

HAZARDOUS MATERIALS INSPECTION REPORT:

***Abate Asbestos on Convector Piping
Veterans Affairs Medical Center
3200 Vine Street
Cincinnati, Ohio
(VA Project #: 539-16-202)
(L&A Project #: 15-0033)***



Prepared for:

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Columbus, Ohio 43215
(614) 443-1178***

Prepared by:

***Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212***

July 31, 2014



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Hazardous Material Inspection Report
Veterans Affairs Medical Center
Abate Asbestos on Convectator Piping
Cincinnati, Ohio
(Project Number 539-16-202)

1.0 Introduction

On July 17, 2014, Lawhon & Associates, Inc. (L&A) conducted a hazardous material inspection [including asbestos-containing materials (ACMs)] for the upcoming renovation project “Abate Asbestos on Convectator Piping”, located in Cincinnati, Ohio (VA Project Number 539-16-202). The inspection was conducted in Building 1 at the VAMC located at 3200 Vine Street, Cincinnati, Ohio 45220. The inspection was conducted by Mr. Jordan Mederer (Ohio Department of Health Certified Asbestos Hazard Evaluation Specialist #35005) of L&A. The consultant’s certifications are attached in **Appendix A**.

L&A only inspected building materials located in the current renovation scope of work area as depicted in **Appendix B** which are projected to be impacted by the project. The scope of work entails replacing radiators and convectator piping which may also impact ceilings and walls on Floors 6-9. Flooring materials are not projected to be impacted by this project and were not assessed. It should be noted that at the time of the assessment, L&A had limited access several areas and general assumptions have been made based on surrounding areas.

This report should not be construed as a full building inspection and should not be used for bidding or notification purposes. Roofing materials and electrical systems were not bulk sampled as part of this effort. Hazardous materials assessed as part of this effort include: asbestos containing materials, mercury containing fluorescent light bulbs, PCB ballasts, and Lead Based Paint. This report conforms to the requirements of EPA NESHAPS for this particular renovation project only.

2.0 Asbestos Containing Materials

Asbestos containing materials are governed the Environmental Protection Agency’s (EPA) National Emission Standards of Hazardous Air Pollutants (NESHAP) during a renovation. These materials are defined as containing greater than one percent asbestos. The Occupational Safety and Health Administration (OSHA) govern building materials containing any amount of asbestos.

The Clean Air Act (CAA) of 1970 required the EPA to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health; therefore, EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) (Title 40, CFR Part 61) on April 6, 1973. NESHAP is intended to minimize the release of asbestos fibers during certain activities

(i.e., renovations, demolition, and installations). It specifies work practices to be followed during renovations of buildings (except apartment buildings that have no more than four dwelling units), which contain a specific amount of friable asbestos. NESHAP requires that buildings be inspected for asbestos containing building materials (ACBM) prior to renovation/demolition projects.

NESHAP also requires owners and operators subject to the asbestos rules to notify delegated state and local agencies and/or the regional EPA offices before demolition or renovation activities begin. In addition, NESHAP requires the removal of all regulated asbestos containing materials (RACM) prior to demolition. Regulated Asbestos-Containing Materials (RACM) are (a) friable asbestos material, which are materials easily reduced to powder with hand pressure (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. (Category I non-friable materials consist of materials such as resilient floor covering products, roofing products, gaskets, and packing. Category II non-friable materials consist of all other non-friable materials such as transite). NESHAP also requires all ACM (including Category I and II) be removed prior to intentional burning, such as for a fire department training exercise.

The State of Ohio Department of Health (ODH) regulates asbestos activities within the state. Professionals performing asbestos related activities must be certified/licensed by ODH. Much like the EPA – NESHAP, ODH must be notified prior to asbestos removal activities.

2.1 Methodology

A list of suspect ACMs was compiled from the prior investigation and inspection of the potential work areas. Materials were categorized into RACM, Category I, and Category II materials. L&A inventoried and procured confirmatory samples of materials that must be removed prior to renovation activities. A diagram of the survey scope and bulk sample locations can be found in **Appendix B**.

