

Analysis of Brownfields Cleanup Alternatives – Preliminary Evaluation for 6150 Lancaster Avenue, Phila, PA 19151

**Prepared for
Overbrook Environmental Education Center
&
JASTECH Development Services Inc.**

I. Introduction & Background

a. Site Location (*address*)

The site is located at **6150 Lancaster Avenue**, Phila, PA 19151 (herein referred to as “the Site”). The Site abuts the property to **6122 Lancaster Avenue** (also, adjoined with this ABCA) at the northwest. The Site is located on a one-acre property frontage that runs along Lancaster Avenue in the City of Philadelphia. The lot is rectangular and consist of a vacant building and fenced-in yard adjacent to Sal’s Seafood restaurant. The building located at 6150 Lancaster Avenue, is approximately, 60 feet by 140 feet and is bordered by Lancaster Avenue to the northeast, the D.J Laundromat and Hunan Palace to the southeast, abutted by residential row housing to the south and southwest, and a bus and trolley station to the northwest, with is operated by the Southeast Pennsylvania Transportation Authority (SEPTA). Across from the property is a Citgo Gas Station, United Auto Repair, a UHAUL rental agency, and a Body Central Collision Auto Repair Shop.

b. Previous Site Use(s) and any previous cleanup/remediation

A records review of the Site indicates that historically the Reilly’s Quarry, a supermarket and building supply company has been located on the northwest part of the property at 6150 Lancaster Avenue. This Site is Parcel No. Tax ID: 34132810 at Longitude 75.24° and Latitude 39.98°. The current vacant building at 6150 Lancaster Avenue and the fenced-in yard were previously occupied by the Philadelphia Building Supply Company, Inc., and operated as a building supply business providing such items as gravel, sand, stone, lumber, brick, concrete, pesticides, and building supplies. Prior to operations by the Philadelphia Building Supply, Inc the facility was an A & P (Atlantic & Pacific) Supermarket.

According to a May 2006, Environmental Site Assessment conducted by Tetra Tech EM Inc., of Boothwyn PA, Tetra Tech at the request of the Overbrook environmental Education Center compared site-specific results to EPA’s Region II’s residential risk-based concentrations (RBCs) as part of the risk-based screening process in order to identify contaminants of potential health concerns that may require further evaluation.

c. Site Assessment Findings (*briefly summarize the environmental investigations that have occurred at the site, including what the Phase I and Phase II assessment reports revealed in terms of contamination present, if applicable*)

At the request of the Overbrook Environmental Education Center, Safety Management Consultants, LLC (Safety Management) of Cherry Hill, New Jersey performed a Phase I Environmental Site Assessment (ESAI) in 2002. A Phase II Environmental Site Assessment was performed at this location by Tetra Tech EM Inc., of Boothwyn, PA. in 2006. In the vacant building, Tetra Tech sampled for transformer oil, asbestos-containing materials (ACM), roofing materials, surface and subsurface soils; and, sediment in the outdoor storm grate. The Site analysis was for Target Analyte List Metals (TAL), TAL Metals/Pesticides/PAH; TAL Metals/PCBs/Chlorobenzenes; and Asbestos by polarized light microscopy (PLM).

Tetra Tech collected surface samples from the basement; subsurface soil samples from infiltration test pits (in the parking lot area); surface soil samples and a storm grate sample from the south of the Site; asbestos sampling from pieces of materials from floor tile, wall plaster, and roofing materials from 6150 Lancaster Avenue. Tetra Tech subcontractor, Ferric Construction used on backhoe, decontamination metal pan and water truck to dig test pits. Each test pit was approximately 3 to 4 feet in diameter and 36" in depth and collected subsurface soil samples of native soils mixed with stone and rock pieces.

d. Project Goal (*site reuse plan*)

The planned reuse for the Site is an Environmental Education Center. The Overbrook Community does not have an open-space environmental center in this neighborhood. The Site use will include the demonstration of green stormwater infrastructure practices, urban farm and other outdoor activities and educational facilities. The nature and extent of contamination that may be encountered during the construction of this facility cannot be foreseen. If contaminants are encountered, this will create a delay in the construction of the project and an unforeseen cost for testing, cleanup, and restoration prior to restarting construction.

