AHERA Management Plan for Asbestos-Containing Building Materials

Riverdale Grade School
11733 SW Breyman Ave
Portland, Oregon 97219

Prepared for:

Riverdale School District
11733 SW Breyman Ave
Portland, Oregon 97219

December 8, 2023
PBS Project 27638.000

PBS
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How to Use This Plan

The AHERA Management Plan represents the combination of the Inspection Report with a game plan for responding to and maintaining the asbestos-containing materials in your buildings. It is a flexible document that you can easily update. It is designed based on an AHERA format and currently exceeds state and federal requirements for managing asbestos materials in commercial properties.

PBS Engineering and Environmental has developed this plan at the request of the Riverdale School District. PBS has compiled this plan utilizing an asbestos survey work performed between October and December 2023.

Background data is contained in TAB 1 through TAB 3. Modify these sections when personnel, building population or other information changes.

TECHNICAL INFORMATION
TAB 5 is the Inspection Report, the heart of the plan. Carefully study this section.

PBS's recommendations are found in TAB 6 and the accepted plan (Response Actions Selected) is in TAB 7.

Cost estimates and discussion of other costs for budgetary purposes are provided in TAB 8 and a graphic timeline schedule is in TAB 9.

The Operations and Maintenance (O&M) Program, both general and for specific materials in the buildings, is part of TAB 12.

RECORDKEEPING
The other tabs are for keeping records of a variety of management activities. Under each tab, there is a short description of the program and examples of forms. Store the various forms in these tabs.

TAB 7 Response Actions
TAB 10 Periodic Surveillance
TAB 11 Re-inspections
TAB 12 O&M Activities
TAB 14 Training
TAB 15 Plan Distribution and Notification
TAB 16 Recordkeeping (General Information)
TAB 13 Medical Surveillance

The last tab is a review section that ensures the Owner has approved the recommendations of the Management Plan and that all requirements have been met and will continue to be met. It must be signed by the Asbestos Program Coordinator.

The AHERA Management Plan is a document the Owner must continue to use and update. It is also an aid for the following activities:

- Identifying the need for and performing initial cleaning
- Learning to budget for asbestos activities
- Scheduling response actions
- Setting building asbestos policies
- Training your personnel
- Notifying affected parties
- Maintaining the asbestos-containing materials in-place
- Keeping records

The Riverdale School District must adhere to the time schedule for the response actions and ensure all work is safely performed.

Remember this plan is not an encyclopedia of all facts related to asbestos, a recitation of all of the many rules and regulations associated with asbestos, or a substitute for training. It is a plan. Something to use as a guide and update as needed. Consult with key district personnel or outside consultants as budget concerns and changes in activities take place to assure your management plan is up to date. If the Management Plan is properly used, the Riverdale School District will continue to benefit from its investment and the school will be a safe and healthful environment.

Recommended Reference Material

EPA DOCUMENTS

"Guidance for Controlling Asbestos Containing Materials in Buildings", U.S. Environmental Protection Agency, June 1985, (Purple Book)

"Asbestos In Schools: A Guide for New Federal Requirements for Local Education Agencies", U.S. Environmental Protection Agency, February 1988

FEDERAL REGULATIONS

AHERA Regulations		
40 CFR Part 753, Subpart E	Oct. 30, 1987	Federal Register
Model Accreditation Plan (Training)		
40 CFR Part 763, Appendix C Subpart E	April 30, 1987	Federal Register
OSHA Regulations		
29 CFR Part 1910 and 1926	June 20, 1986 Revised August 23, 1996	Federal Register

Key Addresses and Phone Numbers

REGULATORY AGENCIES

Environmental Protection Agency:
EPA Region 10
Asbestos Coordinator
1200 6th Avenue
Seattle, Washington 98101
206.553.4762

State Offices:
Oregon Department of Environmental Quality
4026 Fairview Industrial Drive SE
Salem, OR 97302
503.229.5696

Oregon OSHA
350 Winter St NE
Salem, OR 97301
503.229.5910

Oregon Department of Education
255 Capitol Street NE
Salem, OR 97310-0203
503.947.5600

TAB 1

General Data

1.1.1 General Information

DISTRICT DATA

SCHOOL DISTRICT	Riverdale School District
TYPE OF DISTRICT	Public
DISTRICT ADDRESS	11733 SW Breyman Ave, Portland, Oregon
DISTRICT PHONE	503.262.4842

SCHOOL DATA

SCHOOL NAME	Riverdale Grade School
SCHOOL ADDRESS	11733 SW Breyman Ave, Portland, Oregon
NO. OF STUDENTS	400
GRADE LEVELS	K-8
ADMIN./FACULTY	38
NO. OF MAINTENANCE	1
NO. OF CUSTODIAL	1

1.2.1 Key Personnel

The following individuals have on-going responsibilities in developing and implementing the Asbestos Program. Their general responsibilities relative to asbestos activities are listed below.

SUPERINTENDENT

Christopher Russo
11733 S Breyman Ave
Portland, Oregon 97219
503-262-4840

The Superintendent has overall responsibility for ensuring compliance to the school policies and the successful operation of its programs. This responsibility extends to overall responsibility for the school's activities relative to asbestos containing materials. The Superintendent should approve the appointment of the Local Education Agency (LEA) Designated Person.

LOCAL EDUCATION AGENCY (LEA) DESIGNATED PERSON

Nicole Bassen
Business Manager
11733 S Breyman Ave
Portland, Oregon 97219
503-262-4840

The LEA Designated Person is required by the AHERA Final Rules to ensure the LEA's continuing compliance with the AHERA requirements. The specific requirements of the LEA Designated Person are described in Section 763.84 of the Final Rules. The LEA Designated Person must ensure that all records are maintained, satisfactory training is provided, notifications are sent, and management plans are available in compliance with the Final Rules.

1.3.1 Signatures

The following individuals have reviewed the AHERA Management Plan and have found the contents and decisions to be acceptable for compliance with the AHERA Final Rules and adequately protect human, health, and the environment. The review has included consideration of the location of asbestos-containing materials, recommended response actions, Operations and Maintenance procedures, notification requirements, training, and periodic surveillance. The following signatures are optional and are not required by the Final Rules.

Optional signatures:

SUPERINTENDENT
Name:

Signature Date

SCHOOL PRINCIPAL
Name:

Signature Date

School Board
Name:

Signature Date

School Board
Name:

Signature Date

Name:

Signature Date

Name:

Signature Date

Name:

Signature Date

Name:

Signature Date

Name:

Signature Date

Name:

Signature Date

INSPECTIONS/ASSESSMENTS

AHERA-accredited Asbestos Building Inspectors performed inspection and assessment services at this school where indicated. The inspections were performed in accordance with performed in accordance with applicable sections of 40 CFR, Part 763, Subpart E including Appendices A, B, and D.

SAMPLE COLLECTION

AHERA-accredited Asbestos Building Inspectors collected bulk samples of suspect asbestos containing building materials where indicated. Samples were collected using single use disposable containers. The sample collectors were protected with a half-face negative pressure respirator with P100 filter cartridges. No unprotected individuals were in close proximity. Spray mist was used to control fiber release. Thermal isolation was patched using lagging cloth. Surfacing material was stabilized with spray adhesive, where appropriate.

RECOMMENDATIONS

The following accredited management planner has outlined appropriate response actions of friable, non-friable, known or suspected asbestos containing building materials where indicated. Recommendations are in accordance with 40 CFR, Part 763, Subpart E including Appendices A, B, and D.

Name: Sean Grabiner

Company: PBS Engineering + Environmental

Address: 4412 S Corbett Avenue
Portland, Oregon 97239

Accreditation: AHERA Management Planner

1/18/2024

Signature Date

1.4.1 Laboratory

PBS Engineering + Environmental utilized the following qualified laboratory for analysis of bulk samples for asbestos content using polarized light microscopy (PLM) with dispersion staining technique. See the Bulk Sample Inventory, Tab No. 5, as to the particular laboratory participating in the current survey conducted under this contract. The laboratory bulk sample reports appear at the end of the Tab No. 5 and contain the signature of the analyst, quality control supervisor, or laboratory director. As indication that the laboratory meets the applicable requirements of Section 763.87 (a) the laboratory's EPA Accreditation Number is listed below. All work was performed in accordance with procedures described in 40 CFR, Part 763, Subpart E (AHERA).

Eurofins Labcor Portland, Inc.
4321 South Corbett Avenue
Portland, Oregon 97239
NVLAP 200741-0
503.224.5055

TAB 2

LEA Designated Person Documentation

2.1.1 LEA Designated Person Documentation

The school must designate and train a person to ensure compliance with the requirements of Section 763.84 of the Final Rules. The responsibilities of the LEA Designated Person are listed below. The LEA Designated Person's signature and statement of acceptance appears in the last tab of the Management Plan. If the School Board or Superintendent has formally assigned the LEA Designated Person with a letter, memorandum, or similar conveyance, a copy should be filed under this tab.

LEA DESIGNATED PERSON

Nicole Bassen
Business Manager
11733 S Breyman Ave
Portland, Oregon 97219
Phone: 503-262-4840

LEA DESIGNATED PERSON TRAINING

Course Name:_____

Training Date:_____

Total Hours:_____

Description:_____

LEA DESIGNATE RESPONSIBILITIES

A. Ensure that the activities of any persons who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with Subpart E of the Final Rules.

B. Ensure that all custodial and maintenance employees are properly trained as required by Subpart E of the Final Rules and other applicable Federal and/or State regulations (e.g., the Occupational Safety and Health Administration asbestos standard for construction, the EPA worker protection rule, or applicable State regulations).

C. Ensure that workers and building occupants, or their legal guardians are informed at least once each school year about inspections, response actions, and post-response action activities, including periodic reinspection and surveillance activities that are planned or in progress.

D. Ensure that short-term workers (e.g., telephone repair workers, utility workers, or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations of ACBM and suspected ACBM.

E. Ensure that warning labels are posted in accordance with Section 763.95.

F. Ensure that management plans are available. Inspection and notification of such availability has been provided as specified in the management plan under Section 763.93.

G. Consider whether any conflict of interest may arise from the interrelationship among accredited personnel and whether that should influence the selection of accredited personnel to perform activities under the Final Rules.

A REMINDER

- HAS YOUR DESIGNATED ASBESTOS COORDINATOR (LEA DESIGNATED PERSON) BEEN TRAINED?
- DO YOU HAVE TO PERFORM INITIAL CLEANING IN YOUR BUILDING?
- HAVE YOU SCHEDULED YOUR CUSTODIAL AND MAINTENANCE STAFF TO BE TRAINED?
- HAVE YOU SIGNED YOUR MANAGEMENT PLAN?

TAB 3

School Buildings

SCHOOL BUILDING(S) LIST

RIVERDALE GRADE SCHOOL **Name of School**	RIVERDALE SCHOOL DISTRICT **LEA (District)**	MULTNOMAH **County**
11733 SW BREYMAN AVE **Address**	PORTLAND **City**	97219 **Zip Code**
503-262-4840 **Building Telephone Number**	NICOLE BASSEN **District's Asbestos Program Manager**	503-262-4840 **Telephone Number**

Building Name	Address	Construction Date(s)	Friable ACBM*	Non-Friable ACBM*	Friable and Non-Friable Suspected ACBM Assumed	No ACBM
Main	11733 S Breyman Ave	2012	-	-	X	-
Music	11733 S Breyman Ave	Unknown	-	-	-	X
Commons/Gym	11733 S Breyman Ave	Unknown	-	X	X	-
District Office	11733 S Breyman Ave	Unknown	-	-	-	X

* ACBM – Asbestos-Containing Building Material
** ACM – Asbestos-Containing Material

The main building was constructed in 2012, but no statement from the building's architect, general contractor, or engineer was available asserting that it is ACBM-free. PBS performed an inspection of the building and collected samples of prominent suspect interior materials. No ACBM were identified. However, due to sampling budget constraints, some materials were presumed to be asbestos containing.

The music and district office buildings were remodeled in 2012 when the main building was constructed. PBS performed an inspection of the buildings and collected samples of prominent suspect interior materials. No ACBM were identified in either building.

The commons was added to the original gym building in 2012. Non-friable asbestos containing building materials were identified in the original gym building. Additionally, due to sampling budget constraints, some materials were presumed to be asbestos containing.

TAB 4

Prior Inspections

Memorandum

DATE: December 8, 2023

TO: Riverdale School District

FROM: PBS Engineering and Environmental

REGARDING: Tab 4 Information

PBS understands that the original district records have been lost. PBS has assembled management plans for the district based on an asbestos survey performed by PBS. All other historic AHERA compliance information or survey data has been lost.

TAB 5

Inspection Report

5.1 Overview

PBS Engineering + Environmental performed a limited inspection of Riverdale Grade School to determine the presence of asbestos-containing materials (ACM). The intent of this inspection is to ensure that the school is in compliance with the requirements of 40 CFR 763.

5.2 Summary of ACBM

All accessible areas within the limited boundaries of the scope of work were inspected as part of this investigation. Inaccessible areas are defined as those requiring selective demolition, fall protection or confined-space entry protocols to gain access.

While PBS has presumed the presence of and endeavored to identify the ACM that may be found in the concealed locations, additional unidentified ACM may exist. Concealed ACM that may exist at the school include, but are not limited to, the following:

- Pipe insulation and mechanical components in floors and wall and ceiling cavities, as well as gaskets and boiler components.
- Electrical wiring insulation and circuit breaker panels.
- Vapor barriers and mastics within wall, floor and/or ceiling cavities, under soil on the foundation, or behind brick or masonry facades.

Certain components and materials may not be identified in this report and should be investigated prior to demolition or renovation activities. Since these components and materials may exist in localized areas, they could not be reasonably investigated. Any materials encountered during renovation that have not been previously sampled should be brought to the attention of the environmental consultant. Such materials require sampling for asbestos content prior to impact. This report is not a substitute for a pre-renovation or pre-demolition asbestos survey.

Suspect materials were sampled by an AHERA-accredited Building Inspector. Samples were assigned a unique identification number and delivered to an accredited laboratory under chain-of-custody protocols.

All samples were analyzed by polarized light microscopy (PLM), which has a reliable limit of quantification of one percent asbestos by volume. Any material containing 1% or greater asbestos content is regulated as asbestos-containing in the State of Oregon. See attachments for locations and results of asbestos samples.

The attached Asbestos Bulk Sample Inventory lists all suspect materials that were sampled and analyzed for asbestos, of which, the following materials were found to contain asbestos:

Main Building Homogeneous Materials - ACBM

Material	Location	Quantity	Friable or Nonfriable (F or NF)	Notes
Wall and Ceiling Plaster	Gym/Commons Building	NQ	NF	Results for this material were mixed. Until additional investigation can be performed, all wall and ceiling plaster in the original gym building are presumed to contain asbestos.
Grout Associated with Ceramic Wall and Floor Tiles	Main Building and Gym Commons Building; Restrooms	NQ	NF	Due to budget constraints, this material was not sampled. Material is presumed to contain asbestos.

SF – square feet LF – linear feet EA – each NQ – not quantified

Refer to the attached sample inventory, as well as historic survey information included in Tab 4, for a list of materials sampled and identified as non-ACBM.

Caution should be exercised during renovation/demolition as concealed ACM may exist in various locations. Any material not previously identified in this survey that a contractor or District employee encounters should be sampled to determine its asbestos content prior to impact.

