



July 11, 2011

Mr. Paul Larino
Larino Properties LLC
PO Box 1889
Nixa, MO 65714

**Re: Hickory Hills Marketplace
3429 E. Chestnut Expressway
Springfield, Missouri 65802**

Analysis of Brownfields Cleanup Alternatives (ABCA) Hickory Hills Marketplace

Dear Mr. Larino:

This document presents an Analysis of Brownfields Cleanup Alternatives (ABCA) for Hickory Hills Marketplace at 3429 E. Chestnut Expressway, Springfield, MO 65802. This ABCA was prepared by Lafser & Associates on the behalf of Larino Properties as a part of the receipt of EPA grant money for environmental cleanup of the site. This ABCA has been prepared in general accordance with the United States Environmental Protection Agency (EPA) guidance for Cleanups receiving EPA grant funds. The scope of work for this ABCA includes the removal or entombment of PCB and fuel oil waste and the removal of asbestos and lead based paint that were identified at the subject site.

1.0 Purpose and Scope

Under EPA's Brownfield Cleanup Revolving Load Fund (BCRLF), loan recipients, borrowers, or recipients of EPA grant funds must supply an ABCA that includes:

- Information about the site and contamination issues.

- Effectiveness, ability to implement, and the cost of each alternative, including the preferred or proposed cleanup alternative;
- A comparative analysis of the alternatives considered; and
- Assessment of whether additional land-use controls will be necessary after the environmental cleanup is complete.

This document supplies the necessary information and analysis to meet these criteria.

2.0 Introduction

The Subject Property is in downtown Springfield at 3429 E Chestnut Expressway, Springfield, Missouri, 65802. The site consists of three separate parcels, including a parcel containing the former Hickory Hills Middle School building and two undeveloped adjacent parcels. The subject site is referred to as the Hickory Hills Marketplace. The two adjacent parcels, both to the east of the former school, have been historically undeveloped grass fields. Interstate 65 is located approximately 500 feet to the west of the subject properties.

The project site is located on the northeast corner of the Highway 65 and East Chestnut Expressway intersection, near the eastern edge of Springfield, Missouri. The total redevelopment consists of approximately 200,000 square feet. According to the Greene County Tax Assessor's Office, the site consists of 42 total acres.

The parcel identification locator (handle) number for the school building is 8812115301004. The parcel locator (handle) numbers for the High Street Church parcel is 881215302007. The parcel locator (handle) numbers for the parcel owned by Louis Lohmeyer is 881215302008. The subject properties are located in an area that would make it convenient for travelers to pull off Highway 65 to eat, fuel, and shop.

The only structure at the site is the former Hickory Hills Middle School, which was used for forty-seven years as the public middle school, after which time the building has been

left vacant. The school property also contains two parking lots, a playground, and a recreational track. The High Street Baptist Church properties are both undeveloped grass fields.

The parcel of the subject property for the High Street Church parcel is 881215301007, and the legal description is: 19.33A M/L S1/2 W1/2 15/29/21(EX PT FOR SCHOOL)

The parcel of the subject property for the High Street Church parcel is 881215302008, and the legal description is: 6A M/L BEG 1138.21 FT W SE COR SW ¼ 15/29/21 W 179.03 FT N 1385.6 FT E 197.29 FT S TO BEG.

Seagull Environmental Technologies Inc., performed a Phase II Brownfields Assessment at the subject properties in January, 2011. Soil and sediment samples grab samples were taken from four locations near and down gradient of the UST area and at four locations at and down gradient of the former lagoon area. Soil sampling was conducted to determine if past site operations have impacted site soil.

Asbestos and Lead-Based Paint (LBP) inspections were performed throughout the building. The following results were obtained from this Phase II Brownfields Assessment:

- Three VOCs were detected in the soil samples. Acetone, Methyl ethyl ketone, and toluene were detected at concentrations that ranged from 0.0012 J ti 0.136 mg/kg. No VOCs were detected at concentrations above their respective MRNCA soil standards.
- All five of the soil samples contained the RCRA metals arsenic, barium, chromium, lead, mercury, and selenium.

