



**OFFICE OF ENVIRONMENTAL REMEDIATION**

100 Gold Street - 2nd Floor  
New York, New York 10038  
Daniel Walsh, Ph.D.  
Director  
Tel: (212) 788-8841  
Fax: (212) 788-2466

October 1, 2012

Mr. Adam Westrich  
544 Union Owner LLC & Withers Owner LLC  
250 Greenpoint Avenue  
Brooklyn, NY 11222

Ms. Deborah Shapiro and Mr. Stephen Malinowski  
CA Rich Consultants, Inc.  
17 Dupont Street  
Plainview, NY 11803

Re: **Decision Document**  
**NYC VCP Remedial Action Work Plan Approval**  
**538 Union Avenue**  
**Block 2741, Lots 7 and 8**  
**VCP Project #13CVCP081K**

Dear Mr. Westreich:

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated August 2012 and Stipulation List dated August 29, 2012 for 538 Union Avenue, VCP Project #13CVCP081K. 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 September 29, 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 Voluntary Cleanup Program site known as “538 Union 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](http://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. 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 “538 Union Avenue” site and the public’s input to the proposed

remedy presented by OER.

### **Description of Selected Remedy**

The remedy selected for this “538 Union Avenue” site includes soil excavation, an engineered composite cover system, a vapor barrier, an active sub-slab depressurization system, institutional controls, and site management plan.

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 Track 4 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 SCOs. Appropriate segregation of excavated media on-site;
6. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
7. Removal of USTs and closure of petroleum spills (if encountered) 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;
9. Collection and analysis of end-point samples to determine the performance of the remedy with respect to the attainment of SCOs;
10. Demarcation of residual soil/fill;
11. Installation of a vapor barrier system beneath the building slab;
12. Installation and operation of an active sub-slab depressurization system;
13. Construction and maintenance of an engineered composite cover consisting of a two foot thick layer of clean cover across the entire Site, an asphalt covered parking lot and a concrete building slab, to prevent human exposure to residual soil/fill remaining under the Site;
14. Importation of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations;
15. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations;

16. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
17. 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;
18. 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; and
19. 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.

10/1/12  
Date \_\_\_\_\_  
Shaminder Chawla  
Assistant Director

## **SITE BACKGROUND**

### **Location:**

The 538 Union Avenue Site (hereafter referred to as the "Site") is located at 538 Union Avenue in the Williamsburg section of Brooklyn, New York and is identified as Block 2741, Lots 7 and 8 on the New York City Tax Map. Figure 1 shows the Site location.

### **Site Features:**

The Site is approximately 5,000 square feet and is bounded by Withers Street to the north, a parking lot to the south, a two-story building to the east, and Union Avenue to the west. Currently, the Site is vacant and undeveloped and contains foundation elements associates with the early stages of the site redevelopment by a previous developer.

### **Current Zoning/Uses:**

The current zoning designation is M1-2/R6A, light manufacturing uses with new residential uses and community facilities. The proposed use is consistent with the existing zoning for the site.

### **Summary of Environmental Findings:**

1. Elevation of the property ranges from approximately 18 feet at the Site.
2. Depth to groundwater ranges from 4 to 6 feet at the Site.
3. Groundwater flow is generally east to west beneath the Site.
4. Depth to bedrock is undetermined at the Site.
5. The stratigraphy of the Site, from the surface down, consists of urban fill followed by unconsolidated Cretaceous age deposits composed of interbedded layers of silt, sand, and gravel.
6. Three VOCs were detected in shallow and deep soil samples and were all below the Track 1 SCOs. Methylene chloride was detected in all samples from 8 to 15 ppb. PCE was detected at 1.4 ppb. SVOCs exceeded Track 2 Restricted-Residential SCOs across the entire site. These SVOCs included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene. One soil sample detected Arocolor 1260 & Arocolor 1262 at 150 exceeding Track 1 SCO but below the Track 2 Restricted-Residential SCO. All other soil samples detected trace levels of PCBs. Pesticides including DDD, DDE, DDT, chlorodane and dieldrin were detected above the Track 1 SCOs but below the Track 2 Restricted-Residential SCOs. Metals including arsenic, barium, cadmium, chromium, copper, lead, mercury and zinc exceeded the Track 1 SCOs and of these arsenic, barium, lead, and mercury also exceeded the Track 2 Restricted-Residential SCOs.
7. Groundwater samples collected during the RI showed a slight exceedence of NYSDEC TOGS 1.1.1 Groundwater Quality Standards (GQS) for VOCs (1,1,1-Trichloroethane) at one of three location. SVOCs including (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene) were detected above GQS. Pesticides including 4,4'-DDT, DDE and DDD were detected in groundwater but only DDT at 0.39 ppb exceeded GQS in one location. The RI indicated concentrations of dissolved metals (magnesium, manganese, and sodium) slightly exceeded the GQS. PCBs were not detected in any of the groundwater samples collected at the site.

