



**N O R T H E R N**  
**Analytical Services, LLC.**  
ENVIRONMENTAL CONSULTANTS

**Asbestos Hazard Emergency Response Act  
(AHERA)  
Management Plan  
&  
Asbestos Inspection Report**

**For**

**Ivywood Classical Academy  
14356 Genoa Court  
Plymouth, Michigan 48170**

**Prepared By:**

**Northern Analytical Services, LLC.  
PO Box 1604  
Big Rapids, Michigan 49307**

**Dated: July 22, 2019**

**Project No.: 190185**

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### Introduction

The following Asbestos management Plan and Inspection Report was completed by Northern Analytical Services, LLC. (NAS) for Ivywood Classical Academy located at 14356 Genoa Court, Plymouth, Michigan 48170.

In accordance with the Asbestos Hazard Emergency Response Act (AHERA), all buildings owned and/or operated by K-12 school districts are required to be incorporated in the district's 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. It is recommended that acceptable statements be obtained and attached to this report for any future renovation/construction activities.

The following buildings are included:

School Building Number	Building	Address	Re-Inspection Date
1	Ivywood Classical Academy	14356 Genoa Court, Plymouth, Michigan 48170	7/09/2019

Local Education Agency (LEA) Name

Ivywood Classical Academy

**Building Summary**

School Building Number    School Building Name

1	Ivywood Classical Academy
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Building Address

Street

City

Zip

14356 Genoa Court	Plymouth	48170
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Building Contains:

1. Friable ACBM.	No
2. Non-Friable ACBM	No
3. Friable Material Assumed to be ACM.	No
4. Non-Friable Material Assumed to be ACM.	Yes
5. None of the Above.	

### **Company Statement**

This Management Plan and Inspection Report was prepared by NAS to assist Ivywood Classical Academy in meeting the requirements set forth by AHERA.

In preparation of this 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 responsibility of the owner/operator of the facility, also called the Local Education Agency (LEA); in this case the LEA is Ivywood Classical Academy. It is the responsibility of the LEA to read and understand the response actions, their obligations, timetables, and to determine if these actions are reasonable actions prior to signing the owner/operator statement. Any changes or additions to this document without written authorization from NAS will automatically void the inspection and management plan statements.

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 owner/operator has decided to change, the actual changes and rationale for the changes. NAS will not accept any responsibility for changes to any response actions that weren't stated previously by NAS

## **Asbestos Background**

Asbestos is a naturally occurring mineral. It is distinguished from other minerals by the fact that its crystals form long, thin fibers. Deposits of asbestos are found throughout the world. The primary sites of commercial production are Canada, China, Brazil, Zimbabwe, and South Africa. Asbestos is also mined commercially in limited quantities in the United States, in California and Vermont.

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 15 to 40 years after initial exposures to airborne asbestos fibers. In nearly all cases, many years of exposure to high levels of airborne ACM is necessary for personnel to contract asbestos-related diseases.

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.

## **Inspection Procedures**

Inspection procedures were conducted by a State of Michigan accredited Asbestos Building Inspector in accordance with AHERA requirements.

To complete this survey, the inspector(s) reviewed any available historic documentation and performed an inspection attempting to identify any suspect asbestos containing materials present. During the inspection, the inspector visually inspected materials for damage or the potential for damage.

### **Facility Recommendations**

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

Careful review of the included Survey Data and Response Actions should be conducted by the Districts 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 and Response Action Report will provide a description of what materials were found in each room, comments on the specific location and damage if any was observed and response actions to be taken for each of the known or assumed to contain ACM found in each area. The report titled Periodic Surveillance is intended to assist the Designated Person in completing the required periodic surveillance (at least 1 time every 6 months).

For materials that have been identified as damaged, it is recommended that a licensed abatement contractor be contacted to make any repairs or to conduct any removal activities needed.

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.

Prior to any renovation or maintenance activity, review the Management Plan to ensure materials being impacted by the renovation/activity do not contain asbestos. Should materials likely to be disturbed not be accurately described in the inspection reports, contact a licensed Asbestos Building Inspector to collect samples. Do not disturb materials not described in the Management Plan or materials identified as asbestos containing or assumed to contain asbestos.

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.

Records of future renovation activities should be kept. These records should include what materials were 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.

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. In addition, employees that are required to conduct minor cleanup projects shall be provided additional training.

### **Management Planner's Recommendations**

All of the ACM or suspect ACM identified in this report was noted by the inspector as being in good condition unless specifically mentioned below under each building name. Continue the facility's operations and maintenance program and conduct periodic assessments (at least every 6 months) of all known or assumed asbestos containing materials.

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. Please note that all work described below must be completed either by in house properly trained 16-hour asbestos operations and maintenance personnel or a licensed asbestos abatement contractor. Third-party air clearance testing should be conducted following any repair/removal actions described below:



Ivywood Classical Academy  
AHERA Management Plan & Inspection Report  
Project No. 190185  
July 22, 2019


**School Building Number 1 - Ivywood Classical Academy**

1. No damaged ACM or SACM was discovered during this 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	Date
Juston Rehkopf	A36980		July 22, 2019

#### Management Plan Statement

The person(s) listed below hereby attest(s) that he/she/they did review the asbestos re-inspection data collected by the asbestos building inspector for this re-inspection. Any recommendations are based on the above referenced inspection in accordance with AHERA regulations set forth in 40 CFR Section 763.93 (12), (ii).

