



MAIN OFFICE:

545 Salem Street
Wakefield, MA 01880
(781) 213-9198
(781) 213-6992 Fax

BRANCH OFFICES:

46 Watergate Lane
Barnstable, MA 02668
(508) 746-5218
(508) 732-0281 Fax

10 Diamond Drive
Derry, NH 03038
(603) 434-5245
(603) 434-5172 Fax

www.axiomenvironment.com

May 20, 2016

Mr. Thomas Geary
Director of Facilities
Haverhill Public Schools
4 Summer Street
Haverhill, MA 01832

VIA EMAIL

Project 01288.003

RE: AHERA 3-Year Re-inspection, Walnut Square Elementary School, 645 Main Street, Haverhill, MA

Dear Mr. Geary,

Axiom Partners, Inc. (AXIOM) conducted a 3-year AHERA¹ re-inspection of the Walnut Square Elementary School at the above-referenced address. The re-inspection was performed to continue the Local Education Agency's (LEA's) compliance with AHERA which requires periodic assessment of known asbestos-containing building materials (ACBMs) located in this school building.

A. AHERA 3-YEAR RE-INSPECTION

The re-inspection was performed in compliance with the Environmental Protection Agency's Asbestos Hazard Emergency Response Act (AHERA), 40 CFR Part 763, Section 763.85.

The re-inspection was performed on February 23, 2016 by experienced Massachusetts-licensed Asbestos Inspector, Ms. Heather R. Forgione (License Number AI000117). The re-inspection included all accessible interior areas of the building.

A summary table prepared for the school is attached to this letter. The table includes:

- | | | |
|------------------|--------------------------------|----------------------------------|
| • ACBMs | • Friability | • Previous Response Actions |
| • Presumed ACBMs | • Hazard/Condition Assessments | • Recommended Response Actions |
| • Quantities | • Changes in Condition | • Newly-identified Suspect ACBMs |
| • Locations | | |

To ensure compliance with AHERA, a copy of this re-inspection report must be included in the Asbestos Management Plan for the school.

AXIOM recommends labeling of certain ACBMs specified by AHERA and the continued management of these ACBMs in place until they are removed.

¹ EPA's Asbestos Hazard Emergency Response Act, 1986



B. LIMITATIONS AND EXCLUSIONS

This inspection effort included our review of available AHERA documentation. The original 1988 Management Plan and the most recent 3-year inspection report were used as guidance documents. Historical documentation did not typically include supporting asbestos bulk sample data (laboratory analytical reports). AXIOM did not collect any bulk samples for asbestos analysis.

The re-inspection was performed by AXIOM to ensure that the LEA is in compliance with AHERA; however this inspection is not NESHAP² compliant, which is required for building demolition or renovation including testing of exterior suspect ACBMs. The potential for concealed ACBMs to remain in this school exists. Inaccessible building areas, systems, structural components or surfaces which may not have been observed may include the following:


- Buried or otherwise concealed pipe trenches and utility vaults/corridors;
- Buried foundations (except as specifically identified);
- Electrical equipment/wire (except as specifically identified);
- Multi-layered flooring material applications;
- Most pipe and vessel gaskets;
- Inside boilers and other mechanical equipment, ductwork and air handling equipment;
- Enclosed wall and ceiling cavities;
- Fire door cores;
- Interior window and door caulking that have been replaced or in-filled;
- Roofing materials; and
- Exterior window and door caulking.

Please note that, while roofing materials, window and door caulking and other exterior materials are not regulated by AHERA, these materials would require sampling prior to demolition, renovations or repairs that may impact them.

AXIOM made every reasonable effort to address these potential ACBMs at the school; however, the potential remains that concealed ACBMs could be encountered during future building renovations. If suspect ACBMs are encountered that are not discussed herein, testing should be performed and results should be incorporated into the School's Asbestos Management Plan.

Please call us if you have any questions.

Sincerely,



Heather R. Forgione
Project Manager/Asbestos Inspector



Stephen E. Minassian
Principal

attachments: AHERA Summary Table

projects\01288\003\Walnut Square AHERA 3Yr 052016

² EPA's National Emission Standard for Hazardous Air Pollutants

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools

Building: Walnut Square Elementary School

Inspection Date: February 19, 2016

Re-inspection Findings for ACBMs							Management Planner Recommendations		
Material Description	Location(s)	Quantity ¹	Friability	Assessment Category ²	Assessment Justification	Change in Assessment	Preventive Measures; Response Actions	Schedule	
								Begin	Complete
Plaster – Skim and Base Coats	Walls and Ceilings Throughout	TBD	Non-Friable	2	PACM; some damage	No change	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub inspection reported material is negative, but there are no sample results to confirm; replace or repair minor damage and maintain O&M Plan		
Pipe Thread Sealant	Throughout Building	TBD	Non-Friable	5	PACM; intact	---	Not identified in the 2011 Hub inspection; maintain O&M Plan		
Hardwood Flooring Paper	Floors throughout	~16,000 SF	Friable	7	PACM; intact	---	Not identified in 2011 Hub inspection; maintain O&M Plan		
Gypsum Wall Board	Partition Walls	4,600 SF	Non-Friable	5	PACM; damaged	No change	Identified in 2011 Hub inspection and confirmed in this inspection; replace or repair and maintain O&M Plan		
Joint Compound	Partition Walls	4,600 SF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; maintain O&M Plan		
Fire Suppression	Cafeteria	TBD	Friable	5	PACM; intact	---	Not identified in the 2011 Hub inspection;		