EPA, DEQ, and OSHA all define ACM as any material containing more than 1% asbestos. Although materials equal to or less than 1% are not considered by regulatory agencies to be an ACM, they still have some asbestos content, and Oregon OSHA has specific requirements for situations in which workers may encounter, disturb, or remove materials containing any level of asbestos. For the sake of hazard communication, these materials are included in the asbestos-containing materials section of this report.

In 1995, Oregon OSHA adopted 29 Code of Federal Regulations (CFR) Part 1926.1101 governing asbestos under OAR 437-003-1926.1101. The regulation has made significant changes in work procedures and how asbestos materials are managed. OSHA believes that the single biggest risk of asbestos exposure is to workers who unknowingly or improperly disturb ACM. Hazard communication, training, personal protection, work practices, exposure monitoring, and recordkeeping are all major components of the regulation.

DEQ's OAR 340, Division 248 also covers asbestos abatement requirements, removal notifications, licensing, and certifications for contractors.

For more information regarding the removal of asbestos-containing materials, please refer to the following:

1. Oregon Occupational Safety and Health Administration, OAR 437-003-1926.1101
2. Department of Environmental Quality, OAR-340, Division 248

Code	Material		Location	Results	Lab
27638.000-0001	Mastic		District office, business manager office; white rubbery mastic under carpet squares		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic, tan/yellow	No Asbestos Detected	
27638.000-0002	Mastic		District office, main entrance; tan mastic on leveling compound under walk off mat		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, tan/gray	No Asbestos Detected	
27638.000-0003	Mastic		District office, back south office; tan mastic on leveling compound under brown carpet		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, tan	No Asbestos Detected	
27638.000-0004	Mastic		District office, back south office; tan mastic on leveling compound under brown carpet		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose mastic particulate with fibers, tan/red	No Asbestos Detected	
27638.000-0005	Gypsum Wallboard/Joint Compound		District office, north corner; white gypsum joint compound		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	fine compact powder with paint, white/gray	No Asbestos Detected	
		Layer 02	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0006	Gypsum Wallboard/Joint Compound		District office, restroom; white gypsum joint compound		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	fine compact powder with paint, white/gray	No Asbestos Detected	
		Layer 02	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0007	Gypsum Wallboard/Joint Compound		District office, storage room; white gypsum joint compound		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	fine compact powder with paint, off-white/white	No Asbestos Detected	
		Layer 02	compact chalky material with paper, white	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0008	Sheet Floor Covering	District office, under kitchenette; gray marbled sheet floor on leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, gray/black	No Asbestos Detected	
	Layer 02	woven fibers with mastic, tan/gray/white	No Asbestos Detected	
	Layer 03	granular compact powder, gray	No Asbestos Detected	
27638.000-0009	Sheet Floor Covering	District office, main entry storage closet; sheet floor on leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	vinyl, gray, with woven fibers, yellow	No Asbestos Detected	
27638.000-0010	Sheet Floor Covering	District office, restroom; sheet floor on leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	vinyl, gray, with woven fibers, yellow	No Asbestos Detected	
27638.000-0011	Covebase/Mastic	District office, restroom; 6" black covebase with white/tan mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, black	No Asbestos Detected	
	Layer 02	mastic with paper, tan/off-white	No Asbestos Detected	
27638.000-0012	Covebase/Mastic	District office, main storage room; 6" black covebase with white/tan mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, black	No Asbestos Detected	
	Layer 02	mastic with coating, tan/white	No Asbestos Detected	
27638.000-0013	Covebase/Mastic	District office, main storage room; 6" black covebase with white/tan mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, black	No Asbestos Detected	
	Layer 02	mastic with coating, tan/white	No Asbestos Detected	
27638.000-0014	Sink Undercoating	District office, kitchenette, gray spray-on sink undercoating on white tape		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	thin flexible material with powder, white/gray	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0015	Mastic		Business office; white/yellow rubbery mastic under carpet squares		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic, tan	No Asbestos Detected	
27638.000-0016	Mastic		Business office; white/yellow rubbery mastic under carpet squares		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic, tan	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0001	Mastic	Music building, in front of double doors and office entrance; tan mastic on gray leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	mastic, tan/gray	No Asbestos Detected	
27638.000-0002	Mastic	Music building, in front of restroom and main entrance; tan mastic on gray leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate, tan/gray/black	No Asbestos Detected	
27638.000-0003	Mastic	Music building, auditorium; tan mastic on gray leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	flexible mastic material, tan/yellow	No Asbestos Detected	
27638.000-0004	Sheet Floor Covering	Music building, restroom; green vinyl sheet flooring with tan mastic on leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	flexible vinyl, off-white/gray	No Asbestos Detected	
	Layer 02	powdery backing with woven fibers, gray/tan	No Asbestos Detected	
27638.000-0005	Sheet Floor Covering	Music building, restroom; green vinyl sheet flooring with tan mastic on leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate with fibers, off-white/gray/brown	No Asbestos Detected	
27638.000-0006	Sheet Floor Covering	Music building, restroom; green vinyl sheet flooring with tan mastic on leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, off-white/gray/green	No Asbestos Detected	
	Layer 02	powdery backing with woven fibers, gray/tan	No Asbestos Detected	
27638.000-0007	Covebase/Mastic	Music building, near office and auditorium entrance; 6" gray covebase and white mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	thin flexible material with paper, gray/tan	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0008	Covebase/Mastic		Music building, near back storage room; 6" gray covebase and white mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, gray	No Asbestos Detected	
		Layer 02	mastic with paper, tan	No Asbestos Detected	
27638.000-0009	Covebase/Mastic		Music building, office; 6" gray covebase and white mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, gray	No Asbestos Detected	
		Layer 02	mastic with paper, tan/off-white	No Asbestos Detected	
27638.000-0010	Covebase/Mastic		Music building, restroom by door; 6" black covebase with white mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	flexible particulate with paper, gray/off-white/tan	No Asbestos Detected	
27638.000-0011	Covebase/Mastic		Music building, restroom by door; 6" black covebase with white mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic material, tan	No Asbestos Detected	
27638.000-0012	Covebase/Mastic		Music building, restroom back storage; 6" black covebase with white mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	rubbery material, black/brown	No Asbestos Detected	
27638.000-0013	Gypsum Wallboard/Joint Compound		Music building, northwest corner of storage; white gypsum and joint compound		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	fine compact powder with coating, off-white/tan	No Asbestos Detected	
		Layer 02	compact chalky material with paper, white	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0014	Gypsum Wallboard/Joint Compound	Music building, auditorium by exit; white gypsum and joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fine compact powder with paint, off-white/white	No Asbestos Detected	
	Layer 02	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0015	Gypsum Wallboard/Joint Compound	Music building, restroom storage; white gypsum and joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fine compact powder with paint, off-white/white	No Asbestos Detected	
	Layer 02	compact chalky material with paper, tan	No Asbestos Detected	
27638.000-0016	Sink Undercoating	Music building, kitchenette in auditorium; black textured sink undercoating		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate, black	No Asbestos Detected	
27638.000-0017	Glued-on Ceiling Tiles	Music building, entry near restroom; 1'x1' pinhole and fissure tile with brown mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	loose fibrous material, gray/white	No Asbestos Detected	
	Layer 02	mastic, brown	No Asbestos Detected	
27638.000-0018	Glued-on Ceiling Tiles	Music building, office; 1'x1' pinhole and fissure tile with brown mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	loose powder with paint, gray/tan/white	No Asbestos Detected	
	Layer 02	mastic, brown	No Asbestos Detected	
27638.000-0019	Vinyl Floor Tile/Mastic	Music building, back storage room under carpet; 12"x12" white tile with tan mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, gray/yellow	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0020	Vinyl Floor Tile/Mastic	Music building, back storage room under carpet; 12"x12" white tile with tan mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, gray/yellow	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
27638.000-0021	Vinyl Floor Tile/Mastic	Music building, back storage room under carpet; 12"x12" white tile with tan mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, gray/yellow	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
27638.000-0022	Glued-on Ceiling Tiles	Music building, band room; 1'x1' pin and fissure tile with brown mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fibrous powder with particulate, gray/white	No Asbestos Detected	
	Layer 02	mastic, brown	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0001	Fire Door		Entry to boiler room; white crumbly fire door insulation		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, white	No Asbestos Detected	
27638.000-0002	Fire Door		Entry to boiler room office; white crumbly fire door insulation		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, white	No Asbestos Detected	
27638.000-0003	Fire Door		Entry to boiler room office; white crumbly fire door insulation		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	compact granular material, white	No Asbestos Detected	
27638.000-0004	Wall and Ceiling Plaster		Stage stairs; white and gray plaster wall		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	paint, off-white with granular compact powder, off-white	No Asbestos Detected	
		Layer 02	granular compact powder, gray	No Asbestos Detected	
27638.000-0005	Wall and Ceiling Plaster		Boiler room office; white plaster wall		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	granular compact powder, white with paint, tan	No Asbestos Detected	
27638.000-0006	Gypsum Wallboard/Joint Compound		Gym; stage front; gypsum wall with joint compound and wall texture		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	fine compact powder, white with paint, white	No Asbestos Detected	
		Layer 02	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0007	Mastic		Stage stairs to boiler room; black residual flooring mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, black/red	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0008	Gypsum Wallboard/Joint Compound	Gym; west wall; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fine compact powder, white	No Asbestos Detected	
	Layer 02	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0009	Gypsum Wallboard/Joint Compound	Gym; east wall; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fine compact powder, white with paint, white	No Asbestos Detected	
	Layer 02	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0010	Textured Ceiling Material	Gym; west wall; white "orange peel" wall texture on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
27638.000-0011	Textured Ceiling Material	Gym; east wall; white "orange peel" wall texture on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose powder with paint, off-white/white	No Asbestos Detected	
27638.000-0012	Textured Ceiling Material	Gym; north wall; white "orange peel" wall texture on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose powder with paint, off-white/white	No Asbestos Detected	
27638.000-0013	Gypsum and Plaster	Stage electrical room; plaster on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose granular powder, gray/off-white	No Asbestos Detected	
27638.000-0014	Sealant	Stage ADA access; gray/brown duct seam sealant		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose mastic, gray	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0015	Mastic	Stage ADA access; black residual flooring mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate, black	No Asbestos Detected	
27638.000-0016	Sheet Floor Covering	Boys locker room; blue sheet flooring with yellow mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, blue/gray	No Asbestos Detected	
	Layer 02	fibrous backing, gray, with thin mastic, tan	No Asbestos Detected	
27638.000-0017	Sheet Floor Covering	Girls locker room; blue sheet flooring with yellow mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	vinyl, blue/gray	No Asbestos Detected	
	Layer 02	fibrous backing, gray, with thin mastic, tan	No Asbestos Detected	
27638.000-0018	Covebase/Mastic	Girls locker room; 6" black base with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, black	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
27638.000-0019	Mastic	Boys locker room; tan FRP panel mastic on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	mastic, tan, with powdery coating, white	No Asbestos Detected	
27638.000-0020	Mastic	Boys locker room; tan FRP panel mastic on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	mastic, tan, with powdery coating, white	No Asbestos Detected	
27638.000-0021	Mastic	Girls locker room; tan FRP panel mastic on gypsum		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	mastic with thin powdery coating, tan/white	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0022	Gypsum Wallboard/Joint Compound	Janitors closet C4 in kitchen; white gypsum wallboard and joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fine compact powder with paint, off-white/white	No Asbestos Detected	
	Layer 02	compact chalky material with paper, off-white	No Asbestos Detected	
27638.000-0023	Gypsum Wallboard/Joint Compound	Storage/fire riser room C2 in commons; white gypsum wallboard and joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	fine compact powder with paint, off-white/white	No Asbestos Detected	
	Layer 02	compact chalky material with paper, off-white	No Asbestos Detected	
27638.000-0024	Gypsum Wallboard/Joint Compound	Front storage in commons; white gypsum wallboard and joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose powder with paper and paint, off-white/white	No Asbestos Detected	
27638.000-0025	Sheet Floor Covering	Janitors closet 04 in kitchen, entrance; brown and black thick sheet flooring with tan mastic on concrete		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, brown	No Asbestos Detected	
	Layer 02	thin fibrous backing with mastic, clear/white/yellow	No Asbestos Detected	
27638.000-0026	Sheet Floor Covering	Kitchen, on corner near dishwasher; brown and black thick sheet flooring with tan mastic on concrete		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, brown	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
27638.000-0027	Sheet Floor Covering	Near kitchen entrance; brown and black thick sheet flooring with tan mastic on concrete on gray leveling compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, brown, with thin backing, clear/tan	No Asbestos Detected	
	Layer 02	mastic, tan/gray	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0028	Covebase/Mastic		Gymnasium by boys locker room; 4" black covebase with lip and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic, tan	No Asbestos Detected	
27638.000-0029	Covebase/Mastic		Gymnasium near stage entrance and storage; 4" black covebase with lip and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic, tan	No Asbestos Detected	
27638.000-0030	Covebase/Mastic		Gymnasium, near athletic office; 4" black covebase with lip and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic with paper, tan/off-white	No Asbestos Detected	
27638.000-0031	Covebase/Mastic		Gymnasium, exit near athletic office; 6" black covebase and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic material with powder, tan	No Asbestos Detected	
27638.000-0032	Covebase/Mastic		Gymnasium entrance near mechanical room; 6" black covebase and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, gray	No Asbestos Detected	
		Layer 02	mastic with powder, tan	No Asbestos Detected	
27638.000-0033	Covebase/Mastic		Gymnasium, old locker room north corner; 4" black covebase with cream and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic with paper, off-white/tan/brown	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0034	Covebase/Mastic		Gymnasium, outside old locker rooms in north corner; 4" black covebase with cream and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic with paper, off-white/tan/brown	No Asbestos Detected	
27638.000-0035	Covebase/Mastic		Gymnasium, storage closet west of athletic office; 4" black covebase with cream and tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	mastic with paper, tan	No Asbestos Detected	
27638.000-0036	Sheet Floor Covering		Gymnasium, girls locker room; blue sheet floor with tan mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	vinyl particulate, blue/gray/multicolored	No Asbestos Detected	
		Layer 02	loose fibrous material, gray	No Asbestos Detected	
27638.000-0037	Mastic		Handicapped stage entry; residual black mastic on concrete		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, black	No Asbestos Detected	
27638.000-0038	Mastic		Near G1 entrance on stair landing; tan mastic on concrete under carpet		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, tan/gray	No Asbestos Detected	
27638.000-0039	Mastic		Carpet in entryway on north end; tan mastic on concrete under carpet		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic material with fibers, tan/white	No Asbestos Detected	
27638.000-0040	Mastic		Entryway to café at bottom of stairs; tan mastic on concrete under carpet		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, gray/off-white	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0041	Wall and Ceiling Plaster	Stage ADA entrance; white and gray plaster wall		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	compact powder with paint, white	4% Chrysotile	
	Layer 02	granular compact powder with paint, gray/green	No Asbestos Detected	
27638.000-0042	Lay-in Ceiling Tile	Gym; southwest entrance corridor; 2'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	coating, white	No Asbestos Detected	
	Layer 02	loose fibrous material, yellow	No Asbestos Detected	
27638.000-0043	Lay-in Ceiling Tile	Gym; southwest entrance corridor; 2'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	coating, white	No Asbestos Detected	
	Layer 02	loose fibrous material, yellow	No Asbestos Detected	
27638.000-0044	Lay-in Ceiling Tile	commons storage C2; 2'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	coating, white	No Asbestos Detected	
	Layer 02	loose fibrous material, yellow	No Asbestos Detected	
27638.000-0045	Lay-in Ceiling Tile	Commons main corridor; 4'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	coating, white	No Asbestos Detected	
	Layer 02	loose fibrous material, yellow	No Asbestos Detected	
27638.000-0046	Lay-in Ceiling Tile	Commons main corridor; 4'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	coating, white	No Asbestos Detected	
	Layer 02	loose fibrous material, yellow	No Asbestos Detected	
27638.000-0047	Lay-in Ceiling Tile	Commons main corridor; 4'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	coating, white	No Asbestos Detected	
	Layer 02	loose fibrous material, yellow	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0001	Gypsum Wallboard/Joint Compound	Staff lounge 122; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
	Layer 02	fine compact powder, off-white with paper, white	No Asbestos Detected	
	Layer 03	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0002	Gypsum Wallboard/Joint Compound	Classroom 101; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
	Layer 02	fine compact powder, off-white with paper, white	No Asbestos Detected	
	Layer 03	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0003	Gypsum Wallboard/Joint Compound	Classroom 136; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
	Layer 02	fine compact powder, off-white, with paper, white	No Asbestos Detected	
	Layer 03	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0004	Gypsum Wallboard/Joint Compound	Janitor 230A; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
	Layer 02	fine compact powder, off-white, with paper, white	No Asbestos Detected	
	Layer 03	compact chalky material with paper, white	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0005	Gypsum Wallboard/Joint Compound	Library workroom; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
	Layer 02	fine compact powder, off-white, with paper, white	No Asbestos Detected	
	Layer 03	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0006	Gypsum Wallboard/Joint Compound	Room 203; gypsum wallboard with joint compound		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	paint, off-white with fine compact powder, off-white	No Asbestos Detected	
	Layer 02	fine compact powder, off-white, with paper, white	No Asbestos Detected	
	Layer 03	compact chalky material with paper, white	No Asbestos Detected	
27638.000-0007	Vinyl Floor Tile/Mastic	Janitor 230A; 12"x12" brown vinyl floor tile with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard compact material, brown	No Asbestos Detected	
	Layer 02	mastic, brown	No Asbestos Detected	
	Layer 03	woven material with coating, white	No Asbestos Detected	
27638.000-0008	Vinyl Floor Tile/Mastic	Staff workroom 233; 12"x12" brown vinyl floor tile with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard compact material, brown	No Asbestos Detected	
	Layer 02	mastic, brown	No Asbestos Detected	
	Layer 03	woven material with coating, white	No Asbestos Detected	
27638.000-0009	Vinyl Floor Tile/Mastic	Commons area at room 127; 12"x12" brown vinyl floor tile with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard compact material, brown	No Asbestos Detected	
	Layer 02	mastic, brown	No Asbestos Detected	
	Layer 03	woven material with coating, white	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0010	Vinyl Floor Tile/Mastic	Classroom 232; 12"x12" gray vinyl floor tile with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard compact material, gray	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
	Layer 03	woven material with coating, white	No Asbestos Detected	
27638.000-0011	Vinyl Floor Tile/Mastic	Classroom 106; 12"x12" gray vinyl floor tile with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard compact material, gray	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
	Layer 03	woven material with coating, white	No Asbestos Detected	
27638.000-0012	Vinyl Floor Tile/Mastic	Room 130; 12"x12" gray vinyl floor tile with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard compact material, gray	No Asbestos Detected	
	Layer 02	mastic, tan	No Asbestos Detected	
	Layer 03	woven fibers, white	No Asbestos Detected	
27638.000-0013	Sheet Floor Covering	Commons area at room 205; yellow/orange sheet floor with jute back and gray mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard vinyl, green	No Asbestos Detected	
	Layer 02	mastic, green	No Asbestos Detected	
	Layer 03	woven fibers, brown	No Asbestos Detected	
27638.000-0014	Sheet Floor Covering	Commons area at room 105; yellow/orange sheet floor with jute back and gray mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard vinyl, green	No Asbestos Detected	
	Layer 02	mastic, green	No Asbestos Detected	
	Layer 03	woven fibers, brown	No Asbestos Detected	
27638.000-0015	Sheet Floor Covering	Commons area at room 135; yellow/orange sheet floor with jute back and gray mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	hard vinyl, green	No Asbestos Detected	
	Layer 02	mastic, green	No Asbestos Detected	
	Layer 03	woven fibers, brown	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0016	Mastic		Library; dark gray carpet mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic, black	No Asbestos Detected	
27638.000-0017	Mastic		Classroom 105; dark gray carpet mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic, black	No Asbestos Detected	
27638.000-0018	Mastic		Classroom 136; dark gray carpet mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	mastic, black	No Asbestos Detected	
27638.000-0019	Mastic		Entrance at MDF room; gray and yellow walk-off mat mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, gray/tan	No Asbestos Detected	
27638.000-0020	Mastic		Entrance at room 135; gray and yellow walk-off mat mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, gray/tan	No Asbestos Detected	
27638.000-0021	Mastic		Main entrance; gray and yellow walk-off mat mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	loose particulate, brown/tan	No Asbestos Detected	
27638.000-0022	Covebase/Mastic		Classroom 206; 6" brown base with cream mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	fibrous material, white with mastic, tan	No Asbestos Detected	
27638.000-0023	Covebase/Mastic		Janitor 230A; 6" brown base with cream mastic		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 01	rubbery material, black	No Asbestos Detected	
		Layer 02	fibrous material, white with mastic, tan	No Asbestos Detected	