Name	Accreditation No.	Signature	Date
John Rehkopf	A16809		July 22, 2019

Ivywood Classical Academy  
AHERA Management Plan & Inspection Report  
Project No. 190185  
July 22, 2019

**Local Education Information**

Local Education Agency (LEA): Ivywood Classical Academy  
LEA Address: 14356 Genoa Court, Plymouth, Michigan 48170  
Designated Person: Stephanie Kooiker  
Designated Person Address: 14356 Genoa Court, Plymouth, Michigan 48170  
Designated Person Telephone: 248-207-1757

**Training Certification**

The Designated Person(s) listed above 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 exposure
- Detection, identification and assessment of ACBM
- Options for controlling ACBM
- Asbestos management programs
- Relevant State and Federal regulations regarding asbestos
- The LEA/Designated Person responsibilities.

Training was provided by:

\_\_\_\_\_

Under the course titled:

\_\_\_\_\_

on: \_\_\_\_\_, and was \_\_\_\_\_ hours in length.

Designated Person Signature: \_\_\_\_\_ Date  
Stephanie Kooiker

### LEA Responsibility Certification

The Designated Person listed above 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 and 14 hours of operations and maintenance training (along with annual refreshers) as described in AHERA.
3. 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.
4. Short-term workers (e.g., telephone repair workers, utility workers or exterminators) are informed of the locations of ACBM in school buildings.
5. 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
6. Parents, teachers and employee organizations are notified in writing on an annual basis of the availability of the school's asbestos management plan.
7. The management plans are available for inspection in each school and the district office.
8. Records are properly maintained.
9. 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.
10. Re-inspections are conducted at least once every three years after a management plan is in effect.

As the Designated Person for Ivywood Classical Academy, I will ensure that the above items are completed in accordance with AHERA.

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Signature of Designated Person

Stephanie Kooiker

Date

### **Annual Notification**

Annual AHERA Notifications to Employees, Students, and Parents.

The Asbestos Hazard Emergency Response Act (AHERA) requires schools to "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 (763.84(c)). Such notification must be done in writing and a copy placed in the management plan. Suggested notification methods may be through the publication of an article in a school district newsletter or through a separate written notice distributed to staff and sent home to a student's parent or legal guardian.

In addition, schools "shall make management plans available for inspection to representatives of EPA and the State, the public, including parents, teachers, and other school personnel within 5 working days after receiving a request for inspection (763.93(g)(3)). Furthermore, "the local education agency shall notify in writing parent, teacher, and employee organizations of the availability of management plans and shall include in the management plan a description of steps to notify such organizations, and a dated copy of the notification. In the absence of any such organizations for parents, teachers, or employees, the local education agency shall provide written notice to that relevant group of the availability of management plans and shall include in the management plan a description of the steps taken to notify such groups and a dated copy of the notification" ( 763.93(g)(4).

The LEA asbestos designated person for the school district is to ensure that these AHERA required notifications occur each school year. The school may determine when to do AHERA notification, as long as it occurs at least once each school year.

A copy of the annual notification can be found in Appendix A.

**Appendix A**  
**Notifications & Forms**

## Annual AHERA Notification

Ivywood Classical Academy has an Asbestos Management Plan in place in accordance with the Asbestos Hazard Emergency Response Act (AHERA). The plan is available for review in the main office. Please call Mrs. Stephanie Kooiker at (248-207-1757) to view during normal operational hours, 8AM to 4PM Monday through Friday with the exception of holidays.

In accordance with AHERA requirements, Ivywood Classical Academy has contracted Northern Analytical Services, LLC. (NAS) to perform all re-inspections of known asbestos containing materials present, to prepare written project designs for all response actions and to perform all post response action testing. As part of this plan, NAS performed the most recent 3-year re-inspection on 7/09/2019.

Over the past 12 months, the following materials were removed from our buildings:

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In the next 12 months we are planning to remove the following materials from our buildings:

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Prior to conducting any work that disturbs asbestos, Ivywood Classical Academy will notify all parents and building staff in advance.

Sincerely,

Stephanie Kooiker  
Ivywood Classical Academy

## **Asbestos Removal Notification**

In an effort to provide our students with the best learning environment possible, Ivywood Classical Academy is planning a building improvement project that will require the disturbance of asbestos containing materials. We have retained the services of a State of Michigan accredited Asbestos Project Designer to prepare written specifications to help ensure the work is completed in the safest manner possible. All removal work will be performed by a State of Michigan licensed asbestos abatement contractor and overseen by a qualified third-party air quality testing firm.

Third party air clearance testing will be performed before the areas affected by the asbestos removal are returned to normal use.

Asbestos Removal is scheduled to be removed from the following buildings:

Building Name	Start Date	Completion Date

Please contact our District's Designated Person, Mrs. Stephanie Kooiker at 248-207-1757 with any questions.





Local Education Agency (LEA) Name

Ivywood Classical Academy

School Building Number/Name

1-Ivywood Classical Academy

**Periodic Surveillance**

1. Name of Person Performing the Surveillance:

Last

First

M.I.

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2. Date of the Surveillance:

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3. Description of any Changes in the Condition of the Materials:

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## **Appendix B**

### **Inspection Data**

# **Material Report**

# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

Customer:

Building:

Address:

Choice Schools Associates  
Ivywood Classical Academy

14356 Genoa Court  
Plymouth, MI

Printed:

July 22, 2019

## Material Report

<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Category</i>	<i>Friability*</i>	<i>RACM**</i>	<i>Asbestos Detected</i>	<i>Percent Asbestos</i>	<i>Asbestos Type</i>	<i>Quantity</i>	<i>Units</i>
1	Caulk - Soft white on interior side of exterior steel door frame	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
2	Caulk - Soft tan on exterior side of exterior steel door frame	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
3	Caulk - Soft tan on exterior roll up door	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
4	Caulk - Soft tan on exterior expansion joint	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
5	Cove Base - 4 inch black	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
6	Caulk - Soft black on exterior aluminum window frame	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
7	Caulk - Soft white on interior expansion joint	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
8	Drywall & Joint Compound -	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
9	Caulk - Soft white on interior steel door frame	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
10	Mastic - Black	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
11	Floor Tile - 12 inch grey	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
12	Ceramic Tile & Grout - 5 inch grey	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
13	Stair Tread - Black with 1 inch circles	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
14	Floor Tile - 12 inch grey with grey flecks	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
15	Ceramic Tile & Grout - 4 inch white	Misc.	No	No	No	0	None Detected	0	Sq.Ft.

