Purchase College
STATE UNIVERSITY OF NEW YORK
735 Anderson Hill Road
Purchase, NY 10577-1402
www.purchase.edu

Procurement Department
IFB: Academic Restroom Upgrades Project – Phase 1
Project SU-111720
Addendum #2 * January 12, 2021

To: Prospective Bidders **No. of Pages: 100 pages**

SUNY Purchase hereby issues this Addendum, dated 1/12/2021, for the above referenced IFB, in order to provide the following clarifications:

Item 1:
This Addendum supersedes the Addendum #2 which was referenced in "SU-111720 4-Addendum #1 Q & A" and expected to be posted on January 8, 2021.

Item 2:
The Bid Due Date is hereby moved to **Tuesday, January 26, 2021** at **2 pm**.

Item 3:
The College wishes to offer additional clarifications this project's construction documents, which are detailed in the attached document titled: Addendum #2 Clarification to Specifications pages 2-100.

Please be sure to sign THIS ADDENDUM (as acknowledgment that your firm received it) and submit it with your bid package.

Respectfully,

Elizabeth Pleva
Director of Procurement and Accounts Payable

Acknowledgement of ADDENDUM #2

_____
Signature Date

_____
Typed printed name and title

_____
Company name

Think Wide Open

Addendum #2 Clarification to Specifications

For construction contracts greater than $20,000

Academic Restroom Upgrades Project – Phase 1

SU-111720

Dated November 17, 2020

Proposal Due Date
January 26, 2021

State University of New York Purchase College
735 Anderson Hill Road
Purchase, New York 10577-1402
Elizabeth Pleva, Director of Procurement & Accounts Payable

A2.1 – The scope of hazardous materials removal is now included as part of the base contract. The scope of work will only include work in the Natural and Social Science Buildings. The Hazmat attached drawings and specifications include scope in the Visual Arts buildings which will be included in a future project.

A2.2 – The following clarification is being issued in regards to the Mechanical Drawings and scope of work.

a) The schedule of sheet #M-601 refers to LR-1, however the drawings refer to this as LRD-1. Both are the same.

b) Convectors C-1 & C-2 belonged to work in the Visual Arts building. These will be included in a future project and are not part of this project.

S & B Environmental, LLC
7 Fairchild Road
Newtown, CT. 06482
Phone (203) 947-6300

Hazardous Material Inspection Report

For

State University of New York
735 Anderson Hill Road
Purchase, New York 10577

AT

Social Sciences Building
Natural Sciences Building
Visual Arts Building

Inspection for Bathroom Renovation

Project #29X421

Dates of Project: 11 through 22 December 2020

Date of Report: 8 January 2021

Introduction:

At the request of SUNY Purchase Capital Facilities Planning, S & B representatives, performed an inspection for hazardous materials at the Social Sciences Building in advance of planned renovation work to rehabilitate the first floor bathrooms. The inspection was performed to determine if any of the building materials that may be impacted might contain asbestos, lead paint mercury or PCB's

Summary:

Asbestos Survey:

S & B Environmental performed a survey in which 25 samples were collected from various materials found inside and outside the structure where planned work is scheduled for the upcoming renovation projects.

Materials sampled during this investigation included the following:

Social Sciences Building.

Ceramic grout - Walls
Ceramic mastic
First wallboard behind ceramic
Second wallboard behind ceramic
Ceramic grout - Floors
Ceramic thin set
Foil on fiberglass insulation sections
Wallboard in plenum
Joint compound
Fireproofing - (found to contain Vermiculite) - **Contains Traces based on 198.8 testing**

Natural Sciences Building.

Ceramic mastic
Ceramic grout
Caulk at sinks
Plaster
Window glazing (large window in room 1060)
Floor tiles - 450 SF - Contains asbestos
Floor tile mastic
Ceramic grout - Floors
Floor leveling compound
Fireproofing
Foil on fiberglass insulation sections

Visual Arts Building.

Plaster
Wallboard
Joint compound
CMU mortar
CMU
Foil on fiberglass insulation sections
Ceramic mastic
Ceramic grout
Cove molding
Cove mastic
Fireproofing - (found to contain Vermiculite) - **Contains Traces based on 198.8 testing**

Lead Paint:

The survey was conducted using a Niton XFB-3 XRF machine. The serial number of the XRF device is NR9321-17557. The XRF device is used to collect direct readings from painted surfaces and reports results in milligrams per square centimeter (mg/cm2) The New York State & HUD guideline for classifying a painted surface, as being coated with lead-based paint is a reading greater than 1.0 mg/cm2.

The XRF device calibration is field verified prior to the start of the survey, and again at the conclusion of the survey by using a standard reference paint sample. This calibration check is performed in order to validate the accuracy of the sample readings collected.

During this survey 123 readings were collected within the various portions of the school, and 5 of the readings were positive for lead content. The elements that were found to have lead content were the following:

Bathroom Partition in Visual Arts Building - (all four bathrooms)

PCB and Mercury:

Fluorescent light bulbs of all shape and size are always considered to contain Mercury. The ballasts that operate the fluorescent bulbs are assumed to contain PCB unless clearly marked by the manufacturer as PCB free. If any temperature controls are using non electrical setting devices, these also contain mercury .

Conclusions:

During this survey, asbestos was found to be present in approximately 450 square feet of 12" floor tiles in room 1060 of the natural sciences building. These floor tile materials will have to be removed by licensed asbestos contractors prior to any work that would potentially disturb them.

Additionally, in all three buildings, the pipe insulation observed in the chases and plenums was fiberglass insulation. No hard fittings were observed in the limited points of access. There is a chance that hard fittings could be found later during the start of demolition work, and if this does occur, the contractor should stop at that point and wait for follow up testing on those discovered fittings if that does happen.

The fireproofing in Social Sciences, and the Visual Arts, originally found vermiculite in the initial samples and additional samples were collected an analyzed by ELAP 198.8 to determine if any possible vermiculite contamination was present and sufficient enough to classify these materials as asbestos containing materials. The 198.8 results found asbestos in one of three samples in each of the buildings and those results were far below 1% in each case. As such these materials are not considered asbestos containing materials under New York State and EPA regulations. OSHA does still require that all contractors whom may disturb this material as part of their work be notified of the presence of trace levels of asbestos so they can properly deal with their own employee protection and monitoring requirements under OSHA regulations.

Lead content was found to be present in only the bathroom stalls of the visual arts building bathrooms. Any work involving these materials must be performed by persons properly trained to safely handle Lead containing materials. All waste streams generated during demolition that contain portions of these lead containing materials must either be disposed of as hazardous waste, or have testing performed to prove the waste stream is not hazardous waste. This test is called a TCLP-Lead sample.

All fluorescent light bulbs should be properly removed and either sent for recycling if possible, or disposed of as hazardous materials which contain mercury. Additionally, and non-electronic temperature control devices should be included in the mercury waste disposal stream

The ballasts that operate each fluorescent light fixture shall be inspected on removal by the contractor. If the ballasts is not clearly marked by the manufacturer as PCB FREE, it shall be considered to contain PCB's and must be disposed of as hazardous waste for materials containing PCBs.

Included with this report are the XRF data sheets from the lead survey, and analytical lab reports for all asbestos samples collected by S & B environmental.

S & B Environmental, LLC
7 Fairchild Road
Newtown, CT. 06482
Phone (203) 947-6300

Hazardous Material Inspection Report

For

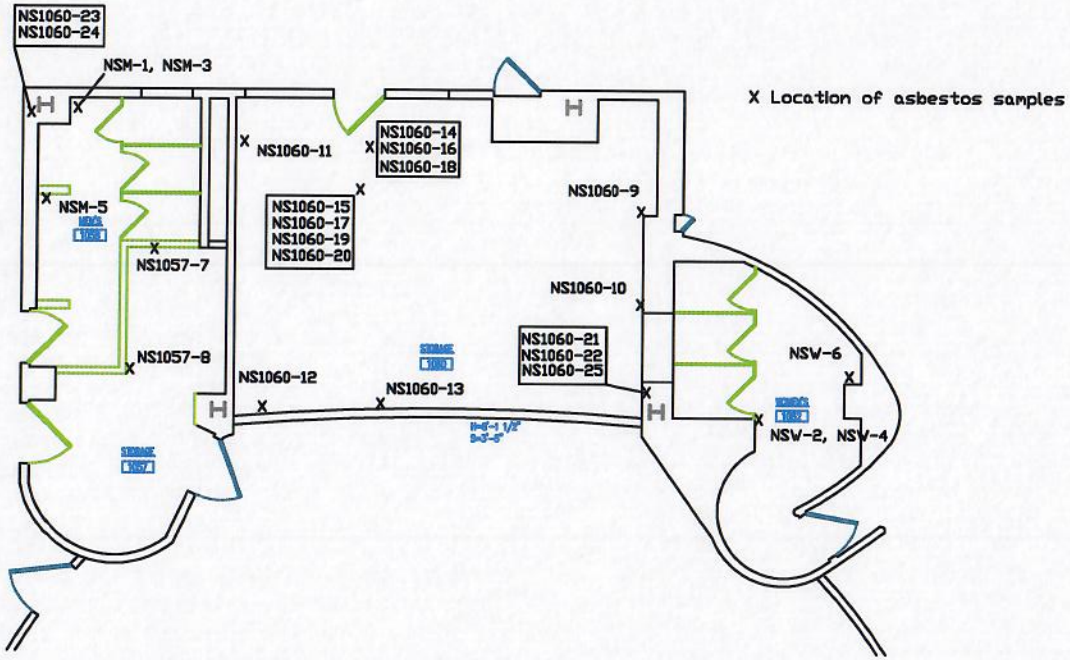
State University of New York
735 Anderson Hill Road
Purchase, New York 10577

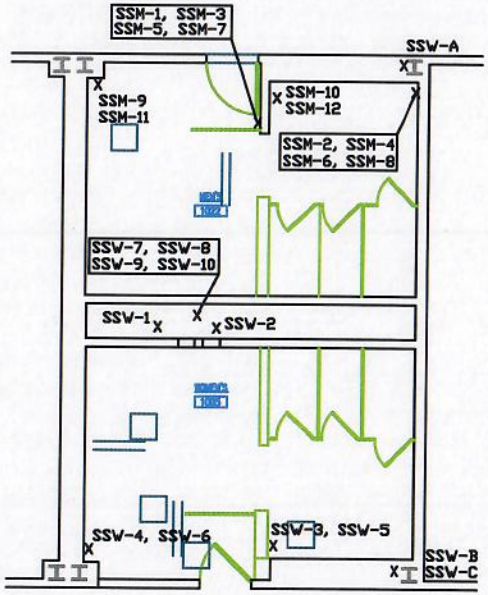
AT

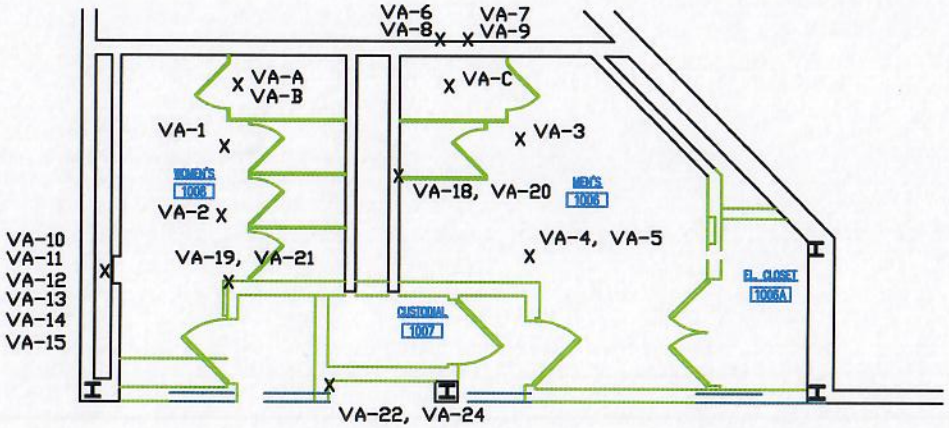
Social Sciences Building
Natural Sciences Building
Visual Arts Building

Inspection for Bathroom Renovation
Project #29X421

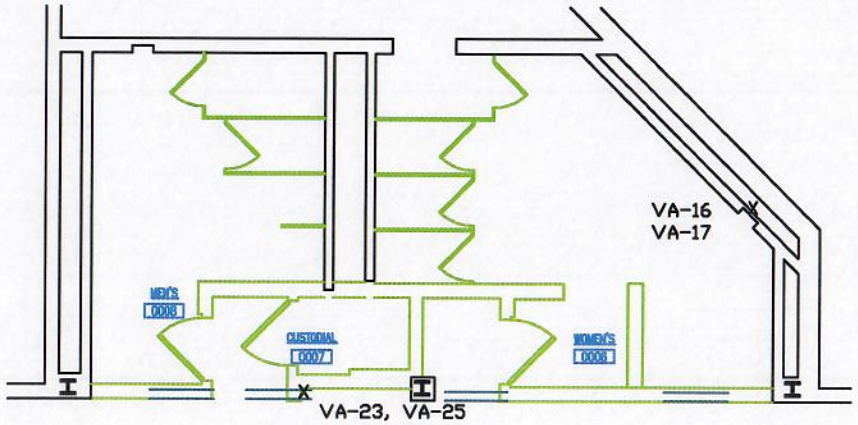
Plan - Asbestos locations
Plans - Asbestos samples

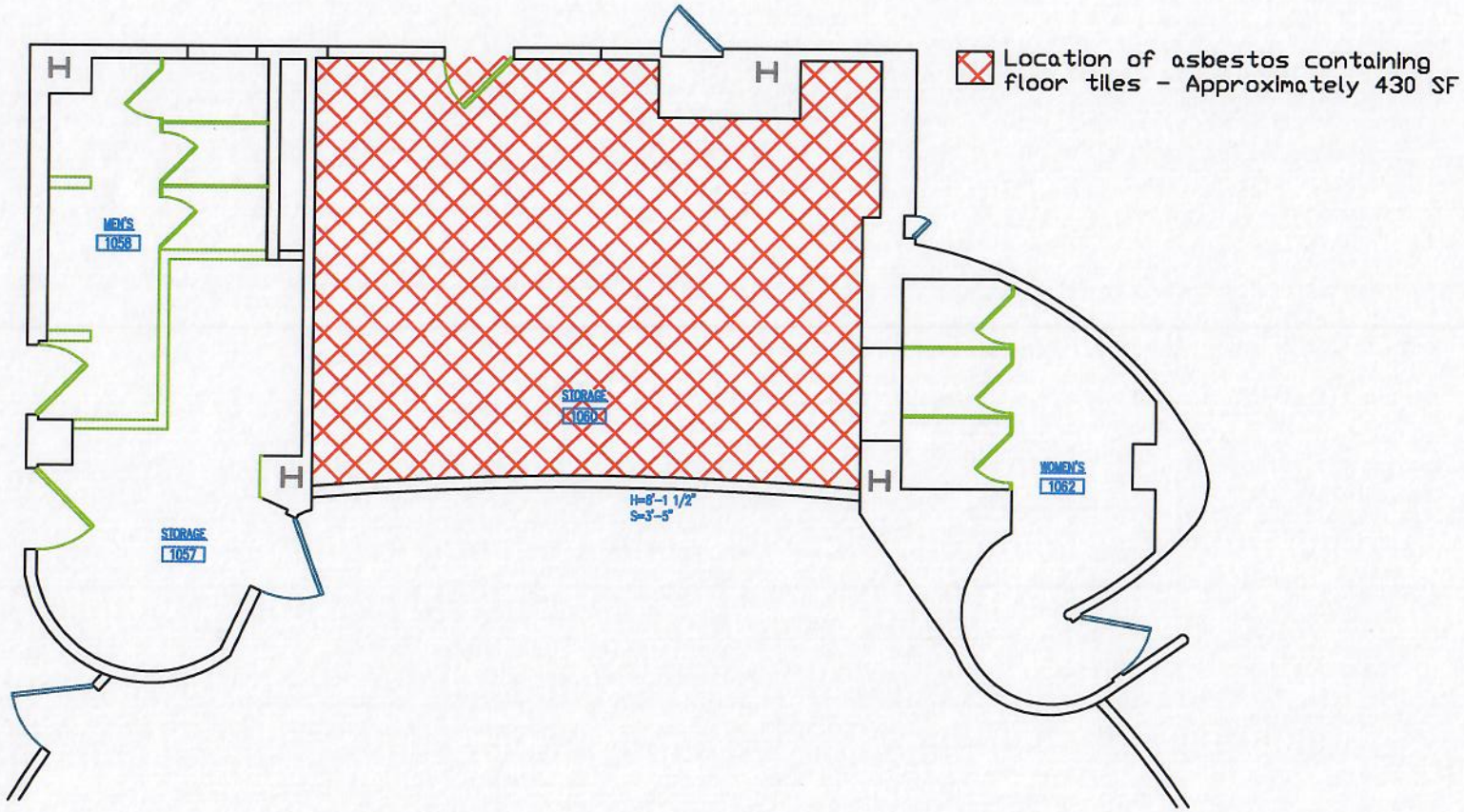

NS1060-23
NS1060-24
NSM-1, NSM-3
NS1060-11
NS1060-14
NS1060-16
NS1060-18
NS1060-15
NS1060-17
NS1060-19
NS1060-20
NS1060-9
NSM-5
NS1057-7
NS1060-10
NS1057-8
NS1060-12
NS1060-13
NS1060-21
NS1060-22
NS1060-25
NSW-6
NSW-2, NSW-4
X Location of asbestos samples


SSM-1, SSM-3
SSM-5, SSM-7
SSW-A
SSM-9
SSM-11
SSM-10
SSM-12
SSM-2, SSM-4
SSM-6, SSM-8
SSW-7, SSW-8
SSW-9, SSW-10
SSW-1
SSW-2
SSW-4, SSW-6
SSW-3, SSW-5
SSW-B
SSW-C



X Location of asbestos samples




Location of asbestos containing floor tiles - Approximately 430 SF
H
H
H
H
MEN'S
1058
STORAGE
1060
STORAGE
1057
WOMEN'S
1062
H=8'-1 1/2"
S=3'-5"

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Social Sciences Building
Natural Sciences Building
Visual Arts Building

Inspection for Bathroom Renovation
Project #29X421

Laboratory Data Sheets - Asbestos

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/12/20 **AmeriSci Job #** 220122136
Date Examined 12/17/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 5
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SSM-1	220122136-01	*No*	NAD [1] (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Ceramic Grout			
Analyst Description: OffWhite/Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SSM-2	220122136-02	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Ceramic Grout			
Analyst Description: OffWhite/Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SSM-3	220122136-03	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/17/20
Location: Ceramic Mastic			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2 %			
SSM-4	220122136-04	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/17/20
Location: Ceramic Mastic			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 11.3 %			
SSM-5	220122136-05	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: First Wallboard			
Analyst Description: Grey/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SSM-6	220122136-06	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: First Wallboard			
Analyst Description: Grey/Brown, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSM-7	220122136-07	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Second Wallboard			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSM-8	220122136-08	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Second Wallboard			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSM-9	220122136-09	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Floor Grout			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSM-10	220122136-10	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Floor Grout			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSM-11	220122136-11	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Floor Thinset			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SSM-12	220122136-12	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Floor Thinset			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSW-1	220122136-13	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Foil On Fiberglass Liner			
Analyst Description: Silver/Brown/Yellow, Homogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 10 %, Fibrous glass 30 %, Non-fibrous 60 %			
SSW-2	220122136-14	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Foil On Fiberglass Liner			
Analyst Description: Silver/Tan, Heterogeneous, Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 37 %, Fibrous glass 3 %, Non-fibrous 60 %			
SSW-3	220122136-15	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Ceramic Grout			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSW-4	220122136-16	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Ceramic Grout			
Analyst Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
SSW-5	220122136-17	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/17/20
Location: Ceramic Mastic			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 26.2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SSW-6	220122136-18	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/17/20
Location: Ceramic Mastic			
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 34.4 %			
SSW-7	220122136-19	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Wallboard			
Analyst Description: Grey/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 35 %, Non-fibrous 65 %			
SSW-8	220122136-20	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Wallboard			
Analyst Description: Grey/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 5 %, Non-fibrous 95 %			
SSW-9	220122136-21	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Joint Compound			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SSW-10	220122136-22	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/17/20
Location: Joint Compound			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Reporting Notes:

(1) This PLM job was analyzed using Motic BA310 Pol Scope S/N 1190000326

Analyzed by: Jared C. Clarke

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11486); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____ END OF REPORT

AmeriSci Job #: **220122136**

Client Name: S&B Environmental

Table I
Summary of Bulk Asbestos Analysis Results
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	SSM-1		----	----	----	----	NAD	NA
Location:	Ceramic Grout							
02	SSM-2		----	----	----	----	NAD	NA
Location:	Ceramic Grout							
03	SSM-3		0.095	96.7	1.3	2.0	NAD	NAD
Location:	Ceramic Mastic							
04	SSM-4		0.051	68.2	20.6	11.3	NAD	NAD
Location:	Ceramic Mastic							
05	SSM-5		----	----	----	----	NAD	NA
Location:	First Wallboard							
06	SSM-6		----	----	----	----	NAD	NA
Location:	First Wallboard							
07	SSM-7		----	----	----	----	NAD	NA
Location:	Second Wallboard							
08	SSM-8		----	----	----	----	NAD	NA
Location:	Second Wallboard							
09	SSM-9		----	----	----	----	NAD	NA
Location:	Floor Grout							
10	SSM-10		----	----	----	----	NAD	NA
Location:	Floor Grout							
11	SSM-11		----	----	----	----	NAD	NA
Location:	Floor Thinset							
12	SSM-12		----	----	----	----	NAD	NA
Location:	Floor Thinset							
13	SSW-1		----	----	----	----	NAD	NA
Location:	Foil On Fiberglass Liner							
14	SSW-2		----	----	----	----	NAD	NA
Location:	Foil On Fiberglass Liner							
15	SSW-3		----	----	----	----	NAD	NA
Location:	Ceramic Grout							
16	SSW-4		----	----	----	----	NAD	NA
Location:	Ceramic Grout							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	SSW-5		0.067	58.7	15.1	26.2	NAD	NAD
Location:	Ceramic Mastic							
18	SSW-6		0.072	52.8	12.8	34.4	NAD	NAD
Location:	Ceramic Mastic							
19	SSW-7		----	----	----	----	NAD	NA
Location:	Wallboard							
20	SSW-8		----	----	----	----	NAD	NA
Location:	Wallboard							
21	SSW-9		----	----	----	----	NAD	NA
Location:	Joint Compound							
22	SSW-10		----	----	----	----	NAD	NA
Location:	Joint Compound							

Analyzed by: Gabriella Morozov Date Analyzed 12/17/2020 Hitachi #747-Noran

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples); NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 11 December 2020

Sample Number	Sample Description	Notes
SSM-1	Ceramic grout	700 SF
SSM-2	Ceramic grout	
SSM-3	Ceramic mastic	700 SF
SSM-4	Ceramic mastic	
SSM-5	First wall board	700 SF
SSM-6	First wall board	
SSM-7	Second wall board	
SSM-8	Second wallboard	
SSM-9	Floor grout	700 SF
SSM-10	Floor grout	
SSM-11	Floor thin set	
SSM-12	Floor thin set	220122136
SSW-1	Foil on Fiber glass Lines	
SSW-2	Foils on Fiber glass Lines	
SSW-3	Ceramic grout	700 SF
SSW-4	Ceramic grout	
SSW-5	Ceramic mastic	700 SF
SSW-6	Ceramic mastic	

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 11 December 2020

Laboratory Personnel: Jared Clarke Signature: _____ Date: 12/11/20 11:30

Turnaround Time Requested: 5 Day TAT 12/12/20 RSG

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 11 December 2020

Sample Number	Sample Description	Notes
SSW-7	Drywall board	700 SF
SSW-8	wallboard	
SSW-9	joint compound	
SSW-10	joint compound	
	220122136	

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 11 December 2020

Laboratory Personnel: Jared Clarke Signature: _____ Date: 12/12/20 11:30

Turnaround Time Requested: 5 Day TAT Rcvd 12/12/20 1230

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/15/20 **AmeriSci Job #** 220122274
Date Examined 12/17/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 1
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SS-A	220122274-01		NA [1,2]

Location: Beam W / Over Spray-On Deck - Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

SS-B	220122274-02		NA [1]

Location: Top Of Duct Over Spray - Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

SS-C	220122274-03		NA [1]

Location: Column In Chase W / Over On P. - Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

Reporting Notes:

(1) (SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16. 10 gram minimum sample weight is required.

(2) This PLM job was analyzed using Nikon Labophot Pol Scope S/N 954314

Analyzed by: Bo Sun Bo Sun

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____

END OF REPORT

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 14 December 2020

Sample Number	Sample Description	Notes
SS-A	Fireproofing	Beams w/ overspray on DECK
SS-B	Fireproofing	top of duct over spray
SS-C	Fireproofing	column in chase w/ overspray

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 14 December 2020

Laboratory Personnel: Raleigh Payne Signature: _____ Date: 12/15/20 1150

Turnaround Time Requested: 2 Day TAT

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

220122274

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

January 8, 2021

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive
Newtown, CT 6470

RE: S&B Environmental
Job Number 120122206
P.O. #
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Dear Vernon Rohde:

Enclosed are the results of Asbestos Analysis - Bulk Protocol of the following S&B Environmental samples, received at AmeriSci on Thursday, December 31, 2020, for a 14 day turnaround:

SS-D, SS-E, SS-F

The 3 samples, placed in zip lock bag, were shipped to AmeriSci via Fed Ex 7725 0460 6594 S. S&B Environmental requested ELAP 198.8 SM-V analysis of these samples.

The results of the analysis which were performed under NYSDOH ELAP lab Certification #10984 following ELAP 198.8 PLM guidelines are presented within the report. This report must not be used to claim product endorsement or approval by these laboratories, NVLAP, ELAP, or any other associated agency. The National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced, except in full without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, respectively, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Jean L. Mayes
QA Manager | Authorized Signatory

AmeriSci Job #: 120-12-2206
Client: S & B Environmental

Table I
PLM Analysis of Surfacing Material Containing Vermiculate (SM-V) by NYS ELAP 198.8
SUNY Purchase

AmeriSci Sample #	Client Sample #	Analyst Description	Percent Non-Fibrous	Percent Non-Asbestos Fibers	Percent Chrysotile	Percent Amphibole	Total Percent Asbestos	Footnote
120122206-01	SS-D	Tan, Powdery	89	Cellulose 8 Fibrous Glass 3	NAD	NAD	NAD	None
120122206-02	SS-E	Tan, Powdery	89	Cellulose 8 Fibrous Glass 3	NAD	NAD	NAD	None
120122206-03	SS-F	Tan, Powdery	89	Cellulose 8 Fibrous Glass 3	NAD	0.003	0.003	None

Analyzed by: Jon Mayo **Date:** 01/08/21

Reporting Notes:
ELAP Lab ID: 10984 : PLM analysis by NY ELAP 198.8
NAD= No Asbestos Detected: ND= None Detected: **NA** = Not Analyzed; **NA/PS** = Not Analyzed/Positive Stop
Footnote:

AmeriSci Job #:	120-12-2206
Client:	S & B Environmental
Job Site:	SUNY Purchase

Asbestos Analysis of NYS ELAP Method 198.8
PLM analysis for Asbestos in Surfacing Material Containing Vermiculite (SM-V)

BENCH SHEET

AmeriSci Richmond Sample #: 1 Crucible ID#: 5

	Tech/Analyst	Date
Gravimetric Prep	AM	01/06/21
PLM Chrysotile Analysis	JLM	01/07/21
Centrifugation	AM	01/07/21
PLM Amphibole Analysis	JLM	01/08/21

STEREOBINOCULAR EXAMINATION

COLOR: Tan TEXTURE: Powdery HOMOGENEITY:

HOMOGENIZATION: PROBABLY FIBERS: CF 8 FG 3

INITIAL WEIGHTS		COMMENTS
Weight Of Crucible	25.3091	
Weight of Cricible+Subsample	28.0279	
Weight of Subsample	2.7188	
ASHING		
Weight of Crucible+Ash	27.5397	
Weight of Ash	2.2306	
Weight Loss During Ash	0.4882	
Weight Percent Organic and Water	17.9565	
ACID TREATMENT/FLOTATION		
Weight of Dish for Floats		
Weight of Dish and Floats		
Weight of Floats	0.0000	
Weight Percent Floats	0.0000	
Weight of Dish+Filter for Residue	8.1618	
Weight of Dish+Filter+Residue	8.929	
Weight of Residue	0.7672	
Weight Loss During Acid Treatment	1.4634	
Weight Percent Acid-Soluble Materials	53.8252	
Weight Percent Reside	28.2183	

	2nd Measure		
		% Difference	Acceptable
	0	#DIV/0!	#DIV/0!

	2nd Measure		
	8.9284	% Difference	Acceptable
	0.7666	0.08%	YES

PLM EXAMINATION OF RESIDUE (CHRYSOTILE)	Analyzed	PTCT	Chrysotile	Non-Empty	PTCT	Chrysotile	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	NO
Number of Chrysotile Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Chrysotile by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT CHRYSOTILE IN SAMPLE	**0.0**	Slide 4:	0	50	Slide 8:	0	50	

HEAVY LIQUID CENTRIFUGATION	
Weight Of Dish+Filter+Balance Of Residue	8.9278
Weight of Balance Of Residue	0.766
Weight Of Dish+Filter for Centrifugate	8.1556
Weight Of Dish+Filter+Centrifugate	8.184
Weight Of Centrifugate	0.0284
Weight Percent Centrifugate	1.0462

CHRYSOTILE IDENTIFICATION

Morphology	RI Parallel	RI Perpindicular	Sign Of Elongation	Extinction Angle	Birefringence	Fiber ID

PLM EXAMINATION OF CENTRIFUGATE (AMPHIBOLE)	Analyzed	PTCT	Amphibole	Non-Empty	PTCT	Amphibole	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	NO
Number of Amphibole Asbestos Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Amphibole Asbestos by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT AMPHIBOLE ASBESTOS IN SAMPLE	**0.00**	Slide 4:	0	50	Slide 8:	0	50	
PERCENT TOTAL ASBESTOS IN SAMPLE	**0.00**							

AMPHIBOLE IDENTIFICATION

Morphology	RI Parallel	RI Perpindicular	Sign Of Elongation	Extinction Angle	Birefringence	Fiber ID

AmeriSci Job #:	120-12-2206
Client:	S & B Environmental
Job Site:	SUNY Purchase

Asbestos Analysis of NYS ELAP Method 198.8
PLM analysis for Asbestos in Surfacing Material Containing Vermiculite (SM-V)

BENCH SHEET

AmeriSci Richmond Sample #: 2 Crucible ID#: 6

	Tech/Analyst	Date
Gravimetric Prep	AM	01/06/21
PLM Chrysotile Analysis	JLM	01/07/21
Centrifugation	AM	01/07/21
PLM Amphibole Analysis	JLM	01/08/21

STEREOBINOCULAR EXAMINATION

COLOR: Tan TEXTURE: Powdery HOMOGENEITY:

HOMOGENIZATION: PROBABLY FIBERS: CF 8 FG 3

INITIAL WEIGHTS		COMMENTS
Weight Of Crucible	23.6598	
Weight of Cricible+Subsample	26.1295	
Weight of Subsample	2.4697	
ASHING		
Weight of Crucible+Ash	25.6703	
Weight of Ash	2.0105	
Weight Loss During Ash	0.4592	
Weight Percent Organic and Water	18.5934	
ACID TREATMENT/FLOTATION		
Weight of Dish for Floats		
Weight of Dish and Floats		
Weight of Floats	0.0000	
Weight Percent Floats	0.0000	
Weight of Dish+Filter for Residue	8.1583	
Weight of Dish+Filter+Residue	8.8629	
Weight of Residue	0.7046	
Weight Loss During Acid Treatment	1.3059	
Weight Percent Acid-Soluble Materials	52.8769	
Weight Percent Reside	28.5298	

	2nd Measure		
		% Difference	Acceptable
	0	#DIV/0!	#DIV/0!

	2nd Measure		
	8.863	% Difference	Acceptable
	0.7047	0.01%	YES

PLM EXAMINATION OF RESIDUE (CHRYSOTILE)	Analyzed	PTCT	Chrysotile	Non-Empty	PTCT	Chrysotile	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	NO
Number of Chrysotile Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Chrysotile by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT CHRYSOTILE IN SAMPLE	**0.0**	Slide 4:	0	50	Slide 8:	0	50	

HEAVY LIQUID CENTRIFUGATION	
Weight Of Dish+Filter+Balance Of Residue	8.8606
Weight of Balance Of Residue	0.7023
Weight Of Dish+Filter for Centrifugate	8.1557
Weight Of Dish+Filter+Centrifugate	8.194
Weight Of Centrifugate	0.0383
Weight Percent Centrifugate	1.5559

CHRYSOTILE IDENTIFICATION

Morphology	RI Parallel	RI Perpindicular	Sign Of Elongation	Extinction Angle	Birefringence	Fiber ID

PLM EXAMINATION OF CENTRIFUGATE (AMPHIBOLE)	Analyzed	PTCT	Amphibole	Non-Empty	PTCT	Amphibole	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	NO
Number of Amphibole Asbestos Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Amphibole Asbestos by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT AMPHIBOLE ASBESTOS IN SAMPLE	**0.00**	Slide 4:	0	50	Slide 8:	0	50	
PERCENT TOTAL ASBESTOS IN SAMPLE	**0.00**							

AMPHIBOLE IDENTIFICATION

Morphology	RI Parallel	RI Perpindicular	Sign Of Elongation	Extinction Angle	Birefringence	Fiber ID

AmeriSci Job #:	120-12-2206
Client:	S & B Environmental
Job Site:	SUNY Purchase

Asbestos Analysis of NYS ELAP Method 198.8
PLM analysis for Asbestos in Surfacing Material Containing Vermiculite (SM-V)

BENCH SHEET

AmeriSci Richmond Sample #: 3 **Crucible ID#** 7

	Tech/Analyst	Date
Gravimetric Prep	AM	01/06/21
PLM Chrysotile Analysis	JLM	01/07/21
Centrifugation	AM	01/07/21
PLM Amphibole Analysis	JLM	01/08/21

STEREOBINOCULAR EXAMINATION

COLOR: Tan **TEXTURE:** Powdery **HOMOGENEITY:**

HOMOGENIZATION: **PROBABLY FIBERS:** CF 8 FG 3

INITIAL WEIGHTS		sof
Weight Of Crucible	22.4421	
Weight of Cricible+Subsample	24.9579	
Weight of Subsample	2.5158	
ASHING		
Weight of Crucible+Ash	24.508	
Weight of Ash	2.0659	
Weight Loss During Ash	0.4499	
Weight Percent Organic and Water	17.8830	
ACID TREATMENT/FLOTATION		
Weight of Dish for Floats		
Weight of Dish and Floats		
Weight of Floats	0.0000	
Weight Percent Floats	0.0000	
Weight of Dish+Filter for Residue	8.157	
Weight of Dish+Filter+Residue	8.7878	
Weight of Residue	0.6308	
Weight Loss During Acid Treatment	1.4351	
Weight Percent Acid-Soluble Materials	57.0435	
Weight Percent Reside	25.0735	

	2nd Measure		
		% Difference	Acceptable
	0	#DIV/0!	#DIV/0!

	2nd Measure		
	8.7876	% Difference	Acceptable
	0.6306	0.03%	YES

PLM EXAMINATION OF RESIDUE (CHRYSOTILE)	Analyzed	PTCT	Chrysotile	Non-Empty	PTCT	Chrysotile	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	**NO**
Number of Chrysotile Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Chrysotile by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT CHRYSOTILE IN SAMPLE	**0.0**	Slide 4:	0	50	Slide 8:	0	50	

HEAVY LIQUID CENTRIFUGATION	
Weight Of Dish+Filter+Balance Of Residue	8.7646
Weight of Balance Of Residue	0.6076
Weight Of Dish+Filter for Centrifugate	8.1553
Weight Of Dish+Filter+Centrifugate	8.1843
Weight Of Centrifugate	0.029
Weight Percent Centrifugate	1.1967

CHRYSOTILE IDENTIFICATION

Morphology	RI Parallel	RI Perpindicular	Sign Of Elongation	Extinction Angle	Birefringence	Fiber ID

PLM EXAMINATION OF CENTRIFUGATE (AMPHIBOLE)	Analyzed	PTCT	Amphibole	Non-Empty	PTCT	Amphibole	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	**NO**
Number of Amphibole Asbestos Points	1	Slide 2:	1	49	Slide 6:	0	50	
Percent Amphibole Asbestos by PTCT	0.25	Slide 3:	0	50	Slide 7:	0	50	
PERCENT AMPHIBOLE ASBESTOS IN SAMPLE	**0.003**	Slide 4:	0	50	Slide 8:	0	50	
PERCENT TOTAL ASBESTOS IN SAMPLE	**0.00**							

AMPHIBOLE IDENTIFICATION

Morphology	RI Parallel	RI Perpindicular	Sign Of Elongation	Extinction Angle	Birefringence	Fiber ID
Straight	1.622	1.605	Positive	Oblique	Moderate	Tremolite
Straight	1.622	1.605	Positive	Oblique	Moderate	Tremolite
Straight	1.622	1.605	Positive	Oblique	Moderate	Tremolite
Straight	1.622	1.605	Positive	Oblique	Moderate	Tremolite

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

1201222 06

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 22 December 2020

Sample Number	Sample Description	Notes
SS-D	Fireproofing	
SS-E	Fireproofing	
SS-F	Fireproofing	
		220122851
		RECEIVED
		DEC 31 2020
		By KldH

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 22 December 2020

Laboratory Personnel:_____ Signature:_____ Date: _____

Turnaround Time Requested: 1 Week TAT

Analyze by ELAP 198.8 for vermiculite containing surfacing materials.

Please email all results to the following: vernonrohde@hotmail

Raed Bay 12/23/20 1320

AMERISCI

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report 1201222 06

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/23/20 **AmeriSci Job #** 220122851
Date Examined 12/30/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 1
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SS-D	220122851-01		NA [1,2]
	Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."		
	Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**		
SS-E	220122851-02		NA [1]
	Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."		
	Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**		
SS-F	220122851-03		NA [1]
	Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."		
	Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**		

Reporting Notes:

(1) (SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16. 10 gram minimum sample weight is required.