Code	Material	Location	Results	Lab
27638.000-0024	Covebase/Mastic	Classroom 110; 6" brown base with cream mastic		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	rubbery material, black	No Asbestos Detected	
	Layer 02	fibrous material, white with mastic, tan	No Asbestos Detected	
27638.000-0025	Sink Undercoating	Classroom 232; gray sink undercoat		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate, gray	No Asbestos Detected	
27638.000-0026	Sink Undercoating	Classroom 101; gray sink undercoat		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate, gray	No Asbestos Detected	
27638.000-0027	Sink Undercoating	Classroom 105; gray sink undercoat		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 1	loose particulate, gray	No Asbestos Detected	
27638.000-0028	Lay-in Ceiling Tile	Library workroom; 4'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	loose fibrous material, yellow	No Asbestos Detected	
	Layer 02	fine compact powder, off-white	No Asbestos Detected	
27638.000-0029	Lay-in Ceiling Tile	Main office; 4'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	loose fibrous material, yellow	No Asbestos Detected	
	Layer 02	fine compact powder, off-white	No Asbestos Detected	
27638.000-0030	Lay-in Ceiling Tile	Staff room 122; 4'x4' fiberglass ceiling tile		Eurofins LabCor PDX
	Layer:	**Description:**	**Analysis:**	
	Layer 01	loose fibrous material, yellow	No Asbestos Detected	
	Layer 02	fine compact powder, off-white	No Asbestos Detected	

Code	Material		Location	Results	Lab
27638.000-0031	Duct Sealant		Corridor at room 203; gray duct seam sealant		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	soft compact material, gray	No Asbestos Detected	
27638.000-0032	Duct Sealant		Corridor at room 210; gray duct seam sealant		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	soft compact material, gray	No Asbestos Detected	
27638.000-0033	Duct Sealant		Corridor at room 230A; gray duct seam sealant		Eurofins LabCor PDX
		Layer:	**Description:**	**Analysis:**	
		Layer 1	soft compact material, gray	No Asbestos Detected	

TAB 6

Recommended Response Actions

6.1.1 Material Summary

Known or suspected asbestos-containing building materials are listed below in order of hazard priority. The priorities are established by the accredited inspector(s) and accredited management planner(s). A material may be listed more than once if its location varies and if the assessment criteria also dramatically change.

	Homogeneous Material	Location	Preventative Measure	Response Action
1.	Wall and Ceiling Plaster	Gym/Commons Building	Do not Disturb Establish O&M	Repair Damage Continue O&M
2.	Grout Associated with Ceramic Wall and Floor Tiles	Main Building and Gym Commons Building; Restrooms	Do not Disturb Establish O&M	Continue O&M

Costs of Preventative Measures are estimates that assume that the district will either utilize their own trained personnel or retain a qualified abatement contractor on a district wide contract. Consequently, associated costs such as air monitoring, contractor mobilization and engineering fees cannot be estimated and are not included.

6.2.1 Abatement Summary

Based on the previous material assessments, example abatement projects of specific areas have been defined by the Accredited Management Planner. Abatement costs have been determined for some materials as examples. The school may have other criteria that influence the order, scope and priority of abatement projects. This summary is a guide and not a mandate.

	Homogeneous Material	Location	Removal Cost
1.	Wall and Ceiling Plaster	Gym/Commons Building	$15/SF
2.	Grout Associated with Ceramic Wall and Floor Tiles	Main Building and Gym Commons Building; Restrooms	$15/SF

LF – Linear foot
SF – Square foot

Costs of Preventative Measures are estimates that assume that the district will either utilize their own trained personnel or retain a qualified abatement contractor on a district wide contract. Consequently, associated costs such as air monitoring, contractor mobilization and engineering fees cannot be estimated and are not included.

6.3.1 General Abatement Options

There are four general approaches to asbestos abatement from which the school may choose. The options are Removal, Encapsulation, Enclosure, Operations and Maintenance (O&M) Program. See the definitions below.

Typically, one or a combination of several different options are selected. The health risks associated with asbestos are caused by inhalation of airborne asbestos fibers. Exposure to asbestos fibers has been linked to asbestosis, lung cancer, and other forms of cancer. Cigarette smoking in combination with the exposure to asbestos fibers dramatically increases the likelihood of contracting an asbestos related disease. The four general abatement options attempt to control or minimize airborne asbestos fibers, and are each successful to varying degrees. When used correctly and appropriately, the methods are designed to protect human health and the environment.

In choosing among these abatement options, the school should carefully consider the following:

- Unless asbestos containing materials are removed, there is always the possibility of future fiber release. The action of removing an asbestos material will create a high possibility of fiber release. Consequently, strict controls must be exercised.
- Even if asbestos is removed from part of the building (all exposed locations, for example), it is important to remember that it may remain in other areas (in chases, behind walls and in ceilings, perhaps). In the same way, if one type of asbestos is removed (pipe insulation, for example), many other types of asbestos containing materials may remain in the building.
- Encapsulation of friable acoustical treatment or fireproofing on large surfaces can cause significant fiber release when the first coat of encapsulant is applied. For this reason, surface encapsulation projects require most of the same protections as removal, often making them almost as costly as removal. Much like a painted ceiling, an encapsulated surface may require re encapsulation after five to ten years.
- Because partial removal, encapsulation, and enclosure do not remove all the fiber sources, establishing an Operations and Maintenance Program is an essential part of these alternatives. The Operations and Maintenance Program includes such elements as employee education and training, posted warnings, and regular inspections.

COST CONSIDERATIONS

This report generally considers removal as the recommended option because it represents the largest initial expenditure and most prudent building owners elect to either remove a material immediately or over a phased program. The cost estimates provided anticipate mid-range bids in 2011 dollars. Many variables can affect the cost which have no standard cost guidelines and are thus not included in the cost estimates for this report. Contractor insurance bonding requirements, owner requested change orders, consulting, and engineering fees for providing bid documents, pre bid and abatement conferences, site inspections, and project management can vary from 8 to 15 percent of the abatement costs. Smaller projects have a relatively higher percentage fee.

Other variable costs include relocating building occupants, rescheduling activities, and the time of year for abatement. With schools, most abatement work is scheduled for the summer vacation. This places a peak demand on qualified abatement contractors. It is advisable to plan ahead if the work must be conducted during the summer and cannot be scheduled for evening hours during the school year. An Owner should bid a project in March or April for work scheduled in June, July, or August. This approach allows qualified contractors ample time to plan for their work and anticipate their workload which may save the Owner some money and increase the quality of the work.

Every abatement option has associated cost implications including establishing an effective Operations and Maintenance Program. An O&M Program requires training of personnel, purchase of equipment and supplies, and manpower to implement the program, Unit prices for an O&M Program are provided in Section 2.0, Tab No. 8.

DEFINITIONS

Bridging Encapsulant
Intended to form a continuous membrane coating over the surface of the asbestos containing material. Some rough or porous surfaces are very difficult to cover completely, and encapsulant should always be tested for coverage and adhesion. Substrate should be tested to assure it will support the weight of the encapsulant.

Dry Removal
Asbestos containing materials are removed dry. This method usually releases large numbers of fibers in the work area and is not recommended but may be the only option if very high voltage electrical equipment is present. The local air control authority must be notified prior to the project and must approve the project scope and methods.

Encapsulation
Asbestos containing material is coated with material specifically formulated to prevent fiber release. Encapsulation requires that the material be maintained in good condition, through an Operations and Maintenance Program, and damage could cause future fiber release. Most encapsulants require re application about every five years. Encapsulated materials could be significantly more difficult to remove at a later date. See Penetrating Encapsulant and Bridging Encapsulant.

Enclosure
Asbestos containing material is separated from the general environment by permanent, durable, airtight barriers such as gypsum board walls, ceilings, etc., to protect the material from damage and prevent the release of fibers into the outside air. Covering pipe insulation with a PVC jacket or metal jackets is also an enclosure. This option requires that an Operations and Maintenance Program be established, since fibers could be released if the enclosure is damaged. Enclosure can be used in addition to encapsulation.

Full Isolation
The process of aerodynamically separating an area from all other adjacent areas of a building typically with layers of plastic sheeting and duct tape. The isolated area is under negative pressure through the use of a HEPA exhaust fan. Entry and exit are through a worker decontamination system.

HEPA Exhaust Fan
An exhaust fan unit that contains a High Efficiency Particulate Air (HEPA) filter. The filter is capable of filtering 99.97 percent of particles 0.3 microns or larger. The HEPA filter is typically protected by two or more pre filters.

Modified Isolation
Setting up a full isolation area without installing a full three stage worker decontamination system. Workers should wear protective clothing and respiratory protection. Decontamination typically utilizes a HEPA vacuum. This arrangement is also called Partial Isolation and a Mini Enclosure.

Operations and Maintenance
In areas where asbestos containing materials are present, or after an encapsulation or enclosure project is identified, warnings are posted, periodic inspections are made, and building users are instructed in the hazards of and proper care of asbestos containing materials. Access to areas containing free asbestos fibers is restricted to properly trained employees equipped with adequate respiratory protection and decontamination facilities, and measures are taken to prevent the spread of asbestos fibers to occupied areas of the building.

Penetrating Encapsulant
Designed to soak into the asbestos containing material and bond fibers together to prevent their release. Penetrating encapsulants should always be tested on the material to be encapsulated to see how well they penetrate and bond that specific material.

Preventative Measures
Methods taken to control potential fiber release prior to a material's eventual abatement. These methods generally involve repair, patching, debris clean up and labeling asbestos material. They can also include the setting of policies to minimize impact of a material, such as prohibiting the throwing of basketballs at an asbestos containing surfacing material on a gymnasium ceiling.