¹ SF = Square Feet; LF = Linear Feet; EA = Each

² AHERA Categories: (1) Damaged or significantly damaged thermal system insulation ACM; (2) Damaged friable surfacing ACM; (3) Significantly damaged friable surfacing ACM; (4) Damaged or significantly damaged friable miscellaneous ACM; (5) ACM with potential for damage; (6) ACM with potential for significant damage; (7) Any remaining friable ACM or friable suspected ACM

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools

Building: Walnut Square Elementary School

Inspection Date: February 19, 2016

Re-inspection Findings for ACBMs							Management Planner Recommendations		
								Schedule	
Material Description	Location(s)	Quantity ¹	Friability	Assessment Category ²	Assessment Justification	Change in Assessment	Preventive Measures; Response Actions	Begin	Complete
System Gaskets							maintain O&M Plan		
Boiler Breeching	Boiler Room	75 SF	Friable	5	PACM; identified in 2011 Hub inspection as intact	---	Identified in 2011 Hub inspection but not confirmed in this inspection; maintain O&M Plan		
Boiler Insulation	Boiler Room	1 Boiler	Friable	5	PACM; identified in 2011 Hub inspection as intact	---	Identified in 2011 Hub inspection but not confirmed in this inspection; maintain O&M Plan		
Boiler Burner Gasket	Boiler Room	1 Boiler	Friable	5	PACM; intact	---	Not identified in the 2011 Hub inspection; maintain O&M Plan		
Duct Wrap	Basement Boys' Room	50 SF	Friable	5	PACM; intact	---	Not identified in the 2011 Hub inspection; maintain O&M Plan		
Door Panel	Basement All-Purpose Room	2 EA	Non-Friable	5	PACM; intact	---	Not identified in the 2011 Hub inspection; maintain O&M Plan		
1' x 1' Ceiling Tile – Smooth	Basement Storage Room after Girls' Rooms	1,450 SF	Friable	4	PACM; damaged	No change	Identified in 2011 Hub inspection and confirmed in this inspection; replace or repair and maintain O&M Plan		
Stair Tread	Stairs	300 SF	Non-Friable	5	PACM; intact with some minor damage	No change	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub inspection reported material is negative, but there are no sample		

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools

Building: Walnut Square Elementary School

Inspection Date: February 19, 2016

Re-inspection Findings for ACBMs							Management Planner Recommendations		
Material Description	Location(s)	Quantity ¹	Friability	Assessment Category ²	Assessment Justification	Change in Assessment	Preventive Measures; Response Actions	Schedule	
								Begin	Complete
							results to confirm; repair or replace minor damage and maintain O&M Plan		
Stair Tread Adhesive	Stairs	300 SF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub inspection reported material is negative, but there are no sample results to confirm; maintain O&M Plan		
Chalk Board	1 st & 2 nd Floor Classrooms, Nurse, Principal	TBD	Non-Friable	5	PACM; intact	---	Not identified in 2011 Hub inspection; maintain O&M Plan		
Chalk Board Adhesive	1 st & 2 nd Floor Classrooms, Nurse, Principal	TBD	Non-Friable	5	PACM; intact	---	Not identified in 2011 Hub inspection; maintain O&M Plan		
Wood Wall Panel Adhesive	1 st & 2 nd Floors Lower Walls; 3 rd Floor throughout	~2,200 SF	Non-Friable	5	PACM; intact	---	Not identified in 2011 Hub inspection; maintain O&M Plan		
Window Glazing Compound	1 st and 2 nd Floor Interior Window Walls	TBD	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; maintain O&M Plan		
4" Brown Cove Base	Rms 1, 2, 3; Basement All-Purpose Room	~300 LF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; maintain		

