ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

Preliminary Evaluation for
Former H.K. Porter Friction Materials
1849 East Sabine Street
Huntington, Indiana

SME Project Number: P00351.22.013
Date: November 16, 2022

5835 W. 74th Street
Indianapolis, IN 46278-1757

T (317) 876-0200

www.sme-usa.com

November 16, 2022

Mr. Bryn Keplinger
City of Huntington
300 Cherry Street
Huntington, Indiana

RE: Analysis of Brownfield Cleanup Alternatives
Former H.K. Porter Friction Materials
1849 East Sabine Street
Huntington, Indiana
SME Project No.: P00351.22.013

Dear Mr. Keplinger:

We have completed this Analysis of Brownfield Cleanup Alternatives (ABCA) for the Former H.K. Porter Friction Materials property located at 1849 East Sabine Street, Huntington, Indiana, hereinafter referred to as the Property. The enclosed ABCA submittal presents our interpretation of current Property building conditions, based on field observations, a review of readily available previous Property assessments and documentation.

This ABCA documents the preliminary evaluation of environmental response action alternatives considered to mitigate potential exposures to related to asbestos-containing materials and dust associated with the remaining Property building. Remediation of environmental impacts is appropriate to prepare this brownfield for redevelopment.

If you have any questions concerning this report, or if additional services are required, please contact us.

Sincerely,

SME

PREPARED BY:
Jason C. Lafayette
Senior Project Consultant

REVIEWED BY:
Jason Cheney, CHMM
Senior Project Consultant

Enclosure: Analysis of Brownfield Cleanup Alternatives Dated November 16, 2022

TABLE OF CONTENTS

1. INTRODUCTION

This Analysis of Brownfield Cleanup Alternatives (ABCA) documents the preliminary evaluation of environmental response action alternatives considered to mitigate potential human exposures to asbestos-containing materials and asbestos-laden dust associated with the remaining, former H.K. Porter Friction Materials building located at 1849 East Sabine Street, Huntington, Indiana, hereinafter referred to as the Property. Mitigation of human exposure threats, and remediation of environmental impacts, associated with the previous Property use is appropriate to prepare this brownfield for redevelopment.

2. SITE BACKGROUND AND CONDITIONS

2.1 SITE LOCATION AND DESCRIPTION

The Property is located at 1849 East Sabine Street, Huntington, Indiana and lies in the northeast quarter of Section 14, Township 28 North, Range 9 East. The parcel ID number is 35-05-14-100-255.700-005. The site is located at an elevation of 745 feet above mean sea level (msl) and is located on the Huntington, Indiana topographic quadrangle. The geographic coordinates at the center of the site are 40° 53' 17.49" North latitude and 85° 28' 31.37" West longitude.

The Property consists of an approximately 108,000-square foot, vacant, manufacturing building; paved drives and parking lots; an open field vegetated in grasses; and an overgrown wooded area. The Property is situated on approximately 11.7 acres of land bound to the north by Sabine Street, beyond which is a residential area and church (formerly Lincoln Elementary School); to the east by a residential area; to the south by an active Norfolk and Western Railroad right-of-way, beyond which is a residential area; and to the west by an unnamed alley, beyond which is a residential area.

2.2 HISTORICAL PROPERTY USE

The former Property buildings were constructed from 1919 to the 1930s and consisted of a primary manufacturing building, an office building, a research and development building, a pump house, a finished goods warehouse, metal storage buildings, a guard shack, a mill, a solvent recovery area, and a chemical storage area. The former Property structures were demolished between 2013 and 2020 save for the former manufacturing building, which is the final remaining structure.

According to available historical documentation, the facility was operated by H. K. Porter Company, Inc., Asbestos Manufacturing, Inc., and Rapid Race. The original Property owner produced pivots at the site beginning in 1912. In 1924, the Property was bought by Asbestos Manufacturing, Inc. Friction Materials later purchased the Property at an unknown date and used it to manufacture asbestos automotive parts (i.e. brake pads and clutch facings). As part of the manufacturing process, the facility utilized asbestos, various oils, fuels, and solvents. Asbestos was originally stored in a warehouse located about three blocks from the main plant building but was later stored in the plant building itself. The asbestos was taken to the mixing area, which made approximately seven to eight batches per day. The mixed materials were placed in covered dumpsters, moved to the operations area, and then to the compress area where all asbestos material became permanently bound to metal plates. Approximately 220 pounds of asbestos and 400 pounds of lead were used per day in the manufacturing process. Since each customer had certain specifications, the products were taken to specific areas within the plant where several operations such as grinding, drilling, and cutting were performed. Waste from these operations was reportedly disposed at the Huntington City Landfill.

