



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

May 18, 2012

Mr. Douglas Patrick
544 Unioncon, LLC
1737 Veterans Highway
Islandia, NY 11788

Mr. Robert Wolff
URS Corporation
1 Penn Plaza, Suite 600
New York, NY 10119

Re: **Decision Document**
NYC BCP Remedial Action Work Plan Approval
544 Union Avenue
Block 2736, Lot 1, 9, and 48
BCP Project #12CBCP039K; OER Project #11EHAZ329K

Dear Mr. Patrick:

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 544 Union Avenue, BCP Project #12CBCP039K, dated May 12, 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 May 2, 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 “544 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.

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 “544 Union Avenue” site and the public's input to the proposed remedy presented by OER.

Description of Selected Remedy

The remedy selected for this “544 Union Avenue” site includes soil excavation, an engineered composite cover system, a vapor barrier, 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. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
4. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
5. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
6. Establishment of Track 4 SCOs.
7. Excavation of contaminated fill (terminating beneath the groundwater table) in three hot spot locations that exceeds the Track 4 SCOs. Excavation of remainder of the property from one foot to eight feet below sidewalk grades for development purposes.
8. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
9. Removal of underground storage tanks and closure of petroleum spills if any in compliance with applicable local, State and Federal laws and regulations, should they be encountered.
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. Collection and analysis of confirmatory end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
12. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
13. Installation of a vapor barrier system beneath the building slab.
14. Construction and maintenance of an engineered composite cover consisting of a concrete building slab to prevent human exposure to residual soil/fill remaining under the Site.
15. Submission of a Remedial Action Report (RAR) that describes the remedial activity, 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 historic fill 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 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

May 21, 2012

Shaminder Chawla
Assistant Director



SITE BACKGROUND

Location:

The 544 Union Avenue Site (hereafter referred to as the “Site”) is located at 544 Union Avenue in the Williamsburg section of Brooklyn, New York and is identified as Block 2736, Lots 1, 9, and 48 on the New York City Tax Map. Figure 1 shows the Site location.

Site Features:

The Site is approximately 36,000 square feet and is bounded by Front Street and 568 Union Avenue to the north, Withers Street to the south, a warehouse and 3-story residential buildings to the east, and a vacant lot and auto body shop to the west across Union Avenue. Currently, the Site is vacant and contains foundation elements associated with the early stages of site redevelopment.

Current Zoning/Uses:

The current zoning designation is M1-2/R6A. The proposed use is consistent with existing zoning for the property.

Summary of Environmental Findings:

1. Elevation of the property ranges from approximately 7.5ft above mean sea level to approximately 9ft above mean sea level. These elevations refer to Brooklyn Highway datum (*Barret, Bonacci & Van Weele, 2010*).
2. Depth to groundwater at the site is highly variable and ranges from approximately 4.5ft bgs to 10ft bgs at the Site.
3. Groundwater flow is generally from an east to west direction beneath the Site according to CA RICH Phase II ESA (2007).
4. Bedrock was not encountered during any of the previous environmental and/or geotechnical investigations.
5. The stratigraphy of the site, from the surface down, consists of approximately 15 feet of fill underlain by approximately 2 to 15 feet of peat. According to URS’s geotechnical evaluation, below the peat layer is a sand and silt layer containing varying proportions of sand and silt. The sand and silt layer is described as dense to very dense. Bedrock was not encountered.
6. Soil encountered consisting of urban fill materials exists to approximately 15 feet below grade. Soil/fill samples collected during the RI showed ubiquitous metals contamination in site soils (fill). Tables 1 and 2 of RI report summarize the results of soil and TCLP soil sampling during URS’ remedial investigation. PCBs were not detected in any of the soil samples. The analytical results indicated that VOCs, SVOCs, and pesticides exceeded the

NYSDEC Part 375 Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs), but did not exceed the Restricted Use (Track 2) Restricted Residential SCOs. Metals including lead, arsenic and mercury exceeded the NYSDEC Part 375 Restricted Use (Track 2) Restricted Residential SCOs.