Removal
Under carefully controlled conditions, asbestos containing material is removed from the building, placed in sealed containers, and disposed of at an EPA approved burial site. Removal is the only option which assures that fibers will not be released in the future. See Wet Removal and Dry Removal.

Wet Removal
Asbestos containing material is wetted with a removal agent or water that contains a surfactant before it is handled to reduce fiber release.

Worker Decontamination System
A series of three chambers separated by airlocks providing entry and exit into a Full Isolation work area. The first chamber is a clean room where workers change into disposable clothing. The next area is a shower room where workers cleanse themselves after being in the contaminated isolated work area. The third chamber is an equipment room where workers remove their contaminated disposable clothing. Ideally, a separate system is installed for bag handling. The bag handling loadout system is where bags of debris are double bagged and removed for transportation to the waste site.

6.4.1 Recommended Response Actions

Much confusion can arise from defining activities that may be preventative measures, fiber release episodes, or Operations and Maintenance (O&M) activity. The confusion stems from mixing terminology with the AHERA requirements and state requirements. This section will unscramble a perplexing topic.

The first term is "*Preventative Measure*." An AHERA term that describes actions taken to reduce the likelihood of a material becoming damaged. A Preventative Measure can be active, such as repairing pipe insulation, or more passive, such as forming a policy not to throw basketballs at the asbestos-containing gym ceiling. Preventative Measures are the first line of a school defense to present asbestos contamination. Active Preventative Measures must be performed by an individual with at least 16-Hour O&M (Small-Scale Worker) Training. When no material is being removed, no quantity limitations exist. One commonly recommended Preventative Measure is the removal of debris. It is better to interpret though that asbestos debris is a Fiber Release Episode and is consequently subject to different conditions.

The second term is "*Fiber Release Episode*." This AHERA term is defined as the unintentional, unplanned disturbance of asbestos materials. Think of a Fiber Release Episode as an accident. If the accident involves 3 square feet (sq. ft.) or 3 linear feet (lin. ft.) or MORE, a whole crew of accredited people must be involved. A Project Designer must design the clean-up procedures. Full-Scale Workers must conduct the cleanup, and a Full-Scale Worker Supervisor (Competent Person) must be responsible for the worker's actions. Since debris (loose fragments of asbestos materials) is best viewed as a being a Fiber Release Episode, a school district should respond accordingly.

The third term is "*Small-Scale, Short-Duration Activities*." AHERA and the L&I essentially use the same terminology. These are activities of removing small quantities of asbestos material to facilitate a maintenance need. Examples may include removing asbestos packing from leaking valves in order to replace the valves or removing an asbestos-containing ceiling tile to adjust a mechanical control box. Remember that the purpose of the activity is not to remove an asbestos containing material for its own sake, but to remove an asbestos containing material in order to perform a necessary maintenance function. AHERA does not specifically mention a maximum allowed quantity, but the intent is clear that the quantities remain small. It offers suggestions from the ambiguous all the way down to the amount of material that fits in one glove bag, but no upward limitation is specifically mandated.

It is prudent for building owners to adopt a policy for their employees to follow in conducting Operations and Maintenance (small-scale, short duration) work. Limiting their removal to 3 sq. ft. or 3 lin. ft. allows small scale workers to clean up their mess if they fail to do the job correctly and create a "Fiber Release Episode" (an accident). A Fiber Release Episode could occur it they drop an open glove bag or a mini-enclosure collapses. Management could face pressure from employee unions and individual workers for the highest level of training possible. Consequently, it is also strongly recommended that maintenance workers receive the maximum training possible. Not so they can abate a building, but to ensure that the small quantities are removed carefully. To recap:

Terminology	Definition	Maximum Quantity	Training
Preventative Measure	Repair (not removal), policies.	No quantity limit	16-Hour trained worker recommended
Minor Fiber Release Episode	Accident involving fiber release, including debris discovered during survey.	3 Lin. Ft. or 3 Sq. Ft. or LESS	16-Hour trained worker minimum; Full-scale worker recommended
Major Fiber Release Episode	Accident involving fiber release, including debris discovered during survey.	3 Lin. Ft. or 3 Sq. Ft. or MORE	Accredited designer; Full-scale worker abatement supervisor
Small-Scale Short-Duration (Operation and Maintenance)	Project required by maintenance need. Intent of project must not solely be abatement.	40 Lin. Ft. or 80 Sq. Ft. AHERA sets a more conservative policy	16-Hour trained worker minimum; Full-scale worker recommended

New Terminology and parallel federal and state laws can create confusion in tackling a complex subject such as asbestos in buildings. This article has been reviewed by the EPA and is our combined effort to set the record straight.

6.5.1 A Note on Initial Cleaning

A note on initial cleaning: Initial cleaning is not considered to be necessary in these buildings as they are not implementing new management plans but replacing existing ones. Initial cleaning is assumed to have taken place during the implementation of the original management plans in the 1980s. The building inspector did not identify any conditions that would warrant additional initial cleaning.

TAB 7

Response Actions Selected

7.1.1 Selection Guidance

Prior to selecting Preventative Measures and Abatement Projects, the School should carefully review the information submitted. The decisions will be incorporated in the Management Plan, reviewed by the State Governor's designated person, and accessible to the general public. It is important that the school thoroughly understand the implications, advantages, disadvantages, and gravity of their decisions. PBS Engineering + Environmental is always available to address questions. Consulting with others such as the school legal counsel, architect or engineer, safety officer and school board members is advised. Obtaining another professional opinion is also recommended, if desired.

PREVENTATIVE MEASURES

Preventative Measures are the minimum action recommended by PBS Environmental for each located and assessed material to reasonably assure, as much as possible, that a safe building environment is created and/or maintained. The Summary List in Tabs No. 6 and No. 7 are prioritized from the highest concern to the lowest and contains condensed information. To gain a better understanding of each material assessment, it is advised that this report be reviewed in its entirety with particular attention paid to the following sections:

Material Assessments.....Tab No. 5

ABATEMENT PROJECTS

Abatement Projects of logical areas have been defined and prioritized from most concern to the least and generally consider removal only. The Abatement Summary List in Tab 6 contains condensed information. To gain a better understanding of each abatement project, it is advised that particular attention be paid to the following sections:

Assessments.....Tab No. 5

General Abatement Options .....Tab No. 6

SELECTION RATIONALE--PREVENTATIVE MEASURES

Preventative Measures are minimum actions recommended by professionals of an asbestos specialty firm with years of asbestos consulting experience. It may not be prudent to disagree and take lesser action, but it is understood that the recommendations are subjective and open to disagreement. Some reasons that could be cited by the school for disagreeing with recommended Preventative Measures include:

1. The Preventative Measure is overly conservative and lesser action can be taken that would satisfactorily protect human health and environment. (Describe the alternate action to be taken.)
2. The Preventative Measure is not necessary since the material is scheduled to be abated as soon as possible.

SELECTION RATIONALE--ABATEMENT PROJECTS

Once Preventative Measures have been enacted, it is assumed that materials can and will be safely maintained through an effective Operations and Maintenance Program until abatement. To schedule abatement projects, the building owner may use the list below as a guide. The schedule is a tool for decision making and not a mandate. It may be lengthened or shortened as desired by the school. Without other considerations such as planned renovation, change of occupancy, etc. Higher concern materials should be abated prior to moderate or lower concern materials. Phasing of abatement projects over a number of years is a common and prudent approach.

Material Category	Suggested Schedule
Immediate Health Concern	Remove as soon as possible
High Concern	Abate within 2 years
High to Moderate Concern	Abate within 5 years
Moderate Concern	Abate within 10 years
Moderate to Low Concern	Maintain indefinitely
Low Concern	Maintain indefinitely

Due to the subjective nature of defining and prioritizing abatement projects, the school may elect not to schedule the abatement recommendations. Some reasons that could be cited by the school for not scheduling recommended abatement projects include:

1. The school considers removal to be unnecessarily burdensome and will elect to encapsulate (or enclose) the material. The school considers encapsulation (or enclosure) to satisfactorily protect human health and the environment.
2. Once preventative measures are enacted, the school considers any abatement to be unnecessarily burdensome, and maintaining the material will satisfactorily protect human health and the environment. Consequently, the school does not plan to enact an abatement project on the particular material during the life of the building.

7.2.1 Abatement Recordkeeping

ACTION: The Owner and Asbestos Program Coordinator must ensure that all abatement work is conducted safely and within regulatory guidelines.

TRAINING: Accredited Project Designer
Accredited Abatement Worker

FORMS: Use Form A. Keep records of:
- removal, encapsulation and enclosure projects
- major and minor fiber release episodes

For any abatement project or disturbance of asbestos material, whether planned or accidental, you must keep records. Use Form A and keep a copy under this section (TAB 7) in the Management Plans at the school and the administrative office.

In addition, it is advisable to keep complete records of any abatement projects in a separate notebook. Store these records separately, as they can become quite bulky and not conducive to binding in this notebook. These records should include:

A. Project Specifications and/or description of scope of work.

B. Abatement contractors' initial submittals and work plan.

C. All correspondence including pre-abatement meetings, notes, and all inspection reports.

D. All air monitoring results.

E. All disposal receipts.

If you use outside asbestos consultants, they should be able to provide you with procedures to maintain complete abatement project records.

Remember to keep the records for a minimum of three years after the next reinspection and even better--do not throw them away, ever.

ASBESTOS ACTIVITY RECORD
FORM A

ACBM RESPONSE ACTION
ACBM PREVENTATIVE MEASURE
CLEANING
O&M ACTIVITY
FIBER RELEASE EPISODE: Minor or Major

OWNER: _____
BUILDING: _____
LOCATION: _____
DATE:_____ to _____
(start) (stop)

DESCRIPTION OF MEASURE OR ACTION:_____

REASON WHY SELECTED:_____

CONTRACTOR: **(**if used):_____ **IDENTIFICATION NO**.:_____

ADDRESS:_____**CITY**:_____**STATE**:_____**ZIP**:_____

WORKERS USED:

NAME **TRAINING** **IDENTIFICATION NO.**

DISPOSAL OR STORAGE SITE:

NAME: _____

ADDRESS:_____ **CITY**:_____**STATE**:_____**ZIP**:_____

AIR SAMPLING DATA:

DATES:

COLLECTION DATE(S):_____

DESCRIPTION OF LOCATIONS OF SAMPLES: _____
_____
_____

COMPANY/PERSON COLLECTING SAMPLES:

NAME:_____

SIGNATURE:_____

PROJECT DESIGNER:

NAME:_____

IDENTIFICATION NO.:_____

ANALYSIS DATE(S):_____

LABORATORY ANALYZING SAMPLES:_____
ADDRESS:_____
CITY:_____**STATE**:_____**ZIP:**_____

METHOD OF ANALYSIS:_____

PERSON(S) ANALYZING SAMPLES:

NAME:_____

SIGNATURE(S):_____

_____

This signature certifies that this testing lab is enrolled in AIHA PAT program for PCM or is accredited by NVLAP for TEM.

TAB 8

Resources Required

8.1.1 How to Use This Section

The intention of this section is to estimate for budget purposes the resources required to enact the Management Plan. Whether you decide to maintain an ACM in place or schedule a response action these will be a cost of money or manpower to the school.

ABATEMENT COSTS

Tab 6 provides detailed costs of example abatement projects. When you select to implement an abatement project, the figures will provide a mean value for estimating purposes. See TAB No. 6 for a more detailed discussion of General Abatement Options, Cost Considerations, and Definitions.

O&M COSTS

Page 8.2.1 provides an overview of O & M costs for each school. You must review the Inspection Report and determine an A, B, or C cost. See the chart below as a guide for selecting the appropriate cost column.

Building Size	Quantity of Friable Asbestos	O&M Cost Column
Small	Minimal	A
Small	Moderate	A
Small	Extensive	B
Medium	Minimal	A
Medium	Moderate	B
Medium	Extensive	C
Large	Minimal	B
Large	Moderate	C
Large	Extensive	C

MISCELLANEOUS COSTS

Page 8.2.2 provides some rules of thumb for training, reinspection, and other miscellaneous costs.

Use the budget worksheet in this section to help you in determining your expected annual costs.

8.2.1 Resources Required – O&M and Other Costs

COSTS FOR MAINTAINING ASBESTOS IN PLACE

This chart will help schools' budget for an ongoing Operations and Maintenance Program which involves purchasing equipment and training people to maintain a building that has asbestos-containing materials. Columns A, B, and C provide a range to be used based on the size of the building and severity of asbestos assessment. See the chart of this TAB.

INITIAL COST	**A**	**B**	**C**
Training			
2-Hour ($70 per person)	140	420	700
16-Hour ($300 per person)	300	600	1,500
Equipment			
HEPA Vacuum*	900	1,500	2,000
Hand Tools (Miscellaneous Tools)	70	120	180
Tank Sprayer	25	50	75
Respirators (Half-face @ $20; PAPR @ $500)	50	100	300
INITIAL COSTS	**$1,485**	**$2,690**	**$4,755**

ANNUAL COST	**A**	**B**	**C**
Training (Turnover & Retraining Factor)	200	500	800
Disposable Equipment			
Respirator Cartridge ($10/set)	20	60	120
Disposable Suits ($10 each)	10	30	60
HEPA Vac Filters (Prorated)	60	240	480
Glove Bags ($20 each)	40	80	300
Gloves ($5 each)	10	30	60
Bags for Disposal ($2 each)	20	100	200
Encapsulant ($25/gal.)	25	50	125
Miscellaneous (Plastic, Duct Tape, Etc.)	30	60	250
Cleaning Devices (Cloth, Mops)	30	60	250
Dump Fees & Permits	100	200	600
ANNUAL COSTS	**$545**	**$1,410**	**$3,245**

These costs do not reflect in-house labor costs, any fiber release episodes, emergency cleanups, or air monitoring; just general maintenance of buildings with asbestos containing materials.

MISCELLANEOUS COSTS (RULES OF THUMB)

Reinspection Costs:

Reinspection typically costs $800-$1,500 per building when using a third-party consultant. If you train and use your own personnel, it may cost less.

Training: $150 per day of training

Designated Person Training:	1 day	$150
	2 days	$300
	3 days	$450
16-hour O & M Training (2 days)		$275
2-hour Awareness		$85
Inspector (3 days)		$500
Management Planner (2 days)		$400

Other Cost Considerations:

- Periodic Surveillance
- Fiber Release Episodes
- Public Relations

TAB 9

Response Action Schedule

9.1.1 Schedule for Recommended Repairs

For all materials for which the Management Planner has not recommended repairs, repairs should be scheduled as soon as feasible unless otherwise noted.

9.1.2 Schedule for Continuous O&M

For all materials for which the Management Planner has not recommended repairs, ongoing O&M should be established or continue to be implemented per practices outlines in Tab 12.

TAB 10

Periodic Surveillance

10.1.1 Periodic Surveillance

ACTION: Check the condition of the asbestos-containing materials (ACM) at least every 6 months.

TRAINING: None required; O & M or Inspector suggested.

FORM: Use the form included in this Section (Form B).

A well-run asbestos management program must include periodic surveillance of the ACBM. Periodic surveillance is the scheduled observation of asbestos materials to determine if any damage or deterioration occurred since the previous observation. Because much of the ACBM is observed daily by the school staff during normal work and also because many areas are not accessible, slight changes in the condition of the ACBM occurring over time may not be readily apparent.