8. Three (3) soil vapor samples collected during the RI contained low level VOCs. The RI showed detections of several chlorinated and petroleum related compounds in all samples. Tetrachloroethylene (PCE) and Trichloroethylene (TCE) were detected to a maximum concentration of and 31 ug/m<sup>3</sup> and 72.6 ug/m<sup>3</sup> respectively. The petroleum related soil vapor detections are attributed to on-site urban fill. The detections of chlorinated solvents are believed to be related to the presence of chlorinated solvents in the groundwater emanating from an upgradient source.

A site location map is attached as Figure 1.

### **PROPOSED DEVELOPMENT PLAN**

Detailed construction plans for the Site have been finalized. The proposed future use of the Site will consist of a six-story residential building with 13,380 square feet. Approximately 1,875 square feet of exterior parking for the apartment building will be provided fronting Withers Street. The residential building will consist of 14 condominium residences with one unit on the first floor. The building will be slab-on-grade construction, with a concrete/asphalt parking area in the rear portion of the building. The proposed building covers approximately 65% of the lot.

The approximate soil volume that will be excavated during development of the Site is 300-500 cubic yards.

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

Figure 1

Site Map

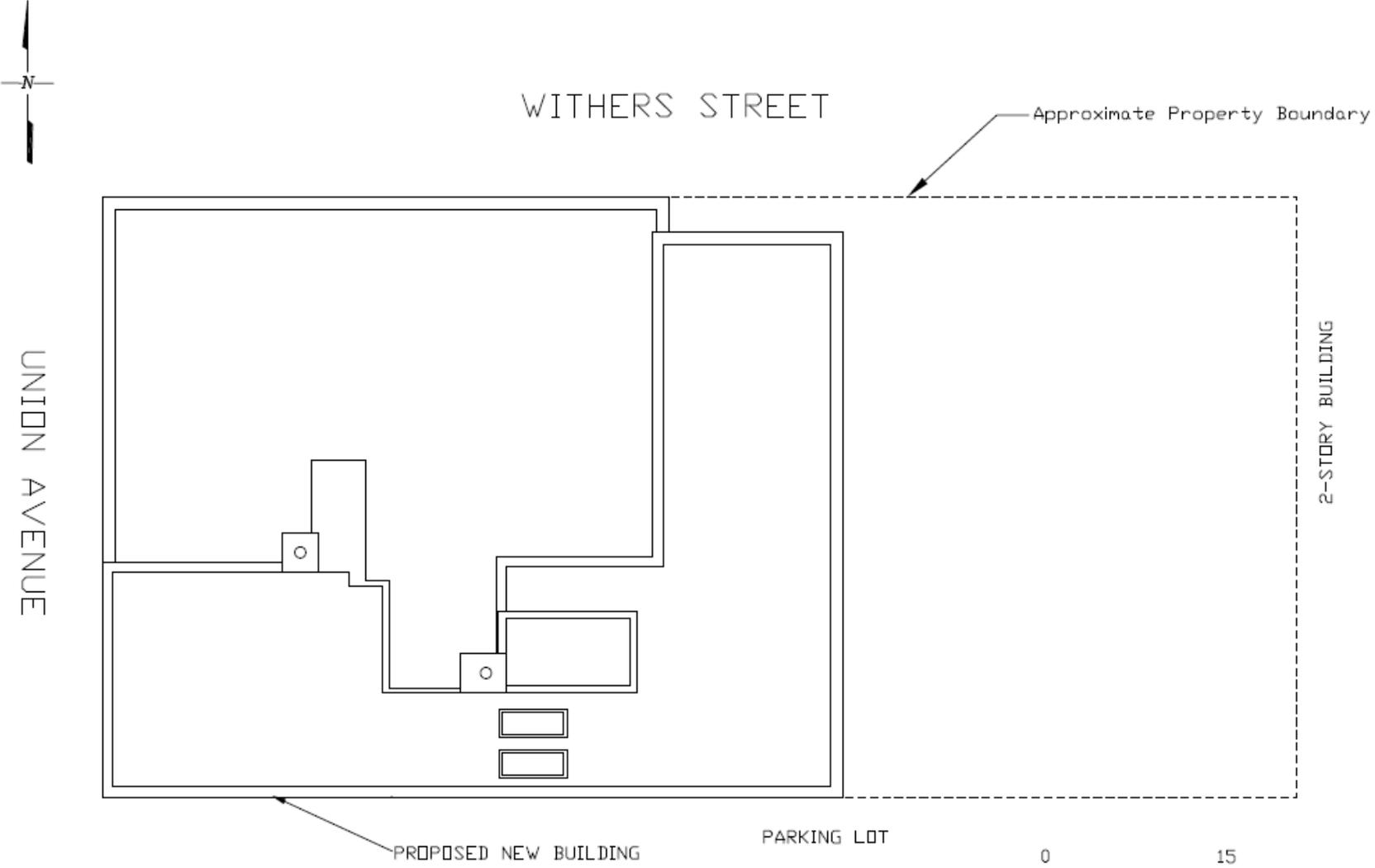
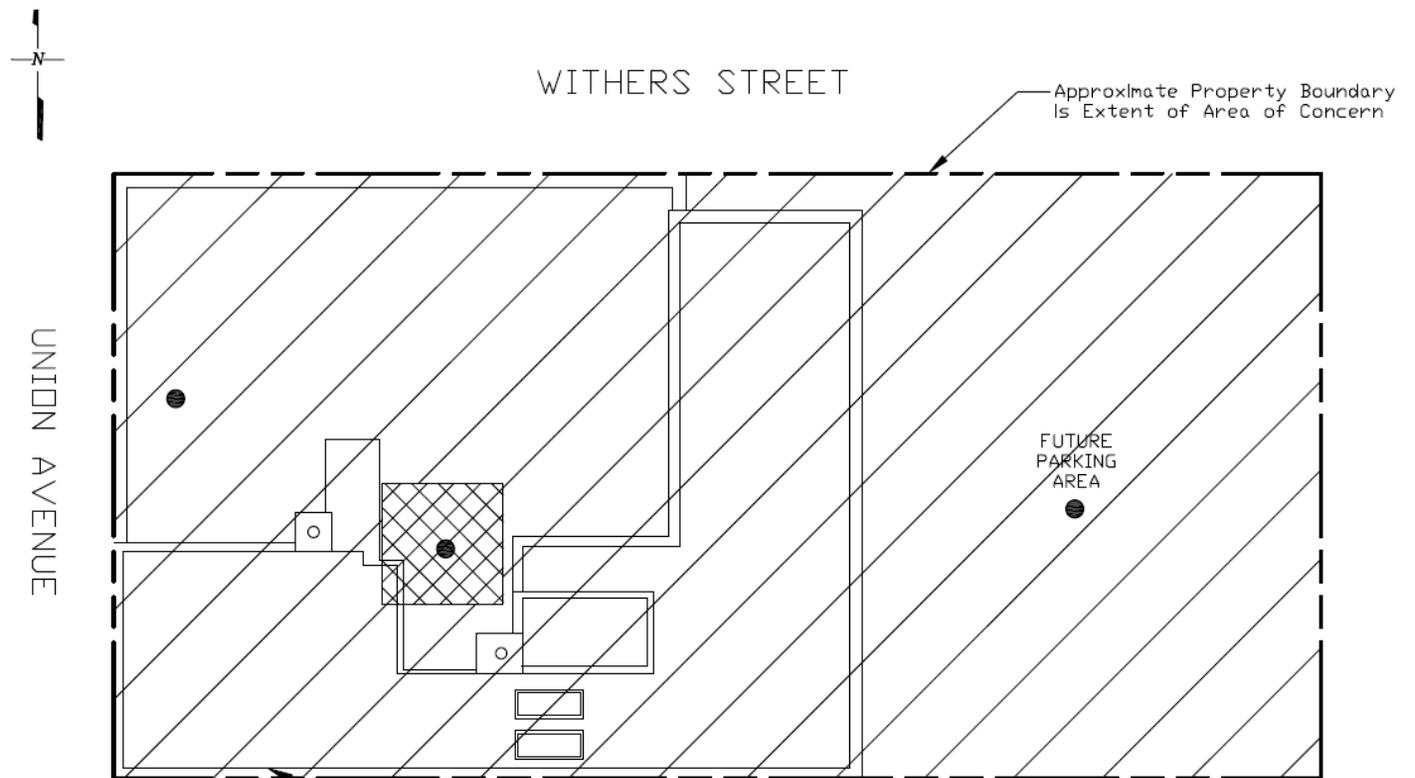


Figure 2

Proposed Remedy (Excavation of Areas of Concern)

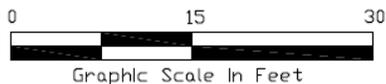


LEGEND

-  Proposed Soil Endpoint Sample Location
-  Proposed 2-Foot Deep Site-Wide Excavation Area
-  Proposed 3.5-Foot Deep Remedial Excavation Area

PROPOSED NEW BUILDING

ADJACENT PARKING LOT



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|---|--|
| <b>CA RICH CONSULTANTS,</b><br>Environmental Specialists Since 1982<br>17 Dupont Street, Plainview, New York 11 |  |
| <b>STEPHEN J. OSMUNDSEI</b><br>Consulting Engineer<br>514 Pantigo Road #16, East Hampton,                       |  |
| TITLE:<br>Proposed Endpoint Sample Locations  |  |
| FIGURE:<br>3  | WITHERS OWNER, LLC<br>538 UNION AVENUE |
| DRAWING NO:   |  |