2.3 OVERVIEW OF PREVIOUS SITE ENVIRONMENTAL INVESTIGATIONS

We reviewed the following environmental reports related to the Property:

- Tetra Tech's Site Assessment Report dated May 16, 2002;
- IDEM's Pre-CERCLIS Screening Report dated January 17, 2007;
- IDEM's Preliminary Assessment Report dated February 9, 2007;
- SME's Limited Phase II Site Assessment Report dated October 9, 2013, and;
- SME's Hazardous Materials Assessment Report dated October 16, 2013;
- SME's Phase I Environmental Site Assessment Report dated December 20, 2013;
- SME's Confirmation for Wipe Sampling Services Report dated October 28, 2014;
- SME's Demolition and Hazardous Material Removal Report dated July 9, 2015;
- Tetra Tech's Final Removal Assessment Report dated March 11, 2016;
- SME's Dust Wipe Sampling for Asbestos Content Report dated November 30, 2018;
- SME's Revised Hazardous Materials Assessment Report dated December 4, 2018;
- SME's Asbestos-Laden Dust Related Demolition Air Monitoring Report dated February 10, 2020; and
- SES's Asbestos Survey Report dated July 21, 2022.

The cumulative findings of previous Property assessments indicated the presence of various volatile organic compounds (VOCs), and lead in soil and groundwater in excess of Indiana Department of Environmental Management (IDEM) standards. In addition to the presence of asbestos-containing materials present within the current Property building, asbestos-laden dust and/or lead-laden dust were identified throughout the building, the ground surface across areas of the Property, and the ground surface of adjoining residential properties.

2.4 PROJECT GOALS AND OBJECTIVES

A public meeting was held on October 25, 2022. Attendees were asked to provide ideas for Property reuse, once the building is removed. The projected reuse plan is to convert the Property into a community center with outdoor recreation space. Suggestions included a greenhouse, makerspace, and flexible classroom or meeting space where community programs could be offered. The facility would be surrounded by walking paths and natural landscaping and would connect the neighborhood to healthy living amenities nearby such as the trail system, Lake Clare, and the farmers' market. Given the site's residential surroundings, the City also has an interest in converting a portion of the Property into affordable housing. The interim and primary objective of the remediation activities is to mitigate risks to human health and the environment posed by the current state of the Property building. Through removal and/or mitigation of the environmental risks, the Property will be presented as redevelopment ready.

3. THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Previous asbestos assessments of the remaining Property building reported the presence of friable and non-friable asbestos-containing materials (ACMs), as well as asbestos-laden dust, in the building. The friability of an ACM is the ease in which the material may be crumbled and/or turned to dust and become airborne. Friable ACMs are considered a greater threat to human health than nonfriable ACMs due to the increased potential for human exposure via inhalation. The United States Environmental Protection Agency (U.S. EPA) Superfund Technical Assessment and Response Team (Start) commissioned the removal of certain friable ACMs from the building. However, the building remains unsealed and the potential remains for asbestos fibers to become airborne and migrate from the Property during aggressive wind conditions.

All friable ACMs, and nonfriable ACMs that are likely to become friable during demolition activities, are required by the U.S. EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) to be removed from a building prior to demolition. Those ACMs are defined as regulated asbestos-containing materials (RACMs). Factors that can cause nonfriable ACMs to become friable can include weathering, deterioration, and aggressive forces.

The presence of deteriorated RACMs and asbestos-laden dust in the building presents a human exposure threat as well as additional considerations for demolition waste stream handling and disposal. Environmental response activities are necessary to mitigate the threat to human health posed by these asbestos materials and prepare the Property for potential redevelopment. The technical and economic feasibility of the environmental response approaches were evaluated and are presented in Section 5. It should be noted that the proposed environmental response alternatives are applicable to asbestos response activities relevant to razing the remaining Property structure as an initial project objective and do not include response activities related to other subsurface contaminants or surficial impacts from lead and asbestos.