- All five of the samples contained levels of arsenic and lead above their respective MRBCA Default Target Levels (DTL) of 3.89 mg/kg, respectively. Concentrations of arsenic ranged from 16.9 to 22.8 mg/kg. Currently, there are no MRBCA Tier 1 Risk-Based Target Levels (RBTL) established for arsenic in subsurface soil.
- Concentrations of lead ranged from 31.4 to 44.5 mg/kg. None of the lead concentrations exceeded its MRBCA Tier 1 RBTLs established for residential and non-residential subsurface soil, which are 260 and 660 mg/kg, respectively. For reference, the average concentration for lead in Greene County is 61.46 mg/kg. It is likely the detected concentrations of both arsenic and lead are naturally occurring.
- No other metals were detected at concentrations that exceeded their established MRBCA standards.
- There are suspect Asbestos-Containing Materials (ACM) on the site in the form of Thermal System Insulation (TSI), vinyl floor tile, sheet flooring, dry wall, cement board, caulk, roof caulk, window caulk, cove base mastic, a coating on the concrete ceiling in the southern boiler rooms.
- There are areas of suspect lead-based paint on the structural portions of the building, including steel, brick, and concrete, as well as ceilings, walls, and floors. Older coatings may contain lead-based paint.

3.0 Development Plans

The proposed project is a mixed development multi-building retail complex that includes restaurants, banks, a pharmacy, grocery store, hotel, and other retail shops.

4.0 Analysis of Brownfields Cleanup Alternatives

A total of three (3) alternatives have been developed for the site remediation and are discussed in this ABCA. These alternatives have been evaluated based on meeting the regulatory requirements for the identified environmental contaminants in the subsurface basement as well as meeting the redevelopment goals of the site. Each alternative is described below.

Alternative 1: No Action

The No Action alternative is included as a baseline and is basically the “do-nothing” alternative. Under this approach, the contamination in the school building would remain in place undisturbed. Lead and asbestos would remain intact on the site. Land-use controls would be necessary at the subject site using Alternative 1.

Alternative 2: Remediation of Asbestos and Lead-Based Paint

Under this approach all asbestos and lead-based paint would be removed; lead based paint may be encapsulated. Land-use controls would be necessary at the subject site using Alternative 2.

Alternative 3: Demolition of building

All asbestos and lead-based paint would be removed with no encapsulation of lead-based paint. No Land-use controls would be necessary at the subject site using Alternative 3.

Evaluation and Comparison of Cleanup Alternatives

A general evaluation of the potential alternatives considered in this ABCA is summarized in the table below. The table is structured for comparison of alternatives

by describing the benefits and limitations of effectiveness, ability to implement, and associated costs for each alternative.

Alternative	Effectiveness	Ability to Implement	Cost
Alternative 1 <i>Do Nothing</i>	Does not eliminate potential risk at site	Easy to implement; however site redevelopment will not occur	No immediate cost Alternative 1 Cost: \$0
Alternative 2 <i>Remediation of Asbestos and Lead-Based Paint</i>	Removes potential for dermal contact. Allows site to be redeveloped as school	Easy to Implement but redevelopment is very limited	Alternative 2 Cost: \$250,000- \$300,000
Alternative 3 <i>Demolition of building</i>	Removes all environmental contamination from site and removes any potential for future human exposure.	Easy to implement, Redevelopment is open to all markets	Alternative 3 Cost: \$600,000- 710,000

Selection of Preferred Alternative

Alternative 1, The No Action alternative was included in this ABCA for comparative purposes only. This is not a feasible cleanup alternative for the site because it is not effective at meeting the project objectives. Although this alternative would be easy to implement, it is also not considered cost effective due to the continued risks to the environment.

Alternative 2, Remediating the asbestos and lead-based paint would meet the goals of limiting future occupants of the site exposure to the contaminants; however, this

alterative only allows for limited site redevelopment. The former school building would remain on site, but would most likely remain as a vacant building since redevelopment options would be severely limited. The technology exists to easily complete Alterative 2.

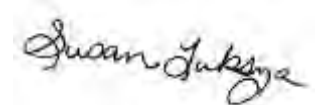
Alterative 3, Demolition of the building would remove lead-based paint and asbestos from the site. This alterative would also eliminate all potential exposure to future occupants to the contamination in the subsurface. Implementation of this alterative is straightforward and achievable. The site would be available for Greenfield development.

5.0 Summary/Conclusions

Based on the above detailed analysis, the most optimal approach for meeting the future site development plans while providing a “certificate of completion” and unrestricted site use is to Alterative 3, to demolish the former school building to allow for site redevelopment.

If you have any questions or we can be of further assistance, please do not hesitate to contact us. We appreciate the opportunity to be of service to you.

Sincerely,



Susan Luksza
Environmental Scientist
Lafser & Associates, Inc.