

**Request for Proposal**  
**Former Lupton City Mill Asbestos**  
**Abatement**

**Contract No. E-16-006-202**

**City of Chattanooga, Tennessee**

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**June 2019**



# Section 1

## Introduction

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**REQUEST FOR PROPOSALS  
FORMER LUPTON CITY MILLS ASBESTOS ABATEMENT  
CONTRACT NO. E-16-006-202  
CITY OF CHATTANOOGA, TENNESSEE  
(June, 2019)**

**1.0 INTRODUCTION**

**1.1 BACKGROUND**

A. GENERAL

The City of Chattanooga (City) is issuing this Request for Proposals (RFP) to solicit proposals from qualified individuals or firms for the purpose of selecting a Vendor from those who submit Letters of Interest with which to negotiate an Agreement for the removal of friable asbestos at the former Lupton City Mill.

**1.2 PURPOSE OF RFP**

A. GENERAL

This RFP results from the City's desire to select a Vendor to perform asbestos abatement at the former Lupton City Mill site.

B. OBJECTIVE OF RFP

The objective of the City Of Chattanooga is to remove all friable asbestos material as described in the *Environmental Abatement Specifications*, dated May 2019 as prepared by Alternative Actions, Inc. and attached herein.

# Section 2

## Instructions for RFP

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### 2.0 INSTRUCTIONS FOR RFP

#### 2.1 GENERAL

Three (3) bound copies, one (1) unbound original copy, and an electronic copy in Word or PDF format of the RFP shall be submitted. The RFP will be limited to 25 pages excluding the resumes of key project personnel requested.

All RFPs shall be submitted in a sealed envelope or box marked “**FORMER LUPTON CITY MILL ASBESTOS ABATEMENT, CONTRACT NO. E-16-006-202, City of Chattanooga, Tennessee.**” The original and copies of the RFP shall be indexed with tabs for each section of the RFP.

All RFPs shall be submitted no later than **4:00 p.m. EDT, on Friday, July 12, 2019** to the attention of:

City of Chattanooga  
Purchasing Department  
101 E. 11<sup>th</sup> Street, Suite G13  
Chattanooga, TN 37402  
*bidinfo@chattanooga.gov*  
Phone: (423) 643-7230  
FAX: (423) 643-7244

**NOTE:** *RFP responses shall address only the information requested in the RFP. The City is not interested in “fluff or filler.” It is interested in the resumes of the people that will be working on the project and descriptions of similar projects that they have worked on singularly or together. Resumes of others who will not be working on the project or project descriptions that are not recent or not relevant to the RFP are not wanted.*

#### 2.2 RFP WITHDRAWAL PROCEDURE

RFPs may be withdrawn up until the date and time set above for opening of RFPs. Any RFP not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of ninety (90) days to provide the services set forth in the RFP or until one of the RFPs has been accepted and a contract has been executed between the City and the successful RFP submitter.

#### 2.3 RESERVATION OF CITY RIGHTS

- A. The City reserves the right to request clarification of information submitted and to request additional information of one (1) or more RFPs.

- B. The City reserves the right to negotiate the Agreement/Contract for the Former Lupton City Mill Asbestos Abatement with the next most qualified finalist if the successful finalist does not execute an Agreement/Contract within five (5) days after submission of an Agreement to such offeror. The City reserves the right to negotiate all elements of work that comprise the selected RFP.
- C. The City reserves the right, after opening the RFPs or at any other point during the selection process, to reject any or all RFPs, modify or postpone the proposed project, evaluate any alternatives offered or accept the RFP that, in the City's sole judgment, is in its best interest.
- D. The City reserves the right to terminate the Agreement if the Vendor fails to commence the work described herein upon giving the Vendor a 30 (thirty) day written Notice of Intent.

**2.4 PRE- RFP CONFERENCE** – A Pre-RFP Conference will be held on Tuesday, June 18, 2019 at 10 a.m., onsite at 1210 Mercer Street, Lupton City, TN 37351. Parking will be in the rear parking lot located off of Dixie Circle. Attendance is highly recommended to understand the complexity of the site.

**2.4 FACILITY WALK THROUGH** – A Facility Walk Through will be provided following the Pre-RFP Conference. Additional visits may be scheduled at the submitters request

## **2.6 ADDITIONAL REQUESTS FOR INFORMATION**

Any additional requests for information must be directed in writing to the City by **4:00 p.m. EDT, on Friday, June 28, 2019**. The requests will be addressed to the fullest extent possible by the City in writing and sent to each responder to the RFQ by **end of day on Friday, July 5, 2019**. The City's preferred method of communication is via e-mail. After that time, no further requests for information will be received or responded to.

Requests for information or clarification shall be sent to:

City of Chattanooga  
Purchasing Department  
101 E. 11<sup>th</sup> Street, Suite G13  
Chattanooga, TN 37402  
bidinfo@chattanooga.gov  
Phone: (423) 643-7230  
FAX: (423) 643-7244

The City specifically requests that any contact concerning this RFP be made exclusively with the **City of Chattanooga Purchasing Department** until selection has been completed. Failure to honor this request will be negatively viewed in the selection process.

## **2.7 Affirmative Action Plan**

The City is an equal opportunity employer and during the performance of this Contract, the Vendor agrees to abide by the equal opportunity goals of the City of Chattanooga as follows:

1. The Vendor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap. The Vendor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
2. The Vendor will, in all solicitations or advertisements for employees placed by or on behalf of the Vendor; state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or handicap.
3. The Vendor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representatives of the Vendor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. In all construction contracts or subcontracts in excess of \$10,000 to be performed for the City, any Vendor and/or subcontractor is further required to file in duplicate within ten (10) days of being notified that it is the lowest responsible bidder, an affirmative action plan with the EEO Director of the City of Chattanooga. This plan shall state the Vendor's goals for minority and women utilization as a percentage of the work force on this project.
5. This Plan or any attachments thereto, shall further provide a list of all employees annotated by job function, race, and sex who are expected to be utilized on this project, and shall further describe the methods by which the Vendor and/or subcontractor will utilize to make good faith efforts at providing employment opportunities for minorities and women.

During the term of this contract, the Vendor upon request of the City will make available for inspection by the City copies of all payroll records, personnel documents, and similar records or documents that may be used to verify the Vendor's compliance with these Equal Opportunity provisions.

