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September 24, 2018

Project No. 631237084

Mr. James G. Bernier, P.E.

Territorial Director of Capital Projects & Facilities Division of Architectural Engineering Virgin Islands Department of Education (VIDE)

Re: Report of Project Monitoring – Alfredo Andrews Elementary School

RFD 1 Kingshill

St. Croix, US.V.I 00820

Dear Mr. Bernier:

Aptim Environmental & Infrastructure, Inc. (APTIM) has completed visual observations and air monitoring associated with the abatement of asbestos-containing floor tile and associated mastic within the Alfredo Andrews Elementary School, located at RFD 1 Kingshill, St. Croix, USVI. The abatement was performed prior to scheduled renovations which would disturb these materials. This report presents our visual observations and the results of our air monitoring analyses.

APTIM appreciates the opportunity to serve as your asbestos consultant on this project. Please feel free to call us with any questions regarding the content of this report.

Sincerely,

David Mosher

**Environmental Project Manager** 

### 1 ASBESTOS ABATEMENT BACKGROUND

As part of the planned renovations of the Alfredo Andrews Elementary School campus, the Virgin Islands Department of Education (VIDE) requested that APTIM provide abatement oversite, onsite observations and air monitoring during the removal of identified asbestos-containing materials. Adcon Environmental Services, a licensed USVI abatement contractor, performed the abatement. Daily observation of work practices was performed by an APTIM representative to ensure adherence by the abatement contractor to the Asbestos Work Plan developed by APTIM and all applicable Federal EPA and OSHA regulations, to the most practicable extent.

After the abatement work was completed by the abatement contractor, a visual inspection of the work area was performed by the APTIM representative. The visual inspection was performed to determine the readiness of the work area for clearance sampling. Critical barriers remained in place in the work area until satisfactory visual and sampling clearance results were confirmed by APTIM. Phase Contrast Microscopy (PCM) was used to analyze clearance air samples in removal areas exceeding 160 square feet. Visual clearances only were performed for the remaining areas.

On August 17 through August 18, 2018, the following materials were removed from the facility:

Location	Material Description	Approximate Amount
Limited areas throughout the school	FLOOR TILE AND MASTIC	865 SF

SF = square feet

LF = linear feet

EA = each

### 2 SUMMARY OF ABATEMENT OBSERVATIONS

The abatement contractor's preparation of each work area was accomplished by placing critical barriers; setting up a decontamination station, and where applicable, establishing diminished air pressure within the work area using high efficiency particulate air (HEPA) filtered ventilating machines. Removal of the asbestos-containing materials was performed with the contractor's workers wearing full face, positive pressure air purifying respirators with P100 cartridges, and using HEPA vacuums and wet cleaning methods. Asbestos containing materials were placed in appropriately labeled 6-mil polyethylene bags for disposal. Bagged materials were double bagged for transport to the disposal site.

Following removal of the asbestos-containing materials, an inspection of the abatement area(s) was conducted by an APTIM representative for visual clearance to allow the contractor to proceed with encapsulation or lockdown. Manual cleaning was repeated, as necessary, until no visible dust or debris was present in the work area. Five final clearance samples were collected within each work area exceeding 160 SF. The sampling and subsequent analysis of the clearance samples were performed by a APTIM representative trained in accordance with NIOSH 582, "Sampling and Evaluation of Airborne Asbestos Dust in general accordance with NIOSH Method 7400 for Phase Contrast Microscopy (PCM). Results were reported in fibers per cubic centimeter (f/cm³), and were compared to the AHERA clearance criteria of less than 0.01 f/cm³, for each sample.

Table 1 contains a summary of the air samples and clearance samples collected during the project, including sample numbers, the types of samples, and the result for each sample. All clearance air samples collected following the abatement and analyzed were below 0.01 f/cm3.

The figure, located at the end of the report text, indicates the air sample locations.