7. Groundwater samples collected during the RI showed low-level exceedances of VOCs during Phase II investigation in 2007. Groundwater samples analyzed for metals, both filtered and unfiltered, showed that exceedances of groundwater quality standards were directly attributable to the sediment suspended in the unfiltered samples. There were no exceedances in any of the dissolved metals groundwater samples during either 2011 or 2007 investigations. Pesticides and PCBs were not detected in any of the groundwater samples.
8. Soil vapor samples collected during the RI showed that VOCs are present in the soil vapor. The analytical results indicate low level BTEX contamination, tetrachloroethene (PCE) detections, 1,1,1-trichloroethane (TCA) detections (maximum concentration of 116 ug/m³), and trichloroethene (TCE) detections (maximum concentration of 72.9 ug/m³). The ambient air sample located in the center portion of the site detected twelve different VOCs, with 1,4-dichlorobenzene detected over the HEI background value.

A site location map is attached as Figure 1.

PROPOSED DEVELOPMENT PLAN

Detailed construction plans for the Site have been finalized. The proposed redevelopment plan will consist of a six-story mixed use residential building with commercial space and an indoor parking garage occupying the ground floor. The plan includes the construction of one 36,000 square foot six floor building that will occupy 98% of the lot. The remaining 2% of the lot fronting Union Avenue will be covered with a combination of concrete sidewalks and landscaped concrete planters.

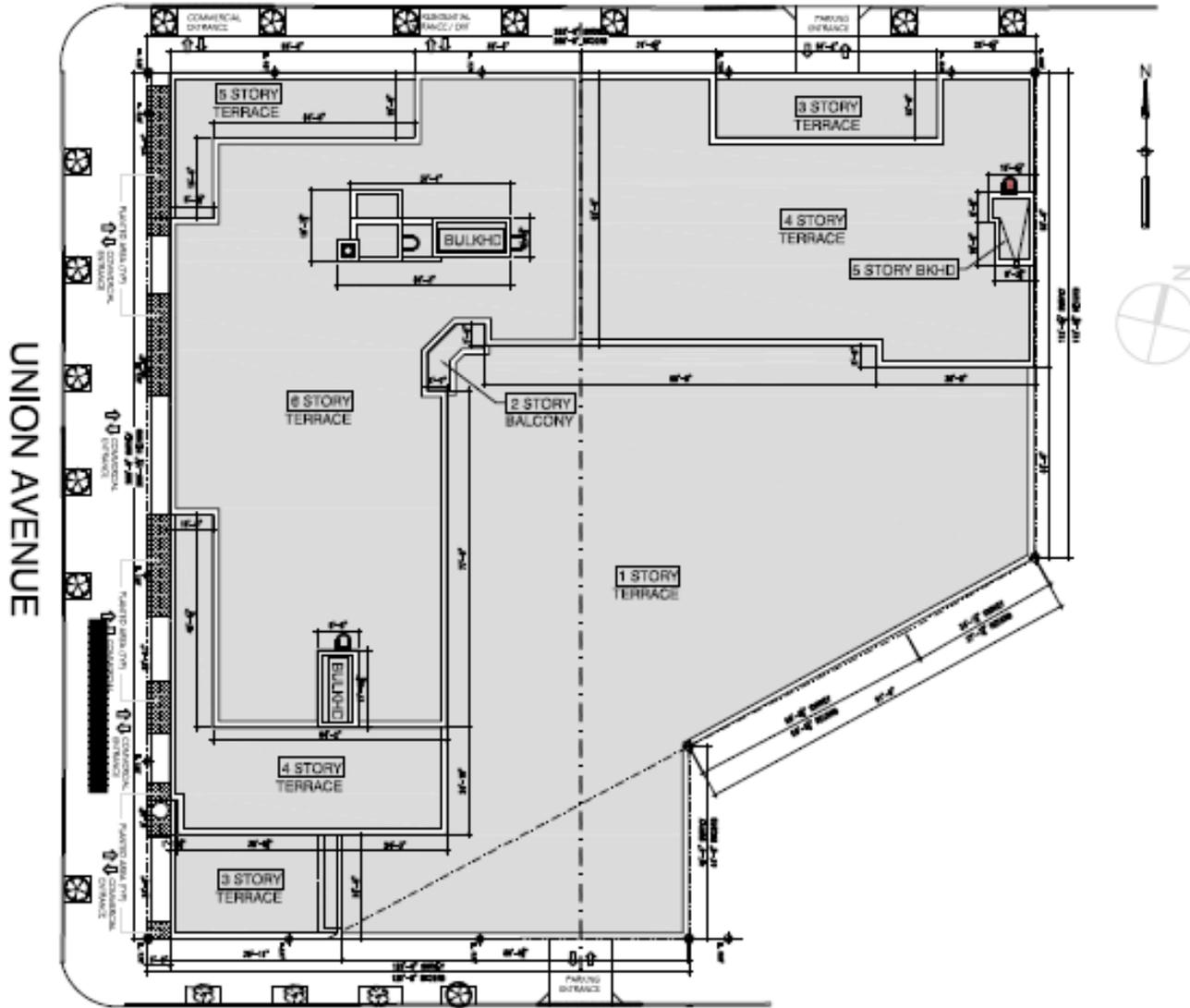
The approximate soil volume that will be excavated during development of the Site is 3,000 cubic yards.