# Section 3

## RFP Contents

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### 3.1 GENERAL INFORMATION

The Proposal shall provide the following general information:

- A. Identify the name, address, telephone, and facsimile numbers of the Vendor and the principal contact person.
- B. Identify the type of firm or organization (corporation, partnership, joint venture, etc.) and describe the entity that will serve as the contracting party.
- C. Submit a project organization chart.
- D. RFP shall identify the portions of the work that will be undertaken directly by the Vendor and what portions of the work will be subcontracted. At a minimum, RFPs must identify the lead parties that will undertake the various roles for the various phases.
- E. Describe the proposed contractual relationships between the Vendor and all major partners and subcontractors relative to the various phases of the project.
- F. Describe the history of the relationships among the Project Team members, including a description of past working relationships.
- G. Provide the history, ownership, organization, and background of the Vendor. If the Vendor is a joint venture, the required information must be submitted for each member of the joint venture firm. Include the following:
  1. Names of partners, and company officers who own 10 percent or more of the shares;
  2. If the Vendor or joint venture is a subsidiary of a parent company, state when the subsidiary was formed and its place in the corporate structure of the parent company. If a subsidiary is newly created for the purposes of responding to this RFP, the reasons for this action must be fully disclosed; and
  3. Identify any lawsuits or litigation, permit violations, and/or contract disputes for other projects by the Vendor.
- H. An Opinion of Probable Cost (OPC) shall be provided along with the hourly rates and charges. At the minimum the Vendor shall provide pricing for and in the format of:

- Fan & Duct Insulation Removal
- Lower Exterior Debris Pile Removal
- Upper Exterior Mixed Debris Pile Removal

I. The Vendor shall provide a proposed schedule to complete all the work in one project. Then provide the estimated days for each sub-component if broken into multiple projects.

### **3.2 QUALIFICATIONS AND EXPERIENCE**

The Vendor shall provide the following regarding qualifications and experience removing friable asbestos.

A. General Experience

Provide a summary of the experience of the Vendor Project Team working together for the removal of the asbestos material.

B. Project Team Members Experience

Provide resumes of the Vendor Project Team including the Project Manager and all key technical personnel that will be used for the Former Lupton City Mill Asbestos Abatement and/or other projects as applicable to this RFP. Resumes should include information on registrations, affiliations and certifications of each team member.

C. Previous Experience With Similar Projects

Provide a list of five (5) to ten (10) asbestos abatement project(s) or similar type project(s) the Vendor's Project Team has worked on together or singularly within the past five years. Include name of each project, description of each project, location of each project, dates and times work was performed, and name, address and phone number of owner and/or contact person.

### **3.3 PROPOSAL SCOPES OF WORK**

A. General Scope of Work

1. The Vendor shall describe in detail its overall approach that will be used by its Project Team to perform the scope of work described herein for the Former Lupton City Mill Asbestos Abatement Project.
2. The Vendor shall provide all labor, benefits, equipment, materials, fuel, utilities, insurance, out-of-pocket expenses, and other related services required in connection with the project.
3. The Vendor shall obtain all necessary permits and approvals from all federal, state, and local regulatory agencies related to the Maintenance/Repair/Updates for the Fountains at Coolidge Park project. Furnish copies of all required permits and approvals to the City.

4. The Vendor shall provide and submit reports and certifications as required by all applicable Federal and/or State regulations in regards to the project. Furnish a copy of all required reports to the City in a timely manner.
5. The Vendor shall coordinate its work with the City of Chattanooga Public Works Department.
6. The Vendor shall conduct the work for the Former Lupton City Mill Asbestos Abatement project in compliance with all applicable federal, state, and local laws, regulations, permits, and approvals.
7. The Vendor shall provide adequate supervision and technical and managerial oversight of the Vendor's employees, subcontractors, and agents.

B. Specific Scope of Work

1. As outlined in the *Environmental Abatement Specifications*, attached herein.

### **3.4 City Supplied Services**

The City will provide the following as apart of the project:

- A. The City will provide a project manager as the single point of contact, who will be the responsible party for the City.

### **3.4 Financial Resources**

The Vendor shall provide documentation that the firm is of sound financial standing and has the financial ability to work in the capacity of Vendor for the duration of this project.

### **3.6 Terms and Conditions**

The terms and conditions shall be those addressed in the City standard construction specifications, unless otherwise listed below, to include the supplemental section provided by Appendix A.

- A. Except for information and data that is protected under law as confidential, all reports, permits, applications, etc. filed in connection with the work will be available for public inspection.
- B. Representatives of the City shall have access at reasonable times to the site(s) of the Vendor operations for the purposes of conducting inspections, or reviewing or copying records related to the construction of the Former Lupton City Mill site. However, no untrained individuals will be permitted to enter into the asbestos hazard control area(s).
- C. All records and documentation pertaining to the Vendor shall be maintained for a period of five (5) years following expiration or termination of the Agreement.



#### D. Audit Provisions

1. The City or its assignee may audit all financial and related records (including digital) associated with the terms of the contract or agreement including timesheets, reimbursable out of pocket expenses, materials, goods, and/or equipment claimed by the Vendor. The City may further audit any Vendor records to conduct performance audits (to identify waste and abuse or to determine efficiency and effectiveness of the contract or agreement) or to identify conflicts of interest.
2. The Vendor shall at all times during the term of the contract or agreement and for a period of five (5) years after the end of the contract, keep and maintain records of the work performed pursuant to this Contract or Agreement. This shall include proper records of quotations, contracts, correspondence, invoices, vouchers, timesheets, and other documents that support actions taken by the Vendor. Documents shall be maintained by the Vendor necessary to clearly reflect all work and actions taken. All such records shall be maintained in accordance with generally accepted accounting principles. The Vendor shall at its own expense make such records available for inspection and audit (including copies and extracts of records as required) by the City at all reasonable times and without prior notice.
3. The obligations of this Section shall be explicitly included in any subcontracts or agreements formed between the Vendor and any subcontractors or suppliers of goods or services to the extent that those subcontracts or agreements relate to fulfillment of the Vendor's obligations to the City.
4. Costs of any audits conducted under the authority of this section and not addressed elsewhere will be borne by the City unless the audit identifies significant findings that would benefit the City. The Vendor shall reimburse the City for the total costs of an audit that identifies significant findings that would benefit the City.
5. This Section shall not be construed to limit, revoke, or abridge any other rights, powers, or obligations relating to audit which the City may have by Federal, State, or Municipal law, whether those rights, powers, or obligations are express or implied.

#### **3.7 ALTERNATE APPROACHES (Not Required)**

#### **3.8 LENGTH OF CONTRACT**

This project is considered high priority, thus the length of the contract has been set at four (4) weeks. It is the desire of the City that this scope of work be completed as soon as possible such that cleanup of the rest of the site can be completed.

# Section 4

## Review and Evaluation of RFPs

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### 4.0 REVIEW AND EVALUATION OF RFPs

#### 4.1 REVIEW COMMITTEE

A review committee consisting of individuals selected by the City shall receive and review all RFPs submitted. The City, in its sole judgment, shall decide if an RFP is viable.

#### 4.2 FORMAL PRESENTATIONS

After reviewing each RFP submittal, the City may prepare a short list of up to three (3) qualified firms for formal presentations. The City reserves the right to invite more or less than this number if the quality of the RFPs so merits, or not to prepare a short list and require formal presentations.