Some building owners conduct monthly surveillance. AHERA requires surveillance in K-12 schools at no greater that six months intervals, and this is a prudent minimal frequency for any Owner. This periodic surveillance can save the building owner considerable time, money, and embarrassment in the event of ACBM deterioration or damage. Moreover, properly conducted surveillance provides a great deal of comfort to building workers and occupants.

Refer to the assessment sheets under TAB 5 to determine surveillance intervals less than 6 months maximum. The Owner may consider shorter intervals for highly friable and accessible materials.

SURVEILLANCE PERSONNEL
AHERA establishes no training requirements for the persons conducting the periodic surveillance. Any employee or contractor selected by the Asbestos Program Coordinator is allowed to conduct the surveillance. PBS recommends that the observer either take a 16-hour Operations and Maintenance course or a 3-day inspector course. The individual should be knowledgeable of the building's construction, previous inspections and surveillances, generation of records, conditions to be observed, and personal protection. It is the Owner's responsibility to ensure that the surveillance does not cause an exposure or safety problem for the person conducting this activity.

DATA REQUIREMENTS
All areas with ACBM or suspected ACBM must be visually examined in each periodic surveillance. A record of the surveillance date and the person conducting the surveillance, as well as any changes in ACBM conditions, must be recorded. This requires the person to be knowledgeable of earlier ACBM conditions. The records generated by this periodic inspection must be filed in the Management Plan at the Owner's administrative office. It is recommended that the reports to be filed in the administrative office be submitted to the Asbestos Program Coordinator for review.

SURVEILLANCE CONCERNS
The person conducting the periodic surveillance must observe the same major factors that were observed in the original inspection and that were used to assess the material's conditions. The six items to be evaluated are:

- Deterioration of delamination of the materials.
- Physical damage to the material or adjacent areas.
- Water damage of any material in the area.

- Air-stream effects.
- Exposure, accessibility and activity changes.
- Changes in building use.

RECORDKEEPING

File Periodic Surveillance Reports under TAB 10 and utilize the appropriate form (FORM B).

COMMUNICATIONS

Any changes in conditions or notable circumstance should be communicated to the Asbestos Program Coordinator. The updated information is to be included in the Management Plan and in the annual notification letters.

PERIODIC SURVEILLANCE
FORM B

At least every six months these materials should be reviewed for any changes in conditions. The initial conditions are indicated in your Management Plan. Review them carefully and then walk through the building to observe current conditions. Be sure to note both friability and damage for every material by checking the appropriate category. This form is to be kept in the periodic surveillance section and should be utilized anytime you notice a change.

DO NOT TOUCH ASBESTOS-CONTAINING MATERIAL WITHOUT PROPER TRAINING

School District:_____ Date of Observation: _____

School Name: _____ PBS Project No.:_____

MATERIAL	LOCATION	QUANTITY	DAMAGED?	FRIABLE?	CHANGE / COMMENTS
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____
			☐Yes ☐No	☐Yes ☐No	_____

Remarks:

__By: _____

Title: _____

Newly Discovered ACM
Form B1

Occasionally previously unknown ACM or PACM is discovered during routine maintenance or removal projects. These materials are to be reported to the asbestos program manager within 24 hours of discovery. Complete all sections of this form and be sure to identify the type of material, the location and the quantity (your best estimate). This form is to be kept in the periodic surveillance section and should be used anytime you or contractor discovers new ACM/PACM.

DO NOT TOUCH ASBESTOS-CONTAINING MATERIAL WITHOUT PROPER TRAINING

Facility Name: _____

Building: _____

Date of Observation: _____

	Material	Location	Quantity
1.			
2.			
3.			
4.			
5.			

Description of condition:

Remarks:

By: _____ Title: _____

PBS

TAB 11

Reinspections

11.1.1 Reinspections

ACTION: Reinspection is recommended every 3 years.

TRAINING: Accredited Inspector/Management Planner.
Decide if you will train in-house people or not.

FORM: Update management plan using Inspector's report format.

At least once every three years, after the Management Plan is in effect, all buildings should be reinspected by an accredited Inspector. This differs from periodic surveillance and is more comprehensive because material is actually touched to determine friability or change in friability, along with noting assessment criteria such as condition. The reinspection may also include additional samples of suspect material, accessing previously inaccessible areas, and other activities. The person performing these tasks should, at least, be an accredited Inspector. An accredited Management Planner may be necessary to recommend additional actions.

The decisions an LEA must make prior to this reinspection is to either train their in-house staff to perform the reinspection or utilize an outside consultant.

The AHERA-accredited Inspector training course is three days long, with a 50-question exam that must be passed. An AHERA Management Planner training course is an additional two days with another 50-question exam. If a person is presently an accredited Inspector or Management Planner, they must have an annual refresher course to keep their accreditation current.

RECORDKEEPING:
Keep the reinspection form in this TAB section, along with any new data. New sample locations should be noted on copies of the drawings in TAB 5, if applicable, and then filed in this section.

Records of previous reinspection reports, prior to 2023, do not exist.

TAB 12

Operations and Maintenance

12.1.1 O&M General Description

SCOPE: Implement an Operations and Maintenance Program to keep asbestos-containing materials in good condition.

RECOMMENDED TRAINING:
Minimum: 16-hour training for individuals who must disturb asbestos-containing materials.

FORMS: Keep records of all activities.

OPERATIONS AND MAINTENANCE OVERVIEW
An Operations and Maintenance (O & M) Program is required by the AHERA regulations for all school buildings with friable ACBM. It is also considered by PBS, Inc. to be a necessity for any building with only nonfriable ACBM because of the eventual need for repairs and routine or emergency maintenance. It is highly recommended that an Owner implement an O&M Program in a timely manner.

The O & M Program is a set of specific procedures and practices applied to building cleaning, maintenance, renovation, and general operation to maintain the building as free of asbestos contamination as possible. The O & M Program draws heavily on information generated during the inspection process and should remain in effect until all friable and nonfriable asbestos materials are removed from the facility. An excellent description of an O & M Program is found in the AHERA Federal Register. 40 CFR Part 763, Appendix B should be read completely as it is only three pages long and well worth the effort.

Properly enacted, this program will document the building owner's prudence in dealing with asbestos in the building. There are three primary objectives of the O & M Program:
- Clean up and repair existing ACBM
- Minimize future fiber release by controlling access to ACBM
- Maintain ACBM until it is eventually removed

Since by law all ACM must be removed from buildings before demolition, the O & M Program is not a permanent solution, nor is it a means by which full-scale asbestos abatement is accomplished. Rather, material is removed only as necessary for maintaining the building systems. As an example, asbestos-containing insulation may be removed around a leaking steam valve to gain access for repairing the valve as part of an O & M Program. Removing material is allowed and anticipated as an integral part of the O & M Program, but the motivation to remove material must develop from a specific maintenance need. Large abatement projects that require extensive planning and technical expertise are beyond the scope of the O & M Program.

COMPONENTS
Maintaining asbestos in place may be the only affordable option for many building owners. It is a multi-faceted program and involves many parts of this Management Plan. The major components are as follows:
- Periodic surveillance TAB NO. 10
- Specific maintenance and cleaning practices TAB NO. 12
- Medical surveillance TAB NO. 13
- Training employees and workers TAB NO. 14
- Notification and labeling TAB NO. 15
- Recordkeeping TAB NO. 16

Creating and enacting the O & M Program is central to this management plan. Information to accomplish this task is found in this section and through the recommended training courses for the Asbestos Program Coordinator and maintenance workers.

The heart of any asbestos program is the inspection and the inspection documentation. Understand the inspection report and the location of asbestos-containing building materials.

An Operations and Maintenance Program for asbestos materials will highly impact the building's maintenance activities and will involve the cooperation of all maintenance staff members. Once mastered, the procedures will become routine, and the additional burden of asbestos-containing materials will become an accepted practice.

POLICIES

One of the most complicated areas of the AHERA rules is understanding what activities you can or should perform with your own trained staff, short of having everyone trained as a full-scale worker. Consideration should be given to further training over the very minimum as one way to assure competency when conducting activities that impact asbestos. An Owner should set policies that clarify the confusion between State and Federal laws and to reflect the uniqueness of their operation and facilities. Policies should be set with input from many sources such as the Administration, regulatory agencies, legal representative, and outside consultants.

Below are some policy statements that the Owner may consider adopting. Once policy statements are formalized by the Owner, the Asbestos Program Coordinator should ensure that they are written (preferably on Owner letterhead) and distributed for inclusion in this tab for all of the Owner's Management Plans.

1. Example: All maintenance activities shall be by as in-house permit system. The Asbestos Program Coordinator shall sign off that asbestos-containing materials are being properly treated for each remodeling or maintenance project.
2. Example: All removal of ACM greater than 3 SF shall be performed by an outside contractor with their accredited personnel.
3. Example: Other activities for which the Owner will use in-house or outside contractors as follows:

Activities	In—House Consultant	Outside Contractor or Consultant
Special cleaning in proximity to friable ACBM	X	
O & M Activities		X
Fiber Release Episode:		X
Minor (3 SF or LF and less)		X
Major (3 SF or LF and more)		X
Response Actions		X
Training Provider:		X
2-hour Custodial Training		X
2-day Maintenance Training		X
Project Design and Specifications		X
Air Monitoring		X
Abatement Project Management		X

4. Example: The Owner will appoint an asbestos coordinator for each appropriate building to handle building-specific situations. Insert the name on Page 2.1 of TAB 1.

Remember, all of the above policy statements are examples and are not mandated. For an O&M Program to be effective, though, the Owner should adopt policy statements appropriate to their operation.

PERMIT SYSTEM

Minimizing inadvertent disruption of ACBM during maintenance and renovation operations is often one of the most difficult tasks faced by the Asbestos Program Coordinator. Initiating a permit system, where all work orders or requests are funneled through the Asbestos Program Coordinator is a simple yet effective way of controlling disruption of ACM during these activities.

In the permit system, all requests for maintenance/renovation activities (other than emergency responses) are given to the Asbestos Program Coordinator prior to the issuance of a work order to proceed. He or she then checks the building's asbestos records, computerized database, or management plan for information about the presence of ACBM where work is to be performed. The manager should also physically inspect the area in question to ensure records reflect actual conditions.

If no asbestos is present, the work order is issued, and the planned actions can proceed. If small quantities of ACBM are found to be present in the area, the Asbestos Program Coordinator will sign the permit application and equip properly trained maintenance/renovation workers to deal with the ACBM during the operation. In worst-case situations (e.g., large amounts of ACBM), non-critical maintenance/renovation work should be deferred until the ACBM in the area can be abated by an abatement contractor.

RESPIRATOR PROGRAM

A Respirator Program must be established if maintenance personnel are to be trained to remove, encapsulate, or repair asbestos-containing materials or required to enter contaminated areas. The minimum recommended level of training for maintenance personnel involves a two-day course of intensive hands-on education. The details of Respirator Programs will be discussed in depth during that training, but should at least include:

1. A written statement of district policy, including assignment of individual responsibility, accountability, and authority for required activities of the respiratory protection program.
2. Written standard operating procedures governing the selection and use of respirators. Respirator selection (from NIOSH/MSHA approved and certified models) on the basis of hazards to which the works exposed.
3. Medical examination of workers to determine whether or not they may be assigned an activity where respiratory protection is required.
4. User training in the proper use and limitations of respirators (as well as a way to evaluate the skill and knowledge obtained by the worker through training).
5. Respirator fit testing.
6. Regular cleaning and disinfecting of respirators.
7. Routine inspection of respirators during cleaning, and at least once a month and after each use for those respirators designated for emergency use.
8. Storage of respirators in convenient, clean, and sanitary locations.
9. Surveillance of work area conditions and degree of employee exposure (e.g., through air monitoring).

10. Regular inspection and evaluation of the continued effectiveness of the program.

The Respirator Program involves medical testing of personnel who must wear respirators, respirator selection, respirator fit testing, and proper care and maintenance of the respirator. The Respirator Program must be written, and records kept. If the Owner's program requires that a Respirator Program be established, the Asbestos Program Coordinator must be responsible for implementation and adherence to the established procedures.

12.2.1 Fiber Release Episodes

SCOPE: Response to accidental disturbance of friable ACBM.
Minor Fiber Release: 3 SF or LF and less
Major Fiber Release: 3 SF or LF and more

RECOMMENDED TRAINING:
Minor Fiber Release: 16-hour O & M Training
Major Fiber Release: Accredited Project Designer and Accredited Abatement Worker

FORMS: Form A

An accidental disturbance of asbestos material resulting in asbestos fibers being released into the air is considered a Fiber Release Episode. If less than 3 square feet or lineal feet are dislodged it is considered a minor fiber release. If greater than 3 square feet or lineal feet is dislodged, it is a major fiber release. Follow the guidelines below as appropriate.

MINOR FIBER RELEASE EPISODE (LESS THAN 3 SF OR 3 LF)

1. 2 DAY TRAINING. Personnel with a minimum of a 16-hour O & M training course can perform the cleanup.
2. RESTRICT AREA. Immediately restrict access to the area to only those necessary to enact the cleanup. Shut off air handling equipment, if necessary, to prevent fiber dispersal to other areas of the building. Other sources of air movement such as open windows, openings under closed doors, etc. must be considered and dealt with accordingly.
3. WET MATERIAL. The material or debris should be thoroughly wetted and disposed of in labeled and sealed 6-mil plastic bags.
4. CLEAN AREA. Prior to cleaning the horizontal surfaces such as floors, etc., lightly mist the air with amended water. Begin at the high point of the room and end low to the floor. This is to trap airborne asbestos fibers. Allow time for mist to settle. Using a HEPA vacuum and/or wet methods clean the affected area. The area cleaned should extend at least three feet in all directions from locations of obvious debris. Dispose of rags, water, etc. properly.
5. REPAIR. Repair damaged areas with asbestos-free materials. Use the method described in the technical sections.

Note: Determine if episode can recur and institute preventative measures. Consultations with other people within or outside the district may be appropriate. Air monitoring while cleaning up and afterwards may be desired.

MAJOR FIBER RELEASE EPISODE (MORE THAN 3 SF OR 3 LF)

1. RESTRICT AREA. The maintenance staff should immediately restrict access and post warning signs to the area. So as not to exacerbate the situation, trained personnel should enter area only as absolutely necessary. Shut-off air handling system or modify to prevent asbestos fibers from spreading. Other sources of air movement such as open windows, openings under closed doors, etc. must be considered and dealt with accordingly.

2. Design the response action using accredited Project Designer.
3. Accredited full-scale abatement personnel must be used to perform the cleanup.
4. Review nearby materials for inclusion and compare various response options.
5. Execute the response action with proper management and air monitoring.

Notify the local air pollution control and other authorities as necessary. If building occupants are involved and they come in contact with ACMs, stay calm, do not brush material from clothing and avoid trampling material. HEPA-vacuum and wet-wipe clothing and skin. Treat physical injuries requiring immediate first aid before decontamination of individuals and clothing.

FIBER RELEASE OR O & M ACTIVITY?

Much confusion may exist as to the difference between a Fiber Release Episode and an O & M activity. It is a key issue in that only 3 square feet or linear feet of material may be removed by 2-day trained maintenance personnel during a fiber release episode, but no such clearly defined limit exists for an O & M activity. The difference is the motivation for the action taken and the material's condition prior to the activity.