\* Non-Friable materials may become friable when damaged.

\*\* May become regulated asbestos containing material (RACM) when damaged.

Misc. = miscellaneous material

Surfacing = surfacing material

Thermal = thermal system insulation

RACM = regulated asbestos containing material

# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

Customer:

Building:

Address:

Choice Schools Associates  
Ivywood Classical Academy

14356 Genoa Court  
Plymouth, MI

Printed:

July 22, 2019

## Material Report

<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Category</i>	<i>Friability*</i>	<i>RACM**</i>	<i>Asbestos Detected</i>	<i>Percent Asbestos</i>	<i>Asbestos Type</i>	<i>Quantity</i>	<i>Units</i>
16	Ceramic Tile & Grout - 2 inch grey	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
17	Sink Undercoating - White	Surfacing	No	No	No	0	None Detected	0	Sq.Ft.
18	Ceiling Tile - 2x4 random punctures and pinholes	Misc.	Yes	No	No	0	None Detected	0	Sq.Ft.
19	Fire Rated Door - steel with 1 ft slit window	Misc.	Category II Non-Friable	Yes	Yes	0	Assumed	7	Each
20	Ceiling Tile - 2x2 random punctures and pinholes	Misc.	Yes	No	No	0	None Detected	0	Sq.Ft.
21	Dampener Clothe - Black	Misc.	Yes	No	No	0	None Detected	0	Sq.Ft.
22	Fire Rated Door - Interior steel	Misc.	Category II Non-Friable	Yes	Yes	0	Assumed	4	Each
23	Floor Tile - 12 inch white with grey and black flecks	Misc.	No	No	No	0	None Detected	0	Sq.Ft.
24	Floor Tile - 12 inch grey with tiny bumps	Misc.	No	No	No	0	None Detected	0	Sq.Ft.

\* Non-Friable materials may become friable when damaged.

\*\* May become regulated asbestos containing material (RACM) when damaged.

Misc. = miscellaneous material

Surfacing = surfacing material

Thermal = thermal system insulation

RACM = regulated asbestos containing material

# **Inspection Report**



# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

Customer:

Building:

Address:

Choice Schools Associates  
Ivywood Classical Academy

14356 Genoa Court

Plymouth, MI

Printed:

July 22, 2019

## Inspection Report

<i>Room Number</i>	<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Asbestos Detected</i>	<i>Asbestos Type</i>	<i>Quantity</i>	<i>Units</i>	<i>Comments</i>
206	22	Fire Rated Door - Interior steel	Yes	Assumed	2	Each	2 doors
222	22	Fire Rated Door - Interior steel	Yes	Assumed	2	Each	2 doors
C5	19	Fire Rated Door - steel with 1 ft slit window	Yes	Assumed	1	Each	1 door
E. Stair	19	Fire Rated Door - steel with 1 ft slit window	Yes	Assumed	3	Each	3 doors
W. stair	19	Fire Rated Door - steel with 1 ft slit window	Yes	Assumed	3	Each	3 doors

# **Sample Location Report**

# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

Customer:

Building:

Address:

Choice Schools Associates  
Ivywood Classical Academy

14356 Genoa Court  
Plymouth, MI

Printed:

July 22, 2019

## Sample Location Report

<i>Sample Number</i>	<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Room Number</i>	<i>Sample Location</i>
101	1	Caulk - Soft white on interior side of exterior steel door frame	111	11 ft west of ne corner
102	1	Caulk - Soft white on interior side of exterior steel door frame	C5	3 ft west of ne
201	2	Caulk - Soft tan on exterior side of exterior steel door frame	111	14 ft west of ne corner
202	2	Caulk - Soft tan on exterior side of exterior steel door frame	C5	2 ft east of nw corner
301	3	Caulk - Soft tan on exterior roll up door	111	4 ft east of nw corner
302	3	Caulk - Soft tan on exterior roll up door	110	10 ft north of sw corner
401	4	Caulk - Soft tan on exterior expansion joint	111	Northwest corner outside
501	5	Cove Base - 4 inch black	111	Northwest corner
502	5	Cove Base - 4 inch black	115	19 ft west 18 ft south of ne corner
601	6	Caulk - Soft black on exterior aluminum window frame	111	14 ft east of nw corner
602	6	Caulk - Soft black on exterior aluminum window frame	129	4 ft south of ne corner
701	7	Caulk - Soft white on interior expansion joint	111	12 ft north of sw corner
801	8	Drywall & Joint Compound -	109	2 ft south of nw corner
802	8	Drywall & Joint Compound -	201	3 ft south 3 ft east of nw corner
901	9	Caulk - Soft white on interior steel door frame	111	17 ft west of se corner
902	9	Caulk - Soft white on interior steel door frame	125	5 ft east of sw corner

# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

Customer:

Building:

Address:

Choice Schools Associates

Ivywood Classical Academy

14356 Genoa Court

Plymouth, MI

Printed:

July 22, 2019

## Sample Location Report

<i>Sample Number</i>	<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Room Number</i>	<i>Sample Location</i>
1001	10	Mastic - Black	109	3 ft east 8 ft south of nw corner
1002	10	Mastic - Black	106	4 ft west of ne corner
1101	11	Floor Tile - 12 inch grey	109	7 ft west 2 ft north of se corner
1102	11	Floor Tile - 12 inch grey	125	5 ft south of nw corner
1201	12	Ceramic Tile & Grout - 5 inch grey	C6	3 ft south 5 ft west of ne corner
1301	13	Stair Tread - Black with 1 inch circles	W. stair	17 ft east 3 ft south of nw corner
1401	14	Floor Tile - 12 inch grey with grey flecks	115	17 ft south of ne corner
1501	15	Ceramic Tile & Grout - 4 inch white	130	Northeast corner
1601	16	Ceramic Tile & Grout - 2 inch grey	201	5 ft south of nw corner
1701	17	Sink Undercoating - White	129	7 ft west of ne corner
1801	18	Ceiling Tile - 2x4 random punctures and pinholes	102	3 ft south 2 ft east of nw corner
2001	20	Ceiling Tile - 2x2 random punctures and pinholes	200	10 ft north 17 ft west of se corner
2101	21	Dampener Cloth - Black	222	12 ft south 9 ft west of ne corner
2301	23	Floor Tile - 12 inch white with grey and black flecks	230	6 ft east of sw corner
2401	24	Floor Tile - 12 inch grey with tiny bumps	205	23 ft south 4 ft east of nw corner

# **Response Action Report**

# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

LEA:  
Building:  
Building No.:  
Address:

Choice Schools Associates  
Ivywood Classical Academy

14356 Genoa Court  
Plymouth, MI

## Response Action Report

Printed:

July 22, 2019

<i>Room Number</i>	<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Quantity</i>	<i>Units</i>	<i>Comments</i>	<i>Response Action (AHERA Ranking)</i>
206	22	Fire Rated Door - Interior steel	2	Each	2 doors	maintain with O&M plan. (7)
222	22	Fire Rated Door - Interior steel	2	Each	2 doors	maintain with O&M plan. (7)
C5	19	Fire Rated Door - steel with 1 ft slit window	1	Each	1 door	maintain with O&M plan. (7)
E. Stair	19	Fire Rated Door - steel with 1 ft slit window	3	Each	3 doors	maintain with O&M plan. (7)
W. stair	19	Fire Rated Door - steel with 1 ft slit window	3	Each	3 doors	maintain with O&M plan. (7)

## **Estimated Abatement Costs**

# Northern Analytical Services, LLC.

14870 225th Avenue, Big Rapids, MI 49307 - (231) 268-0004 - Fax (866) 214-4739

Customer:

Building:

Address:

Choice Schools Associates  
Ivywood Classical Academy

14356 Genoa Court

Plymouth, MI

Printed:

July 22, 2019

## Asbestos Liability Report

<i>Material Number</i>	<i>Homogeneous Material Description</i>	<i>Asbestos Detected</i>	<i>Abatement Rate</i>	<i>Abatement Cost</i>	<i>Total Asbestos Liability for Building</i>
19	Fire Rated Door - steel with 1 ft slit window	Yes - 7 Each	\$100.00	\$700.00	\$1,100.00
22	Fire Rated Door - Interior steel	Yes - 4 Each	\$100.00	\$400.00	



# Laboratory Report



**The Identification Specialists**

Analysis Report  
prepared for  
Northern Analytical Services, LLC

**Report Date: 7/15/2019**

**Project Name: Ivywood Academy**

**Project #: 190185**

**SanAir ID#: 19033671**



NVLAP LAB CODE 200870-0

1551 Oakbridge Dr. Suite B | Powhatan, Virginia 23139-8061  
888.895.1177 | 804.897.1177 | fax: 804.897.0070 | [IAQ@SanAir.com](mailto:IAQ@SanAir.com) | [SanAir.com](http://SanAir.com)



SanAir ID Number  
19033671  
FINAL REPORT  
7/15/2019 12:06:43 PM

**Name:** Northern Analytical Services, LLC  
**Address:** 14870 225th Avenue  
Big Rapids, MI 49307  
**Phone:** 231-679-0005

**Project Number:** 190185  
**P.O. Number:**  
**Project Name:** Ivywood Academy  
**Collected Date:** 7/9/2019  
**Received Date:** 7/11/2019 9:35:00 AM

Dear Juston Rehkopf,

We at SanAir would like to thank you for the work you recently submitted. The 31 sample(s) were received on Thursday, July 11, 2019 via FedEx. The final report(s) is enclosed for the following sample(s): 101, 102, 201, 202, 301, 302, 401, 501, 502, 601, 602, 701, 801, 802, 901, 902, 1001, 1002, 1101, 1102, 1201, 1301, 1401, 1501, 1601, 1701, 1801, 2001, 2101, 2301, 2401.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

A handwritten signature in black ink that reads "Sandra Sobrino". The signature is fluid and cursive.

Sandra Sobrino  
Asbestos & Materials Laboratory Manager  
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

Sample conditions:

- 31 samples in Good condition.