#### 4.3 SELECTION CRITERIA

Selection of Vendor for formal presentations and the one (1) contract/agreement negotiation will be based on an objective evaluation of the following criteria:

##### A. Cost Criteria – 30 Points

Evaluation of the Cost of the Proposed Asbestos Abatement

##### B. Experience and Qualifications – 35 points

Identify key professionals on the project team, including any subcontractors. Explain their project role, relevant qualifications and experience that demonstrate ability, capacity, skill, and number of years' experience in providing the required services particular for a project of similar size, scope, and complexity. Similar scope and complexity includes but is not limited to installation, repair, or maintenance of architectural fountains, interactive fountains, and computerized controlled fountains.

Provide relevant past project experience that demonstrates the specific information for at least five jobs of similar size, scope and complexity performed by Prime and each firm on the project team within the past five (5) years. Must provide specific information and show examples of experience of similar size, scope, and complexity. The determination of a project as being of similar size, scope, and complexity, is at the sole discretion of the City of Chattanooga. Past project experience should reflect work performed by the proposing firm and not just by current employees who previously performed work while employed by another firm.

All project information should include the following:

- Project name, geographical location and prime consultant
- Owner/Client for which performed
- Dates of project
- Brief description of project showing how it is similar in scope to this request
- Owner/Client reference contact person, name, number, and email address
- Dollar value of contract
- Schedule Duration (Include Original Schedule and Actual Completed Schedule)
- If applicable, a description of unusual or unexpected challenges that were faced during construction and how these challenges were overcome
- The City of Chattanooga reserves the right to check any or all references for projects submitted.

Provide the name and relevant experience of the proposed full-time on-site project Manager.

For each proposed team member answer the following:

### **Claims and Suits**

- Has your organization ever failed to complete any work awarded to it?
- Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against you organization or its officers?
- Has your organization filed any law suits or requested arbitration with regard to construction contract within the last five years?
- Has your firm been assessed liquidated damages on any project in the past 5 years? Provide explanation.

### **Workload**

- List the major construction projects your organization has in progress, listing the name of the project, value, percent complete, and anticipated completion date.
- State average annual dollar amount of construction work performed during the past five (5) years.

## **Safety**

- Current Safety Rating
- List any major safety related incidences or violations in the past two (2) years
- State company policy for dealing with subcontractors who fail to follow safety procedures on-site.
- List any safety defects of components installed that occurred during the warranty period. Provide the owners name and location, type of injury, outcome of claim, and resolution to component.

### **C. Schedule / Project Approach – 35 points**

Provide a detailed narrative demonstrating your understanding of the project on how you will accomplish the stated Scope of Work. Describe in detail how this specific job will be approached, including major tasks and sub-tasks to be accomplished. Identify any issues you would anticipate with this type of project, and provide countermeasures you would employ to minimize and overcome those issues.

Describe in detail the role each contract team firm will play in completing the scope of work. An organization chart should be provided to demonstrate team relationships.

Provide any additional information that communicates how you intend to achieve the required outcomes and how your team may bring any unique insight or creative measures to successfully complete the projects on time and on budget.

Include a detailed project schedule for completion of the project. Include in the schedule all tasks, subtasks, and major milestones which you believe to be critical to the completion of the project. At a minimum, the major milestones must include:

1. Mobilization & Facilities Set Up
2. Abatement activities by area (i.e. Interior, Lower exterior mixed debris piles, etc.)
3. The calendar days for completion of the project.

#### **4.4 SELECTION OF FINALIST**

After the review of the RFPs by the Review Committee and possibly formal presentations, the City may, at its sole option, elect to reject all Proposals or elect to pursue the project further. In the event that the City decides to pursue the project further, the City will select the highest ranked finalist to negotiate an Agreement

## **APPENDIX A**

# **STANDARD AGREEMENT FOR CONSULTING SERVICES**

# ENVIRONMENTAL ABATEMENT SPECIFICATIONS

## FORMER LUPTON MILLS E-16-006



May 2019

Alternative Actions, Inc.  
7505 Middle Valley Road, Suite 113  
Hixson, Tennessee 37343  
(423) 843-0773 voice  
(423) 843-9526 fax

AAI-5315

## ASBESTOS ABATEMENT

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  - 1.1.3 Coordination with Other Work
- 1.2 REFERENCES
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  - A. Communications
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- 5.0 PHOTOS

Abatement Location Drawings

## **ENVIRONMENTAL SPECIFICATIONS**

### **Former Lupton Mills**

#### **1.1 DESCRIPTION OF WORK**

1.1.1 The purpose of the project is to remove the identified asbestos containing building materials left on equipment in the basement and remove mixed debris piles which contain friable asbestos containing insulation from targeted areas. The building where the equipment insulation and mixed debris piles are located has been involved in demolition. Upper levels have been removed. The first floor now forms a type of roof for the basement. The basement has been surveyed by City Engineering and is structurally sound.

Three areas are being addressed. Interior, lower exterior mixed debris piles and upper exterior mixed debris piles. While described separately, they are all part of the scope of work to be completed.

##### **Interior**

A fan and it's associated duct work in the basement mechanical room has asbestos insulation on the exterior. This is a friable, regulated, material by EPA NESHAP definition. Due to previous activity in the immediate area of the insulated equipment, precleaning will be required prior to establishing a negative pressure containment. The removal of the equipment and duct insulation will be performed using a negative pressure containment with working decon. Equipment and ducts have approximately 780 square feet of insulation.

In the adjoining large room to the mechanical room is scattered block debris that will be required to be collected, properly bagged, labeled and disposed of as asbestos containing. HEPA vacuuming will need to be performed in spots where the insulation has left visible debris on the concrete floor. This room also has two debris piles that have entered into the basement through openings in the walls. This debris will be collected in bulk and placed in a lined dumpster for disposal as asbestos containing demolition debris. This work will have to be coordinated with the removal of the lower mixed debris piles that are located on either end of the mechanical room. Otherwise the materials will continue to fall into the basement. There is approximately 30 square feet of loose asbestos block material on the concrete that is not part of the larger debris piles.

##### **Lower Exterior Mixed Debris Piles**

On either site of the mechanical room are mixed debris piles. Mixed within the debris is a white block material, often with metal wiring attached. The scope includes placing the mixed asbestos debris in lined dumpsters for disposal as asbestos waste. It has been calculated that the debris piles, including that which has fallen into the interior of the basement is approximately 10,910 cubic feet or 404 cubic yards. The estimated quantities do not include any segregation which can be performed to minimize the total amount of asbestos contaminated wastes.



## Upper Exterior Mixed Debris Piles

Multiple mixed asbestos debris piles are located on the surface above the basement. This area was once the first floor of the building. The load bearing surface is reinforced concrete. It is however covered by wood planking which has been exposed to the elements for years. The same asbestos block material is mixed in the debris piles. Some of the asbestos debris is located on the wood planking and has been crushed. The scope includes placing the mixed asbestos debris into lined dumpsters for disposal as asbestos waste. It has been calculated that the debris piles are approximately 16,037 cubic feet or 594 cubic yards. The estimated quantities do not include any segregation which can be performed to minimize the total amount of asbestos contaminated wastes. Any of the asbestos debris crushed into the wood or between the wood planking will need to be cleaned using hand tools and HEPA vacuums. A visual inspection will be made to determine if the asbestos block material has been removed. As a note, the wood planking has no value. If it is more cost effective to remove any of the planking in order to clean, it would be allowed.