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

Figure 1

Site Map

FROST STREET



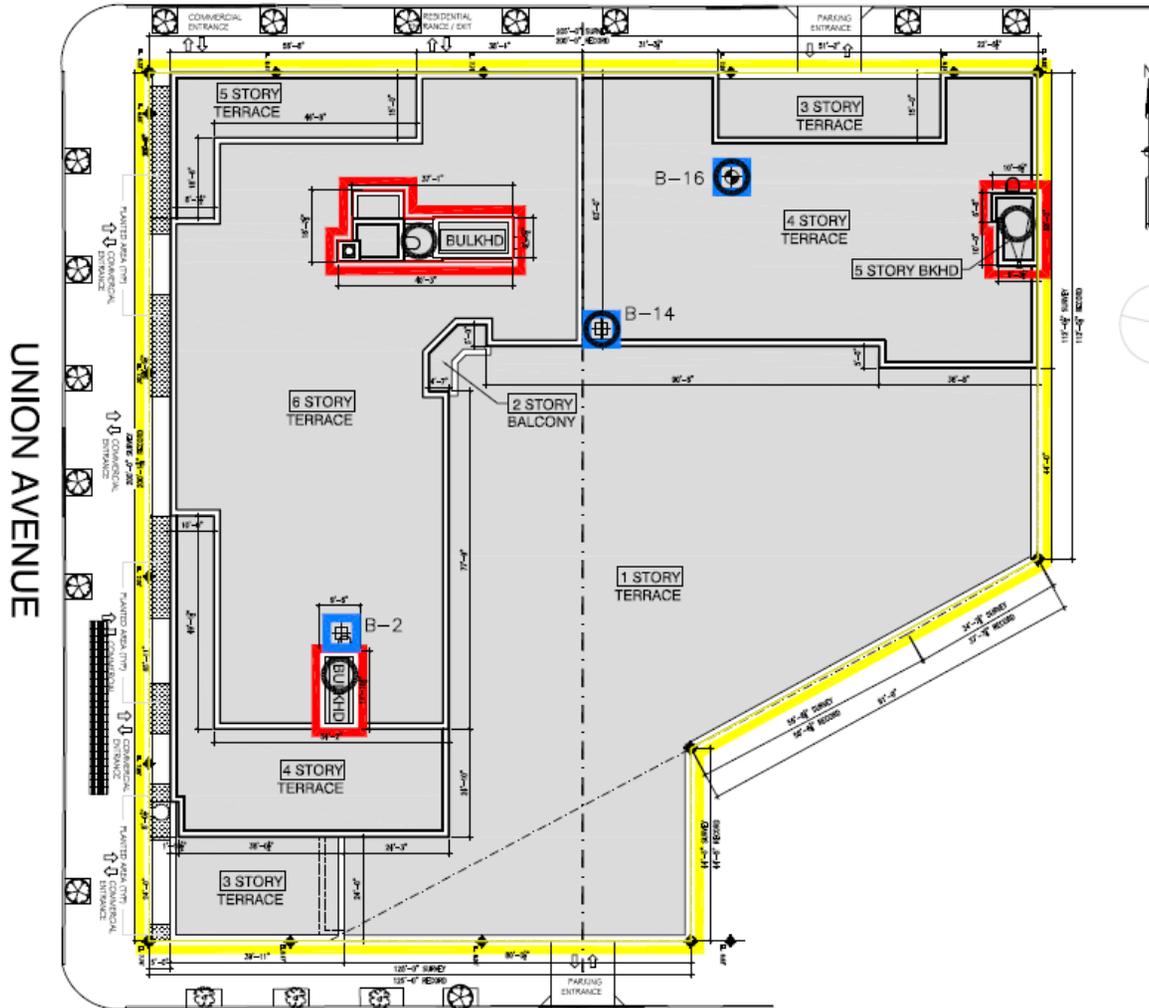
UNION AVENUE

WITHERS STREET

Figure 2

Proposed Remedy (Excavation of Areas of Concern)

FROST STREET



WITHERS STREET

ZONING MAP #13a

BASE PLANE CALCULATION

FROST STREET ELEVATIONS

8.53'
6.41'
7.74'
7.88'
8.43'
8.88'
 $43.79/6 = 7.62'$

WITHERS STREET ELEVATIONS

8.83'
8.08'
8.17'
7.78'
 $32.82/4 = 8.21'$

UNION AVENUE ELEVATIONS
7.79'
7.89'
7.58'
7.00'
6.88'
6.33'
 $43.19/6 = 7.20'$

MEAN ELEVATION (3 STREETS)

7.82'
8.21'
7.20'
 $23.03/3 = 7.68'$

BASE PLANE ELEVATION = 7.88'

BASE FLOOD ELEVATION CALCULATION

BFE = FZ + NGVD

FZ: *AE* = 10'
NGVD OF BROOKLYN = 2.547'

BFE = 10' + 2.547' = 7.453'

7.88' > 7.453' THEREFORE WATERPROOFING MEASURES ARE NOT REQUIRED

NOTES

