

# Three Year Asbestos Re-Inspection Report

For

# Muskegon Montessori Academy 2950 McCracken Street Norton Shores, Michigan 49441

**Prepared by:** 

Northern Analytical Services, LLC. 14870 225<sup>th</sup> Avenue Big Rapids, Michigan 49307

> Dated: September 30, 2016 Project No. 160255

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### Introduction

The following Three-Year Asbestos Re-Inspection Report was completed for Muskegon Montessori Academy, 2950 McCracken Street, Norton Shores, Michigan 49441.

In accordance with the Asbestos Hazard Emergency Response Act (AHERA), all buildings under the control of a Local Education Agency (LEA), the owner or operator of any public school district or not for profit elementary or secondary school (k-12) building, are required to be incorporated in the districts asbestos management plan. These regulations allow for buildings, or portions of buildings, constructed after 1988 to either be inspected for the presence of asbestos containing materials (ACM) or be accompanied by a statement from the architect/construction manager that no ACM was installed during construction activities. Northern Analytical Services, LLC. (NAS) recommends that acceptable statements be obtained and attached to this report for any future renovation/construction activities.

This re-inspection included the following buildings:

School Building Number	Building	Address
1	Muskegon Montessori Academy	2950 McCracken Street, Norton Shores, MI 49441

### Asbestos Background

Asbestos is a group of six naturally occurring minerals that includes chrysotile, amosite, crocidolite, tremolite, actinolite, and anthophylite. Deposits of asbestos are found throughout the world and were mined for use primarily in building materials. Asbestos has been used in thousands of products. Collectively, these are referred to as asbestos-containing material (ACM). Asbestos gained wide-spread use because it was plentiful, readily available, and low in cost. Because of its unique properties – fire resistance, high tensile strength, poor heat and electrical conductivity, and being generally impervious to chemicals attacks – asbestos proved well-suited for many uses in the construction trades.

Asbestos-related diseases are chronic diseases, and symptoms usually do not appear for 10 to 40 years after initial exposures to airborne asbestos fibers. The primary exposure route is inhalation. Inhaled fibers may become embedded in the bronchial tubes or alveoli, or they may pass through to the pleura—the lining of the chest cavity. Asbestos-related diseases include asbestosis, lung cancer, mesothelioma, and gastrointestinal cancers.

Today the use of asbestos is regulated by both the State and Federal governments including the Occupational Safety and Health Administration (OSHA) and the United States Environmental Protection Agency (US EPA). The US EPA has two primary regulations regarding asbestos; the National Emissions Standard for Hazardous Air Pollutants (NESHAP), and the Asbestos Hazard Emergency Response Act (AHERA).

NESHAP was enacted in 1973 and includes provisions to ban the use of certain types of ACM as well as regulates the removal of existing ACM. Under the NESHAP regulations building owners and contractors are responsible for ensuring ACM is not improperly disturbed. The NESHAP regulations apply to all public or commercial buildings regardless of construction date.

AHERA was enacted in 1988 and requires every school (kindergarten through 12 grade) to develop an asbestos management plan. Additionally, each school district or Local Education Agency (LEA) is required to inspect every building they own or operate for the presence, quantity, location and condition of suspect asbestos containing materials. As part of the management plan, steps were required to help ensure building occupants safety; these included periodically (at least every 6 months) assessing the condition of all friable ACM present in each building and re-inspecting, at least once every three years, all ACM present in each building. It should be noted that AHERA only applies to building interiors and consequently many exterior building components were not included in most AHERA inspections.

Both NESHAP and AHERA have been revised over the years but are still in effect today.

### **Company Statement**

This Re-Inspection Report and Management Plan update was prepared by Northern Analytical Services, LLC. to assist the LEA in evaluating asbestos hazards associated with maintaining their facilities.

In preparation of this "living document", every attempt has been made to recommend the least burdensome response actions consistent with protecting human health and the environment as specified by AHERA.

AHERA states that the management plan is the ultimate responsibility of the LEA. The LEA has the authority to make reasonable changes to the management plan when warranted.

It is the responsibility of the LEA to read and understand the response actions, their obligations, time tables, and to determine if these actions are reasonable actions prior to signing the LEA statement. Any changes or additions to this document without written authorization from NAS will automatically void the inspection and management plan statements included in this report.

