Analysis of Brownfields Cleanup Activities – Preliminary Evaluation

Contaminated Building Materials (Asbestos)

714 West 5th Street, City of Hastings, Adams County, Nebraska

Prepared by the City of Hastings

I. Introduction and Background

a. Site Location

The site is located at 714 West 5th Street in the City of Hastings, Adams County, Nebraska (herein referred to as "the Site"). The site is 1.59 acres consisting of Lots 1 -12 of the City's original town subdivision.

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

The three-story building was the former middle school for the Hastings Public School District. Originally built in 1926 as a high school for the school district, the building was last used as a middle school in 2006 before the school district built a new building for the middle school grades on the west side of the City.

The building has a footprint of approximately 33,500 square feet and consists of classrooms, offices, a gymnasium, weight rooms, and locker rooms. The outside spaces of the site include yard areas, courtyards, and a large off-street parking lot.

After the school district sold the site in 2008, a developer attempted to reuse the site for residential uses and a for-profit fitness center. Unfortunately, the renovation of the building faltered because of building permit issues and a lack of an approved building design. Ultimately, the renovation project was forced to stop because the previous owner failed to secure the required construction permits. Subsequently, the owner failed to pay their property tax assessment, and the site was sold on a Sheriff's property tax sale in 2021.

Generally, most of the property has remained vacant since 2008. The fitness center was relocated from the site in 2016 to a new building at 2525 W. 2nd Street.

It can be assumed that minimal cleanup/remediation of the asbestos present in the building was done with past building additions and remodeling done by the school district over the years. It can also be assumed that minimal cleanup of asbestos occurred by the owners between the school district and the CRA.

An asbestos survey report done in 2009 showed that floor tiles containing asbestos were found in the gymnasium and multiple classrooms. Asbestos was also found in the insulation of the building's boiler system, pipe insulation, and building insulation.

Roofing material and windows in the gymnasium, as well as glass blocks used as part of a wall system on the second floor, were found to have asbestos.

Generally speaking, these building materials can cause health issues, including certain cancers.

c. Site Assessment Findings

As mentioned, a 2009 Asbestos Survey Report found asbestos materials in floor tiles in the gymnasium and multiple classrooms. Asbestos was also found in the insulation of buildings' boiler system, pipe insulation, and building insulation. Roofing material and windows in the gymnasium, as well as glass blocks used as part of a wall system on the second floor, were also to have asbestos.

d. Project Goals

The project goal for the Site is to preserve the structure to reuse the building as residential dwellings. As noted in the 2021 Housing Assessment and 2023 Affordable Housing Action Plan, the City of Hastings lacks a variety of housing types to meet current and future resident needs.

The property is currently zoned C-2, Central Business District, which allows for certain types of residential uses, including multiple-family dwellings.

e. Regional and Site Vulnerabilities

Although the currently adopted FEMA flood insurance rate maps for the site and surrounding area (FIRM Panel # 31001C106C) show this area in Zone X (unshaded), the most significant vulnerability physically impacting the site is localized flooding due to intense rainfall in a short period. The site is mostly impervious surfaces including the building and off-street parking lots. This is a similar site characteristic for most of the property in this neighborhood. Undersized stormwater infrastructure through the immediate neighborhood also contributes to the localized flooding on the site and surrounding area during intense rainfall.

As the site is designed for reuse, following the asbestos cleanup, particular attention should be given to ensure that current and future anticipated rain intensities are addressed to reduce the impacts of localized flooding on the site and surrounding area.

Several different data sources state regional vulnerabilities that affect Hastings and the site. These data sources include the Council on Environmental Quality's Climate and Economic Justice Screening Tool (CEJST), the U.S. Department of Transportation (USDOT) Equitable Transportation Community Explorer, and the Centers for Disease Control (CDC) and Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index.

Highlights of physical and social vulnerabilities from these data sources include:

Council on Environmental Quality's Climate and Economic Justice Screening Tool (CEJST)

Climate Change

- 93rd percentile - Expected building loss rate
- 90th percentile - Expected population loss rate

Housing

- 93rd percentile - Lack of green space

Legacy Pollution

- 91st percentile – Proximity to risk management plan facilities
- 99th percentile - Proximity to Superfund site

USDOT Equitable Transportation Community (ETC) Explorer

Climate & Disaster

- 73% Disadvantaged due to anticipated changes in extreme weather
- **95% Disadvantaged due to impervious surface (from land cover)**

Environmental

- **99% Disadvantaged due to air toxics cancer risk**
- 80% Disadvantaged due to hazardous site proximity
- **95% Disadvantaged due to toxic release site proximity**
- 69% Disadvantaged due to risk management site proximity
- **93% Disadvantaged due to pre-1980s housing**
- **95% Disadvantaged due to railroad proximity**
- 76% Disadvantaged due to airport proximity

Health Vulnerability

- 73% Disadvantaged due to asthma prevalence percentile
- 78% Disadvantaged due to poor mental health prevalence percentile

Social Vulnerability

- 83% Disadvantaged due to no high school diploma
- 81% Disadvantaged due to house tenure
- 76% Disadvantaged due to housing cost burden
- 84% Disadvantaged due to being uninsured
- 69% Disadvantaged due to limited English proficiency

