

**Analysis of Brownfields Cleanup Alternatives**  
**Euclid-Woodlawn Redevelopment, 12500-12540 Euclid Avenue, and 1810 Woodlawn Avenue,**  
**East Cleveland, Ohio**

**I. Introduction & Background**

**a. Site Location**

The Euclid-Woodlawn Redevelopment site is located at 1810 Woodlawn Avenue and 12500 and 12524 Euclid Avenue in East Cleveland, Ohio (herein referred to as “the Site”). The site consists of three contiguous parcels owned by the Cuyahoga County Land Reutilization Corporation (CCLRC).

**b. Previous Site Uses**

Parcel 672-13-009, 12500 Euclid Avenue, is a vacant lot. The parcel was operated as a gasoline station from 1967 to 1973 and has been used for auto sales and service intermittently from 1974 to 2021. Parcel 672-13-010, 12524 Euclid Avenue, is a vacant lot. Commercial printing operations were present in the 1930s and 1970s. A dry cleaner was present from at least 1935. Parcel 672-13-011, 1810 Woodlawn Avenue, is a vacant lot formerly occupied by an auto repair garage.

**c. Site Assessment Findings**

Prior to taking ownership of the parcels, the CCLRC hired Partners Environmental Consulting, Inc. (Partners) to prepare ASTM/AAI Phase I Reports for the three (3) parcels that comprise the Site, dated May 23, 2019, January 22, 2021, and October 12, 2021. The ASTM/AAI Phase I Reports identified four (4) Recognized Environmental Conditions (RECs), being: 1) auto repair operations, hydraulic lifts, and a historical underground storage tank (UST), 2) an automotive paint shop, 3) historical dry cleaning and commercial printing operations, and 4) a former gasoline filling station and auto repair.

The hydraulic lifts were removed in 2001. The UST was removed in 2022. Confirmation samples collected from the excavations revealed that no contamination remained in the area of the hydraulic lift or the UST. No Further Action status was granted for the UST closure in 2022 by Ohio’s Bureau of Underground Storage Tank Regulation (BUSTR).

Phase II site assessment activities were conducted in August 2019, November 2019, January 2022, and February 2022 to evaluate the RECs. A total of 24 soil boring, of which eight (8) were converted to groundwater monitoring wells, four (4) soil gas points, and three (3) sub-slab vapor points were advanced.

Soil samples were collected and analyzed for Volatile Organic Compounds (VOCs), Polynuclear Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons (TPH, 3 ranges), and Polychlorinated biphenyls (PCBs) in accordance with EPA and state-approved procedures. Groundwater samples were collected and analyzed for VOCs and PAHs and soil gas and sub-slab vapor samples were analyzed for VOCs in accordance with EPA and state-approved procedures.

Analytical results showed an area measuring approximately 14,000 square feet in the west central portion of the Site in which the concentrations of trichloroethene in soil, groundwater, and/or soil gas/sub-slab vapor exceed direct contact soil standards for residential use and construction/excavation activities, USEPA Vapor Intrusion Screening Levels (VISL) Target Groundwater Concentrations, and/or indoor air standards for residential use. In addition, the potential for a vapor intrusion risk is present for residents and commercial workers at nearby properties from groundwater migration. Therefore, cleanup of soils in the saturated zone and groundwater is required. Vapor mitigation measures will be necessary for the planned multi-family residential redevelopment of the Property.

**d. Project Goal**

The planned reuse for the Site is an approx. 60-unit apartment building. The City of East Cleveland has partnered with CCLRC for a \$122 million revitalization project within the target area scheduled to commence in 2023. The cleanup Site is at the heart of this area redevelopment and will complement the 23,000 sq. ft. commercial building being renovated for \$3.5 million on the adjacent parcel and the townhomes and single family homes being built directly south of the Site. The apartment building would

create approx. \$20 million of new property value and \$3.6 million of new household income, bringing \$114,000 annually of new income tax revenue to the City of East Cleveland.