4. APPLICABLE REGULATIONS AND CLEANUP STANDARDS

4.1 CLEANUP OVERSIGHT ROLES AND RESPONSIBILITY

The City of Huntington will retain a third-party environmental consultant to assist with the preparation of project technical specifications, contractor bidding, and technical oversight during the performance of the project. The third-party consultant will also provide project air monitoring services to evaluate the efficacy of engineering controls utilized during asbestos removal activities to protect workers and the public, and monitor work methods comparative to applicable state and federal asbestos work regulatory requirements. Asbestos removal and cleanup activities will be conducted by an asbestos contractor licensed by the State of Indiana, and utilizing staff trained and accredited in accordance with applicable U.S. EPA requirements for the asbestos-related work activities.

4.2 CLEANUP STANDARDS

Cleanup standards for environmental response actions addressing ACMs and asbestos-laden dust associated with the Property building will be in accordance with applicable state and federal asbestos regulations. Applicable or relevant and appropriate regulatory requirements for asbestos removal and/or decontamination activities are presented in the following section.

4.3 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)

Cleanup of the Property is part of a brownfield redevelopment that is consistent with the operational requirements of the 1995 Brownfields Addendum to the Superfund Memorandum of Agreement between the State of Indiana and the U.S. EPA Region 5. In addition to the statutes and rules governing cleanup oversight and standards described above, the following ARARs have been identified for the project:

- Environmental response actions
  - Asbestos
    - 40 CFR 61 National Emissions Standards for Hazardous Air Pollutants
    - 40 CFR 763 Asbestos
    - Indiana Administrative Code 326 IAC 14-10: Indiana Asbestos Work practice standards
    - Indiana Administrative Cone 326 IAC 18-1: Indiana Asbestos Licensing requirements
  - Waste management
    - 40 CFR 260 General Regulations for Hazardous Waste Management
    - Indiana Administrative Code 329 IAC Hazardous and Non-hazardous waste
  - Transportation of wastes
    - 49 CFR 172: Hazardous materials (DOT)
    - 40 CFR 263 Standards Applicable to Transporters of Hazardous Waste
  - Health and safety
    - 29 CFR 1910.120 (HAZWOPER)
    - 29 CFR 1926 (all applicable standards)
    - IC-22-8: Indiana Occupational Safety and Health Act (IOSHA)
- Storm water management
  - Indiana Administrative Code 327 IAC 15

5. ENVIRONMENTAL RESPONSE ACTION ALTERNATIVES

Environmental response activities are necessary to protect human health and the environment as well as to facilitate future redevelopment of the Property. Alternative response and environmental management activities considered for the Property consisted of the following:

- Alternative 1 - No environmental response actions are performed on the Property (the “no action” alternative), the existing asbestos and associated human health hazardous remain in-place.
- Alternative 2 – Removal of remaining ACMs, cleanup of asbestos-laden dust and debris, and encapsulation of the surfaces of the building interior.
- Alternative 3 – Removal of remaining ACMs, cleanup of asbestos-laden dust and debris, and decontamination of the surfaces of the building interior.

These response action alternatives were evaluated using the following general criteria:

- Effectiveness – 1) the degree to which mobility of and exposure to asbestos is reduced, 2) the degree of protection for public health, safety and welfare and for the environment, and 3) the extent of adverse effects on public health, safety and welfare and on the environment during response action implementation.
- Implementability – 1) technical feasibility, 2) availability of needed technologies, materials, equipment, and services needed to conduct the response action, and 3) administrative and permitting feasibility; presence of endangered species or historical structures; technical feasibility of ancillary functions and issues, such as engineering controls, recycling of materials, waste handling and disposal; and project schedule.
- Cost – 1) direct and indirect capital, labor and services costs, including costs of design and testing and 2) waste stream management.

5.1 ALTERNATIVE 1 - NO-ACTION ALTERNATIVE

The no-action alternative would leave all ACMs and asbestos-laden dust in-place. The current, unsecured and unsealed building would remain standing and continue to represent a public health hazard.

If the Property building remains unsecured, there is the additional risk that the general public could come into direct contact with damaged ACM and/or asbestos-laden dust during unauthorized entry to the Property building. Existing ACMs would continue to degrade increasing the potential for friability and release to the environment. Neighboring properties would continue to be at risk from migration of asbestos fibers associated with degrading ACMs and asbestos-laden dust within the unsealed building.

No Action does not have an associated cost, as there are no required actions or technology needed. The “no action” alternative does not allow redevelopment of this brownfield.