(2) This PLM job was analyzed using Nikon Labophot Pol Scope S/N 954314

Analyzed by: Bo Sun Bo S

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____ END OF REPORT _____

RECEIVED
DEC 31 2020
By KldM

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/12/20 **AmeriSci Job #** 220122134
Date Examined 12/16/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 6
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
NSM-1	220122134-01	*No*	NAD [1] (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Ceramic Mastic			
Analyst Description: Brown/White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 16.5 %			
NSW-2	220122134-02	*No*	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Ceramic Mastic			
Analyst Description: Brown/White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 28.6 %			
NSM-3	220122134-03	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Ceramic Grout			
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NSW-4	220122134-04	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Ceramic Grout			
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NSM-5	220122134-05	*No*	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Caulk			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
NSW-6	220122134-06	*No*	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Caulk			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 28.8 %			
NS1057-7	220122134-07.1	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
NS1057-7	220122134-07.2	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Base Coat			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
NS1057-8	220122134-08.1	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
NS1057-8	220122134-08.2	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Base Coat			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
NS1060-9	220122134-09.1	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
NS1060-9	220122134-09.2	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Base Coat			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NS1060-10	220122134-10.1	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NS1060-10	220122134-10.2	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Base Coat			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NS1060-11	220122134-11.1	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NS1060-11	220122134-11.2	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Plaster - Base Coat			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
NS1060-12	220122134-12	*No*	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Window Glazing			
Analyst Description: Black/Grey, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 0.8 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York
(Report Amended 12/17/2020)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
NS1060-13	220122134-13	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Window Glazing			
Analyst Description: Black/Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 0.7 %			
NS1060-14	220122134-14	***Yes***	4.9 % (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Floor Tile			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.9 % **Other Material:** Non-fibrous 36.9 %			
NS1060-15	220122134-15	***Yes***	4.9 % (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Floor Tile			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** Chrysotile 4.9 % **Other Material:** Non-fibrous 38.9 %			
NS1060-16	220122134-16	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Floor Tile Mastic			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 10 %			
NS1060-17	220122134-17	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 12/16/20
Location: Floor Tile Mastic			
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 18.8 %			
NS1060-18	220122134-18	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Location: Floor Leveling			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
NS1060-19 **Location:** Floor Leveling	220122134-19	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
NS1060-20 **Location:** Floor Leveling	220122134-20	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
NS1060-21 **Location:** Fireproofing	220122134-21	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 80 %, Non-fibrous 20 %			
NS1060-22 **Location:** Fireproofing	220122134-22	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 90 %, Non-fibrous 10 %			
NS1060-23 **Location:** Fireproofing	220122134-23	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 85 %, Non-fibrous 15 %			
NS1060-24 **Location:** Foil On F.G. Lines	220122134-24	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20
Analyst Description: Silver/Brown, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 60 %, Fibrous glass 20 %, Non-fibrous 20 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
NS1060-25	220122134-25	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 12/16/20

Location: Foil On F.G. Lines

Analyst Description: Silver/Brown, Homogeneous, Fibrous, Bulk Material
Asbestos Types:
Other Material: Cellulose 60 %, Fibrous glass 20 %, Non-fibrous 20 %

Reporting Notes:

(1) This PLM job was analyzed using Nikon Labophot Pol Scope S/N 954314

Analyzed by: Bo Sun

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____ END OF REPORT

Table I
Summary of Bulk Asbestos Analysis Results
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	NSM-1		0.186	64.1	19.4	16.5	NAD	NAD
Location:	Ceramic Mastic							
02	NSW-2		0.167	65.4	6.0	28.6	NAD	NAD
Location:	Ceramic Mastic							
03	NSM-3		----	----	----	----	NAD	NA
Location:	Ceramic Grout							
04	NSW-4		----	----	----	----	NAD	NA
Location:	Ceramic Grout							
05	NSM-5		0.125	70.6	6.4	23.0	NAD	NAD
Location:	Caulk							
06	NSW-6		0.088	58.4	12.8	28.8	NAD	NAD
Location:	Caulk							
07.1	NS1057-7		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
07.2	NS1057-7		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
08.1	NS1057-8		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
08.2	NS1057-8		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
09.1	NS1060-9		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
09.2	NS1060-9		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
10.1	NS1060-10		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
10.2	NS1060-10		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
11.1	NS1060-11		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
11.2	NS1060-11		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York (Report Amended 12/17/2020)

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
12	NS1060-12		0.162	97.9	1.3	0.8	NAD	NAD
Location: Window Glazing								
13	NS1060-13		0.192	97.8	1.6	0.7	NAD	NAD
Location: Window Glazing								
14	NS1060-14		0.219	26.9	31.2	36.9	Chrysotile 4.9	NA
Location: Floor Tile								
15	NS1060-15		0.280	26.8	29.4	38.9	Chrysotile 4.9	NA
Location: Floor Tile								
16	NS1060-16		0.054	88.1	1.9	10.0	NAD	NAD
Location: Floor Tile Mastic								
17	NS1060-17		0.081	73.3	7.9	18.8	NAD	NAD
Location: Floor Tile Mastic								
18	NS1060-18		----	----	----	----	NAD	NA
Location: Floor Leveling								
19	NS1060-19		----	----	----	----	NAD	NA
Location: Floor Leveling								
20	NS1060-20		----	----	----	----	NAD	NA
Location: Floor Leveling								
21	NS1060-21		----	----	----	----	NAD	NA
Location: Fireproofing								
22	NS1060-22		----	----	----	----	NAD	NA
Location: Fireproofing								
23	NS1060-23		----	----	----	----	NAD	NA
Location: Fireproofing								
24	NS1060-24		----	----	----	----	NAD	NA
Location: Foil On F.G. Lines								
25	NS1060-25		----	----	----	----	NAD	NA
Location: Foil On F.G. Lines								

See Reporting notes on last page

AmeriSci Job #: **220122134**

Client Name: S&B Environmental

Table I
Summary of Bulk Asbestos Analysis Results

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM

Analyzed by: Gabriella Morozov; Date Analyzed 12/17/2020 Hitachi#7-Noran

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples); NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

220122134

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 11 December 2020

Sample Number	Sample Description	Notes
NSM-1	Ceramic mastic	1000 SF
NSW-2	Ceramic mastic	
NSM-3	Ceramic grout	1000 SF
NSW-4	Ceramic grout	
NSM-5	Caulk	40 LF
NSW-6	Caulk	
NS1057-7	Plaster	300 SF
NS1057-8	Plaster	
NS1060-9	Plaster	800 SF
NS1060-10	Plaster	
NS1060-11	Plaster	
NS1060-12	Window glazing	
NS1060-13	Window glazing	
NS1060-14	Floor tile	450 SF
NS1060-15	Floor tile	
NS1060-16	Floor tile mastic	
NS1060-17	Floor tile mastic	
NS1060-18	Floor Leveling	450

Industrial Hygienist: Vernon C. Rohde II Signature: Vernon C. Rohde II Date: 11 December 2020

Laboratory Personnel: Gabriella Mon[illegible] Signature: [signature] Date: 12/17/20

Turnaround Time Requested: 5 Day TAT

RCVD BY [signature] 1232

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

(msrms)

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 11 December 2020

Sample Number	Sample Description	Notes
NS 1060-19	Floor Leveling	
NS 1060-20	Floor Leveling	
NS1060-21	Fire Proofing	in chases only
NS 1060 -22	fire Proofing	
NS 1060 -23	Fire Proofing	
NS 1060 -24	foil on F.G Lines	
NS 1060-25	Foil on F.G. Lines	
		220122134

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 11 December 2020

Laboratory Personnel: Gabriella Mor Signature: _____ Date: 12/17/20

Turnaround Time Requested: 5 Day TAT

12/17/20

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/12/20 **AmeriSci Job #** 220122135
Date Examined 12/16/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 6
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-1	220122135-01.1	*No*	NAD [1] (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Plaster Bathroom Ceiling - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
VA-1	220122135-01.2	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Plaster Bathroom Ceiling - Base Coat			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
VA-2	220122135-02.1	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Plaster - Skim Coat			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
VA-2	220122135-02.2	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Plaster - Base Coat			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
VA-3	220122135-03	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Plaster			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-4	220122135-04.1	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
	Location: Plaster - Skim Coat		
	Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material		
	Asbestos Types:		
	Other Material: Non-fibrous 100 %		
VA-4	220122135-04.2	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
	Location: Plaster - Base Coat		
	Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material		
	Asbestos Types:		
	Other Material: Non-fibrous 100 %		
VA-5	220122135-05.1	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
	Location: Plaster - Skim Coat		
	Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material		
	Asbestos Types:		
	Other Material: Non-fibrous 100 %		
VA-5	220122135-05.2	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
	Location: Plaster - Base Coat		
	Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material		
	Asbestos Types:		
	Other Material: Non-fibrous 100 %		
VA-6	220122135-06	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
	Location: Gypsum Wallboard JC		
	Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material		
	Asbestos Types:		
	Other Material: Cellulose 2 %, Non-fibrous 98 %		
VA-7	220122135-07	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
	Location: Gypsum Wallboard JC		
	Analyst Description: Grey/Brown, Homogeneous, Non-Fibrous, Bulk Material		
	Asbestos Types:		
	Other Material: Cellulose 4 %, Non-fibrous 96 %		

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-8	220122135-08	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Joint Compound			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-9	220122135-09	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Joint Compound			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-10	220122135-10	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: CMU Mortar			
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-11	220122135-11	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: CMU Mortar			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-12	220122135-12	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: CMU Mortar			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-13	220122135-13	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: CMU			
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-14 **Location:** CMU	220122135-14	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
VA-15 **Location:** CMU	220122135-15	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
VA-16 **Location:** Outer Layer On F.G.	220122135-16	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Analyst Description: Silver/Tan, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 30 %, Fibrous glass 10 %, Non-fibrous 60 %			
VA-17 **Location:** Outer Layer On F.G.	220122135-17	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Analyst Description: Silver/Tan, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 28 %, Fibrous glass 12 %, Non-fibrous 60 %			
VA-18 **Location:** Ceramic Mastic	220122135-18	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/16/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 40.5 %			
VA-19 **Location:** Ceramic Mastic	220122135-19	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/16/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 45.5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-20	220122135-20	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Ceramic Grout			
Analyst Description: OffWhite, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-21	220122135-21	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 12/16/20
Location: Ceramic Grout			
Analyst Description: OffWhite, Heterogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100 %			
VA-22	220122135-22	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/16/20
Location: Cove Molding			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 46.9 %			
VA-23	220122135-23	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/16/20
Location: Cove Molding			
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 38.2 %			
VA-24	220122135-24	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/16/20
Location: Cove Mastic			
Analyst Description: OffWhite, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 36.4 %			
VA-25	220122135-25	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 12/16/20
Location: Cove Mastic			
Analyst Description: OffWhite, Homogeneous, Non-Fibrous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 19.8 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Reporting Notes:

(1) This PLM job was analyzed using Motic BA310 Pol Scope S/N 1190000326

Analyzed by: Jared C. Clarke

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By:

END OF REPORT

AmeriSci Job #: **220122135**

Client Name: S&B Environmental

Table I
Summary of Bulk Asbestos Analysis Results

SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01.1	VA-1		----	----	----	----	NAD	NA
Location:	Plaster Bathroom Ceiling - Skim Coat							
01.2	VA-1		----	----	----	----	NAD	NA
Location:	Plaster Bathroom Ceiling - Base Coat							
02.1	VA-2		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
02.2	VA-2		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
03	VA-3		----	----	----	----	NAD	NA
Location:	Plaster							
04.1	VA-4		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
04.2	VA-4		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
05.1	VA-5		----	----	----	----	NAD	NA
Location:	Plaster - Skim Coat							
05.2	VA-5		----	----	----	----	NAD	NA
Location:	Plaster - Base Coat							
06	VA-6		----	----	----	----	NAD	NA
Location:	Gypsum Wallboard JC							
07	VA-7		----	----	----	----	NAD	NA
Location:	Gypsum Wallboard JC							
08	VA-8		----	----	----	----	NAD	NA
Location:	Joint Compound							
09	VA-9		----	----	----	----	NAD	NA
Location:	Joint Compound							
10	VA-10		----	----	----	----	NAD	NA
Location:	CMU Mortar							
11	VA-11		----	----	----	----	NAD	NA
Location:	CMU Mortar							
12	VA-12		----	----	----	----	NAD	NA
Location:	CMU Mortar							

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
13	VA-13		----	----	----	----	NAD	NA
Location: CMU								
14	VA-14		----	----	----	----	NAD	NA
Location: CMU								
15	VA-15		----	----	----	----	NAD	NA
Location: CMU								
16	VA-16		----	----	----	----	NAD	NA
Location: Outer Layer On F.G.								
17	VA-17		----	----	----	----	NAD	NA
Location: Outer Layer On F.G.								
18	VA-18		0.482	46.2	13.3	40.5	NAD	NAD
Location: Ceramic Mastic								
19	VA-19		0.205	53.2	1.3	45.5	NAD	NAD
Location: Ceramic Mastic								
20	VA-20		----	----	----	----	NAD	NA
Location: Ceramic Grout								
21	VA-21		----	----	----	----	NAD	NA
Location: Ceramic Grout								
22	VA-22		0.179	32.9	20.3	46.9	NAD	NAD
Location: Cove Molding								
23	VA-23		0.174	32.4	29.4	38.2	NAD	NAD
Location: Cove Molding								
24	VA-24		0.084	42.3	21.3	36.4	NAD	NAD
Location: Cove Mastic								
25	VA-25		0.146	13.9	66.3	19.8	NAD	NAD
Location: Cove Mastic								

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM

Analyzed by: Gabriella Morozov Date Analyzed 12/17/2020 Hitachi#747-Noran

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples); NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 11 December 2020

Sample Number	Sample Description	Notes
VA-1	Plaster Bathroom ceiling	
VA-2	plaster	
VA-3	Plaster	
VA-4	plaster	
VA-5	plaster	
VA-6	Gypsum wallboard JC	
VA-7	Gypsum wallboard JC	
VA-8	joint compound	
VA-9	joint compound	
VA-10	Cmu mortar	
VA-11	Cmu Mortar	
VA-12	Cmu Mortar	
VA-13	Cmu	
VA-14	Cmu	
VA-15	Cmu	220122135
VA-16	Outer layer of F.G.	
VA-17	outer layer on F.G	
VA-18	Ceramic mastic	

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 11 December 2020

Laboratory Personnel: Gabriella Morod Signature: _____ Date: 12/17/20

Turnaround Time Requested: 5 Day TAT

Received by _____ 12/12/20 1239

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 11 December 2020

Sample Number	Sample Description	Notes
VA-19	Ceramic mastic	
VA-20	Ceramic grout	
VA-21	Ceramic grout	
VA-22	Cove molding	
VA-23	Cove molding	
VA-24	cove mastic	
VA-25	cove mastic	
	220122135	

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 11 December 2020

Laboratory Personnel: Gabriella Muro Signature: _____ Date: 12/17/20

Turnaround Time Requested: 5 Day TAT Received 12/12/20 1237

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/15/20 **AmeriSci Job #** 220122273
Date Examined 12/17/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 1
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-A	220122273-01		NA [1,2]

Location: Chase Above Bathroom - Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

VA-B	220122273-02		NA [1]

Location: Beams, Columns Over Spray - Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

VA-C	220122273-03		NA [1]

Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."

Analyst Description: Bulk Material
Asbestos Types:
Other Material:

Reporting Notes:

(1) (SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16. 10 gram minimum sample weight is required.

(2) This PLM job was analyzed using Nikon Labophot Pol Scope S/N 954314

Analyzed by: Bo Sun Bo Sun

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: PLM

END OF REPORT

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 14 December 2020

Sample Number	Sample Description	Notes
VA-A	Fireproofing	Chase above Bathrooms
VA-B	Fireproofing	Beams, columns & over Spray
VA-C	Fireproofing	

Industrial Hygienist: Vernon C. Rohde II Signature: [signature] Date: 14 December 2020

Laboratory Personnel: Raleigh Palme Signature: [signature] Date: 12/15/20

1150

Turnaround Time Requested: 2 Day TAT

For NOB Samples (including ceiling tiles) - Read by PLM NOB first, and if Negative also perform TEM analysis.

Please email all results to the following: vernonrohde@hotmail

220122273

AmeriSci Richmond
13635 GENITO ROAD
MIDLOTHIAN, VIRGINIA 23112
TEL: 8047631200 FAX: 8047631800

January 8, 2021

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive
Newtown, CT 6470

RE: S&B Environmental
Job Number 120122205
P.O. #
SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Dear Vernon Rohde:

Enclosed are the results of Asbestos Analysis - Bulk Protocol of the following S&B Environmental samples, received at AmeriSci on Thursday, December 31, 2020, for a 14 day turnaround:

VA-D, VA-E, VA-F

The 3 samples, placed in zip lock bag, were shipped to AmeriSci via Fed Ex 7725 0460 6594 S. S&B Environmental requested ELAP 198.8 SM-V analysis of these samples.

The results of the analysis which were performed under NYSDOH ELAP lab Certification #10984 following ELAP 198.8 PLM guidelines are presented within the report. This report must not be used to claim product endorsement or approval by these laboratories, NVLAP, ELAP, or any other associated agency. The National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced, except in full without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations, respectively, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Jean L. Mayes
QA Manager | Authorized Signatory

AmeriSci Job #: 120-12-2205
Client: S & B Environmental

Table I

PLM Analysis of Surfacing Material Containing Vermiculate (SM-V) by NYS ELAP 198.8

SUNY Purchase

AmeriSci Sample #	Client Sample #	Analyst Description	Percent Non-Fibrous	Percent Non-Asbestos Fibers	Percent Chrysotile	Percent Amphibole	Total Percent Asbestos	Footnote
120122205-01	VA-D	Tan, Granular	100	0	NAD	NAD	NAD	None
120122205-02	VA-E	Tan, Granular	100	0	NAD	NAD	NAD	None
120122205-03	VA-F	Tan, Granular	100	0	NAD	0.01	0.01	None

Analyzed by: Jan Mayo **Date:** 01/08/21

Reporting Notes:

ELAP Lab ID: 10984 : PLM analysis by NY ELAP 198.8

NAD= No Asbestos Detected: ND= None Detected: **NA** = Not Analyzed; **NA/PS** = Not Analyzed/Positive Stop

Footnote:

AmeriSci Job #:	120-12-2205
Client:	S & B Environmental
Job Site:	SUNY Purchase

Asbestos Analysis of NYS ELAP Method 198.8
PLM analysis for Asbestos in Surfacing Material Containing Vermiculite (SM-V)

BENCH SHEET

AmeriSci Richmond Sample #: 1 Crucible ID# 1

	Tech/Analyst	Date
Gravimetric Prep	AM	01/15/21
PLM Chrysotile Analysis	JLM	01/06/21
Centrifugation	AM	01/07/21
PLM Amphibole Analysis	JLM	01/08/21

STEREOBINOCULAR EXAMINATION

COLOR: Tan TEXTURE: Granular HOMOGENEITY: _____

HOMOGENIZATION: _____ PROBABLY FIBERS: _____

INITIAL WEIGHTS		COMMENTS
Weight Of Crucible	25.792	
Weight of Cricible+Subsample	28.8055	
Weight of Subsample	3.0135	
ASHING		
Weight of Crucible+Ash	28.3997	
Weight of Ash	2.6077	
Weight Loss During Ash	0.4058	
Weight Percent Organic and Water	13.4661	
ACID TREATMENT/FLOTATION		
Weight of Dish for Floats		2nd Measure
Weight of Dish and Floats		% Difference / Acceptable
Weight of Floats	0.0000	0 / #DIV/0! / #DIV/0!
Weight Percent Floats	0.0000	
Weight of Dish+Filter for Residue	8.1619	2nd Measure
Weight of Dish+Filter+Residue	9.1285	9.1285 / % Difference / Acceptable
Weight of Residue	0.9666	0.9666 / 0.00% / YES
Weight Loss During Acid Treatment	1.6411	
Weight Percent Acid-Soluble Materials	54.4583	
Weight Percent Reside	32.0757	