SanAir ID Number  
**19033671**  
 FINAL REPORT  
 7/15/2019 12:06:43 PM

**Name:** Northern Analytical Services, LLC  
**Address:** 14870 225th Avenue  
 Big Rapids, MI 49307  
**Phone:** 231-679-0005

**Project Number:** 190185  
**P.O. Number:**  
**Project Name:** Ivywood Academy  
**Collected Date:** 7/9/2019  
**Received Date:** 7/11/2019 9:35:00 AM

Analyst: Pisula, Nicholas

### Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
101 / 19033671-001 Caulk-On Inside Of Exterior Steel Door Frame	Grey Non-Fibrous Homogeneous		100% Other	None Detected
102 / 19033671-002 Caulk-On Inside Of Exterior Steel Door Frame	Grey Non-Fibrous Homogeneous		100% Other	None Detected
201 / 19033671-003 Caulk-On Ext. Of Exterior Steel Door Frame	Brown Non-Fibrous Homogeneous		100% Other	None Detected
202 / 19033671-004 Caulk-On Ext. Of Exterior Steel Door Frame	Brown Non-Fibrous Homogeneous		100% Other	None Detected
301 / 19033671-005 Caulk-On Ext. Roll Up Door Frame	Brown Non-Fibrous Homogeneous		100% Other	None Detected
302 / 19033671-006 Caulk-On Ext. Roll Up Door Frame	Brown Non-Fibrous Homogeneous		100% Other	None Detected
401 / 19033671-007 Caulk-On Exterior Expansion Joint	Brown Non-Fibrous Homogeneous		100% Other	None Detected
501 / 19033671-008 Cove Base -4 Inch, Cove Base	Black Non-Fibrous Homogeneous		100% Other	None Detected
501 / 19033671-008 Cove Base -4 Inch, Mastic	Brown Non-Fibrous Homogeneous		100% Other	None Detected
502 / 19033671-009 Cove Base -4 Inch, Cove Base	Black Non-Fibrous Homogeneous		100% Other	None Detected

Analyst: *Nicholas Pisula*

Approved Signatory: *Johnathan Wilson*

Analysis Date: 7/13/2019

Date: 7/15/2019



SanAir ID Number  
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Analyst: Pisula, Nicholas

### Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic Components		Asbestos Fibers
	Appearance	% Fibrous / % Non-fibrous	
502 / 19033671-009 Cove Base -4 Inch, Mastic	Brown Non-Fibrous Homogeneous	100% Other	None Detected
601 / 19033671-010 Caulk-On Ext. Aluminum Window Frame	Grey Non-Fibrous Homogeneous	100% Other	None Detected
602 / 19033671-011 Caulk-On Ext. Aluminum Window Frame	Grey Non-Fibrous Homogeneous	100% Other	None Detected
701 / 19033671-012 Caulk-On Int. Expansion Joint	White Non-Fibrous Homogeneous	100% Other	None Detected
801 / 19033671-013 Drywall & Joint Compound, Drywall	Grey Non-Fibrous Homogeneous	100% Other	None Detected
801 / 19033671-013 Drywall & Joint Compound, Joint Compound	White Non-Fibrous Homogeneous	100% Other	None Detected
802 / 19033671-014 Drywall & Joint Compound, Drywall	Grey Non-Fibrous Homogeneous	100% Other	None Detected
802 / 19033671-014 Drywall & Joint Compound, Joint Compound	White Non-Fibrous Homogeneous	100% Other	None Detected
901 / 19033671-015 Caulk-On Int Steel Door Frame	Grey Non-Fibrous Homogeneous	100% Other	None Detected
902 / 19033671-016 Caulk-On Int Steel Door Frame	Grey Non-Fibrous Homogeneous	100% Other	None Detected

Analyst: *Nicholas Pisula*

Approved Signatory: *Jonathan Wilson*

Analysis Date: 7/13/2019

Date: 7/15/2019



SanAir ID Number  
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Analyst: Pisula, Nicholas

### Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
1001 / 19033671-017 Mastic	Black Non-Fibrous Homogeneous		100% Other	None Detected
1002 / 19033671-018 Mastic	Black Non-Fibrous Homogeneous		100% Other	None Detected
1101 / 19033671-019 Floor Tile -12Inch, Floor Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1101 / 19033671-019 Floor Tile -12Inch, Mastic	Black Non-Fibrous Homogeneous		100% Other	None Detected
1102 / 19033671-020 Floor Tile -12Inch, Floor Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1102 / 19033671-020 Floor Tile -12Inch, Mastic	Black Non-Fibrous Homogeneous		100% Other	None Detected
1201 / 19033671-021 Ceramic Tile & Grout 5 Inch, Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1201 / 19033671-021 Ceramic Tile & Grout 5 Inch, Grout	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1301 / 19033671-022 Stair Tread, Stair Tread	Black Non-Fibrous Homogeneous		100% Other	None Detected
1301 / 19033671-022 Stair Tread, Mastic	Tan Non-Fibrous Homogeneous		100% Other	None Detected

Analyst: *Nicholas Pisula*

Approved Signatory: *Jonathan Wilson*

Analysis Date: 7/13/2019

Date: 7/15/2019



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**Project Number:** 190185  
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**Project Name:** Ivywood Academy  
**Collected Date:** 7/9/2019  
**Received Date:** 7/11/2019 9:35:00 AM

Analyst: Pisula, Nicholas

### Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic Components			Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
1401 / 19033671-023 Floor Tile -12 Inch, Floor Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1401 / 19033671-023 Floor Tile -12 Inch, Mastic	Black Non-Fibrous Homogeneous		100% Other	None Detected
1501 / 19033671-024 Ceramic Tile & Grout -4 Inch, Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
1501 / 19033671-024 Ceramic Tile & Grout -4 Inch, Grout	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1501 / 19033671-024 Ceramic Tile & Grout -4 Inch, Mastic	Tan Non-Fibrous Homogeneous		100% Other	None Detected
1601 / 19033671-025 Ceramic Tile & Grout -2 Inch, Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1601 / 19033671-025 Ceramic Tile & Grout -2 Inch, Grout	Grey Non-Fibrous Homogeneous		100% Other	None Detected
1601 / 19033671-025 Ceramic Tile & Grout -2 Inch, Mastic	Tan Non-Fibrous Homogeneous		100% Other	None Detected
1701 / 19033671-026 Sink Undercoating	White Non-Fibrous Homogeneous		100% Other	None Detected
1801 / 19033671-027 Ceiling Tile -2x4 Random	White Fibrous Homogeneous	60% Cellulose 15% Glass 15% Min. Wool	10% Other	None Detected