In accordance to EPA protocols, a sufficient number of samples from each suspect ACM were collected to confirm or deny the presence of asbestos. Samples were placed into clean sealed containers and identified with a unique sample number. Sampling tools were decontaminated between each sampling episode.

All samples were sent to a certified National Voluntary Lab Accredited Program laboratory. The lab used for work on this project was International Asbestos Testing Laboratories (NVLAP #101165) located at 9000 Commerce Parkway, Mt. Laurel, NJ 08054. Laboratory Certifications can be found in **Appendix A**. Samples were analyzed by the EPA Polarized Light Microscopy (PLM) 600 Method. Samples reported with low concentrations of asbestos, <10% asbestos

content, were reanalyzed using the EPA Point Count Method to determine a more accurate content.

2.2 Asbestos Containing Materials Results

The following tables present asbestos containing materials summaries and information. Detailed summaries, including locations and quantities of all asbestos containing materials identified within the proposed renovation work area may be found in **Appendix C**, Inventory of Asbestos Containing Materials. A bulk sample summary of suspect asbestos containing materials may be found in **Appendix D**. A floor plan diagram depicting bulk sample locations can be found in **Appendix B**. Asbestos laboratory analysis certificates and chain of custody information may be found in **Appendix E**. A survey photograph log can be found in **Appendix F**.

2.3 Confirmed Asbestos Containing Materials

The following are lists of asbestos containing materials sampled and confirmed to contain asbestos. **Appendix C** provides an inventory of material locations and quantities.

Confirmed Asbestos Containing Materials	
Pipe Insulation (Block) (1)	Recessed Radiator Enclosure Transite Backing Board and Associated Caulking (2)

Notes: (1) Regulated Asbestos Containing Material (RACM).

(2) Category II Non-Friable Asbestos Containing Material.

2.4 Assumed Asbestos Containing Materials

The following are lists of materials assumed to contain asbestos. Although these materials are not projected to be impacted, contractors shall be made aware of the possibility that they contain asbestos in the event that they are accidentally disturbed.

Assumed Asbestos Containing Materials
Resilient Floor Coverings and Mastics (1)

Notes: (1) Category I Non-Friable Asbestos Containing Material.

2.5 Non-Asbestos Containing Materials

The following are lists of materials sampled with laboratory analysis revealing No Asbestos Detected (NAD). Reference **Appendices C, D and E** for sample information and laboratory data.

Non-Asbestos Containing Materials	
Hard Plaster- Base and Finish Coats	Drywall Joint Compound
2' x 4' Ceiling Panel (Pinhole/ Fissured) (1)	Spray Applied Fireproofing

Notes: (1) Ceilings panels in both the white and black grid systems were tested negative for asbestos content.

3.0 Other Environmental Issues

3.1 Lead Based Paint

As part of the assessment, L&A conducted limited lead based paint testing. The lead based paint testing was conducted by Mr. Jordan Mederer [Ohio Certified Lead Risk Assessor #LA-008517]. Inspector's certifications are included within **Appendix A**.

The intent of the testing was to determine if lead based paint will be disturbed as part of the renovation project for general compliance with the OSHA Lead in Construction Standard 1926.62 and should not be construed as a full Lead Based Paint Inspection as defined by HUD. Only accessible components were tested.

The lead based paint testing was conducted using a Niton XLp 300a XRF spectrum analyzer equipped with a 40-millicurie Cadmium-109 source. Sampling was conducted in full accordance with the manufacturers recommended procedures. Positive and negative determinations were made in accordance with the Performance Characteristic Sheet (PCS) issued by the USEPA and HUD on August 24, 1995. The PCS does not require substrate corrections for the Niton XLp (required for some XRF's). The Niton XLp's calibration was verified utilizing the NIST lead standard cards and was performed within acceptable ranges during each calibration session. XRF data is included within **Appendix G**.