PLM EXAMINATION OF RESIDUE (CHRYSOTILE)	Analyzed	PTCT	Chrysotile	Non-Empty	PTCT	Chrysotile	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	NO
Number of Chrysotile Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Chrysotile by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT CHRYSOTILE IN SAMPLE	**0.0**	Slide 4:	0	50	Slide 8:	0	50	

HEAVY LIQUID CENTRIFUGATION		CHRYSOTILE IDENTIFICATION						
Weight Of Dish+Filter+Balance Of Residue	9.1217							
Weight of Balance Of Residue	0.9598	**Morphology**	**RI Parallel**	**RI Perpindicular**	**Sign Of Elongation**	**Extinction Angle**	**Birefringence**	**Fiber ID**
Weight Of Dish+Filter for Centrifugate	8.1685							
Weight Of Dish+Filter+Centrifugate	8.2281							
Weight Of Centrifugate	0.0596							
Weight Percent Centrifugate	1.9918							

PLM EXAMINATION OF CENTRIFUGATE (AMPHIBOLE)	Analyzed	PTCT	Amphibole	Non-Empty	PTCT	Amphibole	Non-Empty	Trace Detected
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	NO
Number of Amphibole Asbestos Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Amphibole Asbestos by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT AMPHIBOLE ASBESTOS IN SAMPLE	**0.00**	Slide 4:	0	50	Slide 8:	0	50	

		AMPHIBOLE IDENTIFICATION						
PERCENT TOTAL ASBESTOS IN SAMPLE	**0.00**							
		Morphology	**RI Parallel**	**RI Perpindicular**	**Sign Of Elongation**	**Extinction Angle**	**Birefringence**	**Fiber ID**

AmeriSci Job #:	120-12-2205
Client:	S & B Environmental
Job Site:	SUNY Purchase

Asbestos Analysis of NYS ELAP Method 198.8
PLM analysis for Asbestos in Surfacing Material Containing Vermiculite (SM-V)

BENCH SHEET

AmeriSci Richmond Sample #: 2 **Crucible ID#** 3

	Tech/Analyst	Date
Gravimetric Prep	AM	01/15/21
PLM Chrysotile Analysis	JLM	01/06/21
Centrifugation	AM	01/07/21
PLM Amphibole Analysis	JLM	01/08/21

STEREOBINOCULAR EXAMINATION

COLOR: Tan **TEXTURE:** Granular **HOMOGENEITY:** _____

HOMOGENIZATION: _____ **PROBABLY FIBERS:** _____

INITIAL WEIGHTS		sof						
Weight Of Crucible	26.0204							
Weight of Cricible+Subsample	29.2952							
Weight of Subsample	3.2748							
ASHING								
Weight of Crucible+Ash	28.8866							
Weight of Ash	2.8662							
Weight Loss During Ash	0.4086							
Weight Percent Organic and Water	12.4771							
ACID TREATMENT/FLOTATION								
Weight of Dish for Floats		2nd Measure						
Weight of Dish and Floats			% Difference	Acceptable				
Weight of Floats	0.0000	0	#DIV/0!	#DIV/0!				
Weight Percent Floats	0.0000							
Weight of Dish+Filter for Residue	8.1603	2nd Measure						
Weight of Dish+Filter+Residue	9.096	90960	% Difference	Acceptable				
Weight of Residue	0.9357	90951.8397	200.00%	NO				
Weight Loss During Acid Treatment	1.9305							
Weight Percent Acid-Soluble Materials	58.9502							
Weight Percent Reside	28.5727							
PLM EXAMINATION OF RESIDUE (CHRYSOTILE)	Analyzed	**PTCT**	**Chrysotile**	**Non-Empty**	**PTCT**	**Chrysotile**	**Non-Empty**	**Trace Detected**
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	**NO**
Number of Chrysotile Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Chrysotile by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT CHRYSOTILE IN SAMPLE	**0.0**	Slide 4:	0	50	Slide 8:	0	50	
HEAVY LIQUID CENTRIFUGATION		**CHRYSOTILE IDENTIFICATION**						
Weight Of Dish+Filter+Balance Of Residue	9.0911		**RI**	**RI**	**Sign Of**	**Extinction**		
Weight of Balance Of Residue	0.9308	**Morphology**	**Parallel**	**Perpindicular**	**Elongation**	**Angle**	**Birefringence**	**Fiber ID**
Weight Of Dish+Filter for Centrifugate	8.1566							
Weight Of Dish+Filter+Centrifugate	8.1982							
Weight Of Centrifugate	0.0416							
Weight Percent Centrifugate	1.2770							
PLM EXAMINATION OF CENTRIFUGATE (AMPHIBOLE)	Analyzed	**PTCT**	**Amphibole**	**Non-Empty**	**PTCT**	**Amphibole**	**Non-Empty**	**Trace Detected**
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	**NO**
Number of Amphibole Asbestos Points	0	Slide 2:	0	50	Slide 6:	0	50	
Percent Amphibole Asbestos by PTCT	0	Slide 3:	0	50	Slide 7:	0	50	
PERCENT AMPHIBOLE ASBESTOS IN SAMPLE	**0.00**	Slide 4:	0	50	Slide 8:	0	50	
		AMPHIBOLE IDENTIFICATION						
PERCENT TOTAL ASBESTOS IN SAMPLE	**0.00**		**RI**	**RI**	**Sign Of**	**Extinction**		
		Morphology	**Parallel**	**Perpindicular**	**Elongation**	**Angle**	**Birefringence**	**Fiber ID**

AmeriSci Job #:	120-12-2205
Client:	S & B Environmental
Job Site:	SUNY Purchase

Asbestos Analysis of NYS ELAP Method 198.8
PLM analysis for Asbestos in Surfacing Material Containing Vermiculite (SM-V)

BENCH SHEET

AmeriSci Richmond Sample #: 3 **Crucible ID#** 4

	Tech/Analyst	Date
Gravimetric Prep	AM	01/15/21
PLM Chrysotile Analysis	JLM	01/06/21
Centrifugation	AM	01/07/21
PLM Amphibole Analysis	JLM	01/08/21

STEREOBINOCULAR EXAMINATION

COLOR: Tan **TEXTURE:** Granular **HOMOGENEITY:** _____

HOMOGENIZATION: _____ **PROBABLY FIBERS:** _____

INITIAL WEIGHTS		sof							
Weight Of Crucible	26.9737								
Weight of Cricible+Subsample	29.2953								
Weight of Subsample	2.3216								
ASHING									
Weight of Crucible+Ash	29.5943								
Weight of Ash	2.6206								
Weight Loss During Ash	-0.299								
Weight Percent Organic and Water	-12.8790								
ACID TREATMENT/FLOTATION									
Weight of Dish for Floats		2nd Measure							
Weight of Dish and Floats			% Difference	Acceptable					
Weight of Floats	0.0000	0	#DIV/0!	#DIV/0!					
Weight Percent Floats	0.0000								
Weight of Dish+Filter for Residue	8.1638	2nd Measure							
Weight of Dish+Filter+Residue	9.0201	9.0201	% Difference	Acceptable					
Weight of Residue	0.8563	0.8563	0.00%	YES					
Weight Loss During Acid Treatment	1.7643								
Weight Percent Acid-Soluble Materials	75.9950								
Weight Percent Reside	36.8840								
PLM EXAMINATION OF RESIDUE (CHRYSOTILE)	Analyzed	**PTCT**	**Chrysotile**	**Non-Empty**	**PTCT**	**Chrysotile**	**Non-Empty**	**Trace Detected**	
Number of Occupied Points	400	Slide 1:	0	50	Slide 5:	0	50	**NO**	
Number of Chrysotile Points	0	Slide 2:	0	50	Slide 6:	0	50		
Percent Chrysotile by PTCT	0	Slide 3:	0	50	Slide 7:	0	50		
PERCENT CHRYSOTILE IN SAMPLE	**0.0**	Slide 4:	0	50	Slide 8:	0	50		
HEAVY LIQUID CENTRIFUGATION		**CHRYSOTILE IDENTIFICATION**							
Weight Of Dish+Filter+Balance Of Residue	9.0162		**RI**	**RI**	**Sign Of**	**Extinction**			
Weight of Balance Of Residue	0.8524	**Morphology**	**Parallel**	**Perpindicular**	**Elongation**	**Angle**	**Birefringence**	**Fiber ID**	
Weight Of Dish+Filter for Centrifugate	8.1534								
Weight Of Dish+Filter+Centrifugate	8.2172								
Weight Of Centrifugate	0.0638								
Weight Percent Centrifugate	2.7607								
PLM EXAMINATION OF CENTRIFUGATE (AMPHIBOLE)	Analyzed	**PTCT**	**Amphibole**	**Non-Empty**	**PTCT**	**Amphibole**	**Non-Empty**	**Trace Detected**	
Number of Occupied Points	400	Slide 1:	1	49	Slide 5:	0	50	**NO**	
Number of Amphibole Asbestos Points	1	Slide 2:	0	50	Slide 6:	0	50		
Percent Amphibole Asbestos by PTCT	0.25	Slide 3:	0	50	Slide 7:	0	50		
PERCENT AMPHIBOLE ASBESTOS IN SAMPLE	**0.01**	Slide 4:	0	50	Slide 8:	0	50		
		AMPHIBOLE IDENTIFICATION							
PERCENT TOTAL ASBESTOS IN SAMPLE	**0.01**		**RI**	**RI**	**Sign Of**	**Extinction**			
		Morphology	**Parallel**	**Perpindicular**	**Elongation**	**Angle**	**Birefringence**	**Fiber ID**	

S & B Environmental, LLC **7 Fairchild Road** **Newtown, CT. 06470**

Bulk Sample Data Sheet/Chain of Custody

Client: SUNY Purchase 1201222 05
Building Address: 735 Anderson Hill Road, Purchase, New York
Sampling Date: 22 December 2020

Sample Number	Sample Description	Notes
VA-D	Fireproofing	
VA-E	Fireproofing	
VA-F	Fireproofing	
		220122852
		RECEIVED
		DEC 31 2020
		By KldH

Industrial Hygienist: Vernon C. Rohde II Signature: _____ Date: 22 December 2020

Laboratory Personnel: _____ Signature: _____ Date: _____

Turnaround Time Requested: 1 Week TAT

Analyze by ELAP 198.8 for vermiculite containing surfacing materials.

Please email all results to the following: vernonrohde@hotmail

Rec'd PM 12/23/20 1320

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

1201222 05

PLM Bulk Asbestos Report

S&B Environmental
Attn: Vernon Rohde
7 Fairchild Drive

Newtown, CT 06470

Date Received 12/23/20 **AmeriSci Job #** 220122852
Date Examined 12/30/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 1
RE: SUNY Purchase; 735 Anderson Hill Road, Purchase, New York

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VA-D	220122852-01		NA [1,2]
Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."			
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
VA-E	220122852-02		NA [1]
Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."			
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			
VA-F	220122852-03		NA [1]
Location: Fireproofing "(SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16 - see PLM footnote."			
Analyst Description: Bulk Material **Asbestos Types:** **Other Material:**			

RECEIVED
DEC 31 2020
By KWM

Reporting Notes:

(1) (SOF-V) and (SM-V) must be analyzed by ELAP 198.8 or equivalent, effective 5/6/16. 10 gram minimum sample weight is required.

(2) This PLM job was analyzed using Nikon Labophot Pol Scope S/N 954314

Analyzed by: Bo Sun BOS

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____ END OF REPORT

S & B Environmental, LLC
7 Fairchild Road
Newtown, CT. 06482
Phone (203) 947-6300

Hazardous Material Inspection Report

For

State University of New York
735 Anderson Hill Road
Purchase, New York 10577

AT

Social Sciences Building
Natural Sciences Building
Visual Arts Building

Inspection for Bathroom Renovation
Project #29X421

XRF Readings

Thermo SCIENTIFIC

Thermo Fisher Scientific
2 Radcliff Road
Tewksbury, MA 01876 USA

SUNY Purchase

Index	Time	Units	Results	Room	Component	Substrate	Side	Color	Inspector	PbC
1	**2020-12-11 10:00**	**mg / cm ^2**	**Positive**	**SSM**	**Calibrate**	**Ceramic**	**B**		**Russell Coonrod**	**1.10 +/- 0.10**
2	**2020-12-11 10:00**	**mg / cm ^2**	**Positive**	**SSM**	**Calibrate**	**Ceramic**	**B**		**Russell Coonrod**	**1.10 +/- 0.10**
3	**2020-12-11 10:01**	**mg / cm ^2**	**Positive**	**SSM**	**Calibrate**	**Ceramic**	**B**		**Russell Coonrod**	**1.10 +/- 0.10**
4	2020-12-11 10:01	mg / cm ^2	Negative	SSM	Wall	Ceramic	A	Beige	Russell Coonrod	0.01 +/- 0.05
5	2020-12-11 10:02	mg / cm ^2	Negative	SSM	Wall	Ceramic	B	Beige	Russell Coonrod	0.00 +/- 0.02
6	2020-12-11 10:02	mg / cm ^2	Negative	SSM	Wall	Ceramic	C	Beige	Russell Coonrod	0.03 +/- 0.13
7	2020-12-11 10:03	mg / cm ^2	Negative	SSM	Wall	Ceramic	D	Beige	Russell Coonrod	0.01 +/- 0.02
8	2020-12-11 10:03	mg / cm ^2	Negative	SSM	Floor	Ceramic		Grey	Russell Coonrod	0.00 +/- 0.02
9	2020-12-11 10:04	mg / cm ^2	Negative	SSM	Ceiling	Plaster		White	Russell Coonrod	0.00 +/- 0.02
10	2020-12-11 10:06	mg / cm ^2	Negative	SSM	Trim	Ceramic	B	Grey	Russell Coonrod	0.00 +/- 0.02
11	2020-12-11 10:07	mg / cm ^2	Negative	SSM	Partition	Plastic	B	Grey	Russell Coonrod	0.00 +/- 0.02
12	2020-12-11 10:08	mg / cm ^2	Negative	SSM	Stall Back	Ceramic	C	White	Russell Coonrod	0.05 +/- 0.16
13	2020-12-11 10:10	mg / cm ^2	Negative	SSM	Tile Left of Sink	Ceramic	C	Grey	Russell Coonrod	0.00 +/- 0.02
14	2020-12-11 10:11	mg / cm ^2	Negative	SSM	Door	Wood	B	Brown	Russell Coonrod	0.00 +/- 0.02
15	2020-12-11 10:11	mg / cm ^2	Negative	SSM	Door	Wood	A	Brown	Russell Coonrod	0.00 +/- 0.02
16	2020-12-11 10:12	mg / cm ^2	Negative	SSM	Door Casing	Metal	A	White	Russell Coonrod	0.04 +/- 0.10
17	2020-12-11 10:12	mg / cm ^2	Negative	SSM	Door Jamb	Metal	A	White	Russell Coonrod	0.02 +/- 0.05
18	2020-12-11 10:12	mg / cm ^2	Negative	SSM	Door Stop	Metal	A	White	Russell Coonrod	0.02 +/- 0.04
19	2020-12-11 10:13	mg / cm ^2	Negative	SSF	Wall	Ceramic	A	Grey	Russell Coonrod	0.01 +/- 0.05
20	2020-12-11 10:14	mg / cm ^2	Negative	SSF	Wall	Ceramic	B	Grey	Russell Coonrod	0.01 +/- 0.04
21	2020-12-11 10:14	mg / cm ^2	Negative	SSF	Wall	Ceramic	C	Grey	Russell Coonrod	0.02 +/- 0.06
22	2020-12-11 10:14	mg / cm ^2	Negative	SSF	Wall	Ceramic	D	Grey	Russell Coonrod	0.00 +/- 0.02
23	2020-12-11 10:15	mg / cm ^2	Negative	SSF	Ceiling	Plaster		White	Russell Coonrod	0.00 +/- 0.02
24	2020-12-11 10:15	mg / cm ^2	Negative	SSF	Floor	Ceramic		Grey	Russell Coonrod	0.01 +/- 0.03
25	2020-12-11 10:16	mg / cm ^2	Negative	SSF	Door	Wood	A	Brown	Russell Coonrod	0.00 +/- 0.02
26	2020-12-11 10:16	mg / cm ^2	Negative	SSF	Door Casing	Metal	A	White	Russell Coonrod	0.02 +/- 0.04
27	2020-12-11 10:16	mg / cm ^2	Negative	SSF	Door Jamb	Metal	A	White	Russell Coonrod	0.03 +/- 0.02
28	2020-12-11 10:17	mg / cm ^2	Negative	SSF	Door Stop	Metal	A	White	Russell Coonrod	0.05 +/- 0.03
29	2020-12-11 10:18	mg / cm ^2	Negative	SSF	Floor	Ceramic		L Grey	Russell Coonrod	0.01 +/- 0.04
30	2020-12-11 10:19	mg / cm ^2	Negative	SSF	Trim	Ceramic	B	L Grey	Russell Coonrod	0.00 +/- 0.02
31	2020-12-11 10:20	mg / cm ^2	Negative	SSF	Partition	Plastic	A	L Grey	Russell Coonrod	0.00 +/- 0.02