Analyst: *Nicholas Pisula*

Approved Signatory: *Jonathan Wilson*

Analysis Date: 7/13/2019

Date: 7/15/2019



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**Project Number:** 190185  
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**Collected Date:** 7/9/2019  
**Received Date:** 7/11/2019 9:35:00 AM

Analyst: Pisula, Nicholas

### Asbestos Bulk PLM EPA 600/R-93/116

SanAir ID / Description	Stereoscopic	Components		Asbestos Fibers
	Appearance	% Fibrous	% Non-fibrous	
2001 / 19033671-028 Ceiling Tile -2x2 Random	White Fibrous Homogeneous	60% Cellulose 15% Glass 15% Min. Wool	10% Other	None Detected
2101 / 19033671-029 Dampener Cloth	Black Non-Fibrous Homogeneous	20% Glass	80% Other	None Detected
2301 / 19033671-030 Floor Tile -12 Inch, Floor Tile	White Non-Fibrous Homogeneous		100% Other	None Detected
2301 / 19033671-030 Floor Tile -12 Inch, Mastic	Tan Non-Fibrous Homogeneous		100% Other	None Detected
2401 / 19033671-031 Floor Tile -12 Inch, Floor Tile	Grey Non-Fibrous Homogeneous		100% Other	None Detected
2401 / 19033671-031 Floor Tile -12 Inch, Mastic	Tan Non-Fibrous Homogeneous		100% Other	None Detected

Analyst: *Nicholas Pisula*

Approved Signatory: *Johnathan Wilson*

Analysis Date: 7/13/2019

Date: 7/15/2019



## **Disclaimer**

The final report cannot be reproduced, except in full, without written authorization from SanAir. Fibers smaller than 5 microns cannot be seen with this method due to scope limitations. The accuracy of the results is dependent upon the client's sampling procedure and information provided to the laboratory by the client. SanAir assumes no responsibility for the sampling procedure and will provide evaluation reports based solely on the sample and information provided by the client. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Samples are held for a period of 60 days.

For NY state samples, method EPA 600/M4-82-020 is performed.

Polarized- light microscopy is not consistently reliable in detecting asbestos in floor covering and similar non-friable organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

### Asbestos Certifications

NVLAP lab code 200870

City of Philadelphia: ALL-460

PA Department of Environmental Protection Number: 68-05397

California License Number: 2915

Colorado License Number: AL-23143

Connecticut License Number: PH-0105

Massachusetts License Number: AA000222

Maine License Number: LB-0075

New York ELAP lab ID: 11983

Rhode Island License Number: AAL-126

Texas Department of State Health Services License Number: 300440

Commonwealth of Virginia 3333000323

Washington State License Number: C989

West Virginia License Number: LT000566

Vermont License: AL166318

Revision Date: 11/30/2017



1551 Oakbridge Drive Suite B  
 Powhatan, VA 23139  
 804-897-1177 / 888-895-1177  
 Fax 804-897-0070  
 www.sanair.com

**Asbestos  
 Chain of Custody**

SanAir ID Number  19033671
----------------------------------

Company: Northern Analytical Services, LLC	Project #: 190185	Collected by: <i>Justin Kellkopf</i>
Address: 14870 225th Avenue	Project Name: <i>Ivywood Academy</i>	Phone #: 231-679-0005
City, St., Zip: Big Rapids, MI 49307	Date Collected: <i>7-9-19</i>	Fax #: 866-214-4739
State of Collection: MI Account#: 2409	P.O. Number:	Email: <i>Justin@northernas.com</i>

Bulk			Air			Soil/Vermiculite		
ABB	PLM EPA 600/R-93/116	<input checked="" type="checkbox"/>	ABA	PCM NIOSH 7400	<input type="checkbox"/>	ABSE	PLM EPA 600/R-93/116 (Qual.)	<input type="checkbox"/>
	Positive Stop	<input checked="" type="checkbox"/>	ABA-2	OSHA w/ TWA*	<input type="checkbox"/>	ABSP	PLM CARB 435 (LOD <1%)	<input type="checkbox"/>
ABEPA	PLM EPA 400 Point Count	<input type="checkbox"/>	ABTEM	TEM AHERA	<input type="checkbox"/>	ABSP1	PLM CARB 435 (LOD 0.25%)	<input type="checkbox"/>
ABB1K	PLM EPA 1000 Point Count	<input type="checkbox"/>	ABATN	TEM NIOSH 7402	<input type="checkbox"/>	ABSP2	PLM CARB 435 (LOD 0.1%)	<input type="checkbox"/>
ABBEN	PLM EPA NOB	<input type="checkbox"/>	ABT2	TEM Level II	<input type="checkbox"/>			
ABBCH	TEM Chatfield	<input type="checkbox"/>						
ABBTM	TEM EPA NOB	<input type="checkbox"/>						
Water			New York ELAP			Dust		
ABHE	EPA 100.2	<input type="checkbox"/>	PLM NY	PLM EPA 600/M4-82-020	<input type="checkbox"/>	ABWA	TEM Wipe ASTM D-6480	<input type="checkbox"/>
			ABEPA2	NY ELAP 198.1	<input type="checkbox"/>	ABDMV	TEM Microvac ASTM D-5755	<input type="checkbox"/>
			ABENY	NY ELAP 198.6 PLM NOB	<input type="checkbox"/>	Matrix	Other	
			ABBNY	NY ELAP 198.4 TEM NOB	<input type="checkbox"/>			<input type="checkbox"/>