### **QUALIFICATIONS OF THE REPORT**

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our client, Virgin Islands Department of Education, and this report is solely for the use and information of our client, unless otherwise noted. Any reliance of this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Table 1
Summary of Air Monitoring by PCM

### **Alfredo Andrews**

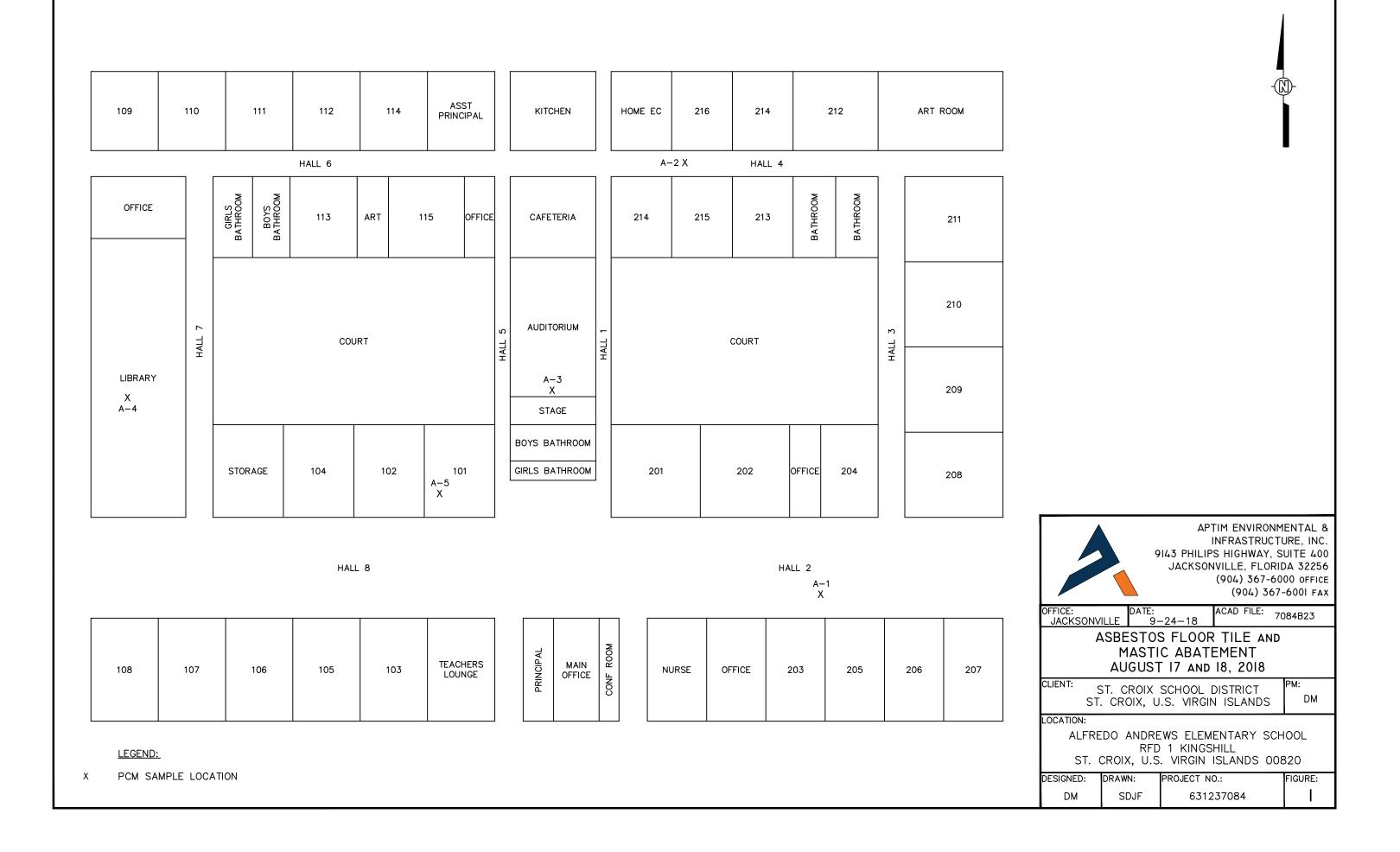
### **Elementary School, USVI**

SAMPLING DATE	SAMPLE ID	SAMPLE LOCATION	SAMPLE TYPE	SAMPLE VOLUME (liters)	FIBER CONCEN- TRATION (f/cm³)
8/18/18	A-1	WEST WING - HALLWAY 2	CL	1300	< 0.01
8/18/18	A-2	WEST WING - HALLWAY 4	CL	1300	< 0.01
8/18/18	A-3	AUDITORIUM ADJACENT TO THE STAGE	CL	1339	< 0.01
8/18/18	A-4	EAST WING -LIBRARY	CL	1326	< 0.01
8/18/18	A-5	EAST WING -RM 101	CL	1300	< 0.01
8/18/18	A-BL	FIELD BLANK	BL		0 f/bl

NOTE: PCM = phase contrast microscopy. CL = clearance testing.

f/bl = fibers per blank. DUP = duplicate sample.  $f/cm^3$  = fibers per cubic centimeter. OWA = outside work area. BL = field blank IWA = inside work area.







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631237084	8/18/18	D. Mosher		
APTIM Proj/Task No.:	Date Sampled:	Technician Name:		
	And raws Elem			
Client Name:	Site Name:	Bldg Name:	Floor:	

APTI	3Y PCM ANALYSIS
D. Mosher	TED FOR ANALYSIS FOR AIRBORNE FIBERS BY PCM ANALYSIS
Date Sampled: Technician Name:	R ANALYSIS FO
And raws Elem	AIR SAMPLES COLLECTED FO

				SAM	SAMPLING PERIOD	ОО	FL(	FLOW RATE L/M	/M		SAMPL	SAMPLE RESULTS
Sample Number	Pump ID Number	Sample Type	Sample Description and Location	Start	Stop	Total Min.	Start	Stop	Avg.	Total	Fiber per Field	NIOSH 7400 f/cm³/Limit of Detection
1 - N	1729	S	1600 2	7:50	9:30	001	(3	(3	13	(30c	1/100	0.0004