Thermo Fisher Scientific
2 Radcliff Road
Tewksbury, MA 01876 USA

SUNY Purchase

Index	Time	Units	Results	Room	Component	Substrate	Side	Color	Inspector	PbC
32	2020-12-11 10:21	mg / cm^2	Negative	SS F	Wall Patch	Ceramic	C	L Grey	Russell Coonrod	0.00 +/- 0.02
33	2020-12-11 10:22	mg / cm^2	Negative	SS F	Wall back of Stall	Ceramic	C	White	Russell Coonrod	0.01 +/- 0.04
34	2020-12-11 10:31	mg / cm^2	Negative	NS F	Wall	Ceramic	A	Brown	Russell Coonrod	0.00 +/- 0.02
35	2020-12-11 10:32	mg / cm^2	Negative	NS F	Wall	Ceramic	B	Brown	Russell Coonrod	0.00 +/- 0.02
36	2020-12-11 10:32	mg / cm^2	Negative	NS F	Wall	Ceramic	C	Brown	Russell Coonrod	0.00 +/- 0.02
37	2020-12-11 10:32	mg / cm^2	Negative	NS F	Wall	Ceramic	D	Brown	Russell Coonrod	0.00 +/- 0.02
38	2020-12-11 10:33	mg / cm^2	Negative	NS F	Wall	Ceramic	D	Brown	Russell Coonrod	0.01 +/- 0.02
39	2020-12-11 10:34	mg / cm^2	Negative	NS F	Ceiling	Drywall		White	Russell Coonrod	0.00 +/- 0.02
40	2020-12-11 10:35	mg / cm^2	Negative	NS F	Floor	Ceramic		Brown	Russell Coonrod	0.00 +/- 0.02
41	2020-12-11 10:35	mg / cm^2	Negative	NS F	Door	Metal	A	Brown	Russell Coonrod	0.00 +/- 0.02
42	2020-12-11 10:35	mg / cm^2	Negative	NS F	Door Casing	Metal	A	Brown	Russell Coonrod	0.03 +/- 0.06
43	2020-12-11 10:36	mg / cm^2	Negative	NS F	Door Jamb	Metal	A	Brown	Russell Coonrod	0.13 +/- 0.10
44	2020-12-11 10:37	mg / cm^2	Negative	NS F	Door Stop	Metal	A	Brown	Russell Coonrod	0.20 +/- 0.03
45	2020-12-11 10:37	mg / cm^2	Negative	NS F	Door Stop	Metal	A	Brown	Russell Coonrod	0.12 +/- 0.10
46	2020-12-11 10:38	mg / cm^2	Negative	NS F	Partition	Metal	D	Brown	Russell Coonrod	0.07 +/- 0.03
47	2020-12-11 10:38	mg / cm^2	Negative	NS F	Partition	Metal	D	Brown	Russell Coonrod	0.05 +/- 0.07
48	2020-12-11 10:39	mg / cm^2	Negative	NS M	Wall	Ceramic	A	Brown	Russell Coonrod	0.00 +/- 0.02
49	2020-12-11 10:39	mg / cm^2	Negative	NS M	Wall	Ceramic	B	Brown	Russell Coonrod	0.00 +/- 0.02
50	2020-12-11 10:40	mg / cm^2	Negative	NS M	Wall	Ceramic	C	Brown	Russell Coonrod	0.00 +/- 0.02
51	2020-12-11 10:40	mg / cm^2	Negative	NS M	Wall	Ceramic	D	Brown	Russell Coonrod	0.00 +/- 0.02
52	2020-12-11 10:40	mg / cm^2	Negative	NS M	Ceiling	Drywall	D	White	Russell Coonrod	0.00 +/- 0.02
53	2020-12-11 10:41	mg / cm^2	Negative	NS M	Floor	Ceramic		Brown	Russell Coonrod	0.01 +/- 0.03
54	2020-12-11 10:42	mg / cm^2	Negative	NS M	Door	Metal	B	Brown	Russell Coonrod	0.00 +/- 0.02
55	2020-12-11 10:42	mg / cm^2	Negative	NS M	Door Casing	Metal	B	Brown	Russell Coonrod	0.04 +/- 0.06
56	2020-12-11 10:42	mg / cm^2	Negative	NS M	Door Jamb	Metal	A	Brown	Russell Coonrod	0.30 +/- 0.21
57	2020-12-11 10:43	mg / cm^2	Negative	NS M	Door Stop	Metal	A	Brown	Russell Coonrod	0.10 +/- 0.11
58	2020-12-11 10:43	mg / cm^2	Negative	NS M	Partition	Metal	C	Brown	Russell Coonrod	0.05 +/- 0.07
59	2020-12-11 10:44	mg / cm^2	Negative	NS M	Partition	Metal	C	Brown Drk	Russell Coonrod	0.09 +/- 0.09
60	2020-12-11 10:44	mg / cm^2	Negative	NS M	Partition	Metal	C	Brown Drk	Russell Coonrod	0.08 +/- 0.14
61	2020-12-11 10:46	mg / cm^2	Negative	NS Theater	Wall	Drywall	A	Purple	Russell Coonrod	0.00 +/- 0.02
62	2020-12-11 10:47	mg / cm^2	Negative	NS 1057	Door	Metal	A	Brown	Russell Coonrod	0.00 +/- 0.02

Thermo Fisher Scientific
2 Radcliff Road
Tewksbury, MA 01876 USA

SUNY Purchase

Index	Time	Units	Results	Room	Component	Substrate	Side	Color	Inspector	PbC
63	2020-12-11 10:48	mg / cm ^2	Negative	NS 1057	Door Casing	Metal	A	Brown	Russell Coonrod	0.29 +/- 0.06
64	2020-12-11 10:49	mg / cm ^2	Negative	NS 1057	Door Jamb	Metal	A	Brown	Russell Coonrod	0.40 +/- 0.10
65	2020-12-11 10:49	mg / cm ^2	Negative	NS 1057	Door Stop	Metal	A	Brown	Russell Coonrod	0.50 +/- 0.30
66	2020-12-11 10:50	mg / cm ^2	Negative	NS 1060	Wall	Drywall	A	Beige	Russell Coonrod	0.00 +/- 0.02
67	2020-12-11 10:51	mg / cm ^2	Negative	NS 1060	Wall	Drywall	B	Beige	Russell Coonrod	0.00 +/- 0.02
68	2020-12-11 10:51	mg / cm ^2	Negative	NS 1060	Wall	Concrete	C	Beige	Russell Coonrod	0.00 +/- 0.02
69	2020-12-11 10:52	mg / cm ^2	Negative	NS 1060	Wall	Drywall	D	Beige	Russell Coonrod	0.00 +/- 0.02
70	2020-12-11 10:53	mg / cm ^2	Negative	NS 1060	Floor	Vinyl		Beige	Russell Coonrod	0.00 +/- 0.02
71	2020-12-11 10:53	mg / cm ^2	Negative	NS 1060	Door	Metal	A	Brown	Russell Coonrod	0.01 +/- 0.04
72	2020-12-11 10:54	mg / cm ^2	Negative	NS 1060	Door	Metal	A	Brown	Russell Coonrod	0.01 +/- 0.05
73	2020-12-11 10:54	mg / cm ^2	Negative	NS 1060	Door Casing	Metal	A	Brown	Russell Coonrod	0.06 +/- 0.09
74	2020-12-11 10:54	mg / cm ^2	Negative	NS 1060	Door Jamb	Metal	A	Brown	Russell Coonrod	0.04 +/- 0.07
75	2020-12-11 10:55	mg / cm ^2	Negative	NS 1060	Door Stop	Metal	A	Brown	Russell Coonrod	0.13 +/- 0.04
76	2020-12-11 10:57	mg / cm ^2	Negative	NS 1057	Wall	Drywall	B	Beige	Russell Coonrod	0.00 +/- 0.02
77	2020-12-11 10:57	mg / cm ^2	Negative	NS 1057	Wall	Drywall	B	Beige	Russell Coonrod	0.00 +/- 0.02
78	2020-12-11 11:09	mg / cm ^2	Negative	VAM	Wall	Ceramic	A	Beige	Russell Coonrod	0.00 +/- 0.02
79	2020-12-11 11:09	mg / cm ^2	Negative	VAM	Wall	Ceramic	B	Beige	Russell Coonrod	0.00 +/- 0.03
80	2020-12-11 11:10	mg / cm ^2	Negative	VAM	Wall	Ceramic	C	Beige	Russell Coonrod	0.01 +/- 0.02
81	2020-12-11 11:10	mg / cm ^2	Negative	VAM	Wall	Ceramic	D	Beige	Russell Coonrod	0.00 +/- 0.02
82	2020-12-11 11:11	mg / cm ^2	Negative	VAM	Ceiling	Drywall		White	Russell Coonrod	0.00 +/- 0.02
83	2020-12-11 11:11	mg / cm ^2	Negative	VAM	Floor	Ceramic		Grey	Russell Coonrod	0.00 +/- 0.02
84	2020-12-11 11:12	mg / cm ^2	Negative	VAM	Door	Wood	A	Grey	Russell Coonrod	0.00 +/- 0.02
85	2020-12-11 11:13	mg / cm ^2	Negative	VAM	Door Casing	Metal	A	Grey	Russell Coonrod	0.04 +/- 0.02
86	2020-12-11 11:13	mg / cm ^2	Negative	VAM	Door Jamb	Metal	A	Grey	Russell Coonrod	0.18 +/- 0.21
87	2020-12-11 11:14	mg / cm ^2	Negative	VAM	Door Stop	Metal	A	Grey	Russell Coonrod	0.09 +/- 0.05
88	**2020-12-11 11:15**	**mg / cm ^2**	**Positive**	**VAM**	**Partition**	**Metal**	**C**	**Grey**	**Russell Coonrod**	**1.30 +/- 0.30**
89	2020-12-11 11:15	mg / cm ^2	Negative	VAM	Tile Trim	Ceramic	C	Grey	Russell Coonrod	0.00 +/- 0.02
90	2020-12-11 11:16	mg / cm ^2	Negative	VAM	Door	Metal	C	Black	Russell Coonrod	0.00 +/- 0.02
91	2020-12-11 11:16	mg / cm ^2	Negative	VAM	Door Casing	Metal	C	Black	Russell Coonrod	0.02 +/- 0.05
92	2020-12-11 11:17	mg / cm ^2	Negative	VAM	Door Casing	Metal	C	Orange	Russell Coonrod	0.12 +/- 0.12
93	2020-12-11 11:17	mg / cm ^2	Negative	VAM	Door Stop	Metal	C	Orange	Russell Coonrod	0.17 +/- 0.17

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Index	Time	Units	Results	Room	Component	Substrate	Side	Color	Inspector	PbC
94	2020-12-11 11:18	mg / cm ^2	Negative	VAM Closet	Beam	Metal	C	Black	Russell Coonrod	0.40 +/- 0.20
95	2020-12-11 11:18	mg / cm ^2	Negative	VAF	Wall	Ceramic	A	Beige	Russell Coonrod	0.00 +/- 0.02
96	2020-12-11 11:19	mg / cm ^2	Negative	VAF	Wall	Ceramic	B	Beige	Russell Coonrod	0.00 +/- 0.02
97	2020-12-11 11:19	mg / cm ^2	Negative	VAF	Wall	Ceramic	C	Beige	Russell Coonrod	0.00 +/- 0.02
98	2020-12-11 11:19	mg / cm ^2	Negative	VAF	Wall	Ceramic	D	Beige	Russell Coonrod	0.00 +/- 0.02
99	2020-12-11 11:20	mg / cm ^2	Negative	VAF	Ceiling	Plaster	DM	White	Russell Coonrod	0.00 +/- 0.02
100	2020-12-11 11:20	mg / cm ^2	Negative	VAF	Floor	Ceramic		Grey	Russell Coonrod	0.00 +/- 0.02
101	2020-12-11 11:21	mg / cm ^2	Negative	VAF	Floor	Wood	A	Grey	Russell Coonrod	0.00 +/- 0.02
102	2020-12-11 11:22	mg / cm ^2	Negative	VAF	Door	Wood	A	Grey	Russell Coonrod	0.00 +/- 0.02
103	2020-12-11 11:22	mg / cm ^2	Negative	VAF	Door Casing	Metal	A	Grey	Russell Coonrod	0.05 +/- 0.04
104	2020-12-11 11:22	mg / cm ^2	Negative	VAF	Door Jamb	Metal	A	Grey	Russell Coonrod	0.02 +/- 0.02
105	2020-12-11 11:22	mg / cm ^2	Negative	VAF	Door Jamb	Metal	A	Grey	Russell Coonrod	0.04 +/- 0.04
106	2020-12-11 11:23	mg / cm ^2	Negative	VAF	Door Stop	Metal	A	Grey	Russell Coonrod	0.07 +/- 0.11
107	2020-12-11 11:23	mg / cm ^2	Negative	VAF	Tile Trim	Ceramic	A	Grey	Russell Coonrod	0.00 +/- 0.02
108	2020-12-11 11:26	mg / cm ^2	Negative	VAFB	Wall	Ceramic	A	Beige	Russell Coonrod	0.02 +/- 0.04
109	2020-12-11 11:27	mg / cm ^2	Negative	VAFB	Wall	Ceramic	B	Beige	Russell Coonrod	0.00 +/- 0.02
110	2020-12-11 11:27	mg / cm ^2	Negative	VAFB	Wall	Ceramic	B	Beige	Russell Coonrod	0.00 +/- 0.02
111	2020-12-11 11:27	mg / cm ^2	Negative	VAFB	Wall	Ceramic	C	Beige	Russell Coonrod	0.00 +/- 0.02
112	2020-12-11 11:27	mg / cm ^2	Negative	VAFB	Wall	Ceramic	D	Beige	Russell Coonrod	0.01 +/- 0.04
113	2020-12-11 11:28	mg / cm ^2	Negative	VAFB	Ceiling	Drywall		White	Russell Coonrod	0.00 +/- 0.02
114	2020-12-11 11:29	mg / cm ^2	Negative	VAFB	Floor	Ceramic		Grey	Russell Coonrod	0.00 +/- 0.02
115	2020-12-11 11:29	mg / cm ^2	Negative	VAFB	Floor	Ceramic		Grey LT	Russell Coonrod	0.00 +/- 0.02
116	**2020-12-11 11:30**	**mg / cm ^2**	**Positive**	**VAFB**	**Partition**	**Metal**	**C**	**Black**	**Russell Coonrod**	**1.40 +/- 0.20**
117	**2020-12-11 11:31**	**mg / cm ^2**	**Positive**	**VAFB**	**Partition**	**Metal**	**C**	**Black**	**Russell Coonrod**	**1.40 +/- 0.10**
118	**2020-12-11 11:31**	**mg / cm ^2**	**Positive**	**VAFB**	**Partition**	**Metal**	**C**	**Black**	**Russell Coonrod**	**1.70 +/- 0.40**
119	2020-12-11 11:33	mg / cm ^2	Negative	VAMB	Wall	Ceramic	A	Beige	Russell Coonrod	0.01 +/- 0.04
120	2020-12-11 11:33	mg / cm ^2	Negative	VAMB	Wall	Ceramic	B	Beige	Russell Coonrod	0.00 +/- 0.02
121	2020-12-11 11:33	mg / cm ^2	Negative	VAMB	Wall	Ceramic	C	Beige	Russell Coonrod	0.00 +/- 0.02
122	2020-12-11 11:33	mg / cm ^2	Negative	VAMB	Wall	Ceramic	D	Beige	Russell Coonrod	0.00 +/- 0.02
123	2020-12-11 11:34	mg / cm ^2	Negative	VAMB	Ceiling	Drywall	D	White	Russell Coonrod	0.00 +/- 0.02
124	2020-12-11 11:36	mg / cm ^2	Negative	VAMB	Floor	Ceramic		Grey	Russell Coonrod	0.00 +/- 0.02

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Index	Time	Units	Results	Room	Component	Substrate	Side	Color	Inspector	PbC
125	**2020-12-11 11:37**	**mg / cm ^2**	**Positive**	**VAMB**	**Partition**	**Metal**		**Black**	**Russell Coonrod**	**1.60 +/- 0.40**
126	2020-12-11 11:38	mg / cm ^2	Negative	VAMB	Pipe	Metal		Black	Russell Coonrod	0.00 +/- 0.02
127	**2020-12-11 11:42**	**mg / cm ^2**	**Positive**	**VAMB**	**Calibrate**	**Metal**			**Russell Coonrod**	**1.00 +/- 0.10**
128	2020-12-11 11:43	mg / cm ^2	Null	VAMB	Calibrate	Metal			Russell Coonrod	1.00 +/- 0.10

S & B Environmental, LLC
7 Fairchild Road
Newtown, CT. 06482
Phone (203) 947-6300

Hazardous Material Inspection Report

For

State University of New York
735 Anderson Hill Road
Purchase, New York 10577

AT

Social Sciences Building
Natural Sciences Building
Visual Arts Building

Inspection for Bathroom Renovation
Project #29X421

Certifications

United States Environmental Protection Agency

This is to certify that

S & B Environmental, LLC

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires October 05, 2022

LBP-9526-2
Certification #

April 19, 2019
Issued On

Michelle Price, Chief
Lead, Heavy Metals, and Inorganics Branch

CERT#: L-302-269

CHEMSCOPE TRAINING DIVISION

LEAD INSPECTOR INITIAL

24HOUR TRAINING CERTIFICATE

Russell Coonrod

7 Fairchild Road, Newtown CT

Has attended a 24hour course on the subject discipline in English on

10/6/2020-10/8/2020 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course syllabus includes all required topics of State of Connecticut DPH and EPA.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S. C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State or local requirements.

Examination Score: 93%
Exam Date: 10/08/2020
Expiration Date: 10/08/2021

Daniel Sullivan
Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
Phone: 203.865.5605
www.chem-scope.com

Litho in U.S.A.

United States Environmental Protection Agency

This is to certify that

Vernon Rohde

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Inspector

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires October 30, 2023

LBP-I-8174-1

Certification #

October 16, 2020

Issued On

Adrienne Priselac, Manager, Toxics Office

Land Division

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

VERNON C ROHDE II
CLASS(EXPIRES)
C ATEC(10/20) D INSP(10/20)
E MGPL(10/20) H PM (10/20)
I PD (10/20)

CERT# 89-01729
DMV# 302032580

MUST BE CARRIED ON ASBESTOS PROJECTS

NYC DEP ASBESTOS CONTROL PROGRAM
ASBESTOS CERTIFICATE

ROHDE II,
VERNON
INVESTIGATOR
116391

EXPIRES: 10/25/2021
DOB:10/25/1964 M 5' 10"

MUST BE CARRIED ON ALL ASBESTOS PROJECTS

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

S & B Environmental, LLC

7 Fairchild Road

Newtown, CT 06470

FILE NUMBER: 99-0324
LICENSE NUMBER: 28539
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 11/24/2020
EXPIRATION DATE: 11/30/2021

Duly Authorized Representative – Vernon C Rohde II:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

SECTION 02 82 13

HAZARDOUS MATERIAL REMOVAL AND DISPOSAL

PART 1 GENERAL

1.1 SCOPE OF WORK

A. The Contract is for removal of asbestos-containing materials (ACM) as noted at State University of New York (SUNY) at the Purchase Campus located at 735 Anderson Hill Road in Purchase, NY. The ACM to be removed includes floor tiles in the Natural Sciences Building Room 1060.

B. The following table lists types and estimated amounts of Hazardous Materials to be removed:

Location	Material
Natural Science - Room 1060	Asbestos Containing Floor Tiles – 430 Square Feet.
Visual Arts – All Bathrooms	Lead Painted Bathroom Stalls, and Stall Doors – All Stalls
Social Science – All Rooms	Fluorescent Light Bulbs for Mercury Content – All Bulbs
Natural Science – All Rooms	Fluorescent Light Bulbs for Mercury Content – All Bulbs
Visual Arts – All Rooms	Fluorescent Light Bulbs for Mercury Content – All Bulbs
Social Science – All Rooms	PCB Ballasts – All Fluorescent Fixtures
Natural Science – All Rooms	PCB Ballasts – All Fluorescent Fixtures
Visual Arts – All Rooms	PCB Ballasts – All Fluorescent Fixtures

The Contractor shall remove all Hazardous Materials as noted. The contractor is responsible to verify the quantities during the field walk through prior to bidding. The drawings are included to provide help in locating and understanding where materials are located. They **shall not be deemed the exclusive source of information** and the contractor is responsible to fully understand the scope through their own site walks prior to bidding.

C. Award of Work - The owner reserves the right to award all of, or any portion of the work.

D. Floor tiles - Floor tiles were found to be present in room 1060 of the Natural Sciences Building, please refer to drawings for location. All work for floor tiles shall proceed in accordance with the requirements of New York State Industrial Code Rule 56.

E. Pipe insulation – In all three buildings the only insulation found in the pipe chases and plenum were fiberglass insulated lines and fittings. Due to the limitations of access at the time of the survey, it is possible to come across different materials during on site demolition. If any other type of insulation is discovered during the demolition work, the contractor shall IMMEDIATELY stop such work and contact the owner's environmental consultant to review the newly discovered materials before proceeding.

F. Asbestos - No asbestos containing materials, shall be used in performance of this contract.

G. Extras - During the execution of the work, if the Contractor believes any work in addition to that listed in these specifications is present in a given work area, he shall immediately bring it to the attention of the Engineer for review, verification, and authorization prior to proceeding with the additional work. If the Contractor performs the additional work prior to notifying the Engineer, and therefore without verification and authorization, he will not be compensated for such work

H. At the conclusion of all asbestos abatement activities, the school districts environmental consultant shall perform a visual inspection in accordance with ASTM E 1368 method. All final air

samples will be analyzed by Transmission Electron Microscopy (TEM) analysis. Results will be consider passing only when ALL INSIDE SAMPLES ARE less than 35 structures per square millimeter, or all readings return results of No asbestos Structures Detected (NSD).

