



healthAIR - Industrial Hygiene Services cleanWATER - Consulting & Testing Services safeEARTH - Hazardous Waste & Recycling Services

November 15, 2021

Mr. Bernie Rice Executive Director, Physical Properties Ann Arbor Public Schools 2555 South State Street Ann Arbor, Michigan 48104

RE: Project #AE210780

Asbestos Abatement Report Community High School

Dear Mr. Rice:

Per your request, Arch Environmental Group, Inc. (AEG) conducted project coordination and air monitoring activities for a small-scale, short duration asbestos abatement project at Community High School on November 5-6, 2021. Environmental Maintenance Engineers, a State of Michigan licensed asbestos abatement contractor, drilled anchor holes in asbestos ceiling plaster throughout the 1st Floor North Hallway and Connection Hallway. The asbestos ceiling plaster was removed using Class II procedures and wet methods inside of a full negative enclosure. The asbestos ceiling plaster was properly disposed of as asbestos waste.

AEG conducted air monitoring during abatement activities during the abatement activities. The collected air samples have been analyzed utilizing Phase Contrast Microscopy (PCM) in accordance with NIOSH 7400 Methodologies. AEG uses the following nomenclature for referencing different types of air samples:

- FB Field Blank
- SS Set Up Sample
- AS Area Sample
- PS Personal Sample
- PA Clearance (Post-Abatement) Sample

Following a thorough visual inspection of the project area, the PCM clearance samples collected in the 1st Floor North Hallway and Connection Hallway at Community High School on November 5-6, 2021, were analyzed below the AHERA PCM Clearance Level of 0.01 fibers per cubic centimeter (f/cc). The project areas shall be considered safe for re-occupancy.

Arch Environmental Group, Inc. looks forward to working with you in the future and helping you to address any concerns regarding environmental health and safety. If you have any questions regarding this report, or if I can be of further assistance please feel free to contact me at (248) 426-0165.

### Project #AE210780

Asbestos Abatement Project Report Ann Arbor Public Schools Community High School Page 2

Sincerely,

Arch Environmental Group, Inc. Environmental Services

Gary Bosh

Project Consultant II, healthAIR

Attachments: Asbestos Daily Project Reports

**Contractor Documentation** 

File: AE210780



### Attachment

Asbestos Daily Project Reports





### ASBESTOS DAILY PROJECT REPORTS

On-Site Activity Summary

Client: Ann Arbor Public Schools

AFDs used:

Yes

**Building:** Community High School

Location: 1st Floor Project #: AE210780 **Date:** 11.5.2021 **Consultant:** Arch Environmental Group, Inc.

Project Technician: Thinh Nguyen

Abatement Contractor: Environmental Maintenance Engineers, Inc.

OSHA Personal Sampling Posting:

Yes

Competent Person: Matt Kelly

Abatement Information		Regulated Area Information		Air Sample Information	
OSHA Work Class	Ш	Enclosure Integrity Check (start of work shift):	Yes	Air samples collected:	Yes
		Corrections necessary:	No	Calibrated pumps:	Yes
Contractor Activities		Corrections made:	No	Baseline samples (BL)	no
Set-up procedures conducted:	Yes	Enclosure Integrity Check (middle of work shift):	Yes	Set-up samples (SS)	Yes
Abatement procedures conducted:		Corrections necessary:	No	Personal samples (8 hr TWA) (PS)	Yes
Removal:	Yes	Corrections made:	No	Above/Below PEL:	Below
Encapsulation:	No	Enclosure Integrity Check (end of work shift):	Yes	Personal samples (STEL) (PS)	Yes
Repair:	No	Corrections necessary:	Yes	Above/Below PEL:	Below
Enclosure:	No	Corrections made:	Yes	Above/Below STEL:	Below
Wet methods used:	Yes	Negative air maintained:	Yes	Area samples (AS)	Yes
Clean up procedures:	Yes	Manometer reading: <#>		PCM Clearance samples (PA)	No
Waste bags checked:	Yes	Smoke testing conducted:	Yes	Passed:	N/A
Conducted by: <x></x>		Conducted by: <x></x>		Aggressive:	N/A
# of Waste Bags: <#>		Asbestos signs in place:	Yes	TEM Clearance samples (PA)	No
Final cleaning procedures:	Yes	Asbestos banner tape in place:	Yes	Passed:	N/A
Visual inspection:	Yes	Shower operational:	Yes	Aggressive:	N/A
Conducted by: <x></x>		Dumpster secure at end of day:	Yes		
Lock-down activities:	Yes	PPE - Disposable coveralls (Contractor):	Yes	Personal Samples Collected On:	
Tear-down procedures:	Yes	PPE - Respirators (Contractor):	Yes	Name(s): Patrick O'Boyle	
		Type:	HFNPR	A worker/workers who is/are representative	of all workers
Abatement Method(s)		PPE - Disposable coveralls (Consultant):	Yes	within the work area (all workers are conduc	ting similar
Full Enclosure		PPE - Respirators (Consultant):	Yes	activities)	
Non-Friable Project		Туре:	HFNPR		
				Required Postings	
Criticals set-up:	Yes	Did Consultant enter enclosure:	No	Notification:	Yes
Shower set-up:	Yes	Time (A.M.): <##:## a.m ##:#	## a.m.>	Supervisor/Competent Person Training:	Yes

Time (P.M.): <##:## p.m. - ##:## p.m.>



### ASBESTOS DAILY PROJECT REPORTS Contractor and Materials Information

Client: Ann Arbor Public Schools Date: 11.5.2021 Consultant: Arch Environmental Group, Inc.

Building: Community High School Project Technician: Thinh Nguyen

Location:1st FloorAbatement Contractor:Environmental Maintenance Engineers, Inc.Project #:AE210780Competent Person:Matt Kelly

**Abatement Personnel Information** 

#### **Abatement Personnel Information**

### Materials Abated - Quantity & Location

Workers /	Accreditation Numbers			Workers /	Accreditation Numbers		
Name:	Matt Kelly	Type:	Supervisor	Name:	Gregory Nagle	Type:	Supervisor
Accred #:	A34636	Training:		Accred #:	A47962	Training	
Exp. Date:	7/28/2022	Fit test:		Exp. Date:	9/22/2022	Fit test:	
Activity:	Supervisor	PWO:		Activity:	Removal of misc. NF	PWO:	
Personal #:	N/A (No abate. activities)			Personal #:	PS1		
Name:	Timothy Casey	Type:	Supervisor	Name:	Patrick O'Boyle	Type:	Supervisor
Accred #:	A49184	Training:		Accred #:	A50125	Training	
Exp. Date:	7/20/2022	Fit test:		Exp. Date:	3/14/2022	Fit test:	
Activity:	Removal of misc. NF	PWO:		Activity:	Removal of misc. NF	PWO:	
Personal #:	PS1			Personal #:	PS1		
Name:		Type:		Name:		Type	
Accred #:		Training:		Accred #:		Training	
Exp. Date:		Fit test:		Exp. Date:		Fit test:	
Activity:		PWO:		Activity:		PWO:	
Personal #:				Personal #:			

Material	sf/lf/#	Locations
Other Class II	50	1st Floor North Hall & Connection Hall

### **Additional Work Activities**

Were work activities conducted that were not included in original scope-ofwork or that need to be tracked on a T&M basis?