A-2	1441	C	Haro 4	7.51	9:31	100	13	13	13	1300	2.5/600	6.000,0
A-3	hb-51	C	auditarum stay C	7,53	9:36	(03	13	13	/3	1339	2/100	0,0007
4- N	1723	5	(joran)	1:56	9:38	201	13	13	13	1326	4,5/100	10000
SV	1727	2	Rm 10!	8:00	9:40	00	13	13	5	(300	5/100	610000
N-86		86									0/100	
											_	
HEADING KEY	EY				CALIBRATION:	FION:						
	iters Per Minute		11	ntimeter	Rotometer	ا ا						
PCM = F	Phase Contrast Microscopy		TLTC = To Loaded To Count	<b>.</b>	Critical Orifice	rifice						
					Bubble Meter	leter						
CET	PE KEY Ambient Air	:			Microsco	Microscope Number					Signature	
8 d c	Background/Baseline Blank Clearance	seline	IVVA = Inside vvork Area  NAE = Negative Air Exhaust  OWA = Outside Work Area/Rarrier	st Sarrier							S)	
ι	Decontamination Unit Duplicate Sample	n Unit le	пп	5								





Certificate # MEC99B726E8428407

### David Mosher

completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646 has on 1/17/2018, in Jacksonville, FL

# Asbestos Abatement Contractor/Supervisor Refresher

as approved by FL

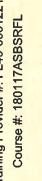
from 1/17/2018 to 1/17/2018 and passed the associated exam on 1/17/2018 and the US EPA under 40 CFR 763 (AHERA)

with a score of at least 70%

Training Provider #: FL49-0001221

Bill Young

Instructor



SSN: XXX-XX-6863

Lawrence, KS. 66044 Expiration: 1/17/2019

P.O. Box 786

IN COD

Thomas Mayhew BUIM

President

www.metaenvironmental.net

## The Deep South Center for Occupational Health & Safety

Certifies that

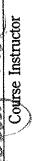
David W. Mosher

NIOSH 582-Sampling & Evaluating Airborne Asbestos Dust August 25-29, 1986 Has Satisfactorily Completed



And is Hereby Awarded This Certificate.

Dean, School of Public Health



Director, Center for Occupational Health & Safety