

MEMORANDUM

To: Brett Crecelius, City of Duluth
From: Jon Commers, New Burnham LLC
Meghan Elliott, PE, New Burnham LLC
Date: December 8, 2021
Re: Technical Memorandum: Environmental Reports, Findings, Recommendations, and
Actions for Hazardous Materials
St Louis County Jail
521 West Second Street
Duluth, MN 55802

This memorandum (“memo”) summarizes the environmental reports, findings, recommendations, and remediation activities for the treatment of hazardous materials at the historic St. Louis County Jail. The building has been examined for, and found to contain lead paint and other hazardous materials. The complete reports are attached for reference. This memorandum is intended for reference and use with respect to planning and implementation of the project; it is not intended to be a bidding document or representation of a complete scope of work.

REPORTS

The following reports were obtained to assess the presence and extent of hazardous materials in the building and site. These reports are listed for reference.

- Lead-Based Paint Survey, MacNeil Environmental, Inc., December 2008
- Hazardous Materials Survey, AMI Consulting Engineers PA, April 19, 2018
- Phase 1 Environmental Site Assessment Report, AMI Consulting Engineers PA, April 16, 2021

KEY FINDINGS

Key report findings are summarized below.

- According to historic records, the Property was first used as residential before the Jail was built on the property in 1923. The property has not changed since 1923.
- Lead-based paint was found throughout the building at levels 1, 2, 4, and 5.
- Lead-based paint was found on a variety of surfaces, including plaster walls, metal walls, metal bars, metal ceilings, metal doors, radiators, window frames, and concrete floors.
- Asbestos is present in the building. The following asbestos materials were identified as remaining in the building after prior removal work by others:
 - 345 linear feet of pipe insulation
 - 80 fittings
 - 600 square feet of floor mastic
 - Window caulk
 - A total of 9 "Containment" areas were defined.

- AMI observed numerous fluorescent light units throughout the property on the 1st floor and the basement. Most PCB-containing ballast had been removed. However, AMI noted some PCB-containing ballast in the stairwell on the 1st floor along with rooms on the first floor.
- Six of what AMI believes to be mercury containing fixtures were identified. Thermostats were present in the service lanes located between cell blocks on the 2nd, 3rd, and 4th floor.
- On the first floor, there is one window-mounted air conditioning and a ceiling-mounted air conditioner. In the basement, AMI identified a walk-in cooler, a chest freezer, and what is believed to be a discarded refrigerant pump. On the first floor, AMI discovered an upright refrigerator, a chemical fire suppression system, and a portable fire extinguisher.
- A visual inspection for miscellaneous regulated waste materials that require separate handling and disposal was also performed. The following is a list of these documented items:
 - Car Battery - Qty 1
 - Pigeon feces, dead pigeons
 - Assorted motor oil - Qty 6 quarts
 - 30-gallon drum (Contents unknown) - Qty 1
 - Gas Can (contents unknown) - Qty Yi gallon
 - PVC glue - Qty 6 eight-fluid-ounce containers
 - PVC primer - Qty 1 eight-fluid-ounce container
 - Paint thinner - Qty 1 gallon
 - Wall mounted electric fans - Qty 3
 - Assorted caulking - Qty 7 eleven-ounce tubes
 - Latex paint - Qty 1 gallon
 - 40-Watt light bulbs
 - Air compressor pumps - Qty 3
 - Spray paint - Qty 2 cans
- Major water damage was noted in the property. All levels of the building contained standing water in the form of ice due to the weather. There was also mold noted in the building, most likely due to water entering the building.
- There has not been any known chemical spills or fuels spills on the Property that would constitute as a recognized environmental condition (REC).
- One residential property located up gradient (1339 ft West) of the Property was listed on MPCA LUST database due to a fuel oil leak at the site. The clay soils that surround the residential building decreases the likelihood of contamination migrating to the Property, however the residential site still had the potential to impact the environmental conditions of the Property, and therefore constitutes an REC.

RECOMMENDATIONS

Recommendations are summarized from each of the environmental reports listed above.

1. All loose paint to be scraped and disposed of as lead based paint.
2. It is the contractor's responsibility to comply with OSHA when disturbing lead containing paint. All contractors whose work pertains to the possible disturbance of lead in paint should be aware of their OSHA obligations in regards to the presence of lead on the site. OSHA

worker protection and housekeeping requirements as they pertain to construction work and the disturbance of lead in paint will need to be addressed during renovation and demolition activities including selective demolition activities. (OSHA 29 CFR 1926.62)