Positive results are test results that revealed 1.0 milligram per square centimeter (mg/cm^2) or greater of lead by the XRF device. Negative results are tests that are reported as less than $1.0 \text{ mg}/\text{cm}^2$. However, it is important to note that results reported as negative may still have small quantities of lead present. OSHA identifies a lead based paint as paint containing any amount of lead.

As a result of this testing, there were no components analyzed as containing $1.0 \text{ (mg}/\text{cm}^2)$ or greater of lead by the XRF device. Any components not listed in the XRF data sheet in Appendix G and not tested for lead based paint should be assumed to contain lead based paint until further testing proves otherwise.

It is the position by OSHA CFR 1926.62 Lead in Construction Standard that any lead content in paint is a potential issue to be addressed by air monitoring by the renovation contractor. Almost all paints will contain some lead when analyzed. It is recommended that all contractors that impact existing building materials,

especially components with lead based paint exceeding 1.0 mg/cm² or 0.5% lead by weight, perform personal air sampling on their employees to ensure that they are not being exposed to lead above the Action Level (AL) and Permissible Exposure Limit (PEL). Once personal air data is collected a negative exposure assessment can be produced which determines proper procedures to follow when impacting lead based paint.

3.2 Fluorescent Light Bulbs and Ballasts

L&A observed fluorescent light bulbs and associated ballasts throughout the renovation work areas. It is not projected that light fixtures will be impacted by the scope of work; however, if bulbs and ballasts are disturbed, they should be removed and recycled prior to impact from renovation activities because the fluorescent bulbs are assumed to contain mercury, or other potentially hazardous heavy metals. Furthermore, light ballasts potentially contain PCB oils and are normally labeled “Contains No PCBs” if PCBs are not present. All light ballasts will need to be investigated prior to renovation activities. Ballasts not identified with a “Contains No PCBs” label, will need to be disposed of as a regulated hazardous material; ballasts containing a “Contains No PCBs” label should be containerized and recycled. All removal, packaging, and handling of these materials should be performed by a trained hazardous material abatement contractor.

3.3 Bio Hazards

L&A observed several bio hazards throughout the renovation work areas including, but not limited to bio hazard waste containers. Work areas should be properly cleaned and sanitized and labeled bio hazard areas should be decommissioned by VAMC personnel prior to renovation work activities.

4.0 Conclusions

On July 17, 2014 L&A conducted a hazardous material inspection [including asbestos-containing materials (ACMs)] for the upcoming renovation project “Abate Asbestos on Convectur Piping”, located in Cincinnati, Ohio (VA Project Number 539-16-202). The inspection was conducted in Building 1 at the VAMC located at 3200 Vine Street, Cincinnati, Ohio 45220. The inspection was conducted by Mr. Jordan Mederer of L&A.

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4.1 Asbestos- Containing Materials

The following confirmed/assumed RACM are present throughout the upcoming project renovation areas. These materials must be removed by a State of Ohio Licensed Asbestos Hazard Abatement Contractor prior to renovation work which will impact these materials.

- Pipe Insulation (Above Ceilings and Within Vertical Riser Enclosures)

The following confirmed and assumed asbestos containing materials are present in the renovation work areas but are not projected to be impacted. If the scope of work changes and these materials are going to be disturbed, they must first be abated by a State of Ohio Licensed Asbestos Hazards Abatement Contractor.

- Recessed radiator enclosure transite backing boards and associated caulking (Category II Non-Friable ACM). Note: Caulking debris was observed in some locations which will need to be properly decontaminated by a licensed abatement contractor prior to work by other trades.
- Resilient Flooring Materials and Mastics (Assumed)(Category I Non-Friable Asbestos Containing Material)

If you have any further questions please contact Chuck Wilson or myself at (614) 481-8600.