The site has a large amount of debris and debris piles which contain basic building materials including non-friable roofing. Only those debris piles with the white block material are included in this scope of work.

Bidding abatement contractors will need to include the cost of temporary power (generators) and potable water. Utilities to the site were cut at the time of demolition several years ago.

The project has gained a certain amount of publicity. The surrounding neighbors and regulatory authorities will be observing all work, not just environmental work, at the site. The successful abatement contractor will have to remain in EPA, TOSHA and other State and Local agencies compliance at all times. This scope of work has been discussed in detail with the Air Pollution Control Bureau and TDEC Division of Remediation.

The full site is secured by a fence with multiple gates. The gate closest to the building will be the point of access for the project. The contractor must keep the gate secured at all times to avoid entry by non authorized individuals. The project is expected to meet and exceed all applicable Federal, State and Local EPA and OSHA Regulations pertaining to the safe and proper removal of Regulated Asbestos Containing Materials (RACM) and OSHA Class I Removal Requirements.

Quantities were calculated from the site visit and electronic drawings prepared by Alternative Actions, Inc.. While we believe these quantities to be accurate, the abatement contractor is responsible for the quantities used to bid the project. Change orders will not be considered unless it is a true hidden condition where the materials could not be reasonably found or specific additional work requested by the Owner or Owner's Representative on behalf of the Owner.

## Temporary Electrical/Water Supply

All utilities were disconnected at the site during the previous demolition activities years ago. Abatement Contractor will need to provide the necessary temporary electrical (generators) necessary for the safe and proper work to be performed. The Abatement Contractor will need power for the negative air machines, HEPA vacuums, water pumps, shower pumps, airless sprayers and temporary lighting. The Abatement Contractor will provide adequate electrical service for running final air within the containment area by the third party consultant, Alternative Actions, Inc. The Abatement Contractor will need to provide an adequate potable water supply to be used for wetting the asbestos material, showering and cleaning.

## Decons

The interior containment will require a working decontamination unit. This will be a three chamber decon to include a dirty side, shower and clean room. The work is considered a Class I project by TOSHA. Shower water will be filtered to 5-microns before discharging into sanitary sewer.

The task of loading the bulk mixed asbestos debris will not require a full decon but workers will need a way to clean their hands and face with water. Water used will need to be filtered to 5-microns prior to being discharged into the sanitary sewer.

## Waste Containers

The Abatement Contractor will have plenty of room to place multiple open top dumpsters at the work areas. Since the site is fenced and gated, there is not a requirement for fully enclosed dumpsters. The containers must be lined with polyethylene. The polyethylene must be able to fold over the top of the debris to seal off the material. Proper DOT stickers will need to be used on the top polyethylene. This will include a generator label. Each dumpster will be required to have a waste manifest. Originals of the waste manifest will be required in the final documentation. The loading areas will need to be demarcated with red asbestos danger tape and signs. Anyone inside the red tape will need to be in the proper PPE. The container will need to be within the red tape area. Signs are to be posted on the container while at the site. Signs will be removed prior to shipping.

## Project Management & Controls

The Abatement Contractor will ensure the following are being performed and complied with during the abatement process.

- A. Treat the site as a controlled area. Gate will need to be kept secured at all times. Do not leave the gate open except as needed for employees, equipment and movement of waste containers.
- B. Abatement Contractor will maintain a log of everyone at the site, including visitors. Immediately notify the consultant, Alternative Actions, Inc., of any visits by a regulatory agency.

- C. Due to the lack of services at the site, portable bathroom units will need to be provided for workers.
- D. Abated equipment and ducts will need to be visibly clean of all insulation and dust. Upon completion of the project, the area will be accessed by others for the purpose of demolition of equipment and ducts. These workers will not be in PPE. The enclosure work area must be visibly clean of asbestos and non asbestos debris. No residue can remain. **Any visible insulation, including smearing residue, will constitute a failure.**
- E. The project could be an “attractive nuisance”. Abatement contractor will need to keep area secured and controlled during the project. Access to the building by unauthorized individuals must not be allowed.
  - 1) Critical barriers must be sealed with 2 independent layers of 6-mil polyethylene sheeting. Mechanical systems and wall penetrations must be checked for seals at seams and at penetrations. Critical barriers will remain in place until clearance has been obtained.
  - 2) Project and clearance to follow industry standards. Pre-cleaning will be required prior to sealing off any critical barriers installing wall poly. Project to follow the following procedures to obtain clearance:
    - a. Pre clean. Install critical barriers. Install wall poly. Install negative pressure system and or air scrubbers. Install three stage decon for OSHA compliance. Showers must meet all EPA and OSHA Class I Requirements (i.e. cold and hot water, mixing valve, discharge after being filtered to 5 micron, etc.).
    - b. Containment must maintain negative pressure during all removal activities. When contractor is off site and generators are turned off, entry points to the containment must be sealed. Negative pressure must be established before abatement continues. Containment negative pressure must meet requirement by TOSHA.
    - c. All asbestos debris must be kept damp (adequately wet), promptly bagged and placed in lined dumpster.
    - d. Arrange visual inspection, three days in advance, with consultant. After successful visual, contractor can apply encapsulant.
    - e. Remove last wall layer of polyethylene once encapsulant has dried. Clean as necessary. Notify the consultant the area is ready for air testing. Must give adequate notice.
    - f. Clearance will be performed by AAI using the NIOSH 7400 method for PCM clearance. Clearance level for this project is no sample greater than 0.01 f/cc. No averaging.

- g. Once air clearance is achieved, contractor can remove critical barriers and equipment.
  - 5) Contractor will be responsible for all aspects of safety with respect to his/her employees and other occupants or visitors to the building. Contractor must comply with all State of Tennessee regulations, EPA and TOSHA.
  - 6) A NESHAP notification will need to be made to the State of Tennessee Pollution Control Bureau.
- G. Abatement contractor must be accredited with the State of Tennessee Asbestos Program. This will include the firm, supervisors and workers.

1.1.2 Protection of Existing Areas / Surfaces To Remain

All project work including, but not limited to, asbestos work, storage, transportation, and disposal shall be performed without causing any additional structural damage to the building.