3. Airborne lead exposure assessment, respiratory protection, dust control, wetting methods, and proper clean up are some of the OSHA items that may be required when lead in paint will be disturbed and lead dust could be generated during renovation and demolition.
4. Localized HEPA filtration vacuum systems on equipment that is used for high-speed cutting, sanding or grinding of lead painted materials should be used. If vacuums are used for clean-up and collecting lead containing paint debris, vacuums must be equipped with HEPA filtration.
5. Paint chips, sweepings, and dust generated debris from scraping, sanding, cutting, pulverizing, etc. may need to be disposed of as a hazardous waste. This dust/debris should be separated from the general demolition debris and component debris. Dust generated debris must be sealed in leak-tight 6 mil poly bags and a representative sample of the debris may need to be tested using the Toxicity Characteristic Leachate Procedure (TCLP) in order to determine whether the debris is considered "hazardous waste". (Note: Liquid lead paint waste, lead paint chips or debris removed with chemical paint strippers must be disposed of as hazardous waste).
6. Generally, demolition debris with lead-based paint attached to woodwork, walls, doors and other building material components are permitted to be disposed of at a demolition debris landfill.
7. Non-friable Category I asbestos was identified during the asbestos inspection of the former St. Louis County Jail. The asbestos removal will be a regulated asbestos removal project. AMI recommends that a licensed asbestos abatement contractor certified by the Minnesota Department of Health remove all identified and assumed Category I non-friable asbestos-containing material (ACM) prior to initiating building demolition or remodeling. If left in place, Category I non-friable ACM must be segregated and disposed of as asbestos containing waste during demolition or remodeling. Any unidentified suspect ACM that may be encountered during demolition activities should be assumed to contain asbestos until they are sampled and analyzed. ACM can be disposed at SKB Shamrock Environmental Landfill located at 761 MN Highway 45, Cloquet, MN 55720 (non-friable only), or at Vonco V Services located at 1100 W Gary St, Duluth, MN 55808 (friable and non-friable) with advance appointment. Other hazardous material can be disposed of at WLSSD through their Clean Shop Program located at 2626 Courtland St., Duluth, MN 55806 by appointment only. Lead paint was identified during a previous inspection. Lead paint removal will be a regulated lead removal project. All loose lead paint should be scraped and removed as per MDH guidelines. This work should be completed by a certified lead abatement contractor. Suspect lead paint not initially noted during the previous inspection should be assumed to contain lead until they are sampled and analyzed. Lead paint can be disposed at SKB Shamrock Environmental Landfill located at 761 MN Highway 45, Cloquet, MN 55720, or at Vonco V Services located at 1100 W Gary St, Duluth, MN 55808 with advance appointment

8. All hazardous equipment, hazardous substances and/or petroleum products should be removed and properly disposed of prior to building demolition or remodeling.
9. AMI recommends that all PCB ballasts located in the light fixtures be removed by a licensed contractor prior to demolition. PCB ballasts can be disposed of at WLSSD through their Clean Shop Program located at 2626 Courtland St., Duluth, MN 55806 by appointment only.
10. Dead pigeons and pigeon feces can be hazardous to human health if not properly handled. AMI recommends that a certified professional with the correct training and equipment be used to clean the affected areas before any other work starts in the building.

OVERVIEW OF BRLF-FUNDED REMEDIATION ACTIVITIES

Required remediation of contamination at the jail property includes limited mold removal, and primarily lead paint removal throughout the building. In the scope presented for the former St. Louis Jail property, Mavo Systems has included the following scope of work related to the removal of lead paint and materials from which lead paint is inseparable.

Plan Keynote and Purpose	Labor	Disposal
Note - 8 - Create New Opening	\$2,385.00	\$300.00
Note - 12 - Remove Raised Floor Area	\$9,061.00	\$600.00
Note - 13 - Remove CMU to widen opening	\$2,385.00	\$300.00
Note - 14 - Enlarge Window Opening	\$8,523.00	\$600.00
Note - 15 - Remove Stairs	\$10,246.00	\$600.00
Note - 18 - Remove Bars	\$194,731.00	\$17,609.00
Note - 25 - Remove Refrigeration Rm & Floor	\$5,938.00	\$300.00
Note - 29 - Enlarge Opening in Plan N Direction	\$1,200.00	\$150.00
Note - 31 - Remove Floor In Hatched Area	\$61,830.00	\$12,064.00
Note - 34 - Remove Access Panel And Cut 80in x 32in	\$1,200.00	\$150.00
Note - 39 - Cutting for wall (Removal/Disp by Civil)	\$861.00	\$0.00
Note - 40 - Remove Clay tile at Walls	\$45,676.00	\$9,416.00
Gen Note N - Remove Windows and Bars	\$79,169.00	\$6,680.00
Total	\$423,205.00	\$48,769.00
EPA BRLF Proceeds in Current Loan Sizing	\$269,000.00	\$31,000.00

These steps are essential to transform the jail property into a space that achieves current health and safety requirements. Individual purposes of the remediation scope are numbered by keynote in the table below, referring to construction documents also attached.

All work will be performed while following OSHA protocols for lead in construction.

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Attached:

Construction Documents for Reference