1. SLAB ELEVATION AT STREET WALL IS AT OR ABOVE THE BASE FLOOD ELEVATION THEREFORE WATERPROOFING OF FOUNDATION WALL AND UNDERSLAB IS NOT REQUIRED.

2. EXTERIOR WALLS AT SIDEWALK ELEVATION WILL BE TREATED WITH WATERPROOFING MATERIAL AS IDENTIFIED ON THE WALL SECTIONS AND ENLARGED DETAILS, ALL EJECTOR PITS AND THE ELEVATOR SHAFT SHALL BE FULLY WATERPROOFED WITH PREPRUFE 300R OR EQUAL.

ABBREVIATIONS

BPE; BASE PLAN ELEVATION
BFE; BASE FLOOD ELEVATION
FZ; FLOOD ZONE
NGVD; NATIONAL GEODETIC VERTICAL DATUM

LEGEND

- EXTENT OF EXCAVATION TO 1 FT. BELOW SIDEWALK LEVEL GRADE
- EXTENT OF EXCAVATION TO A MAXIMUM OF 8 FT. BELOW SIDEWALK LEVEL GRADE
- HOT SPOT REMOVAL: EXTENT OF EXCAVATION TO THE WATER TABLE (EXPECTED DEPTH OF 5 TO 7 FT. BELOW SIDEWALK LEVEL GRADE)
- B-16 SOIL BORING LOCATION
- B-2 SOIL BORING WITH GROUNDWATER SAMPLE
- END POINT SAMPLE LOCATION

MAP OF END POINT SAMPLE LOCATIONS