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools

Building: Walnut Square Elementary School

Inspection Date: February 19, 2016

Re-inspection Findings for ACBMs							Management Planner Recommendations		
Material Description	Location(s)	Quantity ¹	Friability	Assessment Category ²	Assessment Justification	Change in Assessment	Preventive Measures; Response Actions	Begin	Complete
							O&M Plan		
4" Brown Cove Base Adhesive	Rms 1, 2, 3; Basement All-Purpose Room	~300 LF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; maintain O&M Plan		
9" x 9" White with Grey Streaks Floor Tile	Rms 1, 2, 3	2,400 SF	Non-Friable	5	ACM (sampled by Hub); damaged	No change	Identified in 2011 Hub inspection and confirmed in this inspection; replace or repair and maintain O&M Plan		
9" x 9" White with Grey Streaks Floor Tile Adhesive	Rms 1, 2, 3	2,400 SF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; maintain O&M Plan		
Gold Pebble Sheet Flooring (Backing)	1 st Floor Girls' and Boys' Rooms	120 SF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this inspection; maintain O&M Plan		
Gold Pebble Sheet Flooring Adhesive	1 st Floor Girls' and Boys' Rooms	120 SF	Non-Friable	5	PACM; intact	---	Not identified in 2011 Hub inspection; maintain O&M Plan		
Yellow Fiberglass Reinforced Wall Panel	1 st Floor Girls' and Boys' Rooms	250 SF	Non-Friable	5	PACM; damaged	No change	Identified in 2011 Hub inspection and confirmed in this inspection; replace or repair and maintain O&M Plan		
Yellow Fiberglass Reinforced	1 st Floor Girls' and Boys' Rooms	250 SF	Non-Friable	5	PACM; intact	No change	Identified in 2011 Hub inspection and confirmed in this		

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools

Building: Walnut Square Elementary School

Inspection Date: February 19, 2016

Re-inspection Findings for ACBMs							Management Planner Recommendations		
								Schedule	
Material Description	Location(s)	Quantity ¹	Friability	Assessment Category ²	Assessment Justification	Change in Assessment	Preventive Measures; Response Actions	Begin	Complete
Wall Panel Adhesive							inspection; maintain O&M Plan		
2' x 2' Ceiling Tile – Dots and Fissures	2 nd Floor Entry to Rms 5 & 8		Friable	4	PACM; damaged	No change	Identified in 2011 Hub inspection and confirmed in this inspection; repair or replace minor damage and maintain O&M Plan		
2' x 4' Ceiling Tile – Dots and Fissures Width-wise	Room 5 (50%), Nurse		Friable	5	PACM; mostly intact, some areas of minor damage	---	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub inspection reported material is negative, but there are no sample results to confirm; replace minor damage and maintain O&M Plan		
2' x 4' Ceiling Tile – Dots and Small Fissures	Room 5 (50%)		Friable	5	PACM; mostly intact, some areas of minor damage	---	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub inspection reported material is negative, but there are no sample results to confirm; replace minor damage and maintain O&M Plan		
Blue Carpet Adhesive	3 rd Floor Bell Tower		Non-Friable	5	PACM; intact	---	Not identified in 2011 Hub inspection; maintain O&M Plan		
2' x 4' Ceiling Tile – Textured	3 rd Floor Library, Stage, Larger Office		Friable	5	PACM; mostly intact, some areas of minor	---	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub		

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools

Building: Walnut Square Elementary School

Inspection Date: February 19, 2016

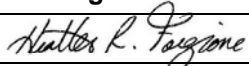
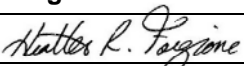
Re-inspection Findings for ACBMs							Management Planner Recommendations		
								Schedule	
Material Description	Location(s)	Quantity ¹	Friability	Assessment Category ²	Assessment Justification	Change in Assessment	Preventive Measures; Response Actions	Begin	Complete
					damage		inspection reported material is negative, but there are no sample results to confirm; replace minor damage and maintain O&M Plan		
Blown-in Insulation	3 rd Floor Side Storage Rooms		Friable	5	PACM; intact	---	Identified in 2011 Hub inspection and confirmed in this inspection; 2011 Hub inspection reported material is negative, but there are no sample results to confirm; replace minor damage and maintain O&M Plan		
Roofing Paper	3 rd Floor Side Storage Rooms	700 SF	Friable	4	PACM; identified in 2011 Hub inspection as damaged	---	Identified in 2011 Hub inspection but not confirmed in this inspection; maintain O&M Plan		
Black Adhesive	Unknown	700 SF	Non-Friable	5	PACM; identified in 2011 Hub inspection as intact	---	Identified in 2011 Hub inspection but not confirmed in this inspection; maintain O&M Plan		

AHERA SUMMARY TABLE

LEA/School System: Haverhill Public Schools **Building:** Walnut Square Elementary School **Inspection Date:** February 19, 2016

General Comments:

- Label ACBMs with asbestos warning stickers/labels (adhere directly onto insulation if feasible and post a warning sign at the entrance).
- Concealed pipe/fitting insulation may be located in wall cavities.

Were additional samples of this ACBM collected: NO	Date Management Planner Review: May 20, 2016
Inspector Name: Heather R. Forgione	Management Planner Name: Heather R. Forgione
Inspector Signature: 	Management Planner Signature: 
Accreditation No. / State: AI000177 / Massachusetts	Accreditation No. / State: AP900433 / Massachusetts
Expiration Date: September 9, 2016	Expiration Date: September 9, 2016

I, the LEA's Designated Person have read and understood the recommendations made above: Thomas Geary	Signature (LEA Designate):
---	----------------------------