1.1.3 Coordination with Other Work

The contractor shall have full access to the abatement areas and access to areas outside the containment. Coordination of schedule, visuals and clearances will be required between the abatement contractor and AAI.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

- ANSI Z9.2 (1979; R 1991) Fundamentals Governing the Design and Operation of Local Exhaust Systems
- ANSI Z88.2 (1992) Respiratory Protection

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

- NFPA 701 (1999) Methods of Fire Tests for Flame-Resistant Textiles and Films

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

- NIOSH Pub No. 84-100 (1984; Supple 1985, 1987, 1988 & 1990) NIOSH Manual of Analytical Methods

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

- PURPLE BOOK (1985) Guidance for Controlling Asbestos-Containing

Materials in Buildings

EPA 340/1-92-013

A Guide to Normal Demolition Practices Under the  
Asbestos NESHAP

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)  
CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1926.1101(h)	OSHA Asbestos Advisor
29 CFR 1910	Occupational Safety and Health Standards for Industry
29 CFR 1926	Occupational Safety and Health Standards for Construction
29 CFR 1926.21	Safety Training and Education
29 CFR 1926.33	Access to Employee Exposure and Medical Records
29 CFR 1926.55	Gases, Vapors, Fumes, Dust, and Mists
29 CFR 1926.59	Hazard Communication
40 CFR 763.120, 121	USEPA Regulations Governing Asbestos Abatement Project (Worker Protection)
40 CFR 61	USEPA National Emission Standards for Hazardous Air Pollutants (NESHAP - Integrated Version) Asbestos Regulations
29 CFR 1926.103	Respiratory Protection
40 CFR 763	USEPA ASHARA/AHERA Asbestos Model Accreditation Plan: Interim Final Rule (Preamble & Standard, February 3, 1994)

UNDERWRITERS LABORATORIES (UL)

UL 586	(1996; Rev thru Aug 1999) High-Efficiency, Particulate, Air Filter Units
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STATE OF TENNESSEE

TN Occupational Safety and Health Standards  
(29 CFR 1910 for General Industry; 29 CFR 1926 for Construction)

State of Tennessee Asbestos Program (Chapter 1200-01-20)

## 1.3 SUBMITTALS

### PRE-JOB

Contractor is required to provide the following pre-job submittals prior to mobilization to the project site. Contractor will not be allowed to begin until all submittals are approved by the Owner / Owner's Consultant.

#### 1) Accident Prevention Plan

The accident prevention plan shall address occupational exposure issues and shall describe the procedures to be followed to protect employees from asbestos hazards while performing asbestos abatement activities. This is a narrative of exactly how the contractor plans to perform the project. Each of the following elements shall be addressed in the plan:

- a). The location and brief description of each work activity that will potentially release asbestos fibers into the workplace atmosphere. A description of any components containing lead shall be included and keyed to the project drawings.
- b). Description of equipment and materials, controls, crew size, worker responsibilities, and operating and maintenance procedures.
- c). Description and sketch of the asbestos containment/work area, including decontamination areas. Sketch shall include the emergency egress to be used in the event of a fire or other emergency. Evacuation plan shall be posted at each work area.
- d). Description of the specific methods and procedures to protect workers and other onsite contractors from asbestos exposure.
- e). Technologic equipment used to keep occupational exposure below the Permissible Exposure Limit (PEL). (i.e., HEPA-filtered vacuum equipment /cleaners, special negative air enclosure equipment and supplies, etc.).
- f). Initial Exposure Assessment / Negative Exposure Assessment (1926.1101(f)(2) . Abatement Contractor can perform prep and containment construction in half-face negative pressure respirators. All abatement activities will be performed using PAPRs unless the Negative Exposure Assessment is provided prior to the abatement.
- g). Work Practices Program describing the protective clothing to be used to protect workers from asbestos exposure, house keeping procedures employed to minimize the spread of asbestos contamination in the asbestos control area and hygiene facilities.

- h). Medical Surveillance practices and procedures used to monitor worker exposure to asbestos and to assure fitness for wearing respiratory protection devices.
  - i). Worker training meeting the requirements of definition of OSHA's Class I Supervisor and workers; EPA ASHARA MAP 40 CFR 763.
  - j). Copies of State of Tennessee asbestos accreditations for the firm, supervisor and workers that will be on the site.
  - k). Security: The access gate shall be secured and locked when work is not being performed using a combination lock. Code to combination lock will be given to consultant and designated City employees for emergency use only. A log book shall be used to document entry into and out of the asbestos hazard control area(s). Persons entering control areas shall be trained, medically evaluated, and equipped with personal protective equipment required for the specific control area to be entered.
- 2) Copy of "NESHAP Notification" to the Chattanooga-Hamilton County Air Pollution Control Bureau.
  - 3) Copy of training certificates for workers and Supervisor.
  - 4) Copy of Doctor's written opinion for respirator use (workers and Supervisor)
  - 5) Copy of Tennessee contractor's license.
  - 6) Chain of Authority giving names and phone numbers. Phone numbers shall include cellular, office and home numbers for contact after hours.
  - 7) Copy of MDS for all materials and chemicals to be used on the project.
  - 8) Certificate of Insurance naming the Owner as additional insured with the following minimum limits:

**GENERAL LIABILITY INSURANCE**

With a limit of \$1,000,000 for each occurrence and \$2,000,000 in general aggregate.

**POLLUTION LIABILITY**

With a limit of \$1,000,000 for each claim and aggregate.

**AUTOMOBILE LIABILITY**

With a limit of \$1,000,000 for each accident, combined single limit for bodily injury and property damage.

WORKERS COMPENSATION AND EMPLOYER'S LIABILITY  
In accordance with statutory requirements with a limit of \$500,000 for  
each accident.

#### During Job

Any new worker or Supervisor added to the job will need to have all of the above, as applicable, prior to being able to work. Any unlisted material or chemicals introduced to the project site must be accompanied by a MDS.

#### Post Job

- 1) Waste manifests
- 2) Sign In / Out Sheets
- 3) Visitor Logs
- 4) Daily Supervisor Log
- 5) OSHA Air Sampling Results
- 6) Manometer Logs

### **1.4. QUALIFICATIONS**

#### 1.4.1 Qualifications and Organization Report

The Contractor shall furnish a qualification and organization report. The report shall describe the qualifications of the Supervisor (Competent Person). The report shall include an organization chart showing the Contractor's personnel by name and title and project specific responsibilities and authorities, if more than one Supervisor assigned to the project. The report shall be signed by the Contractor to indicate that all personnel comply with certification and experience requirements of this section and that project personnel have been given the authority to complete the tasks assigned to them.

#### 1.4.2 Personnel and Subcontractor Responsibilities and Qualifications

##### 1.4.2.1 Qualifications of Competent Person

The Competent Person shall be on-site at all times when any work is being performed, not just during removal. Responsibilities include but are not limited to: be responsible for the development of project specific requirements in the Accident Prevention Plan (APP); supervise implementation of the APP requirements; verify effectiveness of the APP and to coordinate resolution of unknown situations that may develop as the work progresses; be able to provide consultation to the Owner or Owner's Designated Representative; review sampling and analytical results to evaluate occupational exposure levels, verify effectiveness of controls and determine if clearance requirements have been met.



#### 1.4.2.2 Disposal Facility and Transporter

The Contractor shall furnish written evidence that the landfill to be used is approved for asbestos disposal by USEPA and State of Tennessee Division of Solid Wastes. Copies of any required signed agreements between the Contractor (including subcontractors and transporters) and the asbestos disposal facility shall be provided.

### 1.5 CLEARANCE REQUIREMENTS

#### Interior Containment

Visual inspection and air clearance.