II. Applicable Regulations and Cleanup Standards

a. Cleanup Oversight Responsibility (*identify the entity, if any, that will oversee the cleanup, e.g., the state, Licensed Site Professional, other required certified professional*).

The cleanup will be overseen by Overbrook Environmental Education Center, under the oversight of the PA Department of Environmental Protection. In addition, all documents prepared for the Site are submitted to the PA DEP's Office of Land Recycling Program.

b. Cleanup Standards for major contaminants (*briefly summarize the standard for cleanup e.g., state standards for residential or industrial reuse*)

The Overbrook Environmental Education Center currently anticipates that the PA State standards for educational use 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 (*briefly summarize any federal, state, and local laws and regulations that apply 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 including the Pennsylvania Act 2 Land Recycling, Medium-Specific Concentration Statewide Health Standards, and Philadelphia regulations. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed. In addition, all appropriate permits (*e.g.*, Pennsylvania (811) One-Call, soil transport/disposal manifests) 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: Capping, and Alternative #3: Excavation with Offsite Disposal.

b. Cost Estimate of Cleanup Alternatives (*brief discussion of the effectiveness, implementability and a preliminary cost estimate for each alternative*)

To satisfy EPA requirements, the effectiveness, implementability, and cost of each alternative must be 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 and may create a project delay and additional cost that could threaten the construction of the planned Environmental Education Center.
- Alternative #2: Capping is an effective way to prevent recreational receptors from coming in direct contact with contaminated soil in the scrap metal and storage areas, if the cap is maintained. However, capping is not an effective way to control other exposures, such as the direct contact risks for residents and the vapor intrusion risk to the commercial worker from petroleum contamination from the decomposed automobile and tank storage areas. To mitigate the vapor intrusion risk, the capping alternative must include installation of a sub-slab depressurization system within the neighboring storage building. In addition, an institutional control (land use restriction) would need to be recorded on the deed to prevent residential use of the property (in order to meet the objective of eliminating direct contact pathways for residents).

- Alternative #3: Excavation with offsite is an effective way to eliminate risk at the Site, since contamination will be removed and the exposure pathways will no longer exist.

Implementability

- Alternative #1: No Action is easy to implement since no actions will be conducted.
- Alternative #2: Although capping is less expensive than excavating soils and disposing of them offsite, Alternative #2 (Capping) would require ongoing monitoring and maintenance of the cap, the installation and maintenance of a sub-slab depressurization system to mitigate vapor intrusion risks, and implementation of land use restrictions hence, making it more difficult to implement than Alternative#3 (Excavation and Offsite Disposal).
- Alternative #3: Excavation with Offsite Disposal is moderately difficult to implement. Coordination (e.g., dust suppression and monitoring) during cleanup activities and short-term disturbance to the community (e.g., trucks transporting contaminated soils and backfill) are anticipated. However, ongoing monitoring and maintenance will not be required following excavation and offsite disposal.

Costs

- There will be no costs under Alternative #1: No Action
- It is estimate that Alternative #2 Capping Costs will be on the order of \$172,000.
- Alternative #3: Excavation with Offsite Disposal is estimated to cost roughly 340.000 (\$250,00 for 6122 Lancaster and \$90,000 at 6150 Lancaster Avenue)

c. Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #3: Excavation with Offsite Disposal. Alternative #1: No Action cannot be recommended since it does not address site risks. Alternative #2: Although capping is less expensive than excavating soils and disposing of them offsite, Alternative #2 Capping would require ongoing monitoring and maintenance of the cap, the installation and maintenance of a sub-slab depressurization system to mitigate vapor intrusion risks, and implementation of land use restrictions hence, making it more difficult to implement than Alternative #3 Excavation and Offsite Disposal.