Turn Around Times	3 HR (4 HR TEM) <input type="checkbox"/>	6 HR (8HR TEM) <input type="checkbox"/>	12 HR <input type="checkbox"/>	24 HR <input checked="" type="checkbox"/>
	2 Days <input type="checkbox"/>	3 Days <input type="checkbox"/>	4 Days <input type="checkbox"/>	5 Days <input type="checkbox"/>

**Special Instructions** Point count for less than 1%

Sample #	Sample Identification/Location	Volume or Area	Sample Type	Flow Rate*	Time* Start - Stop
101	caulks - on inside of exterior steel door frame				
102					
201	caulks - on ext. of exterior steel door frame				
202					
301	caulks - on ext. roll up door frame				
302					
401	caulks - on exterior expansion joint				
501	cover base - 4 inch - black				
502					
601	caulks - on ext. aluminum window frame				
602					
701	caulks - on into expansion joint				

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	7-10-19	4:30 pm	<i>[Signature]</i>	JUL 11 2019	9:35

Unless scheduled, the turn around time for all samples received after 3 pm EST Friday will begin at 8 am Monday morning. Weekend or Holiday work must be scheduled ahead of time and is charged for rush turn around time. Work with standard turn around time sent Priority Overnight and Billed to Recipient will be charged a \$10 shipping fee.

19033771

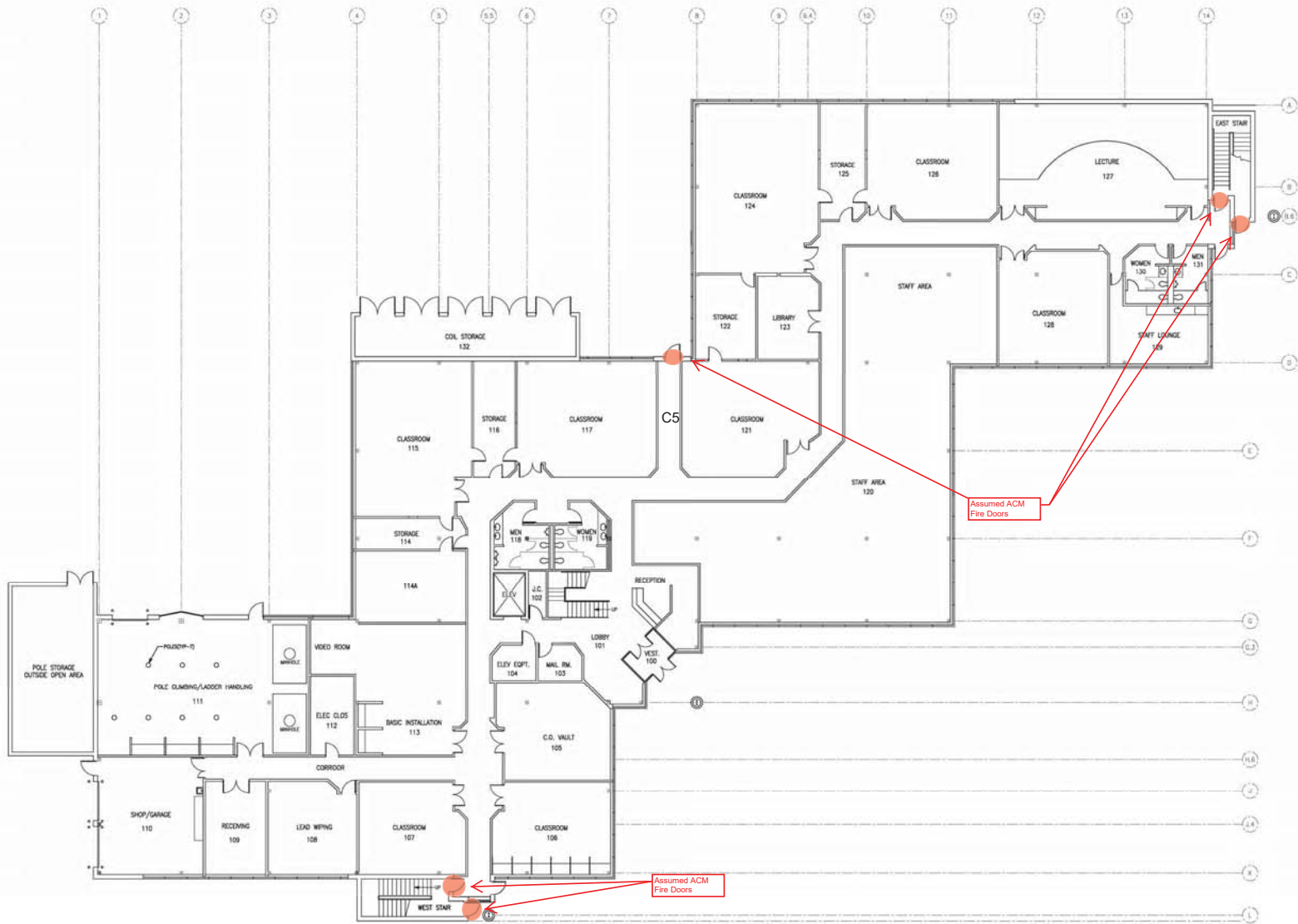
Sample #	Sample Identification/Location	Sample Type	Flow Rate*	Time* Start - Stop
801	dry wall + joint compound			
802				
901	caulk-on into steel door frame			
902				
1001	black mastic			
1002				
1101	Floor tile - 12 inch - grey			
1102				
1201	ceramic tile + grout - 5 inch - grey			
1301	stair tread - black			
1401	Floor tile - 12 inch - grey w/ grey flecks			
1501	ceramic tile + grout - 4 inch - white			
1601	ceramic tile + grout - 2 inch - grey			
1701	sink undercoating - white			
1801	ceiling tile - 2x4 - random punctures + pinholes			
2001	ceiling tile - 2x2 - random punctures + pinholes			
2101	dampener cloth - black			
2301	Floor tile - 12 inch - white w/ grey flecks			
2401	<del>12 inch</del> Floor tile - 12 inch - grey with bumps			

Special Instructions

Relinquished by	Date	Time	Received by	Date	Time
<i>[Signature]</i>	7-10-19	4:30 pm	<i>[Signature]</i>	JUL 11 2019	9:35

Unless scheduled, the turn around time for all samples received after 3 pm Friday will begin at 8 am Monday morning. Weekend or Holiday work must be scheduled ahead of time and is charged for rush turn around time. Work with standard turn around time sent Priority Overnight and Billed to Recipient will be charged a \$10 shipping fee.