Transportation Insecurity

- 84% Disadvantaged due to transportation cost burden

CDC/ATSDR Social Vulnerability Index 2022

II. Applicable Regulations and Cleanup Standards

a. Cleanup Oversight Responsibilities

The Nebraska Department of Environment and Energy (NDEE) has the primary regulatory oversight responsibility of asbestos removal and disposal, or remediation.

b. Cleanup Standards for major contaminants

The Nebraska Department of Environmental and Energy (NDEE) has delegated responsibility for the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos (40 CFR Part 61 Subpart M) and has adopted these regulations in Title 129 – Nebraska Air Quality Regulations and Nebraska Asbestos Control Program (Title 178).

c. Laws and Regulations Applicable to the Cleanup

Laws and regulations that apply to this cleanup include EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos (40 CFR Part 61 Subpart M), Brownfields Revitalization Act, the Federal Davis-Bacon Act, Title 129 – Nebraska Air Quality Regulations and Nebraska Asbestos Control Program (Title 178), and town code of ordinance. Federal, state, and local laws regarding the procurement of contractors, equipment, and supplies to conduct the cleanup will be followed.

In addition, all appropriate permits (e.g. local demolition permits and state asbestos abatement permits) will be obtained before the work commences.

III. Evaluation of Cleanup Activities

a. Cleanup Alternatives Considered

To address contamination at the Site, three different alternatives were considered, including Alternative #1: No Action, Alternative #2: Sealing, and Alternative #3: Removal and proper disposal.

b. Cost Estimates of Cleanup Alternatives

Effectiveness – Including Vulnerabilities/Resiliency Considerations

- Alternate #1: No Action is not effective in controlling or preventing the exposure to the asbestos materials at the site. The most practical future for the site is to reuse or redevelop the site, both of which will require the asbestos to be dealt with.

- Alternate #2: Sealing the non-friable asbestos is an option. This can be done with paints, floor coverings, and sealing off areas with asbestos. Depending on the reuse or redevelopment plan, this alternative may be effective. However, it will not completely prevent the potential health effects of asbestos, especially if the building material is disturbed by future residents/occupants in the building.

- Alternate #3: Removal of the asbestos completely is an effective way to eliminate the health risk from the building materials since the contaminants will be removed, the area safely cleaned, and prepared for reuse and redevelopment.

Implementability

- Alternate #1: No Action is easy to implement since no actions will be conducted.
- Alternate #2: Sealing is relatively easy to implement, although this alternative may limit the use of the space and finishes for the reuse plan.

  It can be assumed that some level of remodeling will be done to convert the classroom and activity spaces into other types of uses, possibly apartments. This may require eliminating existing walls, and doorways, or adding new walls, doors, and fixtures. Sealing the existing asbestos may limit how the floor space is reimagined for an effective reuse plan.

- Alternate #3: Removal is moderately difficult to implement. The process to remove this hazardous material will include removing flooring, ceiling tiles, roofing materials, insulation, and wall structures that include glass blocks. This effort will likely be labor-intensive to remove the contaminated materials without damaging existing building materials and systems. However, ongoing monitoring and maintenance of these materials will not be required once properly removed and the building is cleaned.

Cost

- Alternate #1: No Action will have no associated costs. However, there may be community costs to maintaining a building that can not be reused or redeveloped.

- Alternate #2: Sealing is anticipated to cost $250,000.
- Alternate #3: Removal is estimated to cost roughly $500,000.

c. <u>Recommended Cleanup Alternatives</u>

The recommended cleanup alternative is Alternative #3: Removal.

Alternative #1: No Action cannot be recommended since it does not address the site risks. The building can not be reused or redeveloped, including being razed to make room for a new building.

Alternative #2: Sealing is a reasonable option. However, it does not allow for full flexibility in reusing or redeveloping the site. Essentially, the building will have to be reused as is, with no significant changes to the floor plan. Also, by only sealing the materials, the building cannot be razed in the future without further remediation. Additionally, by keeping the asbestos materials in the building and only covering them with appropriate paint, and floor coverings, or sealing off rooms to the public, the health risk is still present. Future occupants or tenants may inadvertently expose themselves to asbestos during future remodeling or by errors of not understanding what risks the materials may cause.

Alternative #3: Removal is the most appropriate measure to fully address the health risks caused by the asbestos building materials. By completely and properly removing the materials, the future developer of the building can have the freedom to make needed floor plan changes to meet the needs of the community. Also, if needed or desired, the building could be razed without concern or further remediation.

d. Green and Sustainable Remediations Measures for Selected Alternatives

To make the selected alternative greener, or more sustainable, several techniques are planned. The most recent Best Management Practices (BMPs) issued under *ASTM Standard E-2893: Standard Guide for Greener Cleanups* will be used as a reference in this effort. The City will require the cleanup contractor to follow an idle-reduction policy and use equipment with advanced emissions controls, where available. Appropriate site controls to minimize groundwater infiltration and erosion on the site will be required of the contractor.

In addition, the City plans to ask bidding cleanup contractors to propose additional green remediation techniques in their response to the Request for Proposals for the contract.