #12CBCP024K / OER Project # 12EHAZ050K

Dear Mr. Schwartz:

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 November 30, 2011 Remedial Action Work Plan (RAWP) and February 15, 2012 Stipulation List for 210 North 12th Street, BCP Project #12CBCP024K. 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 November 24, 2011. There were no public comments.

Statement of Purpose and Basis

This document presents the remedy for a Brownfield Cleanup site known as "210 North 12th 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), 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 210 North 12th Street Site and the public's input to the proposed remedy presented by the Office.

Description of Selected Remedy

The remedy selected for this 210 North 12th Street Site includes soil excavation, cover system, vapor barrier and sub slab depressurization system, 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. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establish Track 4 Soil Cleanup Objectives (SCOs). Excavation and removal of soil/fill exceeding SCOs. Track 4 SCOs will include Track 2 Restricted Residential Soil Cleanup Objectives for all parameters except the following parameters which would have site-specific SCOs: arsenic, lead, mercury, and total SVOCs. To achieve these SCOs, several hotspot areas will be excavated and disposed offsite;
4. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
5. Construction and maintenance of an engineered composite cover consisting of a building slab to prevent human exposure to residual soil/fill remaining under the Site;
6. Installation of a vapor barrier system beneath the building slab.
7. Installation and operation of a sub-slab depressurization system (SSDS) beneath a portion of the basement slab where parking is not proposed; construction of a ventilated 7,000 square foot parking garage on the first floor in areas that do not contain an SSDS.
8. Demarcation of residual soil/fill.
9. Import of materials to be used for backfill in compliance with this plan and in accordance with applicable laws and regulations.
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 onsite.
11. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
12. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
13. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
14. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
15. Submission of a 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.

16. 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.

17. 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 with 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.

2/22/12
Date

Shaminder Chawla
Assistant Director

SITE BACKGROUND

Location:
The Site is located at 454 Driggs Avenue in Williamsburg section of Brooklyn, New York, and is identified as Block 2291, Lot 17 on the New York City Tax Map. Figure 1 shows site location map.

Site Features:
The Site consists of a 10,487 square-foot vacant lot and is bounded by N. 12th Street to the north, Driggs Avenue to the east, and adjacent buildings/ construction to the west and south.

Current Zoning/uses:
The current zoning designation is M1-2/R7-A. The proposed use is consistent with existing zoning for the property.

Historical Use:
Historic use of the property has been industrial/ commercial including a chemical manufacturer, a paint/ ink manufacturer, and a textile manufacturer. The areas of concern identified for this site include the former UST area, historic fill, and past use as chemical manufacturing/ storage.

Summary of Environmental Findings:

1. Elevation of the property is approximately 14 feet above sea level.
2. Depth to groundwater ranges from 3 to 6 feet at the Site.
3. Groundwater flow is generally from south to north beneath the Site.
4. The stratigraphy of the site, from the surface down, consists of 10 feet of historical fill material overlying clay with native bog material that extends as deep as 20 feet below the surface.

PROPOSED DEVELOPMENT PLAN

The proposed development at the Site includes the construction of a new 8-story 47,000 square-foot apartment building. First floor use includes a 7,000 square foot parking garage, utility meter rooms, a trash compactor room, a gymnasium, and the building lobby. Residential apartments will occupy the remaining floors. The current zoning designation is M1-2/R7-A. The proposed use is consistent with existing zoning for the property.

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. 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.

Nature and Extent of Contamination:

Soil: Soil samples tested during the remedial investigation showed a variety of petroleum VOCs in most samples collected and many of these samples exceeded Track 1 Unrestricted Use Soil Cleanup Objectives (SCOs). Of these, three VOCs, all benzene derivatives exceeded Track 2 Restricted Residential SCOs. Total petroleum related VOC concentrations exceeded 100 ppm in some cases and are attributed to a petroleum spill onsite that is being actively managed by NYSDEC. PCE, TCE and other chlorinated hydrocarbons were not detected in onsite soil samples. Similarly, SVOCs were also commonly identified in soil. Various PAH compounds exceeded Track 1 SCOS including 6 PAH compounds that also exceeded Track 2 Restricted Residential SCOs. PAH compounds are attributed to both the petroleum spill in soils in the vicinity of the USTs and to the presence of historical fill onsite. Petroleum discharges to soil and groundwater are currently being addressed by NYS DEC under Spill number 0703695. Pesticides were not detected in onsite soils and PCBs were detected in several soil samples but were found at low concentrations and below Track 1 SCOs. The 2007 investigation showed that soils contain a variety of metals above both Track 1 and Track 2 Restricted Residential SCOs, including arsenic (6 of 15 samples exceed Track 2), copper (1 of 15 samples exceed Track 2), lead (9 of 15 samples exceed Track 2), mercury (10 of 15 exceed Track 2) and selenium (1 of 15 samples exceed Track 2). The relatively high concentrations of metals are likely related to the historic fill at the site and also possibly to the result of historic manufacturing operations at the site. Considerable removal of soil from the site was performed by a prior developer and ranges from the top 2 to 4 feet of soil and much of the soil exceeding SCOs has already been removed from the property, as confirmed by the September 2011 sampling.

Groundwater: Groundwater samples tested during the remedial investigation showed a variety of petroleum VOCs in groundwater. In 2007, concentrations of 9 of these compounds exceed Part 703.5 Class GA groundwater quality standards (GQS), however sampling in June 2011 show only 3 to 5 compounds above GQS and limited to two of the four sampling locations. Concentrations of total VOCs ranged from 474 to 948 ug/L in 2007 and from non-detect to 203 ug/L in June 2011 and from non-detect to 26 ug/L in July 2011. The July 2011 results showed a total of 3 parameters slightly above GQS. The petroleum VOCs reported are attributed to a petroleum spill onsite that is being actively managed by NYSDEC. Six SVOCs were also reported in groundwater above GQS in 2007, however, SVOCs in groundwater were not detected in 2011. No PCE or TCE were identified in onsite groundwater samples. Pesticides and PCBs were not detected in groundwater. Metals in groundwater were observed above GQS, including arsenic and sodium. The most recent sampling event showed arsenic at 40 ug/l and moderately above the GWS of 25 ug/l.

Soil vapor: Soil vapor samples tested during the RI showed a wide variety of VOCs including BTEX and associated petroleum derivative compounds. Petroleum compounds were generally low. Several chlorinated VOC were also identified including PCE, which was found in 2 of 3 samples with a maximum concentration of 200 ug/m3, and TCE, which was found in 2 of 3 samples with a maximum concentration of 5.6 ug/m3. PCE and TCE were not detected in any onsite soil or groundwater samples and are attributed to offsite sources. Acetone and methylene chloride were also identified in vapor samples.

Figure 1: Site Map