No



# ASBESTOS DAILY PROJECT REPORTS Air Sample Analysis Information

Client: Ann Arbor Public Schools

Building: Community High School

Location: 1st Floor
Project #: AE210780

Samples Collected By: Sample Collection Date: Thinh Nguyen 11.5.2021

Samples Analyzed By: Sample Analysis Date: Thinh Nguyen 11.5.2021

Sample ID	Sample Location	Start/End	Total Time (min)	Flow Rate (Lpm)	Volume (L)	Concentration (f/cc)	Density (f/mm²)
		·					
FB1	Sample prepared on-site.						1.27
FB2	Sample prepared on-site.						1.91
SS1	to contribute	5:30 PM	120	8.580	1030	0.004	12.74
331	In north hallway	7:30 PM	120			0.004	
SS2	In back hallway, in tool area	5:30 PM	120	8.035	964	0.005	14.01
332	in back nailway, in tool area	7:30 PM	120	6.033	904		
AS1	O/S Decon	7:45 PM	180	8.035	1446	0.002	9.55
ASI	O/S Decon	10:45 PM	180				

AHERA PCM Clearance Level = 0.010 f/cc
AHERA TEM Clearance Level = 70 AS/mm2
State of Michigan PCM Clearance Level = 0.050 f/cc

**Project Area Clearance Information** 

N/A



# ASBESTOS DAILY PROJECT REPORTS OSHA Personal Air Sample Analysis

Client:Ann Arbor Public SchoolsSamples Collected By:Thinh NguyenBuilding:Community High SchoolSample Collection Date:11.5.2021Location:1st FloorSamples Analyzed By:Thinh Nguyen

Project #: AE210780 Sample Analysis Date: 11.5.2021

Sample ID	Sample Location	Start/End	Total Time (min)	Flow Rate (Lpm)	Volume (L)	Concentration (f/cc)	Density (f/mm²)
PS1 Series	Patrick O'Boyle	7:45 PM	180	2.0	360	0.045 0.017	*
Activity:	removing sections of plasters and drilling holes in ceiling						
PS1	Patrick O'Boyle	7:45 PM 8:15 PM	30	2.0	60	0.063	11.46
PS1R1	Patrick O'Boyle	8:15 PM 9:15 PM	60	2.0	120	0.054	18.47
PS1R2	Patrick O'Boyle	9:15 PM 10:45 PM	90	2.0	180	0.032	16.56

**OSHA Permissible Exposure Limit** = 0.100 f/cc, 8 hr TWA

**OSHA STEL Limit** = 1.0 f/cc

<sup>\* = 8</sup> hr Time Weighted Average



AE210780

AFDs used:

Yes

Client:

Project #:

# ASBESTOS DAILY PROJECT REPORTS On-Site Activity Summary

Ann Arbor Public Schools Date: 11.6.2021 Consultant: Arch Environmental Group, Inc.

Building: Community High School Project Technician: Thinh Nguyen

**Location:** 1st Floor Abatement Contractor: Environmental Maintenance Engineers, Inc.

Competent Person: Matt Kelly

Abatement Information		Regulated Area Information	Air Sample Information			
OSHA Work Class	II	Enclosure Integrity Check (start of work shift):	Yes	Air samples collected:	Ye	
		Corrections necessary:	No	Calibrated pumps:	Υe	
Contractor Activities		Corrections made:	No	Baseline samples (BL)	N	
Set-up procedures conducted:	No	Enclosure Integrity Check (middle of work shift):	Yes	Set-up samples (SS)	N	
Abatement procedures conducted:		Corrections necessary:	No	Personal samples (8 hr TWA) (PS)	Υe	
Removal:	Yes	Corrections made:	No	Above/Below PEL:	Belo	
Encapsulation:	No	Enclosure Integrity Check (end of work shift):	Yes	Personal samples (STEL) (PS)	Ye	
Repair:	No	Corrections necessary:	Yes	Above/Below PEL:	Belov	
Enclosure:	No	Corrections made:	Yes	Above/Below STEL:	Belov	
Wet methods used:	Yes	Negative air maintained:	Yes	Area samples (AS)	Υe	
Clean up procedures:	Yes	Manometer reading: <#>		PCM Clearance samples (PA)	N	
Waste bags checked:	Yes	Smoke testing conducted:	Yes	Passed:	N/	
Conducted by: <x></x>		Conducted by: <x></x>		Aggressive:	N/	
# of Waste Bags: <#>		Asbestos signs in place:	Yes	TEM Clearance samples (PA)	N	
Final cleaning procedures:	Yes	Asbestos banner tape in place:	Yes	Passed:	N/	
Visual inspection:	Yes	Shower operational:	Yes	Aggressive:	N/	
Conducted by: <x></x>		Dumpster secure at end of day:	Yes			
Lock-down activities:	Yes	PPE - Disposable coveralls (Contractor):	Yes	Personal Samples Collected On:		
Tear-down procedures:	Yes	PPE - Respirators (Contractor):	Yes	Name(s): Patrick O'Boyle, Bradley Alth		
		Type:	HFNPR	A worker/workers who is/are representative	of all workers	
Abatement Method(s)		PPE - Disposable coveralls (Consultant):	Yes	within the work area (all workers are conduct	ing similar	
Full Enclosure		PPE - Respirators (Consultant):	Yes	activities)		
Non-Friable Project		Type:	HFNPR			
				Required Postings		
Criticals set-up:	Yes	Did Consultant enter enclosure:	No	Notification:	Ye	
Shower set-up:	Yes	Time (A.M.): <##:## a.m ##:	## a.m.>	Supervisor/Competent Person Training:	Ye	