Asbestos Clearance Level                      0.01 f/cc by PLM

#### Exterior Containment

Visual Inspection Only

### 1.6 HYGIENE FACILITIES

The Contractor shall describe the personal hygiene facilities to be used by the workers in the Accident Prevention Plan. The Contractor shall provide hygiene facilities for asbestos workers. Hygiene facilities shall consist of the following:

#### 1.6.1 Hand Wash Stations

The Contractor shall provide hand washing facilities for use by abatement workers that are available during the preparation and removal of the containment when a shower is not provided.

#### 1.6.2 Change Areas

The Contractor shall provide a change area to workers. The change area shall be equipped so that contaminated work clothing and street clothes shall be stored separately to prevent cross contamination.

#### 1.6.3 Showers

A full decon is required for this project due to the type of material being removed. OSHA requires that proper protective equipment must be provided and a method for decontaminating the work force. Contractor must provide a means for face and hands to be washed with soap and water. Any contaminated water generated must be filtered to 5 microns prior to discharge to sanitary sewer system.

#### 1.6.4 Eating Area

The Contractor shall set aside an area or provide a room for taking breaks and eating lunch. This area shall be kept as free as practicable from contamination.

#### 1.6.5 Toilet Facilities

The Abatement Contractor will be need to provide portable restrooms.

### 1.7 WASTE DISPOSAL PROCEDURES

Contractor must identify landfill and waste transporter as part of Accident Prevention Plan. (APP). All asbestos debris must be properly bagged, labeled and disposed of at an approved asbestos landfill.

### 1.8 CLEARANCE PROCEDURES

Abatement Contractor is responsible for coordination with the "Environmental Consultant" for conducting visual inspections, air sample clearance which is Alternative Actions, Inc. Costs of the initial clearances will be paid by the owner. ***Associated costs of failures, including failed visuals and/or failed samples will be the responsibility of the abatement contractor. Abatement contractor must pay for any retesting prior to their payment application being approved.***

Areas with failures will be re-cleaned and re-tested at the expense of the Contractor. Should a work area fail a second time, the Contractor will be required to stop work until the reason for the failure can be identified. Should the failure be a result of poor cleaning practices by the Contractor, and a third failure occurs, the Contractor will be subject to being removed from the project and the Owner will have the option to replace the Contractor with another Abatement Contractor. Additional cost incurred by the Owner, should the Contractor have to be replaced, will be deducted from revenues due to the Contractor.

The following is a summary of the asbestos results associated with this project. All listed materials were confirmed by laboratory analysis. A preliminary asbestos inspection was conducted by Frost Environmental Services and additional sampling performed during the design by Alternative Actions, Inc. Copies of the lab results will be provided to the successful contractor.

#### Asbestos

Bulk Loose Asbestos Block Insulation	Amosite 15% Chrysotile 3% Crocidolite <1%
Equipment Insulation	Chrysotile 20%

## 2.0 AIR MONITORING

### 2.01 DESCRIPTION OF THE WORK:

- A. This section describes air monitoring carried out by the Owner or Consultant to verify that the building remains uncontaminated. This section also describes the action required by the Contractor if an action level is met or exceeded.

### 2.02 RELATED DOCUMENTS:

- A. General provisions of Contract, including General and Special Conditions and other Division 00, 01 and 02 Specification sections, apply to work of this section.

### 2.03 AIR MONITORING:

- A. Work Area Isolation: The purpose of the air monitoring described in this section will be to detect faults in the work area such as:

- Contamination of the building with airborne asbestos fibers;
1. Should the above occur, the Contractor shall immediately cease asbestos abatement activities until the fault is corrected. Work shall not recommence until authorized by the Owner or Consultant.
  2. Prior to work beginning, the Consultant and Contractor shall review the air monitoring protocol as set forth by the contract documents.

### 2.04 AIRBORNE FIBER COUNTS:

- A. Inside Work Area: Contractor to install and maintain engineering controls to minimize potential elevated fiber levels. Contractor should try to maintain an average airborne count in the work area of less than 0.05 fibers per cubic centimeter of air (f/cm<sup>3</sup>). Readings will be obtained by the AC performing OSHA air monitoring during the removal phase of the project. The results of the personal air monitoring shall be posted at the decon within 24 hours of the samples being collected. Contractor is not allowed to hold samples or change the frequency of the monitoring.
1. Decontaminate the affected area in accordance with cleaning & decontamination procedures as dictated by the Owner or Consultant. Typically, this will include wet wiping and HEPA vacuuming of affected areas, with subsequent visual inspection by the Owner or Consultant and additional air sampling to determine the effectiveness of the cleaning. All such work shall be performed at no additional cost to the Owner.
  2. Respiratory protection shall be worn in affected areas until area is cleared for reoccupancy in accordance with work area clearance protocol.
- B. Fibers Counted: The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts. "Airborne Fibers" referred to above include all fibers regardless of composition as counted per the NIOSH Method 7400 Procedures (most recent revision).
1. If work has been repeatedly stopped due to high airborne fiber counts (more than once), and at the Owner's discretion, air samples will be secured in the

same area by the Consultant at the Contractor's expense for analysis by Transmission Electron Microscopy (TEM). "Airborne Fibers" counted in samples analyzed by Transmission Electron microscopy shall be only asbestos fibers, but of a diameter and length as specified by the AHERA TEM Analytical Method (40 CFR Part 763, Subpart E, Appendix A). The area or areas will be considered acceptable for entry without respiratory protection if the average sample concentration is less than 70 asbestos structures per square millimeter of filter area (70 s/mm<sup>2</sup>) or is statistically below the baseline established by the Consultant (as determined by the Z-Test).

- C. Effect on Contract Sum: When Transmission Electron Microscopy is used to arrive at the cleanliness of an area in accordance with the above paragraph, then the cost of such analysis will be borne by the Contractor, at no additional cost to the Consultant or Owner.

#### 2.05 ANALYTICAL METHODS:

- A. THE FOLLOWING METHODS WILL BE USED IN THE ANALYSIS OF AIR SAMPLES.

1. Personal samples will be collected on 25mm diameter 0.8 - 1.2 um pore size Mixed Cellulose Ester (MCE) filters and analyzed in accordance with the OSHA Reference Method (ORM, 29 CFR 1926.1101, Appendix A).
2. All area samples not requiring analysis by TEM will be collected on 25mm diameter, 0.8 - 1.2 um diameter MCE filters and analyzed in accordance with the most recent revision of NIOSH Method 7400.
3. Any samples requiring analysis by TEM will be collected on 25mm diameter, 0.45um MCE filters and analyzed in strict accordance with the AHERA TEM Analytical Method (40 CFR Part 763, Subpart E, Appendix A).
4. The services of a testing laboratory will be employed by the Contractor to perform laboratory analysis of Contractor collected air samples. For PCM analysis, microscope(s) and technician(s) may be set up at the job site(s) in a manner to allow verbal reports on air samples within 24 hours. A complete record, certified by the testing laboratory, of all Contractor collected air monitoring tests and results will be furnished to the Consultant and the Owner. Likewise, records of all Owner or Consultant collected air monitoring tests and results will be furnished to the Contractor.