If the LEA decides to make changes to this report without authorization from NAS or decides to make changes which conflict with the advice and/or professional judgment of NAS, a separate statement shall accompany the management plan and should specify which recommended actions the LEA has decided to change, the actual changes and rationale for the changes. Should this occur, NAS will not accept any responsibility for changes to any response actions that weren't stated previously by NAS.

### **Survey Procedures**

Survey procedures were conducted in accordance with AHERA. Survey work was conducted by a properly trained and accredited State of Michigan Asbestos Building Inspector.

To complete this survey, the inspector(s) re-inspected the asbestos containing materials identified in the most recent three-year re-Inspection report and visually inspected each for damage or the potential for damage.

This re-inspection did not include a thorough inspection of the building(s) to determine the presence, location, or quantity of materials suspected to contain asbestos, we only re-inspected the materials identified in the previous re-inspection. Prior to performing any renovation work NAS strongly recommends a thorough inspection be performed.

### **Facility Recommendations**

Based on the findings of the Inspector, the following general site recommendations have been made:

- 1. Careful review of the included Survey Data and Response Actions should be conducted by the LEA's Designated Person. The reports titled Homogenous Material Report will provide a detailed description of the suspect ACM found, asbestos content, friability, type of asbestos present, and the total quantity found in each building. Reports titled Survey Report will provide a description of what materials were found in each room and comments on the specific location and damage if any was observed. Reports titled Response Action Report identified recommended response actions to be taken for each of the known or assumed to contain ACM found in each area.
- 2. Any materials that have been identified as damaged will require a licensed abatement contractor to complete the repairs under the guidance of an accredited Asbestos Project Designer.
- 3. In accordance with CFR 1910.1200, it is recommended that each ACM be properly labeled as asbestos containing. Warning labels should contain the following information:

### Danger Contains Asbestos Fibers Avoid Creating Dust Cancer and Lung Disease Hazard

Labels should be placed in various locations on each material in a manner to avoid accidental disturbance.

- 4. Prior to any renovation or maintenance activity, the Designated Person must review the Management Plan and most recent re-inspection report to ensure materials being impacted by the renovation/activity do not contain asbestos. Additionally, this report does not satisfy NESHAP requirements; the Designated Person should contact an accredited Asbestos Building Inspector to inspect the areas of proposed renovations in accordance with NESHAP requirements.
- 5. If a disturbance occurs, either accidental or planned (abatement project), area air monitoring should be conducted to establish the airborne concentration of asbestos fibers present. Both State and Federal Agency strictly govern disturbance activities and exposure to employees and building occupants. Proper air sampling can determine if area contamination has occurred as well as help assure employees and building occupants in adjacent areas are not being exposed. In addition to area monitoring, AHERA requires third party area air clearance testing whenever a disturbance occurs.

- 6. Records of future renovation activities should be kept. These records should include what materials where disturbed and to what extent. Also information on replacement materials is vital in keeping this survey up to date. Often Architects or Design Engineers can provide legal statements indicating that replacement materials do not contain asbestos. Other documentation of this sort would be material or product safety data sheets. If proper documentation is not available for suspect ACM's located in building constructed prior to 1986, sample collection and analysis is required by State and Federal Regulations.
- 7. Both CFR 1910.110 and CFR 1926.110 require that employers provide awareness training to all employees that are expected to come in contact with or required to work in the general vicinity of ACM. In accordance with regulatory requirements, it is recommended that all housekeeping and maintenance employees receive, at a minimum, 2-hour asbestos awareness training annually.

### **Building Specific Recommendations**

The following recommendations (not all inclusive, see Response Actions for additional recommendations) are based on the Inspector's findings, laboratory results and the Management Planner's opinion:

- The piping located above the ceiling tile in hall 101 is damaged and requires repair or removal as soon as possible. There is approximately 300 lineal feet of this material.
- All other ACM listed in the most recent re-inspection report were found to be in good condition.
- Continue to maintain each ACM in good condition in accordance with the Management Plan's Operation and Maintenance (O&M) procedures.
- Contact Northern Analytical Services, LLC. if concerns of damaged ACM arise.

### **AHERA Inspection Signature Page**

#### **Inspection Statement**

The person(s) listed below hereby attest(s) that he/she/they did inspect, assess and perform sampling of suspect asbestos containing building materials (ACBM) at the buildings/ portions of buildings listed in this report in accordance with AHERA regulations set forth in 40 CFR Section 763.85(a):

Name	Accreditation No.	Signature	<b>Date of Inspection</b>
		John J. Relkspf	
John J. Rehkopf	A16809		09/29/2016

#### **Management Plan Statement**

The person(s) listed below hereby attest(s) that he/she/they did review data which may have updated the management plan for the LEA described in this report. Any recommendations are based on the above referenced inspection report in accordance with AHERA regulations set forth in 40 CFR Section 763.93 (12), (ii).