**Drawing**

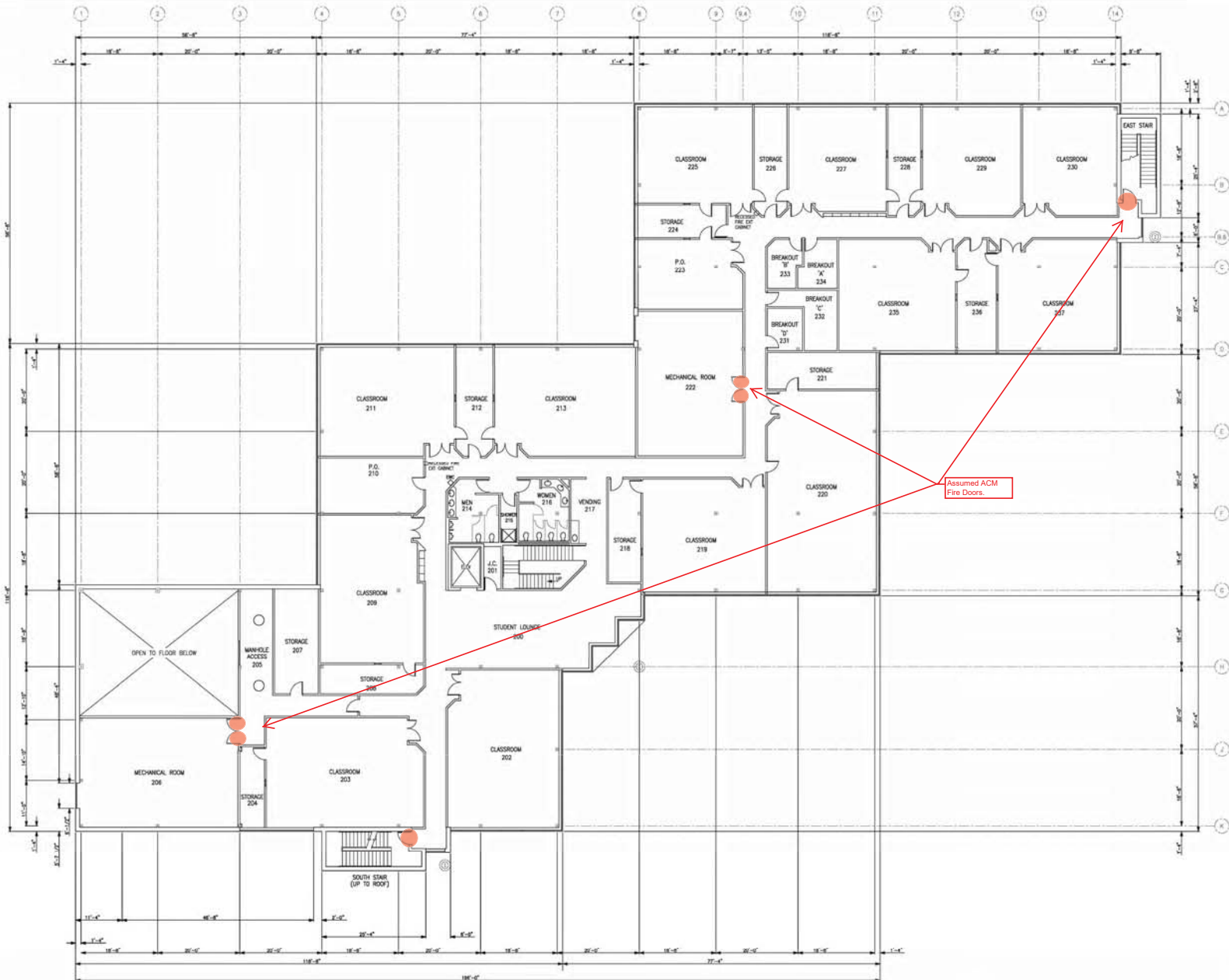


FIRST FLOOR ARCHITECTURAL PLAN

SCALE: 1/8"=1'-0"



BASE_DRAWING			
01			
14356 GENOA CT			
PLYMOUTH			
MI US			
PLMOM/CP	114512.01.01	M64272	
FIRST FLOOR PLAN			
ARCHITECTURAL			
DATE: 8/24/11	SCALE: 1/8"=1'-0"		
DRAWN BY: DK	CHECKED BY:		
SHEET: 1	OF: --	SHEETS:	SHEET NO.:
DATE: Project Manager	M64272A01	A01	



**SECOND FLOOR ARCHITECTURAL PLAN**

SCALE: 1/8"=1'-0"



BASE_DRAWING			
02			
14356 GENOA CT			
PLYMOUTH			
MI US			
PLMOMCP	114512.01.02	M64272	
SECOND FLOOR PLAN			
ARCHITECTURAL			
DATE: 8/24/11	SCALE: 1/8"=1'-0"		
DRAWN BY: DK	CHECKED BY:		
DATE: 1	DATE:	DATE:	DATE:
ADAT Project Manager	M64272A02	A02	