- B. Written Reports of all air monitoring tests will be posted at the job site, upon receipt from the respective laboratory.

#### 3.0 OTHER SAFETY REQUIREMENTS

- A. Communication:

1. Contractor's job supervisors, or designated safety persons, must carry at all times a cellular phone to facilitate communication between the job site, AAI and the Owner. The cellular phones must remain on the job site during regular working hours. Contractor(s) shall report to AAI any safety problem, code infraction, personal injury, or damage to the property. Report shall be made immediately after such occurrence.

B. Fire Protection:

1. Contractors shall provide a type "ABC" fire extinguisher(s) for each work crew. Total number needed should meet or exceed the OSHA requirement based on square footage.
2. Extinguishers are to be kept within easy reach of each work crew and never farther than 30 feet from any worker. Inspection tags on extinguishers shall indicate the date of last inspection.

C. Safety Program: Prior to starting any work the Contractor shall submit to Alternative Actions, Inc. a written safety program for the project including but not limited to:

1. Occupational Health & Environmental Controls
  - a. Personal Protective Equipment
  - b. Fire Protection & Prevention
  - c. Hand & Power Tools
  - d. Ladders & Scaffolds
  - e. Motor Vehicles and Mechanized Equipment
  - f. Accident Prevention
  - g. Safety Inspections
  - h. OSHA Inspections
2. Instruct all of his personnel as to location of emergency telephone(s).
3. Instruct all personnel as to location on the job site of a copy of OSHA 29 CFR, Part 1926.
4. Instruct all of his personnel as to location of first aid supplies.

4.0 **REMOVAL QUANTITIES**

Fan & Duct Insulation	780 SF	
Lower Exterior Mixed Debris Piles	10,910 CF	404 CY
Upper Exterior Mixed Debris Piles	16,037 CF	594 CY

5.0 PHOTOS



Example of Upper Asbestos Debris Pile .



Example of Upper Asbestos Debris Pile .



Example of Upper Asbestos Debris Pile .



Example of Upper Asbestos Debris Pile .

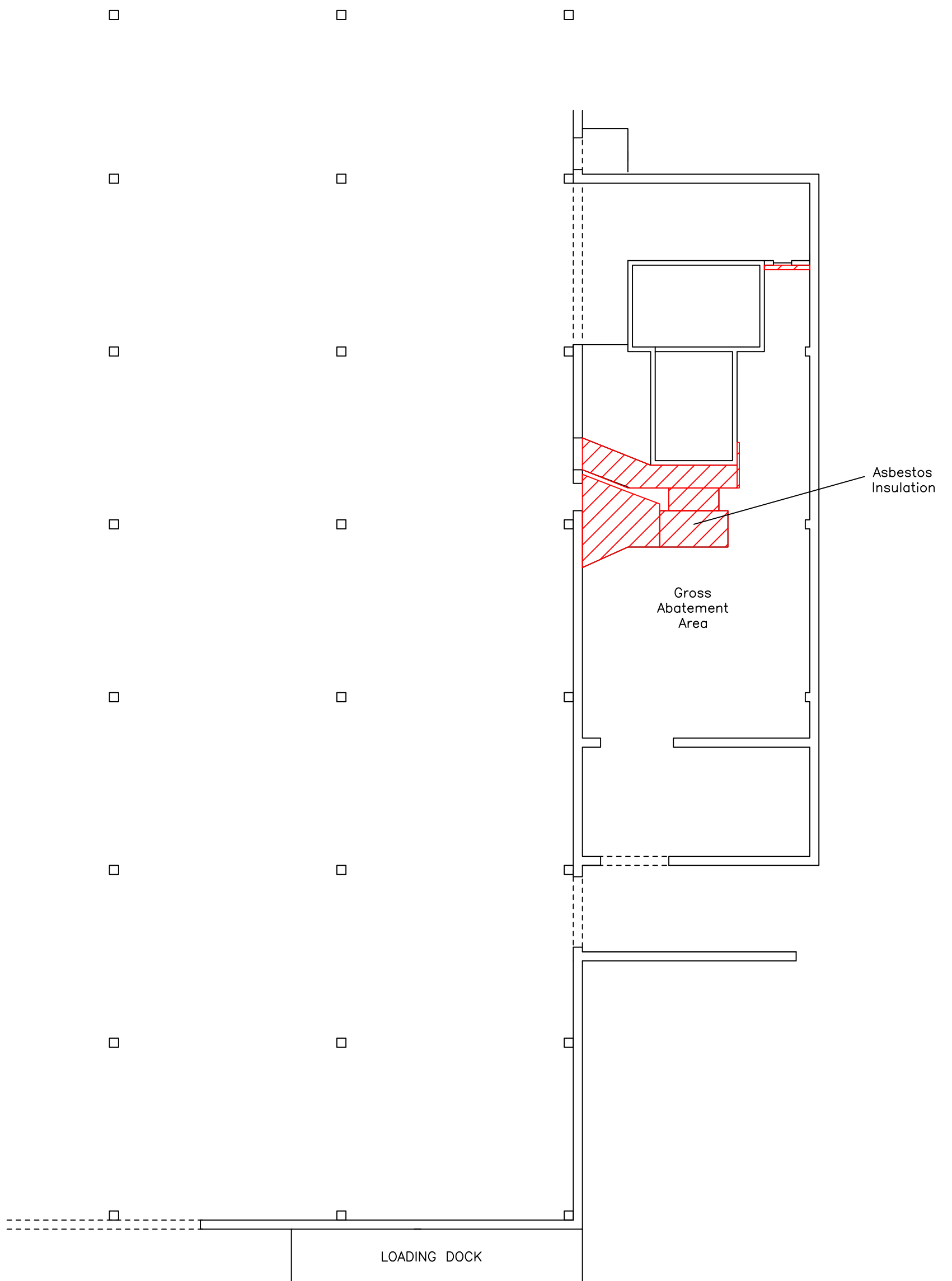


Example of Upper Asbestos Debris Pile .