Accreditation No.	Signature	Date
A16809	John J. Relkept	09/30/2016
	Accreditation No. A16809	John J. Relkept

### **Local Education Information**

Local Education Agency (LEA): Muskegon Montessori Academy LEA Address: 2950 McCracken Street, Norton Shores, Michigan. Designated Person: Ali DuBois Designated Person Address: 2950 McCracken Street, Norton Shores, Michigan Designated Person Telephone: 231-766-7500

### **Training Certification**

The Designated Person(s) listed below attests that he/she/they received adequate training covering the Local Education Agency's (LEA) responsibilities for Designated Person in accordance with 763.93 (e)(4). This training included the health effects of asbestos, detection, identification and assessment of ACBM, options for controlling ACBM, asbestos management programs, relevant State and Federal regulations regarding asbestos, and the LEA/Designated Person responsibilities.

Training was provided by: Northern Analytical Services, LLC.

Under the course titled: <u>AHERA Designated Person Training.</u>

on: December 2, 2015.

Designated Person Signature:

Ali DuBois

Date

### LEA Responsibility Certification

The Designated Person listed below certifies that the general LEA responsibilities as required by 763.84 have been or will be satisfied. This includes the following actions:

- 1. Anyone who conducts any inspections, re-inspections or abatement projects; develops or updates management plans; or performs operations and maintenance that will disturb ACM are licensed asbestos professionals.
- 2. All custodial and maintenance staff have received two-hour asbestos awareness training.
- 3. All maintenance workers who engage in small scale short duration asbestos repairs or cleaning operations have received at least 16 hours of operations and maintenance training along with the annual 4 hours of refresher training as required by AHERA.
- 4. The parents, teachers and employee organizations are notified on an annual basis of all inspections, response actions and periodic surveillance that are planned or in progress in regard to asbestos in each school building.
- 5. Short-term workers (e.g., telephone repair workers, utility workers or exterminators) are informed of the locations of ACBM in school buildings.
- 6. Warning signs are posted immediately adjacent to ACM in routine maintenance areas that state:

Danger. Asbestos. Hazardous Do Not Disturb Without Proper Training and Equipment

- 7. Parents, teachers and employee organizations are notified in writing on an annual basis of the availability of the school's asbestos management plan.
- 8. The management plans are available for inspection in each school and the district office.
- 9. Records are properly maintained.
- 10. Each management plan contains a statement, signed by the designated person that certifies the LEA's responsibilities have been or will be met. The statement needs to be amended for each new designated person chosen by the LEA.
- 11. Re-inspections are conducted at least once every three years after a management plan is in effect.

As the Designated Person for <u>Muskegon Montessori Academy</u> I will ensure that the above items are completed in accordance with AHERA.

Signature of Designated Person

Printed Name

Date

## Appendix A

**Homogeneous Materials** 

## **Homogeneous Material Report**

Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Material No.	Homogeneous Material Description	Catagory	Friable	Asbestos Detected	Percent Asbestos	Asbestos Type	Quantity	Units
1	floor tile-9x9 grey with black mastic	miscellaneous	no	Yes	5%-tile mastic	chrysotile none detected	10270	sq.ft.
2	ceiling tile-2x4 white with random pits and gouges	misellaneous	yes	no		none detected	4564	sq.ft.
3	cove base-4" black with glue	misellaneous	no	no		none detected	220	ln.ft.
4	assumed window glazing, caulk, transite panels	misellaneous	no	yes		assumed	960	sq.ft.
5	thermal system insulation in tunnels	thermal	yes	yes		assumed	540	ln.ft.
6	caulk- between wood door frame and cement block	miscelaneous	no	no		none detected	128	ln.ft.
7	chalk boards-green or black with glue pods	miscellaneous	no	yes		assumed	320	sq.ft.
8	floor tile-12x12 orange flex with black mastic	miscellaneous	no	no		none detected	8060	sq.ft.
10	caulk-between metal door frames and cement block	miscellaneous	no	no		none detected	160	In.ft.
11	window glazing-interior windows	miscellaneous	no	no		none detected	212	ln.ft.
12	floor tile-12x12 tan with black mastic	miscellaneous	no	yes	tile <1% mastic	none detected chrysotile	464	sq.ft.
13	drywall and joint compound	miscellaneous	no	no		none detected	7636	sq.ft.
14	floor tile-9x9 brown with black mastic	miscellaneous	no	yes	5% tile mastic	chrysotile none detected	211	sq.ft.
16	fire rated doors	miscellaneous	yes	yes		assumed	23	each