This alternative was evaluated against the three key criteria as follows:

- Effectiveness – Low: risks to neighboring residents, unauthorized site visitors, and the general public are not mitigated or reduced. Preparation of the site for redevelopment is not supported.
- Implementability – High: no action is needed to implement this alternative.
- Cost – Low

Alternative 1 - No Action is the least-cost and most implementable approach of those evaluated, but it is not effective for reducing contaminant levels or existing threats to human health and the environment posed by hazardous substances on the Property. It will not allow for the beneficial reuse of the Property in a manner that is consistent with any redevelopment plan.

5.2 ALTERNATIVE 2 – REMOVAL OF ACMS, CLEANUP OF ASBESTOS-LADEN DUST AND DEBRIS, AND ENCAPSULATION OF INTERIOR SURFACES OF THE BUILDING.

Alternative 2 consists of the removal of remaining ACM in the building, cleanup of residual ACM debris, removal of asbestos-laden dust from surfaces of the building using high-efficiency-particulate (HEPA) vacuuming, and spraying encapsulant on the cleaned surfaces.

This alternative would allow for the demolition of the building in accordance with U.S. EPA NESHAP regulation. However, unless determined otherwise by U.S. EPA and the Indiana Department of Environmental Management (IDEM), the encapsulated concrete floors and walls of the building would require disposal at an asbestos-approved landfill.

Although a precise cost estimate for Alternative 2 would require competitive bidding of the project, the cost for Alternative 2 would likely range between $500,000 to $600,000 for this remediation phase of the project. The Alternative 2 cost estimate does not include costs for building demolition, or the associated costs for handling, transportation, or disposal of the resulting demolition waste stream as asbestos-waste.

This alternative was evaluated against the three key criteria as follows:

- Effectiveness – High: the human exposure hazards associated with ACMs and asbestos-laden dust will be mitigated. The public safety hazards associated with the current condition of the building will also be mitigated. The proposed activities also support the preparation of the Property for future site redevelopment.
- Implementability – High: this alternative was determined to be effective, technically feasible, and financially viable.
- Cost – High

Alternative 2 is a high-cost but effective and implementable approach. It will achieve the project objectives and allow for the beneficial redevelopment of the Property. However, the tangential costs for demolition, material handling, and disposal will ultimately result in the highest financial investment to meet the ultimate objective of the project.

5.3 ALTERNATIVE 3 – REMOVAL OF ACMS, CLEANUP OF ASBESTOS-LADEN DUST AND DEBRIS, AND DECONTAMINATION OF THE INTERIOR SURFACES OF THE BUILDING.

Alternative 3 consists of the removal of remaining ACM in the building, cleanup of residual ACM debris, removal of asbestos-laden dust from surfaces of the building, decontamination of the interior surfaces of the building using high-pressured washers, and collection and filtration of the decontamination effluent.

This alternative would allow for the demolition of the building in accordance with U.S. EPA NESHAP regulation and subsequent recycling of building demolition concrete and steel. The alternative would reduce the costs for waste stream management in comparison to Alternative 3 and reduce the environmental footprint of the demolition activities through the reclamation and reuse of building materials rather than disposal of the materials in a landfill.

Although a precise cost estimate for Alternative 3 would require competitive bidding of the project, the cost for Alternative 3 would likely range between $850,000 to $950,000 for this remediation phase of the project. The Alternative 3 cost estimate does not include costs for building demolition or demolition waste transportation and disposal; however, allows for recycling of concrete and steel debris generated during building demolition, thus reducing the overall project cost to the community.

This alternative was evaluated against the three key criteria as follows:

- Effectiveness – High: the human exposure hazards associated with ACMs and asbestos-laden dust will be mitigated. The public safety hazards associated with the current condition of the building will also be mitigated. The proposed activities also support the preparation of the Property for future site redevelopment.
- Implementability – High: this alternative was determined to be effective, technically feasible, and financially viable.
- Cost – High

Alternative 3 is a high-cost but effective and implementable approach. It will achieve the project objectives and allow for the beneficial redevelopment of the Property.

6. RECOMMENDED ALTERNATIVE

Alternative 3 is recommended as the appropriate environmental response action as it addresses the immediate environmental and human health risks associated with the ACMs and asbestos-laden dust in the Property building. Alternatives 1 and 2 are rejected due to effectiveness or tangential project cost in comparison to Alternative 3.

Passionate People Building
and Revitalizing our World

SME