A Fiber Release Episode is accidental damage to friable asbestos material. The damage results in asbestos fibers being released into the air. Some examples would be tradesmen causing damage to a textured ceiling material or school personnel damaging a boiler jacket while moving equipment in the boiler room. The response to these situations would be as described for Fiber Release Episodes.

Removal of ACBM as an O & M activity is motivated by the need to safely maintain a mechanical system or other building component. Examples would be a leaking steam valve insulated with asbestos material or moving asbestos-containing ceiling tiles to gain access to the ceiling space to alter the air handling system. The removal is a precursor to another activity and the material being removed is likely in good condition and thereby not releasing vast quantities of asbestos fibers.

Materials that are excessively damaged and releasing fibers must be encountered using the procedures described as a Fiber Release Episode. Materials that are in generally good condition but must be removed for the purposes of maintaining the building, are addressed as O & M activities.

12.3.1 Conducting O&M Activities

GENERAL GUIDELINES

When trained maintenance personnel are required to remove, encapsulate, or repair friable ACBM in the course of their regular maintenance activities, the following general guidelines should be followed. These guidelines are for planned or emergency disturbance of ACBM resulting from maintenance needs. Prior to the O & M activity, it is assumed that the material is in relatively good shape and does not meet the criteria of a Fiber Release Episode. A Fiber Release Episode is the accidental damage which causes an immediate release of asbestos fibers into the air. Fiber Release response is described in Section 2.0 under this tab. Additional O & M guidelines for the specific materials found in each building are presented in the technical sections that follow.

1. RESTRICT ACCESS. Restrict entry into the area to only those necessary to perform the maintenance project. All personnel in the area must be protected as described in the technical sections. Access may be restricted through physical means or by scheduling.
1. POST SIGNS. Signs must be posted at all reasonable points of entry into the affected work area to prevent entry by unauthorized persons.
2. SHUT OFF AIR HANDLERS. The building's air handling system must be shut off or modified to prevent air movement which could carry fibers outside of the affected work area. Other sources of air movement such as open windows, openings under closed doors, portable fans, etc., must be considered and dealt with accordingly.
3. USE PROPER WORK PRACTICES. Trained personnel must use good work practices such as wet methods, HEPA exhaust fans, mini-enclosures, glove bags, etc. to inhibit the spread of released fibers. The technical sections describe the appropriate procedures.
4. CLEAN AREA. After the necessary disturbance of the ACBM, the fixtures, components and surfaces in the immediate and affected area should be HEPA vacuumed or wet cleaned.
5. DISPOSE OF DEBRIS. Asbestos debris, used glove bags, contaminated rags, etc. must be placed in sealed, leak-tight containers or 6-mil plastic bags. The bags and containers must be properly labeled. Dispose of at an approved landfill.

The following methods of personnel protection are referenced in the technical sections. Only trained personnel with proper medical approval and fit test can wear respirators. All respirators must be approved by NIOSH/MSHA (United States Department of Health, Education and Welfare, Center for Disease Control, National Institute for Occupational Safety and Health; and United States Department of Labor, Mine Safety and Health Administration) and be equipped with HEPA filter disposable cartridges (magenta/purple color code). It is assumed that adequate oxygen supply is present in the work area as none of the respirators listed supply additional air to the wearer. The HEPA cartridges filter minute dust particles and are not effective for filtering organic vapors, paint mists, etc.

Level	Respirator	Protective Clothing
One	Half-face negative pressure	Disposable rubber gloves
Two	Half-face negative pressure	Disposable rubber gloves Single layer disposable coveralls (Tyvek)
Three	Half-face negative pressure	Disposable rubber gloves Double layer disposable coveralls (Tyvek)

Four	Full-face powered air-purifying	Disposable rubber glove Double layer disposable coveralls (Tyvek)

PERSONAL DECONTAMINATION PROCESS

After completion of the maintenance activity, the worker must properly decontaminate. The process is generally the same for all Protection Levels. The worker should follow the steps below as appropriate to the level of protection.

1. HEPA-vacuum outer layer of Tyvek coveralls. Carefully remove, turning coveralls inside out.
2. HEPA-vacuum inner layer of Tyvek coveralls. Carefully remove, turning coveralls inside out.
3. Carefully remove rubber gloves, turning gloves inside out.
4. Dispose of coveralls, gloves and other contaminated items in 6- mil plastic bags properly labeled and leak tight.
5. Wash hands, face and other exposed skin.
6. Remove respirator and clean. Detach cartridges and dispose.

COMMON MATERIALS AND DEFINITIONS

1. Amended Water: Clean potable water containing a surfactant additive. The surfactant additive shall be 50 percent polyoxyethylene ether and 50 percent polyethylene ester, or equivalent, and shall be mixed with water at a concentration of one ounce surfactant to 5 gallons of water, or as recommended by the manufacturer in the case of an equivalent.
2. Disposal Containers: Disposal containers shall be suitable to receive and retain any asbestos containing or contaminated materials until disposal at an approved site. The containers shall be labeled in accordance with OSHA and EPA regulations. Containers must be both air and watertight, and have hard top, bottom and sides. Steel or fiberboard are acceptable materials.
3. Encapsulants: Encapsulants shall be of the bridging or penetrating variety and shall be listed as "satisfactory" by the EPA.
4. Glove Bag: A manufactured device consisting of a transparent plastic bag with inward projecting sleeves, an internal tool pouch, provisions for fastening and sealing at the top and sides, and a receptacle in the bottom to hold asbestos waste. The glove bag is installed to surround the material to be removed and contain all fibers released during the process. Glove bags are used to remove insulation from small sections of pipe and fittings.
5. HEPA Filter: A High Efficiency Particulate Air (absolute) filter capable of trapping and retaining 99.97 percent of asbestos fibers greater than 0.3 microns in length.
6. HEPA Vacuum Equipment: High Efficiency Particulate Air (absolute) filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97 percent efficiency for retaining fibers of 0.3 microns in length or larger.
7. HEPA Fan Unit: An air-purifying fan which draws air through a HEPA filter.
8. Mini Enclosure: A small temporary enclosure of 6-mil plastic sheeting constructed around a work area to contain airborne asbestos fibers. Attached to the mini enclosure is a three foot by three-foot plastic chamber to be used for decontamination purposes.

9. Plastic Bags: Plastic bags shall be 6-mil polyethylene printed with warning labels per OSHA and EPA regulations.
10. Rewettable Lagging Cloth: 12-oz. glass fabric lagging cloth saturated with dried lagging adhesive. "Dip-Lap" as manufactured by Claremont Co. or equivalent.
11. Tack Coat: A coat of penetrating encapsulant applied to all surfaces from which asbestos-containing materials have been removed.
12. Warning Labels and Signs: Warning labels and signs shall be posted as required by OSHA and EPA regulations.
13. Wet Cleaning: The process of eliminating asbestos from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with amended water.

DISPOSAL

The Operations and Maintenance Program will intermittently generate small quantities of asbestos debris and contaminated waste. It may not be feasible to transport the waste directly to an approved landfill at the time the waste is generated. Consequently, the Asbestos Program Coordinator should establish an area to safely store disposal bags prior to transport to the landfill.

The area should be securely locked, inaccessible to non-maintenance personnel, and directly open to the outside if possible. Used disposal bags must be double bagged, kept sealed and should be stored in a labeled steel or fiberboard drum. Once a bag is sealed, it should not be reopened. This allows reuse of the drum container if the outer bag of double-bagged waste remains undamaged. If the bags are damaged the drum container must also be disposed as contaminated waste unless it can be effectively cleaned. The landfill dump receipt and other records should be kept as part of the recordkeeping process and a summary of those activities kept in all of the Management Plans.

Contaminated water must either be double bagged as asbestos waste or passed through a HEPA water filtration device. If cleansed through a filtration device the water may be disposed through the building's plumbing system.

ASBESTOS ACTIVITY RECORD
FORM A

ACBM RESPONSE ACTION
ACBM PREVENTATIVE MEASURE
CLEANING
O&M ACTIVITY
FIBER RELEASE EPISODE: Minor or Major

OWNER: _____
BUILDING: _____
LOCATION: _____
DATE:_____ to _____
(start) (stop)

DESCRIPTION OF MEASURE OR ACTION:_____

REASON WHY SELECTED:_____

CONTRACTOR: **(**if used):_____ **IDENTIFICATION NO**.:_____

ADDRESS:_____**CITY**:_____**STATE**:_____**ZIP**:_____

WORKERS USED:

NAME **TRAINING** **IDENTIFICATION NO.**

DISPOSAL OR STORAGE SITE:

NAME: _____

ADDRESS:_____ **CITY**:_____**STATE**:_____**ZIP**:_____

AIR SAMPLING DATA:

DATES:

COLLECTION DATE(S):_____

DESCRIPTION OF LOCATIONS OF SAMPLES: _____
_____
_____

COMPANY/PERSON COLLECTING SAMPLES:

NAME:_____

SIGNATURE:_____

PROJECT DESIGNER:

NAME:_____

IDENTIFICATION NO.:_____

ANALYSIS DATE(S):_____

LABORATORY ANALYZING SAMPLES:_____
ADDRESS:_____
CITY:_____**STATE**:_____**ZIP:**_____

METHOD OF ANALYSIS:_____

PERSON(S) ANALYZING SAMPLES:

NAME:_____

SIGNATURE(S):_____

_____

This signature certifies that this testing lab is enrolled in AIHA PAT program for PCM or is accredited by NVLAP for TEM.

Maintenance Work Authorization Form
Form D2

Authorization

Authorization is given to proceed with the following maintenance work:

_____

_____

_____

Presence of Asbestos-Containing Materials

☐ Asbestos-containing materials are not present in the vicinity of the maintenance work.

☐ ACM is present, but its disturbance is not anticipated; however, if conditions change, the Asbestos Program Manager will re-evaluate the work request prior to proceeding.

☐ ACM is present, and may be disturbed.

Work Practices If Asbestos-Containing Materials Are Present

The following work practices shall be employed to avoid or minimize disturbing asbestos:

_____

_____

_____

Personal Protection If Asbestos-Containing Materials Are Present

The following equipment/clothes shall be used/worn during the work to protect workers:

_____

_____

Special Practices and/or Equipment Required:

_____

_____

Signed: _____ Date: _____
(Asbestos Program Manager)

PBS

Notification Letter 1
Contractors or Prospective Contractors

Dear Mr./Ms. _____:

Federal Occupational Safety and Health Administration (OSHA) regulations require building owners to notify prospective contractors who may perform work, and contractors who perform work in this facility, that asbestos containing materials are found throughout the building. We are required to convey the type, location and quantity found in your building according to OR-OSHA 1926.1101. A compiled list of the asbestos containing materials are found in the following document.

TYPE	LOCATION	QUANTITY

Before engaging in construction, repair or maintenance activities you are required to determine if asbestos is present in the materials which will be disturbed. You are to consult the building O&M Program for guidance regarding the required asbestos construction, repair and maintenance work practices. Any asbestos contamination which results from failure to follow procedures in the O&M Program will be the responsibility of the contractor to resolve. It is your responsibility to insure that your employees and any subcontractors you employ are notified about the conditions, procedures and requirements for working with asbestos containing materials in this building including proper training.

Your cooperation is essential for the success of this program. Questions or concerns you may have regarding asbestos-containing materials should be directed to _____, Property Manager at_____.

Sincerely,

Optional Acknowledgment

Please return a signed copy of this letter to acknowledge your understanding of the asbestos control program in this building and your intent to comply with this program.

Name:_____ Date: _____

Signature:_____ Title: _____

Company:_____

TAB 13

Medical Surveillance

13.1.1 Medical Surveillance

ACTION: Anyone who is trained to wear a respirator must have a medical exam.

FORMS: Records must be kept.

MEDICAL MONITORING
The school must establish a medical monitoring program for all employees who work in atmospheres containing more than 0.1 fiber per cubic centimeter [f/cc] during an eight-hour time-weighted average, or for any employees who wear a respirator under both OSHA and EPA work rules. For LEAs, this means all employees who receive the additional 14 or the 24 hours of training or other certified worker training and are expected in any way to handle ACBM. As for the asbestos management program as a whole, the reasons for this medical monitoring are (1) to protect employees, (2) comply with regulatory requirements, and (3) minimize the owner's liability.

A sound medical monitoring program will allow the building owner to comply with both OSHA and EPA regulatory requirements, establish the individual worker's fitness to perform the work, monitor a worker's related respiratory functions, and minimize the owner's long-term liabilities. This section briefly describes the medical exam requirements and provides example forms for recordkeeping.

EXAMINATION REQUIREMENTS
All persons who will contact ACBM in their work must have a medical exam under OSHA 1910.1001 and OSHA 1926.58, and in EPA 40CFR 763.91[B]. The specific physical is more inclusive than the normal physical and should be performed by a qualified physician. Required are a chest x-ray, medical history (especially respiratory problems), and pulmonary-function testing (including forced vital capacity and forced expiratory volume). The employer must provide the employee with a medical exam within 30 days of his employment, or before the employee can use a respirator. Exams are to be conducted yearly and at the termination of employment.

The employer must provide the results of the exam to the employee, together with an explanation of the findings. In addition, the physicians may not reveal any non-asbestos related findings to the employer. It is critical that the records be maintained so that changes in the employee's respiratory capacity or chest X-ray results can be evaluated.

RECORDKEEPING
Employer must keep the records of all medical examinations for a minimum of 30 years, after the termination of the employee's employment. Examples of a medical surveillance record form and example forms for examinations and pulmonary history data are included in this section. Track employees hire date and the dates of their exams.

PURPOSE OF THE SPECIFIC TEST
Physical Examination. The physician should obtain the medical history and conduct an examination of blood pressure, pulse, vision, and hearing, plus urinalysis.

Chest X-Rays. Irregularities in the lungs that may indicate previous asbestos or dust exposure can be revealed by X-ray, and as effects of smoking and other factors that may indicate early phases of respiratory diseases or an inability to wear a respirator. The X-rays should be interpreted by a physician classified as a "B Reader" (a

recognized authority in reading chest X-rays) or by an experienced physician. It is recommended that the employer use B Readers.

Pulmonary Functions. The pulmonary-function test evaluates whether the lungs are performing normally and whether air flow into and out of the lungs is adequate. Although the tests are usually nonspecific initially, changes in capacities are monitored from exam to exam, and long-term changes (if any) can be observed.

Pulmonary History. Obtaining pulmonary history establishes whether the person has had previous respiratory problems and determines if he or she is a smoker. Both can affect the ability to wear a respirator and the synergistic effects of smoking and asbestos exposure need to be pointed out to the employee. Often, smokers are not allowed to work with asbestos.

RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE

To the employer: Answers to questions in Section 1, and to question 9 in Section 2, do not require a medical examination.

To the employee: Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Section 1 (OSHA Part A): The following information must be provided by every employee who has been selected to use any type of respirator. **Please print.**

1. Your name: _____ Employee ID # _____
2. Today's date: _____ DOB _____
3. Your age (to nearest year): _____
4. Gender (circle one): Male Female
5. Your height: _____ ft. _____in.
6. Your weight: _____ lbs.
7. Your job title: _____
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): _____
9. The best time to phone you at this number: _____
10. Has your employer told you how to contact the health care professional who will review this questionnaire?
    ☐ **yes** ☐ **no**
11. Check the type of respirator you will use (you can check more than one category):
    a. _____N, R, or P disposable respirator (filter-mask, non-cartridge type only).
    b. _____Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
12. Have you worn a respirator before? ☐ **yes** ☐ **no**
13. If "yes," what type(s)? (not brand name)_____

Section 2 (OSHA Part A): Questions 1 through 9 below must be answered by **every employee** who has been selected to use **any type** of respirator. Please check "yes" or "no".