## **Homogeneous Material Report**

Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Material No.	Homogeneous Material Description	Catagory	Friable	Asbestos Detected	Percent Asbestos	Asbestos Type	Quantity	Units
17	vinyl sheet flooring-green coble stone pattern	miscellaneous	no	yes	20%	chrysotile	50	sq.ft.
18	aircell pipe insulation	thermal	yes	yes		assumed	300	In.ft.
19	mud fittings on aircell pipe insulation	thermal	yes	yes		assumed	20	ln.ft.

Appendix B

**Survey Report** 

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Room No.	Materi No.		Asbestos Detected	Asbestos Type	Quantity	units	Comments
100	10	caulk-between metal door frames and cement block	no	none detected	40	In.ft.	2 doors
100	8	floor tile-12x12 orange flex with black mastic	no	none detected	900	sq.ft.	
100	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	900	sq.ft.	
101	18	aircell pipe insulation	yes	assumed	300	In.ft.	
101	19	mud fittings on aircell pipe insulation	yes	assumed	20	In.ft.	
103	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	780	sq.ft.	
103	6	caulk- between wood door frame and cement block	no	none detected	20	In.ft.	
103	5	thermal system insulation in tunnels	yes	assumed	120	In.ft.	no tunnel access
103	3	cove base-4" black with glue	no	none detected	55	In.ft.	
103	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	780	sq.ft.	
103	4	assumed window glazing, caulk, transite panels	yes	assumed	240	sq.ft.	
104	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	780	sq.ft.	
104	4	assumed window glazing, caulk, transite panels	yes	assumed	240	sq.ft.	

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Room No.	Materia No.	l Homogeneous Material Description	Asbestos Detected	Asbestos Type	Quantity	units	Comments
104	3	cove base-4" black with glue	no	none detected	55	ln.ft.	
104	5	thermal system insulation in tunnels	yes	assumed	120	In.ft.	no tunnel access
104	7	chalk boards-green or black with glue pods	yes	assumed	128	sq.ft.	
104	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	780	sq.ft.	
104	6	caulk- between wood door frame and cement block	no	none detected	20	In.ft.	
105	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	780	sq.ft.	
105	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	780	sq.ft.	
105	5	thermal system insulation in tunnels	yes	assumed	120	In.ft.	no tunnel access
105	6	caulk- between wood door frame and cement block	no	none detected	20	In.ft.	
105	7	chalk boards-green or black with glue pods	yes	assumed	128	sq.ft.	
105	4	assumed window glazing, caulk, transite panels	yes	assumed	240	sq.ft.	
105	3	cove base-4" black with glue	no	none detected	55	In.ft.	
106	4	assumed window glazing, caulk, transite panels	yes	assumed	240	sq.ft.	

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Room No.	Materia No.	l Homogeneous Material Description	Asbestos Detected	Asbestos Type	Quantity	units	Comments
106	7	chalk boards-green or black with glue pods	yes	assumed	64	sq.ft.	
106	3	cove base-4" black with glue	no	none detected	55	ln.ft.	
106	6	caulk- between wood door frame and cement block	no	none detected	20	In.ft.	
106	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	780	sq.ft.	
106	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	780	sq.ft.	
106	5	thermal system insulation in tunnels	yes	assumed	120	In.ft.	no tunnel access
107	6	caulk- between wood door frame and cement block	no	none detected	20	In.ft.	1 door
107	13	drywall and joint compound	no	none detected	400	sq.ft.	
107	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	232	sq.ft.	
107	12	floor tile-12x12 tan with black mastic	yes	none detected chrysotile	232	sq.ft.	
108	6	caulk- between wood door frame and cement block	no	none detected	20	In.ft.	1 door
108	12	floor tile-12x12 tan with black mastic	yes	none detected chrysotile	232	sq.ft.	
108	13	drywall and joint compound	no	none detected	400	sq.ft.	