I. Lead Paint – The contractor is hereby notified that lead based paints, and coating **were identified** on the bathroom stalls and stall doors in all four bathrooms of the visual arts building. All work which will disturb these materials must be performed in accordance with EPA "lead safe" work practices, and all contractors who will impact these materials must have attended the EPA's RRP training program prior to work on this project that causes disturbance of the material. All demolition in the rooms with lead coated surfaces that incudes these materials shall be done in closed work areas with proper entry/exit procedure to prevent the spread of lead-based dust outside of the rooms. The owner's environmental consultant must be onsite during all such activities and will collect wipe samples on the floors outside each work area each day until demolition and cleanup completion. Once all lead-based demolition is complete and the work area is completely cleaned, the districts environmental consultant shall collect clearance wipe sample within that work area. If the clearance testing fails, the contractor shall re-clean the work area and addition wipe samples will be collected. This process will be repeated until passing results are achieved. **The contractor will be responsible for all retesting costs after the first set of clearance samples**.

J. Other Hazardous Materials. – Mercury and PCB – Where light fixtures are to be removed, the contractor shall carefully remove and recycle all fluorescent light tubes as Mercury containing materials. The contractor shall inspect all ballasts from every light fixture, and read the label. If the label does not indicate that the ballast is "PCB Free" or "Does not contain any PCB's", they shall store the ballasts in leak tight 55-gallon drums for disposal as hazardous waste. Prior to shipping any hazardous waste of site, the contractor shall obtain a waste generator number for this site from the building owner, or EPA in the event that said number does not already exist. All hazardous waste shall be transported to and delivered to an EPA approved facility that accepts the type of hazardous waste being disposed of. The waste shipment record for the completed delivery shall be delivered to the property owner within 45 days of the waste leaving site.

K. Trace Asbestos – Fireproofing in both the Social Sciences building and the Visual Arts building were found to contain Vermiculite, and further tested in accordance with New York State regulations by ELAP 198.8 method. The results of these samples found that trace levels (0.003%, and 0.01%) of amphibole asbestos forms. While these materials ARE NOT CONSIDERED as asbestos containing materials under New York State or EPA regulations, it is still required that all contractors whom may disturb these materials must be notified about the trace levels of asbestos so that they can properly follow OSHA regulations for their trade as needed.

1.2 QUALITY ASSURANCE

A. Codes and Standards

1. Comply with the following codes and standards, except where more stringent requirements are shown or specified:

a. Code of Federal Regulations (CFR)

1) 29 CFR 1910.1200, "Hazard Communication" (OSHA)
2) 29 CFR 1910.134, “Respiratory Protection" (OSHA)
3) 29 CFR 1910.145, “Specification for Accident Prevention Signs and Tags" (OSHA)
4) 29 CFR 1926, "Construction Industry" (OSHA)
5) 29 CFR 1926.1101, "Asbestos, Tremolite, Anthophyllite, And Actinolite" (OSHA)
6) 40 CFR 61, Subpart A, "General Provisions" (EPA)
7) 40 CFR 61, Subpart M, "National Emission Standard for Hazardous Air Pollutants Asbestos" (EPA)
8) 40 CFR 763, OPTS 62048E; FRL 3269 8 Federal Register 52, No. 210, Friday October 30, 1987, "Rules and Regulations; Asbestos Containing Materials In Schools, Final Rule and Notice" (EPA)
9) 49 CFR 106,107,171 179, "The Transportation Safety Act of 1974, Hazardous Material Transportation Act"

b. American National Standard Institute (ANSI)

1) Z9.2 79, “Fundamentals Governing the Design and Operation of Local Exhaust Systems"
2) Z88.2 80, "Practices for Respiratory Protection"

c. New York State Code of Rules and Regulations (NYCRR)

1) Part 56, 12 NYCRR, "Asbestos"
2) Parts 360 and 364, 6 NYCRR (Disposal and Transportation)
3) Part 73, 10 NYCRR, "Asbestos Safety Program Requirements"

d. Obtain two (2) copies of 29 CFR 1926.1101 and 40 CFR 61, Subparts A & B. Post one copy at the job site and retain one copy on file in the Contractor's office.

B. Records

1. Every Contractor shall maintain asbestos project records for at least 40 years pursuant to Subpart 56 1.6(a), Part 56, 12 NYCRR.
2. Each record shall include:

a. The name, address and social security number of the asbestos project supervisor.
b. The location and description of the asbestos project.
c. The amount of asbestos containing material that was installed, removed, enclosed, applied, encapsulated or disturbed.
d. The asbestos project start and completion dates.
e. The name and address of the waste disposal site where the asbestos waste material was deposited or disposed of.

f. The name and address of any sites used for interim storage of asbestos waste materials prior to final deposit or disposal.
g. The name and address of the asbestos waste material transporters.
h. The name, address and social security number of all persons engaged in the asbestos project.
I. Any information on required New York State forms.

C. Notices and Permits

1. Environmental Protection Agency

a. At least 10 days for both small asbestos projects and large asbestos projects (as defined in Subpart 56-1.4 to 12 NYCRR 56) prior to beginning work on the asbestos containing materials, send written notification to the Environmental Protection Agency, National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Coordinator, Air Facilities Branch, 26 Federal Plaza, New York 10007, in accordance with 40 CFR 61.145,146. Provide copies to the Architect/Engineer and to the Owner.

b. The notification shall include the following information:

1) Name and Address of Owner.
2) Name and Address of Contractor.
3) Address and description of the building, including its size and age, amount, in cubic feet, of friable asbestos material to be abated, and the nature of contract work.
4) Scheduled starting and completion dates for abatement.
5) Procedures that will be employed to comply with EPA regulations.
6) The name and address of the waste disposal site where asbestos wastes will be deposited.

2. Department of Environmental Conservation

a. Obtain an annual "Industrial Waste Hauler Permit" specifically for asbestos containing materials from New York State Department of Environmental Conservation, Waste Transporter Section, Room 205, 50 Wolf Road, Albany, NY, 12233, pursuant to Part 364, 6 NYCRR for transporting of waste asbestos containing materials to a disposal site.

b. Asbestos containing waste materials to be transported shall be packaged in accordance with Environmental Protection Agency requirements and as specified herein.

3. Local Fire/Rescue Department

a. Consult with the local fire/rescue department in the preparation of the Emergency Procedures Plan for fire and medical emergencies. Notify the local fire/rescue department in writing seven (7) days prior to the start of asbestos removal work. Notification shall be made when the asbestos removal work in each location is complete. A copy of the above notification shall be provided to the Project Monitor.

4. New York State Department of Labor

a. At least 10 days prior to beginning work on the asbestos-containing materials, send written notification to the New York State Department of Labor, Division of Safety and Health, Asbestos Control Program. Provide copies to the Architect/Engineer, the Project Monitor, and to the building Owner.

b. The notification shall include as a minimum:

1) The name, address and asbestos handling license number of the Contractor.
2) The address and description of the building including size, age and prior use.
3) The amount of asbestos containing material, in square feet and/ or linear feet, present in the building.

4) Room designations, if applicable.
5) The proposed abatement start and completion dates.
6) The procedures and equipment, including ventilating/exhaust systems that will be employed.
5. A copy of all notices shall be kept at the work site.

D. Medical Requirements

1. Medical Examinations

a. Before exposure to airborne asbestos fibers, provide workers with a comprehensive medical examination as required by 29 CFR 1926.1101. This examination is not required if adequate records show the employee has been examined as required by 29 CFR 1926.1101 within the past year. The same medical examination shall be given on an annual basis to employees engaged in an occupation involving asbestos fibers and within 30 calendar days before or after the termination of employment in such occupations. Specifically identify X ray films of asbestos workers to the consulting radiologist and mark medical record jackets with the word "ASBESTOS."

2. Medical Records

a. As required by 29 CFR 1926.1101, maintain complete and accurate records of employees' medical examinations for a period of 40 years after termination of employment and make records of the required medical examinations available for inspection and copying to: The Assistant Secretary of Labor for Occupational Safety and Health, the Director of the National Institute for Occupational Safety and Health (NIOSH), authorized representatives of either of them, and an employees' physician upon the request of the employee or former employee.

E. Licensing and Certification

1. The Contractor must submit and display a valid New York State asbestos handling license pursuant to Subpart 56 2.1, Part 56, 12 NYCRR.

2. The Contractor must have on site proof that any persons employed by the Contractor to engage in or supervise work on an asbestos project have a valid New York State asbestos handling certificate from an EPA-approved course pursuant to NYCRR, Title 56, Part 12, Section 56 2.2.

F. Project Monitor

a. The Project Monitoring Firm selected for the daily inspection of the work performed will be under separate Contract with the Owner.

b. The Daily on-site representative, referred to hereafter as the Project Monitor, is authorized by the Owner to oversee all removal work, interpret all procedures and enforce all provisions of the Contract Documents pertaining to asbestos removal and disposal.

c. The Project Monitor is authorized to stop work if, in his judgment, there is substantial noncompliance with the Contract Documents, or there is a situation of serious health risk to workers or occupants due to the performance of work. Such stop work order shall be effective immediately and remain in effect until corrective measures have been taken and the situation has been remedied. Standby time required to resolve the situation shall be at the Contractor's expense.

d. The Contractor is required to ensure cooperation of its personnel with the Project Monitor during the inspection of each work area prior to starting asbestos work, during the asbestos abatement work, and during Final inspection of each work area prior to removal of containment barrier.

G. Air Monitoring

1. Testing Laboratory

a. The testing laboratory selected for the following scheduled monitoring of airborne concentrations of asbestos fibers will be under separate Contract with the Owner.

b. The testing laboratory site representative, referred to hereafter as the Air Sampling Technician (AST), is authorized by the Owner to conduct Pre-Abatement, Abatement, and Final Clearance air sampling.

c. The duties of the AST may be performed by the Project Monitor, as long as the conditions set forth in 12 NYCRR are met, or else the AST shall act under the direction of the Project Monitor.

2. Air Monitoring Analysis and Procedures

a. Area air samples shall normally be taken between 3.0 and 5.0 liters per minute (lpm) for all times the contractor is working. For high volume background or final clearance air sampling (10.0 lpm) optimum run times are 2 to 3 hours.

b. Personal air samples shall normally be taken at a maximum of 2.5 lpm for a full work shift or until the filter on the sampling cassette becomes visibly dusty or darkened.(Personal Air Monitoring is the responsibility of the Abatement contractor for their own workers)

c. All air samples shall normally be analyzed using NIOSH method 7400 for Phase Contrast Microscopy (PCM). Background and final clearance air samples for areas containing greater than three (3) feet of ACM will be analyzed using both Phase Contrast Microscopy (PCM) and Transmission Electron Microscopy (TEM).

d. Each area containing greater than three (3) feet of ACM is designated as a large asbestos project. For background and final clearance air sampling, a minimum of 13 samples are required. Five (5) samples will be located within the abatement area, four (4) at locations representative of air entering the abatement area, one (1) designated as the Environmental Ambient Air (EAA) sample and located outside the building, two (2) designated as field blanks, and the final sample designated as a sealed blank. Additionally, one (1) extra representative area sample for every 5,000 square feet over 25,000 square feet of floor space within the abatement area shall be taken.

e. Abatement activity air sampling for each area containing greater than 3 feet of ACM will consist of samples located as follows:

1) Two (2) outside the abatement area, inside the building, and within ten feet of the enclosure barriers. One (1) of these shall be located where negative pressure ventilation equipment exhaust ducts run through the uncontaminated areas. If there are no adjacent areas within the building, one (1) sample (instead of the two (2) above) will be substituted and placed outside the building in addition to the EAA sample.
2) One (1) outside the enclosure barriers and within ten feet of each the personal and waste decontamination enclosures.
3) One (1) outside the building (EAA).
4) One (1) each within ten feet of each unobstructed negative pressure ventilation equipment exhaust location.
5) One (1) within the enclosure barriers for each 5,000 square feet of floor space.
6) One (1) personal sample for each aspect of abatement being performed (if taken by AST).

f. Under a total project size of not greater than 25 linear or 10 square feet of ACM, glove bag removal in each area containing not greater than three (3) feet of ACM can be conducted. Background and abatement activity air sampling is not required, and final clearance air sampling, along with TEM analysis, is required only in case of glove bag failure or loss of integrity.

g. Under a total project size of greater than 25 linear or 10 square feet of ACM, enclosure of any ACM to be abated is required. For each area containing no greater than three (3) feet of ACM, six (6) samples are required for both background and final clearance air sampling (PCM analysis). Three (3) will be located within the abatement area, two (2) at locations representative of air entering the abatement area, and the final sample designated as the EAA sample and located outside the building. During abatement a minimum of five (5) samples shall be collected. One (1) will be positioned outside the enclosure barriers with ten feet of the personal decontamination enclosure, one (l) within ten feet of the unobstructed exhaust of the primary negative pressure ventilation equipment, one (1) within the enclosure barriers, one (1) designated as a personal sample (if taken by the AST) or located within the enclosure barriers, and the final sample designated as the EAA sample and located outside the building.

h. For each set of air samples collected, a minimum of two (2) field blanks or 10% of the samples collected, whichever is greater, is required, along with one (1) sealed blank.

I. If air sampling during abatement reveals airborne fiber levels at or above 0.1 fibers per cubic centimeter (f/cc) within the enclosure barriers, or significantly increases outside the enclosure barriers, then the AST shall notify the Project Monitor, who has the authority to issue an immediate stop work order to inspect the enclosure barriers, then direct the HEPA vacuuming and/or wet cleaning of surfaces where the high fiber levels were detected. The Contractor shall bear the burden of any and all costs incurred by this delay.

j. The AST will conduct aggressive final clearance air sampling. This involves directing forced air against all surfaces within the enclosure barriers for at least five (5) minutes per 1,000 square feet of floor space. Then one (1) fan (minimum 20 inch diameter) for each 10,000 cubic feet of enclosure volume shall be placed in the center of the area, pointed toward the ceiling, and operated in its slowest speed during the sampling. Negative pressure ventilation equipment, operated to obtain more than four (4) air changes per hour within the enclosure barriers during abatement, shall be operated to obtain no more than two (2) air changes per hour during final clearance air sampling.

k. Final clearance air samples may be supplemented by swipe samples analyzed by PCM or dark-field microscopy to ensure no fibers remain on cleaned surfaces.

l. One set of TEM samples shall be taken for Final Clearance. TEM samples must be read to clear the associated area in accordance with the applicable AHERA requirements.

m. If an area fails to meet the TEM criteria for final clearance, then the Contractor shall re clean the area and the Project Monitor shall re-inspect the area. The AST will again conduct aggressive final clearance air sampling, all at the expense of the Contractor.

n. Representative daily air sampling shall be conducted during pre-cleaning operations.

H. Negative Air Pressure Filtration System Monitoring

1. Continuous 24 hour per day monitoring of pressure differential in a full enclosure area relative to adjacent unsealed areas shall be performed by automatic recording instruments. The minimum pressure differential is 0.02 inches of water column.
2. Pressure differential recordings for each day for the negative air pressure filtration system shall be reviewed by the Project Monitor. The Project Monitor shall immediately notify the Contractor and the Owner of any variance in the pressure differential which could cause exposure of adjacent unsealed areas to asbestos fiber contamination.

I. Respirator Program

1. The employer shall provide respirators, and ensure that they are used, where required by this section. Respirators shall be used in the following circumstances:

a. During the interval necessary to install or implement feasible engineering and work practice controls;

b. In work operations such as maintenance and repair activities, or other activities for which engineering and work practice controls are not feasible;

c. In work situations where feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the exposure limit; and

d. In emergencies.

2. General

a. Where respiratory protection is used, the employer shall institute a respirator program in accordance with 29 CFR 1910.134 (b), (d), (e) and (f), and 29 CFR 1926.1101.

b. The employer shall permit each employee who uses a filter respirator to change the filter elements whenever an increase in breathing resistance is detected and shall maintain an adequate supply of filter elements for this purpose.

c. Employees who wear respirators shall be permitted to leave work areas to wash their faces and respirator face pieces whenever necessary to prevent skin irritation associated with respirator use.

d. No employee shall be assigned to tasks requiring the use of respirators if, based on his or her most recent examination, an examining physician determines that the employee will be unable to function normally wearing a respirator, or that the safety or health of the employee or of other employees will be impaired by the use of a respirator. Such employee shall be assigned to another job or given the opportunity to transfer to a different position the duties of which he or she is able to perform with the same employer, in the same geographical area, and with the same seniority, status, and rate of pay he or she had just prior to such transfer, if such a different position is available.

3. Respirator Selection

a. Where respirators are used, the employer shall select and provide, at no cost to the employee, the appropriate respirator as specified in Table H-3, and shall ensure that the employee uses the respirator provided.

b. The employer shall select respirators from among those jointly approved as being acceptable for protection by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR Part 11.

c. The employer shall provide a Powered Air Purifying Respirator (PAPR) in lieu of any negative-pressure respirator specified in Table H-3 whenever;
- An employee chooses to use this type of respirator; and
- This respirator will provide adequate protection to the employee.

TABLE H-3 - RESPIRATORY PROTECTION FOR ASBESTOS, TREMOLITE, ANTHOPHYLLITE, AND ACTINOLITE FIBERS - OSHA Class II, III, & IV work ONLY.

Airborne Concentration of Asbestos Fibers	Required Respirator
Not greater than 1 f/cc (10 X PEL)	Half-mask air-purifying respirator equipped with high-efficiency filters
Not greater than 5 f/cc (50 X PEL)	Full face piece air-purifying respirator equipped with high-efficiency filters
Not greater than 10 f/cc (100 X PEL)	Any powered air-purifying respirator equipped with high-efficiency filters; or any supplied-air respirator operated in continuous flow mode
Not greater than 100 f/cc (1000 X PEL)	Full face piece supplied air respirator operated in pressure demand mode
Greater than 100 f/cc (or unknown)	Full face piece supplied air respirator operated in pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus

Notes: 1) Respirators assigned for higher environmental concentrations may be used at lower concentrations.
2) A high-efficiency filter is at least 99.97% efficient against mono-dispersed particles of at least 0.3 microns in diameter.

4. Respirator Fit Testing

a. The employer shall ensure that the respirator issued to the employee exhibits the least possible face piece leakage and that the respirator is fitted properly.

b. Employers shall perform either quantitative or qualitative face fit test at the time of initial fitting and at least once every year thereafter for each employee wearing a respirator. The qualitative fit test may be used only for testing the fit of half-mask respirators where they are permitted to be worn. The tests shall be used to select face pieces that provide the required protection as prescribed in Table H-3.

1.3 QUALIFICATIONS OF CONTRACTOR

A. Training

1. Contractor shall furnish the Owner proof of his staff's educational training in the hazards of asbestos and at least two removal jobs of asbestos containing materials by full enclosure, with one involving troweled or sprayed on material.

2. Contractor shall submit to the Owner proof of respirator training and fit testing and a description of his firm's respiratory program required under 29 CFR 1926.1101.

3. Licensing of Contractors and certification of asbestos workers shall be in accordance with New York State Labor Law Article 30 and Subpart 56 2, Part 56, 12 NYCRR. The Contractor shall submit to the Owner a copy of the asbestos handling license.

B. Medical Surveillance

1. Contractor shall furnish the Owner evidence of his firm's medical surveillance program required under 29 CFR 1926.1101.