1. ☐ **yes** ☐ **no** Do you ***currently*** smoke tobacco, or have you smoked tobacco in the last month?

2. Have you ***ever had*** any of the following conditions?

a. ☐ **yes** ☐ **no** Seizures (fits)
b. ☐ **yes** ☐ **no** Diabetes (sugar disease)

c. ☐ **yes** ☐ **no** Allergic reactions that interfere with your breathing
d. ☐ **yes** ☐ **no** Claustrophobia (fear of closed-in places)
e. ☐ **yes** ☐ **no** Trouble smelling odors

3. Have you ***ever had*** any of the following pulmonary or lung problems?
a. ☐ **yes** ☐ **no** Asbestosis
b. ☐ **yes** ☐ **no** Asthma
c. ☐ **yes** ☐ **no** Chronic bronchitis
d. ☐ **yes** ☐ **no** Emphysema
e. ☐ **yes** ☐ **no** Pneumonia
f. ☐ **yes** ☐ **no** Tuberculosis
g. ☐ **yes** ☐ **no** Silicosis
h. ☐ **yes** ☐ **no** Pneumothorax (collapsed lung)
i. ☐ **yes** ☐ **no** Lung cancer
j. ☐ **yes** ☐ **no** Broken ribs
k. ☐ **yes** ☐ **no** Any chest injuries or surgeries
l. ☐ **yes** ☐ **no** Any other lung problem that you've been told about

4. Do you ***currently*** have any of the following symptoms of pulmonary or lung illness?
a. ☐ **yes** ☐ **no** Shortness of breath
b. ☐ **yes** ☐ **no** Shortness of breath when walking fast on level ground or walking up a slight hill or incline
c. ☐ **yes** ☐ **no** Shortness of breath when walking with other people at an ordinary pace on level ground
d. ☐ **yes** ☐ **no** Have to stop for breath when walking at your own pace on level ground
e. ☐ **yes** ☐ **no** Shortness of breath when washing or dressing yourself
f. ☐ **yes** ☐ **no** Shortness of breath that interferes with your job
g. ☐ **yes** ☐ **no** Coughing that produces phlegm (thick sputum)
h. ☐ **yes** ☐ **no** Coughing that wakes you early in the morning
i. ☐ **yes** ☐ **no** Coughing that occurs mostly when you are lying down
j. ☐ **yes** ☐ **no** Coughing up blood in the last month
k. ☐ **yes** ☐ **no** Wheezing
l. ☐ **yes** ☐ **no** Wheezing that interferes with your job
m. ☐ **yes** ☐ **no** Chest pain when you breathe deeply
n. ☐ **yes** ☐ **no** Any other symptoms that you think may be related to lung problems

5. Have you ***ever had*** any of the following cardiovascular or heart problems?
a. ☐ **yes** ☐ **no** Heart attack
b. ☐ **yes** ☐ **no** Stroke
c. ☐ **yes** ☐ **no** Angina
d. ☐ **yes** ☐ **no** Heart failure
e. ☐ **yes** ☐ **no** Swelling in your legs or feet (not caused by walking)
f. ☐ **yes** ☐ **no** Heart arrhythmia (heart beating irregularly)
g. ☐ **yes** ☐ **no** High blood pressure
h. ☐ **yes** ☐ **no** Any other heart problem that you've been told about

6. Have you ***ever had*** any of the following cardiovascular or heart symptoms?
a. ☐ **yes** ☐ **no** Frequent pain or tightness in your chest
b. ☐ **yes** ☐ **no** Pain or tightness in your chest during physical activity
c. ☐ **yes** ☐ **no** Pain or tightness in your chest that interferes with your job
d. ☐ **yes** ☐ **no** In the past two years, have you noticed your heart skipping or missing a beat
e. ☐ **yes** ☐ **no** Heartburn or indigestion that is not related to eating
f. ☐ **yes** ☐ **no** Any other symptoms that you think may be related to heart or circulation problems

7. Do you ***currently*** take medication for any of the following problems?

a. ☐ **yes** ☐ **no** Breathing or lung problems
b. ☐ **yes** ☐ **no** Heart trouble
c. ☐ **yes** ☐ **no** Blood pressure
d. ☐ **yes** ☐ **no** Seizures (fits)

8. If you've used a respirator, have you ***ever had*** any of the following problems?
(If you've **never used** a respirator, check here ☐ and go to question 9)

a. ☐ **yes** ☐ **no** Eye irritation
b. ☐ **yes** ☐ **no** Skin allergies or rashes
c. ☐ **yes** ☐ **no** Anxiety
d. ☐ **yes** ☐ **no** General weakness or fatigue
e. ☐ **yes** ☐ **no** Any other problem that interferes with your use of a respirator

***Note:* If you answered YES to any of questions 1 – 8 in Section 2, you must also complete Section 3.**

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire? ☐ yes ☐ no

Questions 10 to 15 below must be answered by **every employee who has been selected to use either**

- **a full-facepiece respirator** *or*
- **self-contained breathing apparatus (SCBA)**.

10. ☐ **yes** ☐ **no Have you ever lost** vision in either eye (temporarily or permanently)

11. Do you currently have any of the following vision problems?

a. ☐ **yes** ☐ **no** Wear contact lenses:
b. ☐ **yes** ☐ **no** Wear glasses:
c. ☐ **yes** ☐ **no** Color blind:
d. ☐ **yes** ☐ **no** Any other eye or vision problem

12. ☐ **yes** ☐ **no Have you ever had** an injury to your ears, including a broken ear drum

13. Do you currently have any of the following hearing problems?

a. ☐ **yes** ☐ **no** Difficulty hearing:
b. ☐ **yes** ☐ **no** Wear a hearing aid:
c. ☐ **yes** ☐ **no** Any other hearing or ear problem:

14. ☐ **yes** ☐ **no Have you ever had** a back injury?

15. Do you currently have any of the following musculoskeletal problems?

a. ☐ **yes** ☐ **no** Weakness in any of your arms, hands, legs, or feet:
b. ☐ **yes** ☐ **no** Back pain:
c. ☐ **yes** ☐ **no** Difficulty fully moving your arms and legs:
d. ☐ **yes** ☐ **no** Pain or stiffness when you lean forward or backward at the waist:
e. ☐ **yes** ☐ **no** Difficulty fully moving your head up or down:
f. ☐ **yes** ☐ **no** Difficulty fully moving your head side to side:
g. ☐ **yes** ☐ **no** Difficulty bending at your knees:
h. ☐ **yes** ☐ **no** Difficulty squatting to the ground:

i. ☐ **yes** ☐ **no** Climbing a flight of stairs or a ladder carrying more than 25 lbs:
j. ☐ **yes** ☐ **no** Any other muscle or skeletal problem that interferes with using a respirator:

Section 3 (OSHA Part B): **Complete this section if you answered YES to any part of questions 1 - 8 in section 2.** Consult your supervisor if necessary before answering the following questions:

1. **How often** are you expected to use the respirator(s)?

   a. Escape only (no rescue): ☐Yes ☐No
   b. Emergency rescue only: ☐Yes ☐No
   c. Less than 5 hours per week: ☐Yes ☐No
   d. Less than 2 hours per day: ☐Yes ☐No
   e. 2 to 4 hours per day: ☐Yes ☐No
   f. Over 4 hours per day: ☐Yes ☐No

2. **During the period you are using the respirator**, is your work effort:

   a. Light (less than 200 kcal per hour): ☐Yes ☐No
   If "yes," how long does this period last during the average shift: _____hrs. _____mins.
   Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

   b. Moderate (200 to 350 kcal per hour): ☐Yes ☐No
   If "yes," how long does this period last during the average shift: _____hrs. _____mins.
   Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

   c. Heavy (above 350 kcal per hour): ☐Yes ☐No
   If "yes," how long does this period last during the average shift: _____hrs. _____mins.
   Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

3. **Will you be wearing** protective clothing and/or equipment (other than the respirator) when you're using your respirator? ☐Yes ☐No (If "yes," describe this protective clothing and/or equipment:)

_____

4. **Will you be working** under temperature extremes during respirator use (check all that apply)
   ☐ <0ºF ☐ 0 to 32 º F ☐ 77 to 90 º F ☐ > 90 º F

5. **Will you be working** under dry (< 30% relative humidity) or humid (> 70% RH) conditions?
   ☐Yes ☐No (circle appropriate condition)

6. **Describe the work** you'll be doing while you're using your respirator(s):

_____

_____

_____

TAB 14

Training

14.1.1 AHERA Training Requirements

ACTION: You must train your custodian and maintenance employees. Prior to the start of the O & M Plan, there is a 2-hour awareness training and 14 additional hours of training for workers who may come in contact with asbestos.

FORM: Form C

EMPLOYEE AND WORKER TRAINING
Training workers to use special procedures and work practices is a key to a successful asbestos management program. The training requirements differ between OSHA and AHERA, and various state training programs will differ. See the chart after Page 1.3.

All LEA maintenance and custodial staff, as well as contract workers, who work in a building containing ACBM are required to receive at a minimum a 2-hour awareness training seminar. Any of these workers who will disturb ACBM must receive an additional 14 hours of training. Workers engaged in large-scale, long-duration ACBM activities in K-12 schools must receive 24 hours of training and become "Accredited Asbestos Workers". They must also receive an annual 8-hour refresher course. In Washington State the training program is 30 hours for "Accredited Workers".

The time intervals for the awareness education and 14 hours additional training of the employees are not specified by EPA regulations. However, it is highly recommended that both the two-hour awareness seminar and the additional 14 hours of training be given annually. All employees must receive the 2-hour awareness training within 60 days of beginning work or, if they will come into contact with ACBM, before they begin their activities. Intervals should be checked for compliance with state and local rules and regulations. Many private companies and LEAs have all workers who contact ACBM attend the 24-hour training to provide the highest level of worker training. A sample employee training records form is included in this section.

LEA DESIGNATE
The local Education Agency designated person (asbestos program manager) is the responsible person on behalf of the school to ensure that the management plan and the AHERA rules are followed and, even more importantly, to protect the health of the building occupants and the environment.

Every LEA must designate a person and train them with the basic knowledge of the following:
- Health effects of asbestos
- Detection, identification, and assessment of asbestos-containing materials
- Options for controlling asbestos containing building materials
- Asbestos management programs
- State and Federal regulations

There is no approved course or length of training set by the EPA. Some people are of the opinion that the LEA designate should take a 5-day Accredited Inspector/Management Planner course. This is the highest level of accredited training for non-workers. Because the LEA designate is the most responsible party in the asbestos management process, taking this course when available makes sense. There are 3-day courses to train LEA designates and even 1-day courses.

TWO-HOUR AWARENESS TRAINING

The required LEA 2-hour awareness training program should include the information given to the occupants for the general information sessions and mailings and should include:

- Uses and forms of ACBM
- Health effects of asbestos
- Location of ACBM in building
- Recognition of problems such as damage, deterioration, or delamination of ACM
- Name and telephone number of the APM
- General understanding of the asbestos management program
- Overview of work practices and procedures to be followed by personnel who will contact ACBM

WORKERS WHO CONTACT ACBM

All employees and contract personnel who contact ACBM through cleaning maintenance or emergencies must have at least an additional 14 hours of training (16 hours total). Three types of training for workers who contact ACBM can be identified:

- Training for custodians involved in cleaning and simple maintenance tasks
- Training for maintenance workers involved in general maintenance and more complex repair tasks
- Training for workers who may conduct limited asbestos abatement (removal, enclosure, and encapsulation) or whose work involves direct (intentional) contact with ACBM

All three types of training should include general discussions of the uses and health effects of asbestos, the location of ACBM in the building, the overall asbestos control program, and the asbestos management program.

The additional 14-hour training program should also include:

- Physical characteristics of asbestos
- Methods and procedures for handling and disposing ACBM
- Medical monitoring and surveillance requirements
- Personal protection, including respiratory protection and protective clothing
- Working knowledge of the asbestos management program, including safety, access, and reinspection
- Equipment availability and uses including wet cleaning, HEPA vacuuming, steam cleaning, etc.
- Hands-on training in use of respirators, personal protection, work practices, and fiber control.
- Importance of recordkeeping and employee record generation requirements
- Requirements for clearing work-order through the APM for of all renovation and ACBM disturbance activities
- Non-asbestos safety considerations
- Training and licensing requirements by state and local agencies

ACCREDITED ASBESTOS WORKER TRAINING

The training requirement for an accredited asbestos worker includes a 24-hour, or three-day course. The course should include lectures, demonstrations, at least six hours of hands-on training, individual respirator fit-testing, course review, and an examination. EPA recommends the use of audio-visual materials to complement lectures where appropriate.

The training course should adequately address the following:

- Physical characteristics of asbestos
- Potential health effects related to asbestos exposure
- Employee personal protective equipment

- State-of-the-art work practices
- Personal hygiene
- Addition safety hazards
- Medical monitoring
- Air monitoring
- Relevant federal, state, and local regulatory requirement, procedures, and standards.
- Establishment of respiratory protection programs
- Course review

The worker must receive a passing grade of 70 percent on an examination with 50 multiple-choice questions.

TEACHING QUALIFICATIONS

The 2- and 14-hour training programs can be conducted by any qualified person trained in asbestos control and management. The EPA stresses the use of the most qualified people available. The 24-hour training program for workers must be an EPA-accredited training course. A sample form for recording individual worker training is included in this section.

CONTRACT SERVICES

Where custodial and maintenance services are performed under contract with a service company, the building owner must ensure that the service company's staff has been properly trained for working with ACBM. Training will include successful completion of courses on asbestos control and special programs that meet the requirements for the LEA staff discussed above. The company's respirator and medical surveillance programs should be reviewed. In addition, the company performance should be verified with other customers, particularly owners of buildings containing ACBM.

If the service company meets the training and performance requirements, an initial session should be held with the company's supervisors and workers to inform them of the location of ACBM in the building and of all building-specific operating procedures. The APM assumes responsibility for ensuring that the service company adheres to all aspects of the asbestos management program.

RECORDKEEPING

Utilize the form included in this section for keeping training records. Store them under this TAB section.