## **II. Applicable Regulations and Cleanup Standards**

### **a. Cleanup Oversight Responsibility**

All work will be conducted in accordance with the Ohio EPA Voluntary Action Program Rules (VAP) set forth in Ohio Administrative Code (OAC) 3745-300 and under the oversight of the Ohio EPA Division of Environmental Response and Revitalization. CCLRC will obtain concurrence from the Ohio EPA to implement the clean-up work. Remediation work will be directed by an environmental consulting firm, contracted by CCLRC, which is fully qualified in all aspects of assessment and remediation. The environmental consulting firm will utilize a Certified Professional licensed by Ohio EPA to oversee remediation activities and prepare a submittal for a No Further Action Letter.

### **b. Cleanup Standards for major contaminants**

CCLRC anticipates that the Ohio EPA VAP standards for residential use and construction/excavation activities will be used as the cleanup standards. However, it is possible that risk-based cleanup standards will be generated for compounds of concern, in accordance with state regulations.

### **c. Laws & Regulations Applicable to the Cleanup**

Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, state environmental law, and city laws. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed. In addition, all appropriate permits (e.g., notify before you dig, waste characterization) will be obtained prior to the work commencing.

## **III. Evaluation of Cleanup Alternatives**

### **a. Cleanup Alternatives Considered (*minimum two different alternatives plus No Action*)**

To address contamination at the Site, three different alternatives were considered, including:

Alternative #1: No Action.

Alternative #2: Complete removal of impacted soil and groundwater, with VAP No Further Action (NFA) submitted along with a request for a Covenant Not To Sue (CNS) from the Ohio EPA once applicable VAP standards are demonstrated to have been achieved.

Alternative #3: Limited soil removal in areas of planned building foundations, in-situ treatment of groundwater and soil in the saturated zone, and installation of a sub-slab depressurization system during construction of the future building, with VAP NFA submitted along with a request for a CNS from the Ohio EPA once applicable VAP standards are achieved.

### **b. Cost Estimate of Cleanup Alternatives**

To satisfy EPA requirements, the effectiveness, implementability, and cost of each alternative was considered prior to selecting a recommended cleanup alternative.

#### Effectiveness

Alternative #1: No Action is not effective in controlling or preventing the exposure of receptors to contamination at the Site. New construction would be prohibited due to the vapor migration to indoor air pathway. Further, the potential for future off-site migration of contaminants would remain.

Alternative #2: Complete removal of impacted soil and groundwater to a depth of 16 ft followed by the placement of engineered fill to replace the excavated soil is an effective method to address conditions at the Property. Vapor mitigation for any new building may still be required even after removal under Ohio's VAP.

Alternative #3: Limited soil removal, in-situ treatment of groundwater and soil in the saturated zone, and installation of a sub-slab depressurization system during construction of future buildings is an effective way to eliminate risk at the Site. Contamination in the saturated zone will be removed, soil generated

during foundation and utility construction will be disposed of properly, and the vapor exposure pathways will no longer exist.

#### Implementability

Alternative #1: No Action is easy to implement since no actions will be conducted.

Alternative #2: This alternative would pose difficulties due to the urban setting. This alternative would require the removal of impacted soil to a depth of 16 ft over an area of about 14,000 square feet in this mixed residential/commercial area of East Cleveland. The mass excavation (8,300 cubic yards) would increase the risk of acute exposure to trichloroethene vapors to sensitive population in the neighborhood. The increased truck traffic for transporting soil off-site and importing clean soil would expose residents to increased emissions and stress the City's streets.

Alternative #3: Limited soil removal, in-situ treatment of groundwater, and installation of a sub-slab depressurization system during construction of future buildings is relatively safe and easy to implement. Coordination (e.g., dust suppression and monitoring) during cleanup activities and short-term limited disturbance to the community (e.g., trucks transporting a small amount contaminated soils and backfill) are anticipated.

#### Cost

There will be no costs under Alternative #1: No Action.

Alternative #2: Complete removal , replacement, would cost on the order of \$3.5M, including VAP related activities to attain an NFA and CNS.

Alternative #3: Limited soil removal (200 tons), in-situ treatment of groundwater, and installation of a sub-slab depressurization system during construction is estimated to cost roughly \$500,000, including VAP related activities to attain an NFA and CNS.

#### **c. Recommended Cleanup Alternative**

The recommended cleanup alternative is Alternative #3: Limited soil removal in the area of planned building foundations, in-situ treatment of groundwater, and installation of a sub-slab depressurization system during construction of future buildings