Time (P.M.): <##:## p.m. - ##:## p.m.>

**OSHA Personal Sampling Posting:** 

Yes



Name: Accred #: Exp. Date: Activity: Personal #:

Name: Accred #:

Exp. Date:

Activity:

Name:

Accred #:

Exp. Date:

Activity:

Personal #:

Personal #:

### **ASBESTOS DAILY PROJECT REPORTS Contractor and Materials Information**

Type: Supervisor

Training:

Client: Ann Arbor Public Schools Date: 11.6.2021 Consultant: Arch Environmental Group, Inc.

> **Workers / Accreditation Numbers** Jason Howard

> > A42060

Building: Community High School Project Technician: Thinh Nguyen

Location: 1st Floor Abatement Contractor: Environmental Maintenance Engineers, Inc. Project #: AE210780 Competent Person: Matt Kelly

#### **Abatement Personnel Information**

#### **Abatement Personnel Information**

#### Materials Abated - Quantity & Location

Workers /	Accreditation Numbers		
Name:	Matt Kelly	Type:	Supervisor
Accred #:	A34636	Training:	
Exp. Date:	7/28/2022	Fit test:	
Activity:	Supervisor	PWO:	
Personal #:	N/A (No abate. activities)		

Removal of misc. NF

Removal of misc. NF

**Thomas Ptak** 

A16288

PS2

1/15/2022

PS2

PWO:

Type:

Training:

Fit test:

PWO:

:	7/28/2022	Fit test:		Exp. Date:		Fit test:	
	Supervisor	PWO:		Activity:	Removal of misc. NF	PWO:	
<b>#</b> :	N/A (No abate. activities)			Personal #:	PS1		
	Timothy Casey	Type:	Supervisor	Name:	Patrick O'Boyle	Type:	Supervisor
	A49184	Training:		Accred #:	A50125	Training:	
	7/20/2022	Fit test:		Exp. Date:	3/14/2022	Fit test:	
	Removal of misc. NF	PWO:		Activity:	Removal of misc. NF	PWO:	
<b>#</b> :	PS1			Personal #:	PS1		
	Bradley Altherr	Type:	Worker	Name:	Erik Richardson	Type:	Supervisor
	A45730	Training:		Accred #:	A52387	Training:	
:	6/4/2022	Fit test:		Exp. Date:	6/5/2022	Fit test:	

Name:

Accred #:

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Accred #:	A50125	Training:	
Exp. Date:	3/14/2022	Fit test:	
Activity:	Removal of misc. NF	PWO:	
Personal #:	PS1		
Name:	Erik Richardson	Type:	Supervisor
Accred #:	A52387	Training:	
Exp. Date:	6/5/2022	Fit test:	
Activity:	Removal of misc. NF	PWO:	
Personal #:	PS2		
Name:		Type:	
Accred #:		Training:	
Exp. Date:		Fit test:	
Activity:		PWO:	
Personal #:			

Material	sf/lf/#	Locations
Other Class II	50	1st Floor North Hall & Connection Hall

#### **Additional Work Activities**

Were work activities conducted that were not included in original scope-ofwork or that need to be tracked on a T&M basis?