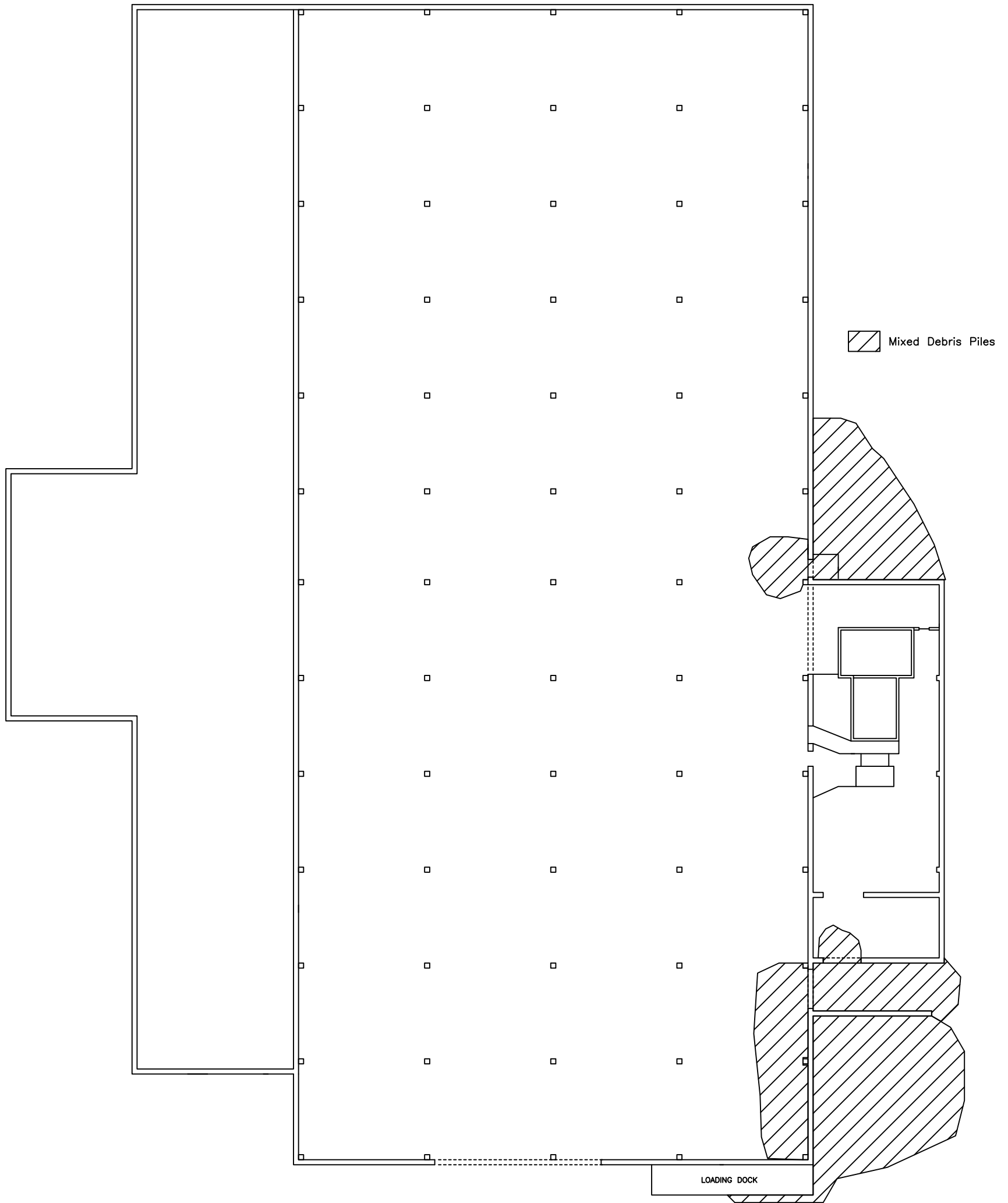


Example of Upper Asbestos Debris Pile .

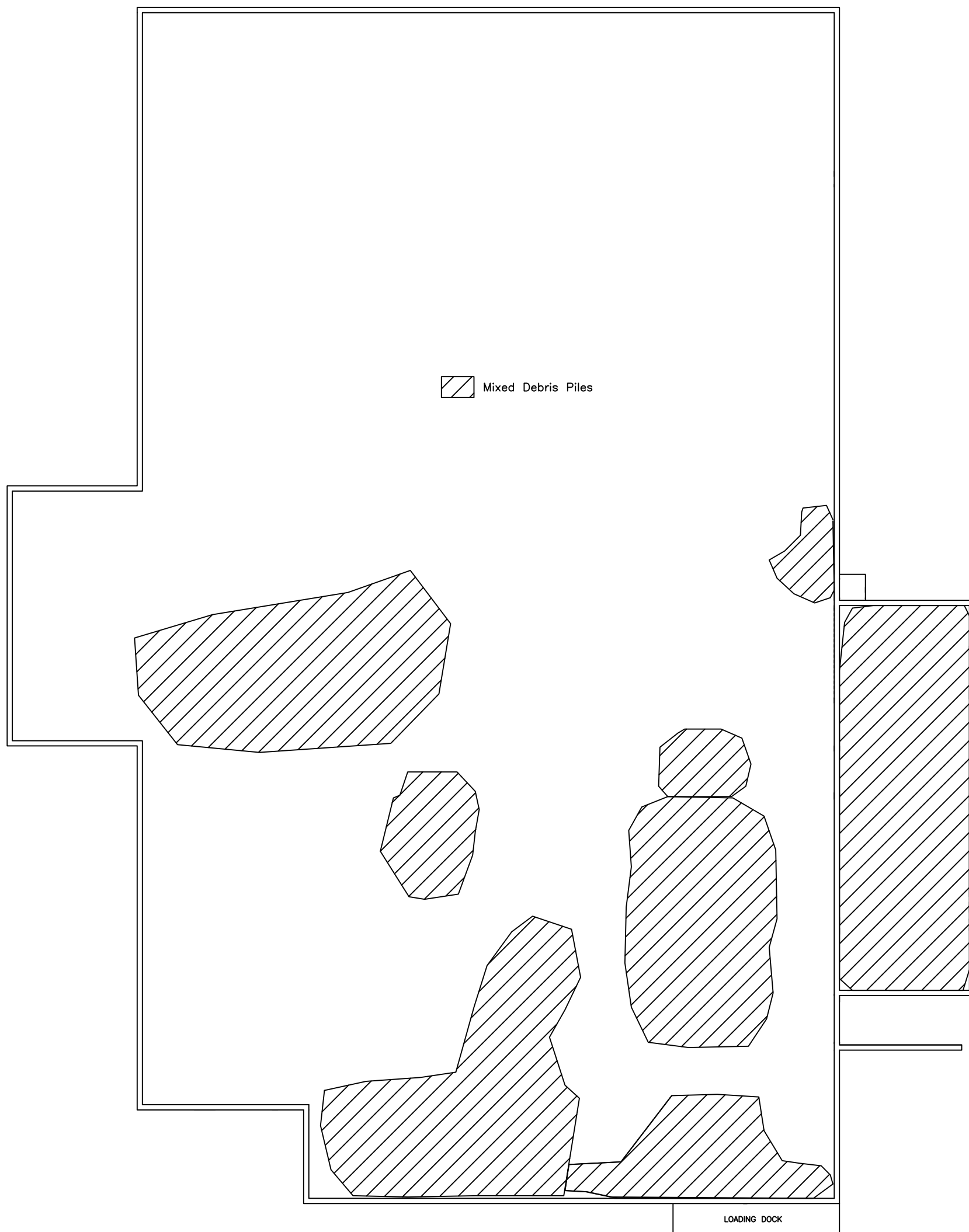




Basement Level  
Lupton Mills



Basement Level  
Lupton Mills



First Floor Level  
Lupton Mills