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Room No.	Materia No.	d Homogeneous Material Description	Asbestos Detected	Asbestos Type	Quantity	units	Comments
108	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	232	sq.ft.	
108.1	8	floor tile-12x12 orange flex with black mastic	no	none detected	10	sq.ft.	
108.1	6	caulk- between wood door frame and cement block	no	none detected	1	ln.ft.	1 door
109	8	floor tile-12x12 orange flex with black mastic	no	none detected	2230	sq.ft.	
109	10	caulk-between metal door frames and cement block	no	none detected	40	ln.ft.	2 doors
109	6	caulk- between wood door frame and cement block	no	none detected	7	ln.ft.	140
109	11	window glazing-interior windows	no	none detected	120	ln.ft.	
109	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	2230	sq.ft.	
110	13	drywall and joint compound	no	none detected	1200	sq.ft.	
110	8	floor tile-12x12 orange flex with black mastic	no	none detected	317	sq.ft.	
110	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	317	sq.ft.	under number 8
111	8	floor tile-12x12 orange flex with black mastic	no	none detected	647	sq.ft.	
111	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	647	sq.ft.	under number 8

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Room No.	Materia No.	l Homogeneous Material Description	Asbestos Detected	Asbestos Type	Quantity	units	Comments
111	13	drywall and joint compound	no	none detected	947	sq.ft.	
112	13	drywall and joint compound	no	none detected	152	sq.ft.	
113	13	drywall and joint compound	no	none detected	148	sq.ft.	
113	16	fire rated doors	yes	assumed	20	each	1 door
114	13	drywall and joint compound	no	none detected	111	sq.ft.	
114	5	thermal system insulation in tunnels	yes	assumed	60	ln.ft.	assumed in walls
115	13	drywall and joint compound	no	none detected	50	sq.ft.	
115	17	vinyl sheet flooring-green coble stone pattern	yes	chrysotile	50	sq.ft.	
115	11	window glazing-interior windows	no	none detected	12	ln.ft.	
116	16	fire rated doors	yes	assumed	1	each	
116	13	drywall and joint compound	no	none detected	165	sq.ft.	
116	2	ceiling tile-2x4 white with random pits and gouges	no	none detected	80	sq.ft.	
116	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	165	sq.ft.	under number 8

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Room No.	Materia No.	l Homogeneous Material Description	Asbestos Detected	Asbestos Type	Quantity	units	Comments
116	8	floor tile-12x12 orange flex with black mastic	no	none detected	165	sq.ft.	
117	10	caulk-between metal door frames and cement block	no	none detected	40	In.ft.	2 doors
117	16	fire rated doors	yes	assumed	2	each	
117	13	drywall and joint compound	no	none detected	3800	sq.ft.	
117	8	floor tile-12x12 orange flex with black mastic	no	none detected	3791	sq.ft.	
117	1	floor tile-9x9 grey with black mastic	Yes	chrysotile none detected	3791	sq.ft.	under number 8
118	13	drywall and joint compound	no	none detected	80	sq.ft.	
118	14	floor tile-9x9 brown with black mastic	yes	chrysotile none detected	85	sq.ft.	
119	13	drywall and joint compound	no	none detected	103	sq.ft.	
119	10	caulk-between metal door frames and cement block	no	none detected	40	In.ft.	2 doors
120	14	floor tile-9x9 brown with black mastic	yes	chrysotile none detected	126	sq.ft.	
120	13	drywall and joint compound	no	none detected	80	sq.ft.	
121	11	window glazing-interior windows	no	none detected	80	In.ft.	bus garage windows

Appendix C

**Periodic Surveillance Report** 

### **Periodic Re-Inspection**

Project No.:160255 Muskegon Montessori Academy AHERA Inspection

#### **Re-Inspection** (circle one)

						Re-Inspection (circle one)					
Function Area	n Description	Friable	Asbestos Detected	Quantity	units	Date: By:	Date: By:	Date: By:	Date: By:	Date: By:	
103	thermal system insulation in tunnels	yes	yes	120	ln.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
104	thermal system insulation in tunnels	yes	yes	120	ln.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
104	chalk boards-green or black with glue pods	no	yes	128	sq.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
105	thermal system insulation in tunnels	yes	yes	120	ln.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
105	chalk boards-green or black with glue pods	no	yes	128	sq.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
106	thermal system insulation in tunnels	yes	yes	120	ln.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
106	chalk boards-green or black with glue pods	no	yes	64	sq.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
113	fire rated doors	yes	yes	20	each	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
114	thermal system insulation in tunnels	yes	yes	60	ln.ft.	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
116	fire rated doors	yes	yes	1	each	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	
117	fire rated doors	yes	yes	2	each	GC D SD R	GC D SD R	GC D SD R	GC D SD R	GC D SD R	