No



# ASBESTOS DAILY PROJECT REPORTS Air Sample Analysis Information

Client: Ann Arbor Public Schools

Building: Community High School

Location: 1st Floor
Project #: AE210780

Samples Collected By: Sample Collection Date:

Samples Analyzed By:

Thinh Nguyen 11.6.2021 Thinh Nguyen

Sample Analysis Date: 11.6.2021

Sample ID	Sample Location	Start/End	Total Time (min)	Flow Rate (Lpm)	Volume (L)	Concentration (f/cc)	Density (f/mm²)
FB1	Sample prepared on-site.						1.27
FB2	Sample prepared on-site.						1.91
AS1	Outside Decon	8:30 AM	150	8.035	1205	0.004	14.01
AJI		11:00 AM					
AS1R1	Outside Decon	11:00 AM	140	8.035	1125	0.003	10.19
ASIKI	Tourside Decom	1:20 PM	140	8.055	1125	0.003	
PA1	In north hallway	11:00 AM	135	14.56	1966	0.003	15.92
FAI	in north nanway	1:15 PM	133	14.56	1966	0.003	
PA2	In back hallway, in tool area	11:00 AM	425	14.4	1944	0.003	17.02
PAZ	In back hallway, in tool area	1:15 PM	135				17.83

AHERA PCM Clearance Level = 0.010 f/cc
AHERA TEM Clearance Level = 70 AS/mm2
State of Michigan PCM Clearance Level = 0.050 f/cc

**Project Area Clearance Information** 

Passed



## ASBESTOS DAILY PROJECT REPORTS OSHA Personal Air Sample Analysis

Client: Ann Arbor Public Schools Samples Collected By: Thinh Nguyen **Building:** Community High School Sample Collection Date: 11.6.2021 Location: 1st Floor Samples Analyzed By: Thinh Nguyen Sample Analysis Date: 11.6.2021 AE210780 Project #:

Sample ID	Sample Location	Start/End	Total Time (min)	Flow Rate (Lpm)	Volume (L)	Concentration (f/cc)	Density (f/mm²)
PS1 Series	Patrick O'Boyle	8:30 AM	180	2.0	360	0.034	
Activity:	removing sections of plasters and drilling holes in ceiling	11:30 AM	100	2.0	300	0.013	*
PS1	Patrick O'Boyle	8:30 AM	120	2.0	240	0.026	17.83
PS1R1	Patrick O'Boyle	10:30 AM 10:30 AM	30	2.0	60	0.047	8.92
POIKI	ratick o doyle	11:00 AM	30	2.0	00	0.047	0.92
PS1R2	Patrick O'Boyle	11:00 AM 11:30 AM	30	2.0	60	0.051	9.55

OSHA Permissible Exposure Limit = 0.100 f/cc, 8 hr TWA

OSHA STEL Limit = 1.0 f/cc

\* = 8 hr Time Weighted Average

PS2 Series	Bradley Altherr	8:30 AM	180	2.0	360	0.031	
		11:30 AM				0.011	*
Activity:	removing sections of plasters and drilling holes in ceiling						
PS2	Bradley Altherr	8:30 AM	120	2.0	240	0.021	14.65
		10:30 AM					
PS2R1	Bradley Altherr	10:30 AM	30	2.0	60	0.045	7.01
		11:00 AM					
PS2R2	Bradley Altherr	11:00 AM	30	2.0	60	0.055	10.19
		11:30 AM					

OSHA Permissible Exposure Limit = 0.100 f/cc, 8 hr TWA

OSHA STEL Limit = 1.0 f/cc

\* = 8 hr Time Weighted Average

### Attachment

**Contractor Documentation** 