AHERA TRAINING REQUIREMENTS

Training Course	Length	Course Approval					Refresher Course
		None	AHERA	OR	WA	AK	
LEA Designate	1-3 days	X					Recommended
Custodian Awareness	2-hour	X					Recommended
Maintenance Worker (Small Scale)[1]	16-hour	X[1]		X	--[6]		Recommended
Inspector	3 days		X	--	--	--	Required Annually
Management Planner	2 days[2]		X	--	--	--	Required Annually
Asbestos Worker (Full Scale)	3 days or 4 days[3]			X[5]	X[5]	X[5]	Required Annually
Asbestos Supervisor (Competent person)	4 days				X[5]	X[5,7]	Required Annually
Project Designer[4]	3 days		X	--	--	--	Required Annually

Notes:

1. Oregon Classification: other states approval is not required
2. Must be an inspector prior to becoming a planner
3. 3 days Oregon, 4 days Washington and Alaska
4. Competent person training can be substituted for project designer
5. State approval is AHERA approval
6. Small scale worker not recognized. Anyone impacting asbestos must be a full-scale worker.
7. Washington certification to start in January 1989

TRAINING RECORD
FORM C

☐ LEA DESIGNATE
☐ 2-HR. AWARENESS
☐ 16-HR. MAINTENANCE
☐ OTHER_____

School District:_____
School Name:_____

Name:_____

Address:_____

City, State, Zip:_____

Job Title:_____

Training Course:_____

Training Course Location:_____

Training Course Provider:_____

Training Course Description:_____

Length:_____

Instructor: _____

Accreditation Number (if applicable):_____

TAB 15

Plan Distribution/Notification

15.1.1 Plan Distribution/Notification

ACTION: Send an annual notification to parent, teacher, and employee organizations.
Short-term workers must be informed as to the location of ACBM in the school building.

FORMS: Sample letters are included in this section.

AHERA requires that the LEA notify all building occupants, workers, contractors, and parents or legal guardians of school children. There are three key elements to the Notification program: Initial Notification, Annual Notification and Short-Term Worker Notification. The AHERA Initial and Annual Notification must include a discussion of:

- Inspections
- Reinspections
- Surveillance
- Response actions
- Pos-response action activity
- Availability of management plans

The LEA designate can realize benefits from the notification program because informed occupants are less likely to disturb the material and will report problem situations.

Contract workers (short-term) who will come in contact with ACBM during their work must be informed of the presence of ACBM. In addition, under various right-to-know laws, all workers must be informed of the potential for contact with hazardous materials such as asbestos.

INITIAL NOTIFICATION OF THE MANAGEMENT PLAN AVAILABILITY
At the implementation of the Management Plan, notification to parent, teacher, and employee organization of the availability of the plan is to be enacted. Enclosed is a list of steps that are to be taken to provide adequate notifications.

Sample Letter A can be used as an outline for this notification.

ANNUAL NOTIFICATION
On an annual basis the parent, teacher, and employee organizations shall receive notification reiterating the availability of the plan and other asbestos activities that will occur or have occurred. The annual notification is included in the steps to be taken.

Sample Letter B can be used as an outline for this notification.

NOTIFICATION PROCESS
The Initial and Annual Notification should follow these procedural steps:

Step 1: Notify in writing the president of the parent, teacher, and employee organizations about the availability of the management plan. This is to be done when the plan is submitted to Governor's designate (October 1988).

Step 2: If in the event there are no organizations for either parent, teachers, or employees, other logical information devices will be used. A newspaper notice is an acceptable media to comply to the AHERA rules.

Step 3: The notification will explain the location and availability of the management plan, at no cost to review, and how to receive a copy (i.e., $.10 per page or $10 per copy). A summary of each school inspection report may be included in the letter initially and annually if desired.

Step 4: The notification will include all response actions scheduled, all response actions previously undertaken in the past calendar year, notice of inspections, periodic surveillance and other pertinent asbestos management activities that are planned or in progress.

Step 5: Recordkeeping: A dated copy of each notification is to be kept. In addition, a signed receipt from a certified letter should be kept (optional). Keep all records under TAB 15.

SHORT-TERM WORKER NOTIFICATION

Information regarding the location of ACBM must be provided for all short-term workers who come into the building according to the AHERA Final Rules. To comply to this requirement, the LEA should inform all short-term workers that the management plan must be reviewed prior to working in the building.

This can be accomplished by the following:

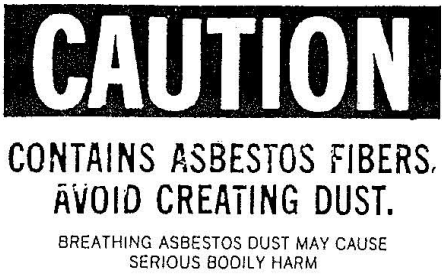
A. All workers are to report to the school administrative office prior to starting any activities, review the plan, and sign a statement that they have done so.

B. Include, in any contracts, a statement that the management plan must be reviewed prior to any person working in the building.

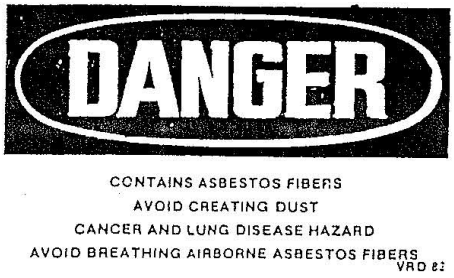
A suggested sign-in form and contract wording are included in this section.

15.2.1 Labeling

AHERA requires labeling of all asbestos-containing materials with a "CAUTION" label in routine maintenance areas (i.e., boiler rooms, fan rooms). Labels should be attached adjacent to materials and shall be prominently displayed in readily visible locations. In Oregon only, all pipes insulated with asbestos-containing materials are to be labeled whenever they are located. Labels are to be placed for every 75 feet of pipe and at junctions. The wording is to be the OSHA "DANGER" label.

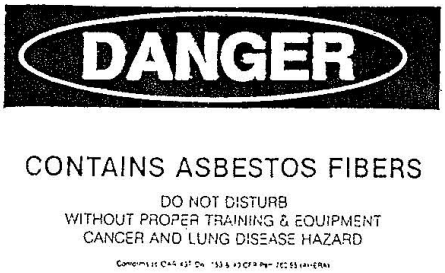


AHERA Label

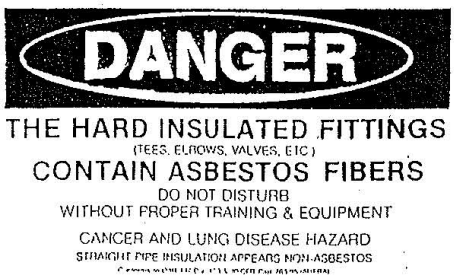


OSHA Label

PBS exclusive: PBS has developed a label that satisfies both the AHERA "CAUTION" wording and the OSHA "DANGER" wording. It allows one label to be used in pipes in Oregon. Another common situation encountered in surveying is a crawlspace or boiler room that has only asbestos-containing fittings while the straight runs are a non-asbestos materials such as fiberglass. PBS has developed a "Danger" label that specifically states that the hard fittings are asbestos-containing. This avoids an unsightly mass of labels of all the hard fittings in a room. It is applicable for OSHA and AHERA wording. By upgrading the wording from CAUTION to DANGER a greater degree of safety is achieved and consequently used their labels in Washington and Alaska as well.



PBS Dual Label



PBS Hard Fitting Label

Understand the AHERA labeling laws and the laws in your state and which labels have been used in your district school buildings.

SAMPLE CONTRACT CLAUSE WITH COMPANIES PROVIDING SHORT-TERM WORKERS

Any worker of your company, upon entering a school building in Riverdale School District, shall register at the administrative office at the School. Your employees shall announce themselves and request to review the Management Plan for asbestos-containing materials. Upon this review they must sign a statement that the Management Plan has been reviewed. If the worker will contact asbestos-containing materials they shall have proof of training. Any potential contact with asbestos-containing materials will be discussed with the district asbestos coordinator prior to continuing with the work. If there is any doubt as to the location or training required or procedures, the district asbestos coordinator is to be contacted.

Consult with legal counsel prior to use of this clause.

NOTIFICATION ADDRESSES

Fill in the names of organizations you will be sending notifications to as a reference.

PARENT GROUPS

NAME: _____ NAME: _____

ADDRESS: _____ ADDRESS: _____

TEACHER ORGANIZATIONS

NAME: _____ NAME: _____

ADDRESS: _____ ADDRESS: _____

EMPLOYEE GROUPS OR UNIONS

NAME: _____ NAME: _____

ADDRESS: _____ ADDRESS: _____

IF ORGANIZATIONS DO NOT EXIST A NEWSPAPER NOTICE MAY BE UTILIZED.

SAMPLE NOTIFICATION LETTER 'A'

(Initial Management Plan Notice)

Date

Organization
Address

To Whom It May Concern:

A survey of all our school buildings was conducted to determine the location and condition of asbestos-containing materials. A Management Plan was then developed to reflect the conditions encountered. The plan indicates the preventative measures and response actions we will be implementing to make our schools as safe as possible.

NOTE: You may wish to insert the Inspection Summary found in TAB 5 Page 3.1 for each school in the district.

The plan for all schools is available for review at our central administrative office and for individual schools during normal office hours, at each school administrative office.

If a personal copy is desired, please notify me and it will be available for the cost of reproduction ($10) and available in 5 working days.

Asbestos-containing materials in our schools is a top priority and we are doing everything possible to ensure the well-being of the occupants.

I am available to answer any of your questions or concerns.

Sincerely,

LEA Designate

SAMPLE NOTIFICATION LETTER 'B'

(Annual Notice)

Date

Organization
Address

To Whom It May Concern:

Our district has implemented our Management Plan for asbestos-containing materials. Cleaning, preventative measures, training and periodic surveillance have been performed on an ongoing basis.

Response action that has been completed include:

School	Action	Material	Location	Dates Start	Stop
	(list all activities)				

Response actions that are scheduled for the next year:

School	Action	Material	Location	Dates Start	Stop
	(list all activities)				

We are following the schedule of response actions as defined in our Management Plan. This plan is available at the central administrative office and at each individual school for review. If you desire a personal copy, please give us 5 days notice. The cost is $10 to cover reproduction.

The ongoing job of maintaining asbestos-containing materials is being conducted in the most stringent manner for the safest possible school buildings. I am available to address your questions.

Sincerely,

LEA Designate

SHORT TERM WORKER LOG

By signing below I warrant that I have reviewed the Management Plan for Asbestos-Containing Materials as it will impact my work in the building and either have the training required to work if asbestos-containing materials have to be impacted, or can proceed with my work without impacting. I also understand that if questions arise or if any removal or encapsulation of asbestos containing material is to occur I am to contact the District Asbestos Coordinator.

District: _____

School: _____

Date	Print Name Signature	Company Representing	Activity/Task

TAB 16

Recordkeeping

16.1.1 Recordkeeping

ACTION: All asbestos-related activities must be recorded.

TRAINING: LEA Designate must ensure that program is enacted and maintained.

FORMS: Understand how to use all the recordkeeping forms.

The purpose of the record-keeping system is three-fold:

- To ensure maximum protection of all persons in the building.
- To provide detailed, retrievable records of all events.
- To provide the needed records in event of a lawsuit.

In essence, the AHERA regulations required that everything done with regards to asbestos in a facility must be documented by the facility's owner so that the training and exposure of all persons involved in the work can be documented and the fate of all ACBM can be determined.

The recordkeeping requirements described in 40 CFR 763.94 are quite explicit in regard to the LEA's recordkeeping responsibilities. Although some records are required to be kept up to six years, they may be required beyond six years (as long as 20 to 40 years) in the event of a lawsuit. Thus, all records should be maintained in a retrievable state for up to 40 years (or let's just say don't ever throw them away).

Location: Records must be kept in the administrative offices of both the actual building and the LEA. If these are in the same building, it is advisable that a duplicate set of records should be established in a different location in the event of fire or other damage.

The following activities or occurrences require detailed documentation. A brief description is given here. Refer to the appropriate TAB number in the Management Plan for exact AHERA requirements and sample forms for compiling information. There are three forms included in this section that can be used for the following records. The forms are included in this section.

	FORM	
Response Actions Selected: records of all preventative measures, major abatement activities.	A	TAB NO. 7
Periodic Surveillance: conducted at a minimum of six-month intervals to determine any damage or deterioration of ACBM.	B	TAB NO. 10
Reinspection: conducted every three years by an accredited inspector.	--	TAB NO. 11
Operations and Maintenance: initial, periodic, and emergency cleanings; minor and major fiber release episodes; maintenance procedures for ACBM.	A	TAB NO. 12
Medical Surveillance: annual examination of any person who will contact ACBM in their work. Keep copies of examination forms.	--	TAB NO. 13

Training: 2-hour awareness training for all custodial staff, 14 hours additional for those who will disturb ACBM; recommended annually.	C	TAB NO. 14
Plan distribution/notification: annual notice to parents, teachers, and staff of availability of management plan. Keeping a copy of the notices will be sufficient record.	--	TAB NO. 15

Every preventative measure or response action taken for friable and non-friable ACBM or suspected ACBM must include these records (see Forms that follow):

Description of the measure or action:
- Methods used
- Location
- Reasons for selecting the measure or action
- Start and completion dates
- Name and addresses of contractors, state of accreditation, accreditation numbers
- Name and location of ACBM storage or disposal site

If air monitoring is required by 40 CFR 763.90 (f):
- Name, signature of air monitoring technician
- Date and locations of air sampling
- Name and address of laboratory analyzing the samples
- A statement that the lab meets 40 CFR 763.90 (i) 2 (ii)
- Date, method, and results of analysis
- Signature of analyst

For all homogeneous areas where ACBM been removed, the LEA is required to maintain records for three years after the subsequent reinspection or until the second reinspection after the removal activity (up to 6 years). PBS recommends that these records be kept permanently.

TAB 17

Statement of Review
LEA Designate Review/Signature

17.1.1 Statement of Review – LEA Designate Review/Signature

LOCAL EDUCATION AGENCY (LEA) GENERAL RESPONSIBILITIES UNDER AHERA

Portent to Section 763.84 and Section 763.93 of the EPA Asbestos in Schools Regulation (45 CFR Part 763), each management plan must contain a true and correct statement, signed by the LEA designated person, that certifies that the general LEA responsibilities have been met. This form is provided to assist you in complying with this portion of AHERA.

LEA Name: _____
LEA Address: _____
Designated Person Name: _____
Designated Person Address: _____
Phone Number: _____

ASSURANCES

1. This AHERA management plan was developed and has been submitted pursuant to the Asbestos Hazard Emergency Response Act of 1986, Public law 99-519; and the United States Environmental Protection Agency Rule: Asbestos Containing Materials in Schools, 40 CFR Part 763; and the undersigned does hereby certify that the LEA has and will endure the following:
2. The activities of any persons, who perform inspections, reinspections, and periodic surveillance, develop and update management plans, and develop and implement response actions, including operations and maintenance, are carried out in accordance with Part 763.
3. All custodial and maintenance employees will be properly trained as required in Part 763 and all other applicable Federal and/or State regulations (e.g., the Occupational Safety and Health Administration Asbestos Standard for Construction, the EPA Worker Protection Rule, or applicable State regulations).
4. All workers and building occupants, or their legal guardians, are informed at least once each school year about inspections, response actions, post-response action activities, including periodic reinspection and surveillance activities, that are planned or in progress.
5. All short-term workers (e.g., telephone repair workers, utility workers, or exterminators) who may come in contact with asbestos in a school are provided information regarding the locations of ACBM and suspected ACBM to be ACM.
6. All warning labels are posted in accordance with Section 763.95.
7. All management plans are available for inspection and notification of such availability has been provided as specified in the management plan under Section 763.93(g).
8. The undersigned person designated by the LEA pursuant to Section 763.84(g)(1) has received adequate training as stipulated in Section 763.84(g)(2).
9. The LEA has and will consider whether any conflict of interest may arise from the interrelationship among accredited personnel and whether that should influence the selection of accredited personnel to perform activities under Part 763.

Signed_____ Date_____

LEA Designated Person, pursuant to 40 CFR 763.93(I) and 763.84