C. After Contract Award no subcontracting of asbestos abatement work will be permitted.

1.4 PRE BID CONFERENCE

A. All Asbestos Abatement Contractors are encouraged to attend the pre bid conference. Contractors shall familiarize themselves with the Contract Documents prior to attending the conference. All interested parties should attend the pre bid meeting and walk-through. Failure to attend may result in disqualification from bidding at the discretion of the Owner.

1.5 PRECONSTRUCTION CONFERENCE

A. Prior to start of preparatory work under this Contract, the Contractor shall attend a preconstruction conference and walk through attended by Owner, Architect/Engineer, Project Monitor and Air Sampling Technician.

B. Agenda for this conference will include but not necessarily be limited to:

1. Contractor's scope of work, work plan and schedule.
2. Contractor's safety and health precautions including protective clothing and equipment and decontamination procedures.
3. Testing laboratory's air monitoring plan.
4. Contractor's work procedures including: Methods of job site preparation and decontamination chamber set up, wetting agents and procedures, and removal methods; respirator procedures; procedures for decontaminating the objects in the "decontamination and abatement" sections, methods of handling removed material and disposal procedures; cleanup procedures and equipment; signs and labels; fire exits and emergency procedures.
5. Contractor's plan for 24 hour job security both for prevention of theft and for barring entry of curious but unprotected personnel into work areas.
6. Temporary utilities.
7. Handling of furniture, books and other moveable objects.
8. Documentation of compliance with environmental laws and standards.
9. Storage of removed asbestos containing materials.

C. In conjunction with the conference the Contractor shall accompany the Owner, the Project Monitor, and the AST on a pre-construction walk through, documenting the existing condition of finishes and furnishings, and reviewing the overall work plan, locations of fire exits, fire protection equipment, water supply and temporary electric tie in.

1.6 SUBMITTALS

A. Submit the following items for approval by the Project Monitor prior to commencing work involving asbestos containing materials. No work shall commence until approval has been obtained.
1. Asbestos Plan

a. Submit a detailed plan of the work procedures to be used in the removal and demolition of materials containing asbestos. Such plan shall include location of asbestos control areas, decontamination chambers, layout of decontamination chambers, interface of trades involved in the construction, sequencing of asbestos related work, negative air pressure filtration system plan, disposal plan, type of wetting agent and asbestos sealer to be used, and a detailed description of the method to be

employed in order to control pollution, including but not limited to emergency procedures for fire and medical emergencies and for failure of seals. This plan must be approved prior to the start of any asbestos work.

b. Negative air pressure filtration system plan shall include a layout drawing indicating the method of providing air supply into the work area, location of HEPA filtration system, size of ducts, method of sealing ducts, the negative pressure to be maintained within the work area and the method to control this pressure, number of air changes, system manufacturer, size and characteristics, pre-filters and filter life spans and catalog numbers. Provision for maintaining effectiveness of the pre-filters and filters shall be indicated.

2. Disposal

a. Submit written evidence that the landfill for disposal is approved for asbestos disposal by the EPA and DEC and that the landfill to be used for disposal has been notified of the specific project.

3. Emergency Plan

a. Submit a detailed plan for fire and medical emergencies.

1) Fire Emergency

a) Describe procedures for evacuation, notification of fire department (including phone number) and fire containment.

2) Medical Emergency

a) Describe procedures for care of unconscious, contaminated personnel, decontamination of conscious personnel, notification of emergency medical services (including phone number) and first aid care.

b) Provide names of onsite personnel trained in first aid and CPR.

4. Certificates of Compliance

a. Submit manufacturers' certification that vacuum equipment, ventilation equipment, and other equipment required to contain airborne asbestos fibers conform to ANSI Z9.2.

b. Submit the name, address and telephone number of the industrial hygienist selected to direct training.
c. Submit a copy of a valid Contractor's asbestos handling license pursuant to Subpart 56 2.1, Part 56, 12 NYCRR.

d. Submit certificates signed by each employee that the employee has received training in the proper handling of materials that contain asbestos; understands the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of the respiratory equipment to be used; and understands the results of monitoring of airborne quantities of asbestos as related to health and respiratory equipment.

e. Submit a copy of each employee's asbestos handling certificate, pursuant to Subpart 56 2.2, Part 56, 12 NYCRR.

f. Submit the name and experience record of both the supervisor and foreman. Include evidence of knowledge of applicable regulations; evidence of participation in and successful completion of EPA approved training course in asbestos removal and/or supervision of asbestos related work; and

experience with asbestos related work in a supervisory position as evidenced through supervision of at least two asbestos abatement contracts.

g. Submit a copy of the supervisor's asbestos handling certificate pursuant to Subpart 56 2.2, Part 56, 12 NYCRR.

5. Upon completion of the job and as a condition of its acceptance, the Contractor will submit the job log book containing day to day record of personnel entering the work area. The Contractor's daily log entries will include any significant events occurring during the abatement project and will be countersigned by the Project Monitor.

6. Submit the name of the independent laboratory employed by the Contractor who will analyze the OSHA mandated employee personal air samples.

7. Submit a list of Contractor's equipment available for asbestos work, including but not limited to negative air machines, type of respirator intended for use on the job, type "C" supplied air systems, scaffolding, decontamination facilities, disposable clothing, etc.

8. Submit Material Safety Data Sheets (MSDS's) for any chemicals brought to the work site.

9. Upon a completion of the job and as a condition of its acceptance, Contractor shall submit a Waste Shipment Record in compliance with 40 CFR Part 61 (see Attachment 4).

1.7 DELIVERY AND STORAGE

A. Deliver all materials to the job site in original packages with containers bearing manufacturer's name and label.

B. Store all materials at the job site in a suitable and designated area. Store materials subject to deterioration or damage away from wet or damp surfaces and under cover. Protect materials from unintended contamination.

C. Remove damaged or deteriorated materials from the job site. Materials contaminated with asbestos shall be disposed of as asbestos debris as herein specified.

1.8 TEMPORARY UTILITIES

A. Electric
1. Shut down and lock out electric power to all work areas.
2. Provide, from Owner's existing system, temporary 120 208 volt, single phase, three wire, 100 amp electric service with Ground Fault Circuit Interrupters (GFCI) for all electric requirements within the asbestos work area. Provide temporary wiring and "weatherproof" receptacles in sufficient quantity and location to serve all negative air units, HEPA vacuum equipment, tools and air monitoring equipment.

3. Provide temporary lighting with "weatherproof" fixtures for all work areas including decontamination chambers.

4. All temporary devices and wiring used in the work area shall be capable of decontamination procedures including HEPA vacuuming and wet wiping.

B. Water

1. Provide temporary valved hot and cold water from Owner's existing system. Hot and cold water service shall be provided to the decontamination chamber's shower and clean room sink. Provide a 3/4" cold water hose connection at decontamination equipment room.

1.9 ASBESTOS DISPOSAL FORM

A. The Contractor shall submit signed documentation for each day on which asbestos waste is removed from the site. The documentation to be used for this is a Waste Shipment Record (WSR). Included information shall include the amount of waste removed, the name and address of the permitted asbestos waste transporter, and the quantity of waste received and signed for by the landfill official who accepted final delivery. At each point where possession of the asbestos waste is transferred, the WSR must be signed by the Agency relinquishing possession and countersigned by the Agency receiving possession. Upon final receipt of the asbestos waste at the designated landfill, the completed and signed forms shall be forwarded to the Owner or the Owner's designated representative before authorization of project completion will be issued.

B. If a copy of the Waste Shipment Record (WSR) signed by the waste site owner or operator is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, the waste generator shall contact the transporter and/or the disposal site owner or operator to determine the status of the waste shipment. If a signed copy of the WSR is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter, the waste generator shall submit an Exception Report to the EPA (reference 40 CFR Part 61).

PART 2.00 PRODUCTS

2.1 RESPIRATORS

A. Select respirators from those approved by the Mine Safety and Health Administration (MSHA), and the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

B. Respirators shall be fit tested to personnel by an Industrial Hygienist. Fit tested respirators shall be permanently marked to identify the individual fitted, and use shall be limited to that individual.

C. No respirators shall be issued to personnel without such personnel participating in a respirator training program.

D. High Efficiency Particulate Air (HEPA) respirator filters shall be approved by NIOSH and shall conform to the OSHA requirements in 29 CFR 1910.134.

E. A storage area for respirators shall be provided by the Contractor on the clean room side of any established decontamination chambers where they will be kept in a clean environment.

F. The Contractor shall provide and make available a sufficient quantity of respirator filters so that filter changes can be made as necessary during the work day. Filters will be removed and discarded during the decontamination process. Filters cannot be reused. Filters must be changed if breathing becomes difficult.

G. Filters cannot be used any longer than one 8 hour work day.

H. Respirator filters shall be stored at the project site in the change room of each work area and must be protected from asbestos exposure prior to use.

I. See Section 1.02 Paragraph H for respirator requirements.

2.2 PROTECTIVE CLOTHING

A. Provide personnel exposed to airborne concentrations of asbestos fibers with fire retardant disposable protective whole body clothing, head-coverings, gloves and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber for comfort, but shall not be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape, or provide disposable coverings with elastic wrists or tops.

B. Provide sufficient quantities of protective clothing to assure a minimum of four (4) complete disposable outfits per day for each individual performing abatement work.

C. Eye protection and hard hats shall be provided and made available for all personnel entering any work area.

D. Authorized Visitors

1. Any representative of the Owner, Consultant or any regulatory or other agency having jurisdiction over the project shall be considered an authorized visitor.
2. Authorized visitors shall be provided suitable protective clothing, headgear, eye protection and footwear whenever they are required to enter the work area.

3. The Contractor will have at least two additional respirators stored on site designated for emergency use only. Appropriate respirator filters for authorized visitors shall be made available by the Contractor.

2.3 SIGNS AND LABELS

A. In accordance with 40 CFR Part 61, Labels are required on all containers of asbestos containing waste material indicating the name of the generator and location where the waste was generated.

B. Provide danger signs and barrier tapes at all approaches to asbestos control work areas. Locate signs at such distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide asbestos danger labels affixed to all asbestos materials, scrap, waste, debris and other products contaminated with asbestos.
1. Provide danger signs in vertical format conforming to 29 CFR 1926.1101 (k)(1), minimum 20" x 14", displaying the following:

DANGER

ASBESTOS

CANCER AND LUNG DISEASE
HAZARD

AUTHORIZED PERSONNEL ONLY

RESPIRATORS AND PROTECTIVE
CLOTHING ARE REQUIRED IN THIS AREA

2. Provide pressure sensitive asbestos DANGER labels of sufficient size to be clearly legible, displaying the following on any asbestos contaminated material in accordance with 29 CFR 1910.1200(f):

DANGER

CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST

CANCER AND LUNG DISEASE
HAZARD

3. Provide the following pressure-sensitive asbestos labels, of sufficient size to be clearly legible, for display on waste containers (bags or drums) which will be used to transport asbestos contaminated material in accordance with United States Department of Transportation 49 CFR, Parts 171 and 172;

RQ HAZARDOUS

SUBSTANCE,

SOLID, NOS,

ORM-E, NA 9188

(ASBESTOS)

4.

a. Provide 3" wide yellow barrier tape printed with black lettered "CAUTION ASBESTOS REMOVAL". Locate barrier tape across all corridors, entrances and access routes to asbestos work area.

b. When 3" wide polyethylene warning tape printed "CAUTION ASBESTOS REMOVAL" is used it shall be installed at a height 3 to 4 feet above floor surfaces.

5. Provide log in sign at entrance to clean room. Sign shall be a minimum 12" x 12" having 1 inch Sans Serif Gothic or Block letters with the legend:

ALL PERSONS ENTERING WORK AREAS ARE REQUIRED TO SIGN IN

6. In accordance with 40 CFR Part 61, vehicles used to transport asbestos containing waste materials shall be marked with the sign prescribed by OSHA during loading and unloading to warn people of the presence of asbestos.

2.4 NEGATIVE AIR PRESSURE FILTRATION SYSTEM

A. Provide a portable asbestos filtration system that develops a minimum pressure differential of minus 0.02" of water column within all full enclosure areas relative to adjacent unsealed areas and that provides a minimum of 4 air changes per hour in the work area during abatement. Such ventilation systems must be equipped with HEPA filters to prevent the release of asbestos fibers to the environment outside the enclosure and must be operated 24 hours per day during the entire project until the final cleanup is completed and satisfactory results of the final air samples are received from the laboratory. All systems shall be in accordance with ANSI Z9.2. Provide automatic recording instruments to record continuous 24 hour per day monitoring of the pressure differential.

1. System shall provide a series of pre-filters and filters to provide High Efficiency Particulate Air (HEPA) filtration of particles down to 0.3 microns at 100 % efficiency and below 0.3 microns at 99.97% efficiency. Provide sufficient replacement filters to replace pre-filters every 2 hours, secondary pre-filters every 24 hours, and primary HEPA filters every 600 hours of operation.

2. A minimum of one additional ventilation unit of at least the same capacity as the primary unit shall be installed and fully functional to be used during primary unit filter changing and in case of primary unit failure.

3. At no time will the ventilation unit exhaust indoors or within 50 feet of a receptor, or adversely affect the air intake of the building.

4. Approved Manufacturers:

a. Micro Trap Inc., Portable Asbestos Air Filtration Systems
b. Control Resource Systems, Inc. "Hog", Portable HEPA Air Filtration Systems.

B. The Contractor shall provide a photohelic style negative air pressure gauge with chart recorder to measure and record negative pressure differential across the work area barriers without interruption 24 hours per day.

1. Approved Manufacturers:

a. Control Resources Inc. "Negamaster"

2.5 LOG

A. Provide a permanently bound log book of minimum 7 1/2" x 9 1/2" size. Log book shall contain on title page the project name; the name, address and phone number of Owner; name, address and phone number of both the Project Monitor and Air Sampling Technician; name, address and phone number of Abatement Contractor; name, address and phone number of Contractor's IH; emergency numbers including, but not limited to, local Fire/Rescue department. The log book shall contain a list of personnel approved by the IH for entry into the work area whose signatures acknowledge that they have reviewed and understand all applicable procedures.

B. All entries into the log shall be made by non-washable, permanent ink and such pen shall be strung to or otherwise attached to the log to prevent removal from the log in area. Under no circumstances shall pencil entries be permitted.

2.6 AIRLESS SPRAYER

A. A centrifugal airless sprayer shall be used to apply amended water to asbestos containing materials. The sprayer shall be capable of creating a mist which reduces the potential for fiber release.

2.7 SCAFFOLDING

A. Provide all scaffolding and/or staging as necessary to accomplish the work of this Contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with all applicable OSHA construction industry standards. Scaffold ends and joints shall be sealed to prevent incursion of asbestos fibers.

2.8 POWER TOOLS

A. Any power tools used to drill, cut into, or otherwise disturb asbestos material shall be equipped with HEPA filtered local exhaust ventilation.

2.9 CHEMICAL PENETRANT (AMENDED WATER)

A. Wet all asbestos containing materials prior to removal with chemical penetrant which is mixed and applied in accordance with manufacturer's printed instructions.

B. Approved Manufacturer:

1. Arpin Products Co., Inc.
2. Aquatrols Corp., Aqua Gro Asbestos wet

2.10 DISPOSAL BAGS, DRUMS, AND STORAGE BAGS

A. Provide clear, yellow, or black 6 mil polyethylene disposal bags pre-printed with asbestos danger labels. Bags shall be sized to fit within sealable drums for transport to an approved disposal site.

B. Provide 30 or 55 gallon capacity fiber or metal drums capable of being sealed air and water tight. Affix asbestos danger labels on lids and at one third points around drum circumference to assure ready identification.

C. Provide clear 6 mil polyethylene bags to store decontaminated objects from the "decontamination and abatement" zones.

2.11 HEPA VACUUM EQUIPMENT

A. All dry vacuuming performed under this Contract shall be performed with High Efficiency Particulate Air (HEPA) filter equipped industrial vacuums conforming to ANSI Z9.2.

B. Provide tools and specialized equipment including scraping nozzles with integral vacuum hoods connected to a HEPA vacuum with flexible hose.

C. HEPA vacuum equipment that has been previously used on other asbestos abatement sites must have intake and exhaust port openings sealed when not in use.

D. Industrial Wet Vac Units, when utilized, shall exhaust to the uptake manifold of the Negative Air Filtration Unit.

PART 3.00 EXECUTION

3.1 GENERAL REQUIREMENTS

A. Perform asbestos related work in accordance with 40 CFR 61, 29 CFR 1926 and as specified herein. Where different requirements are specified, adhere to the more stringent requirements.

B. Should the area beyond the asbestos work area(s) become contaminated with asbestos containing dust or debris as a consequence of the work, immediately institute emergency procedures. Contaminated non work areas shall be isolated and decontaminated in accordance with procedures established for asbestos removal. All costs incurred in decontaminating such non work areas shall be borne by the Contractor at no additional cost to the Owner.

C. Medical approvals and certificates of training shall be on file prior to admittance of any individual to the asbestos control work area. Individuals approved for entry into the work area shall be listed in the log book and shall sign in prior to entry.

D. Prior to start of asbestos abatement work, all heating, ventilation and air conditioning systems associated with the asbestos control work areas shall be shut down and locked out. Also shut down and lock out the building power supplies to the asbestos work area. Provide necessary temporary electric services as specified herein.

E. Perform all asbestos removal work using wet removal procedures. Mix and apply wetting agent in accordance with manufacturer's written instructions, saturating all asbestos containing materials prior to and during removal. Dry removal procedures are not permitted. Mix surfactant amended water in accordance with manufacturer's instructions for all water used in wet wiping cleanup operations.

F. In non-demolition areas only, finishes subject to moisture damage by wet removal methods either through direct contact with water or through high humidity conditions shall be protected.

G. When abatement is to be performed within a boiler room, boilers shall be shut down and the burner and boiler accesses and breechings shall be sealed until abatement has been completed and satisfactory clearance air monitoring results have been received.

3.2 PREPARATION

A. Equipment and Furnishings Preparation in abatement area:

1. All non-removable equipment in the work area shall be wet wiped then completely covered with 2 layers of polyethylene sheeting, at least 6 mil in thickness, and secured in place with duct tape. Boiler Room equipment shall be HEPA vacuumed prior to covering with sheeting.

2. Remove all items attached to or in contact with asbestos containing materials only after a temporary enclosure is in place. HEPA vacuum and wet wipe with amended water all removed items, including ceiling tiles, prior to their removal from the asbestos work area and before the start of asbestos removal operations. Coordinate the removal of electrical fixtures and devices with the Owner.

3. All cleaning cloths shall be considered contaminated and shall be packaged and disposed of as contaminated debris.

B. Temporary Enclosure (FULL ENCLOSURE)

1. Provide temporary enclosure of the asbestos work area to isolate it from unsealed areas of the building in accordance with the approved asbestos plan and as specified herein.