GC=Good Condition(no damage), D=Damaged(less than 10%), SD=Significant Damage (more than 10%), R=Removed(no longer present)

# Appendix D

**Response Action Report** 

## **Response Action Report**

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Function Area	HA No	Material Description	Asbestos Detected	Quantity	Units	Damage Assessment	Damage Potential	<b>Response</b> Action
101	18	aircell pipe insulation	yes	300	ln.ft.	damaged	low	repair and maintain
101	19	mud fittings on aircell pipe insulation	yes	20	ln.ft.	no damage	low	maintain O&M
103	1	floor tile-9x9 grey with black mastic	Yes	780	sq.ft.	no damage	low	maintain O&M
103	4	assumed window glazing, caulk, transite panels	yes	240	sq.ft.	no damage	low	maintain O&M
103	5	thermal system insulation in tunnels	yes	120	In.ft.			maintain O&M
104	1	floor tile-9x9 grey with black mastic	Yes	780	sq.ft.	no damage	low	maintain O&M
104	4	assumed window glazing, caulk, transite panels	yes	240	sq.ft.	no damage	low	maintain O&M
104	5	thermal system insulation in tunnels	yes	120	In.ft.			maintain O&M
104	7	chalk boards-green or black with glue pods	yes	128	sq.ft.	no damage	low	maintain O&M
105	1	floor tile-9x9 grey with black mastic	Yes	780	sq.ft.	no damage	low	maintain O&M
105	4	assumed window glazing, caulk, transite panels	yes	240	sq.ft.	no damage	low	maintain O&M
105	5	thermal system insulation in tunnels	yes	120	In.ft.			maintain O&M

## **Response Action Report**

Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Function Area	HA No	Material Description	Asbestos Detected	Quantity	Units	Damage Assessment	Damage Potential	Response Action
105	7	chalk boards-green or black with glue pods	yes	128	sq.ft.	no damage	low	maintain O&M
106	1	floor tile-9x9 grey with black mastic	Yes	780	sq.ft.	no damage	low	maintain O&M
106	4	assumed window glazing, caulk, transite panels	yes	240	sq.ft.	no damage	low	maintain O&M
106	5	thermal system insulation in tunnels	yes	120	In.ft.			maintain O&M
106	7	chalk boards-green or black with glue pods	yes	64	sq.ft.	no damage	low	maintain O&M
107	12	floor tile-12x12 tan with black mastic	yes	232	sq.ft.	no damage	low	maintain O&M
108	12	floor tile-12x12 tan with black mastic	yes	232	sq.ft.	no damage	low	maintain O&M
109	1	floor tile-9x9 grey with black mastic	Yes	2230	sq.ft.	no damage	low	maintain O&M
110	1	floor tile-9x9 grey with black mastic	Yes	317	sq.ft.	no damage	low	maintain O&M
111	1	floor tile-9x9 grey with black mastic	Yes	647	sq.ft.	no damage	low	maintain O&M
113	16	fire rated doors	yes	20	each	no damage	low	maintain O&M
114	5	thermal system insulation in tunnels	yes	60	ln.ft.	no damage	low	maintain O&M
115	17	vinyl sheet flooring-green coble stone pattern	yes	50	sq.ft.	no damage	low	maintain O&M

## **Response Action Report**

#### Project No.:160255 Muskegon Montessori Academy AHERA Inspection

Function Area	HA No	Material Description	Asbestos Detected	Quantity	Units	Damage Assessment	Damage Potential	<b>Response</b> Action
116	1	floor tile-9x9 grey with black mastic	Yes	165	sq.ft.	no damage	low	maintain O&M
116	16	fire rated doors	yes	1	each	no damage	low	maintain O&M
117	1	floor tile-9x9 grey with black mastic	Yes	3791	sq.ft.	no damage	low	maintain O&M
117	16	fire rated doors	yes	2	each	no damage	low	maintain O&M
118	14	floor tile-9x9 brown with black mastic	yes	85	sq.ft.	no damage	low	maintain O&M
120	14	floor tile-9x9 brown with black mastic	yes	126	sq.ft.	no damage	low	maintain O&M

Appendix E

Drawings

## Muskegon Montessori Academy for Envirnmental Change

Est: 2013