2. Seal off all openings including but not limited to windows, diffusers, grills, and any other penetrations of the work area enclosure, using 2 layers of at least 6 mil plastic sheeting.
3. Provide temporary framing and sheathing at doors or corridors larger than 32 square feet forming the limits of the asbestos work area. Sheathing must be a minimum of 3/8 inch plywood, or equivalent as approved in advance by Engineer, and all sheathing shall be caulked and sealed with one layer of 6 mil plastic sheeting to form an isolation barrier.
4. Provide two layers of 6 mil polyethylene sheeting of up to 20' widths to minimize joints over all floor surfaces. Extend a minimum of 12" up walls and secure with spray adhesive then seal with duct tape. To assure tight seal, avoid dusting sheeting surfaces which are to be taped. All joints in floor sheeting shall overlap 12" minimum.
5. Provide a double layer of 6 mil polyethylene sheeting over all vertical wall surfaces, temporary framing and ceilings. Secure with spray adhesive then seal with duct tape. Overlap turned up floor sheeting and vertical joints 12" minimum.
6. Frame out emergency exits. Provide double layer 6 mil polyethylene sheeting and tape seal opening. Post as emergency exits only.
7. Overnight settling of the barriers shall be allowed to insure they will remain intact prior to inspection by the Project Monitor. During the abatement the supervisor shall inspect the barriers at least twice daily, as well as before and after each day's activities, and document the results.
8. Access into the enclosure shall be through the decontamination chamber only.

C. Personal and Waste Decontamination Enclosure Systems

1. For large asbestos projects, each abatement area (greater than three (3) feet of ACM) shall be provided with either:
a. A personal decontamination enclosure system in accordance with Figure 1 and a waste decontamination enclosure system in accordance with Figure 3, or
b. A parallel personal and waste decontamination enclosure system in accordance with Figure 4.
2. For small asbestos projects, each abatement area (not greater than three (3) feet of ACM) shall be provided with a combined personal and waste decontamination enclosure system in accordance with Figure 2.
3. Access to the work area will be through the personal decontamination enclosure system only. Removal of waste will be through the waste decontamination enclosure system only.
4. The entrance to each the clean room (personal decontamination enclosure system) and the holding area (waste decontamination enclosure system) shall have a lockable door. All other doorways shall consist of three (3) layers of weighted six (6) mil polyethylene sheeting as shown in the Figures. Prior to establishing doorway seals, move all required tools, scaffolding and equipment into the asbestos work area.
5. The decontamination enclosure system ceiling, walls and floor shall be covered with two (2) layers of opaque six (6) mil polyethylene sheeting. If it is accessible to the public, it shall also be fully framed and sheathed to prevent unauthorized entry. Each airlock shall be a minimum of three (3) feet from door to door.
6. Suitable lockers for storage of the workers' street clothes, and suitable storage for respirators, replacement filters and 20 x 40 inch disposable towels shall be provided in the clean room.
7. A minimum 32 x 32 x 90 inch temporary shower facility with hot and cold water supplies, a sufficient supply of soap and shampoo and a reclaimable waste water storage tank shall be provided in the shower room. Shower water shall be drained, collected and filtered through a system with at least a 5.0 micron particle size collection capability containing a series of several filters with progressively smaller pore sizes to avoid rapid clogging of the system. The filtered waste water shall then be discharged in accordance with applicable local codes, and the contaminated filters disposed of as asbestos waste. There shall be a minimum of one (1) shower for every six (6) workers.
8. The equipment room shall be used for the storage of tools and equipment after decontamination using a HEPA vacuum and/or wet cleaning. A walk off pan filled with water shall be located in the work area by the equipment room for workers to clean foot coverings when leaving the work area. A drum lined with a labeled six (6) mil plastic bag for collection of contaminated clothing shall be located in this room.

9. The waste washroom/cleanup room shall be equipped with a drain to collect water and deliver it to the shower drain. This drain shall be operated only when the showers are not in use. For small asbestos projects the shower room may double as the waste washroom. In this case, in lieu of a holding area, waste shall be transferred to carts and immediately removed from the enclosure system not stored in the clean room.
10. The decontamination enclosure systems shall be HEPA vacuumed and/or wet cleaned at the end of each work shift, and shall be kept locked at all times when no personnel are in the work area.

D. Provide a Negative Air Filtration System in accordance with approved Negative Air Filtration System Plan. Provide new HEPA filters and pre-filters prior to startup of negative air unit.

E. Provide asbestos danger signs at all approaches to the asbestos work area. Post all emergency exits as emergency exits only on the work area side, and post with asbestos danger signs on the non-work area side. Provide all non-work area stairs and corridors accessible to the asbestos work area with warning tape at the base of stairs and beginning of corridors. Warning tape shall be in addition to danger signs.

3.3 PRE REMOVAL NOTIFICATIONS AND INSPECTION

A. Notify the Project Monitor and AST at least 48 hours prior to the start of any removal operations. The Project Monitor shall inspect the work area for compliance with Contract Documents and the approved Asbestos Plan before authorizing start of removal. Smoke tubes shall be used to test the effectiveness of the work area barriers and the personal and waste decontamination areas during this inspection and daily thereafter, and the results, observations and any modifications documented. All deficiencies noted by the Project Monitor during this inspection shall be corrected by the Contractor and rechecked by the Project Monitor prior to the start of any removal. The Negative Air Filtration System shall be in operation and door seals in place for the Project Monitor's inspection.

3.4 REMOVAL OF ASBESTOS CONTAINING MATERIALS (FULL ENCLOSURE)

A. Remove asbestos containing materials in accordance with the Contract Documents and the approved Asbestos Plan.

B. Sufficiently wet asbestos material with a low pressure, airless fine spray of amended water/chemical penetrant to assure saturation and wetting prior to any material removal. Re wet any material that does not display evidence of saturation prior to removal. Re wet material as necessary during removal operations.

C. Use equipment and methods specifically designed to limit generation of airborne asbestos particles. Scraper hoods shall be attached to HEPA vacuum units. All removed material shall immediately be placed in plastic disposal bags, and the newly exposed surfaces HEPA vacuumed and/or wet cleaned. Maintain surfaces of the control area free from accumulation of asbestos debris.

D. Air Monitoring for the Owner shall be performed by the AST in accordance with the schedule specified herein. The Contractor shall cooperate with the AST in performance of all required air monitoring.

E. The Project Monitor is authorized by the Owner to stop work if, in the his judgment, there is substantial noncompliance with the Contract Documents, if there is a situation of serious health risk to workers or occupants due to the performance of work, or if damage occurs to the barriers. Such stop work order shall be effective immediately and remain in effect until corrective measures have been taken and the situation remedied to the satisfaction of the Owner and the Project Monitor. Standby time required to resolve the situation shall be at the Contractor's expense.

3.5 DECONTAMINATION (FULL ENCLOSURE)

A. Access to and from the asbestos work area is through the personal decontamination enclosure system only.

B. Workers shall sign the entry/exit log upon every entry and exit.

C. Before leaving the work area, gross asbestos contamination will be removed by brushing, wet cleaning/ HEPA vacuuming, and use of the walk off pan.

D. In the equipment room, workers shall remove disposable clothing, but not respirators, and shall place clothing in the drum provided for disposal as contaminated debris prior to entering the Shower Room.

E. Workers shall shower thoroughly while wearing respirators then wash respirator with soap and water prior to removal. When use of powered air purifying respirators is permitted, remove cartridge filters while still under shower, thoroughly wetting filters. Dispose of filters as contaminated debris.

F. Upon exiting the shower, workers shall don new disposable clothing if work shift will continue or street clothes to exit the area. Under no circumstances shall workers enter public non work areas in disposable protective clothing since no distinction can be made by the public between contaminated and uncontaminated disposable clothing.

3.6 REPAIR

A. Corrective actions shall be performed using non asbestos material. Repairs shall include enclosure patch up, spot removal, spot patch up and spot encapsulation. Repairs are considered to be a minor asbestos project.

B. Containment Bag Method (pipe insulation repair or removal)

1. Size the glove bag to fit the pipe. The sides of the bag may be slit to accommodate large diameter pipes.
2. Do not use glove bags on pipes hotter than 130 degrees F.
3. Place removal tools in pouch.
4. Attach the glove bag over the section of insulation to be removed. Fold open edges together and seal with staples, then duct tape. Place staples at one inch intervals.
5. Cut open the water port of the glove bag, insert spray nozzle, and seal opening.
6. Cut open vacuum porthole, insert HEPA vacuum nozzle and seal opening around nozzle.
7. Seal edges of the bag with duct tape to form an airtight seal.
8. Two Person Operation at all times per bag One person inserts hand in glove bag sleeves and removes pipe insulation. The second person operates sprayer and vacuum.
9. Cut ends of insulation using knife, bone saw or a flexible wire saw. Placement of end cuts should be 6" from ends of bag.
10. If lagging has a metal jacket component, this will have to be removed by cutting with tin snips and folding back edges such that the integrity of the bag is not compromised. Place the removed metal in the bottom of the bag.
11. Cut insulation along the bottom of the pipe to the two ends.
12. Spray insulation where cut with amended water, gently remove insulation, and place in the bottom of the bag.
13. Wash pipe with amended water and rub clean.
14. Wet down the top of the bag, pipe ends, and dampens insulation at the bottom of the bag using a fine mist from the sprayer.

15. Wash off tools and place in tool pouch.
16. Encapsulate all surfaces where removal has been performed, and encapsulate and seal all adjacent exposed insulation.
17. Remove water wand and let the HEPA vacuum collapse the bag. Turn off vacuum or use a partially slit hose to prevent "deadheading" the vacuum and possibly damaging the unit.
18. Twist the bag just below the tool pouch and seal with duct tape.
19. Place a labeled disposal bag over the bottom half of the sealed glove bag.
20. Remove the tape seal from one end of the pipe. Remove tool pouch and place in a water bucket to be washed again and wiped clean. Treat the water as contaminated waste.
21. Remove all tape and staples and fold glove bag carefully into the disposal bag. Completely seal the labeled disposal bag.
22. For non-demolition areas only, seal any remaining open ends of insulation with high temp, high percent resin latex paint (about 25% resin) specified as a bridging encapsulant, then cover with wettable cloth wrap.
23. Wet wipe and/or vacuum pipe and the immediate work area. Check for any visual contamination.
24. Polyethylene sheets 6 mil in thickness must cover the dirt floor areas 6' feet in all directions from the point of operation.

C. Tent Method (repairs on area emplaced asbestos material)

1. The constructed or commercially available tent shall be of at least 6 mil plastic sheeting with double folded seams (sealed with tape) and taped flush to the adjacent tent wall.
2. Disposable protective clothing and NIOSH approved respiratory protection shall be worn inside the tent.
3. A HEPA vacuum shall be used to continuously exhaust the tent.
4. Saturate all material to be removed with amended water.
5. Remove the asbestos material and seal it in 6 mil plastic bags prior to removal from the tent.
6. Encapsulate the edges of any remaining asbestos material or seal with wettable cloth.
7. Wet clean the entire project area and the inside wall of the plastic tent. Continue operating the HEPA vacuum for a minimum of 20 minutes after the wet cleaning.
8. Encapsulate the exposed substrate surface and any exposed edges.
9. Remove personal protective clothing and leave it in the tent upon exiting.
10. Upon exiting the tent, immediately don clean protective clothing and seal the tent. When the tent collapses, shut down the HEPA vacuum.
11. Place the tent and its contents into at least a 6 mil plastic bag or hard wall container, seal with duct tape and remove it for disposal.
12. Proceed immediately to a shower for decontamination.

3.7 DISPOSAL OF CONTAMINATED DEBRIS (ALL METHODS)

A. For Full Enclosure, wet clean and/or HEPA vacuum the external surfaces of all plastic disposal bags prior to moving them out of the work area and into the waste washroom. These work area personnel shall not enter the waste washroom.

B. For all methods, other personnel wearing personal protective equipment shall HEPA vacuum and/or wet clean the external surfaces of the plastic disposal bags, dry off any excess water, and place and seal them in uncontaminated plastic bags. These will then be moved out of the waste washroom into the holding area (large asbestos project).

C. Different workers again wearing clean personal protective equipment shall take the plastic bags through the clean room (small asbestos project) to the holding area where they shall, if not pre-printed, have danger and generator/location labels affixed. The bags will then be placed in fiber or metal drums which will then be closed and secured.

D. For Permitted Vehicles used in the transportation of asbestos containing waste material, all surfaces of the inside or "bed" area of the trailer shall be plasticized with at least one layer of 6 mil poly.

E. For the on-site transportation of 500 pounds or less of asbestos containing waste material, the associated vehicle does not have to have a permit (reference 6NYCRR Part 364.1(e),(3),ii).

F. Carefully load all containerized waste into permitted vehicles for transport. Ensure that no unauthorized individuals have access to the material before or during transport.

G. Notify the operator of the approved waste disposal site at least 24 hours in advance of transport of the quantity of material to be delivered. Obtain signed receipts for all disposed of material from the waste disposal site operator, co-signed by the hauler. Copies of all manifests and disposal certificates shall be provided to the Owner for his records.

H. At the disposal site, carefully remove the plastic disposal bags from the drums. Where bags are broken or damaged, the entire drum shall be considered contaminated and buried complete with its contents. Uncontaminated drums may be recycled.

I. If bagged waste will be placed in a sealed dumpster or roll-off, then drum storage is not required prior to transportation to the disposal site.

3.8 APPLICATION OF SEALER/BONDING SEALER

A. After removal of asbestos containing materials, clean the substrate surfaces using amended water.

B. For surfaces not receiving an applied/adhered finish, coat the substrate surfaces with an asbestos sealer as specified herein. At the Contractor's option a bonding sealer may be used.

C. For surfaces scheduled to receive new spray application of insulation or other adhered finish, apply the bonding sealer to the substrate at rates recommended by the bonding sealer manufacturer.

D. Tint all sealers to indicate the completeness of coverage.

E. The sealer/bonder will be applied to all unfinished surfaces to remain after completion of the abatement and decontamination operations.

1. Approved Manufacturer: Arpin Products Co., Inc., Asbestite 1000, 2000 or equivalent.

3.9 ENCAPSULATION

A. The work area shall be cleaned and isolated in a full enclosure. Loose or hanging asbestos material shall be removed in accordance with full enclosure or containment bag procedures. Damaged and missing areas of existing materials shall be repaired with non-asbestos material which will adhere to existing surfaces and provide a base for application of encapsulating agents.

B. Encapsulants shall be applied using airless spray equipment set at the lowest possible pressure to minimize asbestos release. Encapsulants shall be field tested prior to use and after barriers are in place by applying each to a small area to determine suitability for the material to be encapsulated. Subsequent coats shall be applied at a ninety degree angle to the preceding coat application or per manufacturer's specifications. The encapsulant solvent shall not contain a volatile material or release toxic substances into the air when applied or during curing.

C. Bridging Encapsulants

1. These shall be applied to provide the manufacturer's specified thickness or minimum dry film thickness over sprayed asbestos surfaces.
2. A different color for each coat shall be used.

D. Penetrating Encapsulants

1. These shall be applied and penetrate existing asbestos material to the substrate.
2. Take random core samples during application to verify full depth penetration.
3. Each coat of encapsulant shall be color coded as per applicable manufacturer's recommendations, except for the prohibition of pigment use.

E. If the asbestos material has been used for fire retardation or protection of structural members, the encapsulant shall have high flame retardant and low toxic fume emission characteristics. Latex paint shall not be used as an encapsulant.

F. Cleanup shall be conducted in accordance with full enclosure cleanup procedures.

G. Encapsulated asbestos material shall be conspicuously marked or labeled in order to warn individuals of its presence.

3.10 ENCLOSURE

A. The work area shall be cleaned and isolated in a full enclosure. Areas that may be disturbed during the installation of support materials for the enclosure shall be sprayed with amended water and kept damp to reduce airborne asbestos concentrations.

B. Loose or hanging asbestos material shall be removed in accordance with full enclosure or containment bag procedures. After installation of enclosure supports and before installation of enclosure material, damaged areas of fireproofing/thermal insulation shall be repaired using a non-asbestos material in accordance with manufacturer's recommendations.

C. Enclosure material shall be impact resistant and installed to provide an airtight barrier. Utilities shall be moved as necessary to allow proper utilization and maintenance without opening or otherwise disturbing the enclosure.

D. Ducts and air plenums with asbestos insulation shall not be enclosed.

E. Cleanup shall be conducted in accordance with full enclosure cleanup procedures.

F. Enclosed asbestos material shall be conspicuously marked or labeled in order to warn individuals of its presence.

3.11 AREA DECONTAMINATION

A. All accumulations of asbestos waste material shall be containerized using HEPA vacuums or plastic dust pans, squeegees or non-metal shovels. At least daily and after application of sealer/bonder, all vertical and horizontal polyethylene surfaces shall be HEPA vacuumed and sponge cleaned with amended water until no residue is visible.

B. First cleaning

1. All surfaces in the work area shall be HEPA vacuumed, and then wet cleaned. A wet purpose shop vacuum may be used to pick up excess liquid, and shall be decontaminated prior to removal from the work area.

2. All bagged asbestos waste and unnecessary equipment shall be decontaminated and removed from the work area.

3. The Project Monitor shall conduct a visual inspection of the work area for cleanliness and completion of abatement.

4. The Contractor shall then encapsulate porous and plastic surfaces. In no case shall the contractor allow encapsulant to be applied to the actual abated surfaces.

5. The first or inside layer of plastic sheeting shall then be removed and bagged, and any remaining asbestos fibers allowed to settle for a minimum of 12 hours.

C. Second cleaning

1. All surfaces in the work area shall be HEPA vacuumed and/or wet cleaned. Again, excess liquid must be removed.

2. The Project Monitor shall conduct a second visual inspection of the work area for cleanliness.

3. The second or outside layer of plastic sheeting shall be removed and bagged. Any remaining asbestos fibers shall then be allowed a minimum of 12 hours settling time.

D. Third cleaning

1. All surfaces in the work area shall be HEPA vacuumed.
2. The Project Monitor shall conduct a third visual inspection of the work area for cleanliness.
3. The AST shall then conduct aggressive final clearance air sampling as specified herein, analyzing the samples using PCM or TEM analysis as required.
4. Upon receipt of satisfactory final clearance air sampling results, the negative air pressure equipment can then be shut down and decontamination areas and isolation barriers removed.

E. During visual inspection by the Project Monitor or based on results of air sampling, if it is determined that there is a higher airborne or visual asbestos fiber level than is allowed, the Contractor will clean or re-clean the affected areas at no additional expense to the Owner.

3.12 RESTORATION OF UTILITIES

A. After final clearance, the Contractor shall replace all filters of the associated portions of the existing building HVAC system that were affected by the abatement operations, remove locks and restore power. All temporary power supplies shall be disconnected, power lockouts removed and building power restored. Temporary plumbing shall be removed.

3.13 RESTORATION OF FINISHES

A. Finishes damaged by asbestos removal operations including, but not limited to, plaster/paint damage due to taping of polyethylene sheeting and floor tile lifted due to humid conditions, shall be restored prior to final payment. Finishes unable to be restored shall be replaced under this Contract.

B. Plaster or Wallboard Damage

1. All damaged surfaces not scheduled for renovation shall be cleaned, spackled and patched as necessary.
2. All patching shall be primed and then painted with two (2) coats, carefully blended to match adjacent surfaces.

C. Vinyl Tile Flooring and Base

1. All tile flooring or base not scheduled for renovation and loosened during abatement work shall be reset. Remove old adhesive from substrate and tile or base. Reset tile with grain matching existing pattern. Reset base flush with existing base.
2. Clean any excess adhesive from flooring or base using neutral type cleaners in accordance with recognized industry standards.

3.14 PROJECT COMPLETION REQUIREMENTS

A. Submission by the Contractor to the Owner of the job log book as described in Section 1.06, paragraph A.4.

B. Inspection of the work sites by the Engineer's Representative and the Owner's Representative for substantial completion of the Scope of Work. Both representatives shall sign a form provided by the Engineer verifying completion.

C. Submission by the Contractor to the Owner of the waste disposal manifest verifying that all waste generated at the project site has been properly disposed of at an EPA approved waste site.

End of Section 02 82-33