Sincerely,



Jordan Mederer, AHES, LRA
Senior Project Manager



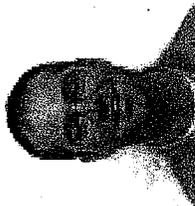
Chuck Wilson
Vice President

APPENDIX A

Inspector/ Laboratory Certifications

The InService Training Network

Asbestos Building Inspector and Management Planner Refresher Courses



Jordan Mederer

has successfully completed the Asbestos Building Inspector and Management Planner Refresher Courses and passed by at least 70% the course examinations for accreditation under Section 206 of the Toxic Substance Control Act, Title II, and Indiana 326 IAC 18-2
Provided by: The InService Training Network, Inc., 6813 Flags Center, Columbus, OH 43229 (614) 895-9323

Course Dates: July 17, 2013

Examination Date: July 17, 2013

Course Director: 
Kurt Varga

Course Location: Columbus, Ohio

Expiration Date: July 17, 2014

Certificate Numbers: ITN-IR -5054 & MP-5054

State of Ohio
Department of Health
Division of Quality Assurance - Asbestos Program
Asbestos Hazard Evaluation Specialist



Jordan R Mederer
Lawhon & Associates, Inc
1441 King Avenue
Columbus OH 43212

Certification Number: **ES35005** Expiration Date: **08/08/2014**

DOB: 10/23/1983

This certification is issued pursuant to Chapter 3710 of the Revised Code and 3701-34 of the Ohio Administrative Code

Certification Card is not valid if altered



OHIO DEPARTMENT OF HEALTH

246 North High Street
Columbus, Ohio 43215

614/466-3543
www.odh.ohio.gov

John R. Kasich/Governor

April 03, 2014

Jordan R Mederer
Lawhon & Associates Inc
1383 Celtic Dr
Pataskala OH 43062

RE: Lead Risk Assessor
License Number: LA008517
Expiration Date: 04/17/2016

Dear Jordan R Mederer:

This letter and enclosed license approves your request to be licensed as a Lead Lead Risk Assessor. You must present your license upon request at any project site while performing duties. A copy of your license is not acceptable as proof of licensure.

Please be aware of the rules and regulations governing your discipline for Ohio. If you choose to renew this license, you must take an Ohio approved refresher course appropriate for the discipline in the second year of your license period. Please visit our website at www.odh.ohio.gov for information.

This license may be revoked by the Director of Health for violation of any of the requirements of 3701-32 of the Ohio Administrative Code.

If you have any questions, please call the Ohio Department of Health, Lead Poisoning Prevention Program at 1-877-668-5323.

Sincerely,

David Holston, Chief
Environmental Abatement Section
Bureau of Information and Operational Support
Division of Quality Assurance

Enclosure

State of Ohio
Department of Health
Division of Quality Assurance
LEAD Program

Lead Risk Assessor



License Number
LA008517

Expiration Date
04/17/2016

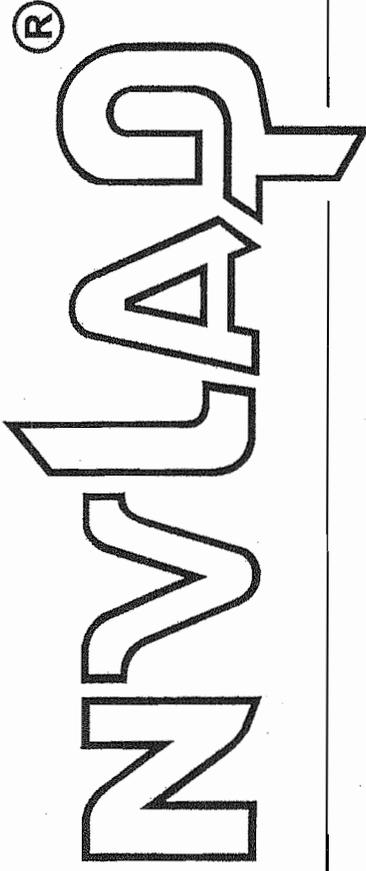
DOB 10/23/1983

Jordan R Mederer
1441 King Ave
Columbus OH 43212
Lawhon & Associates Inc

Card not valid if altered

This certification is issued pursuant of Chapter 3742 of the Revised Code and 3701-32 of the Ohio Administrative Code

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101165-0

International Asbestos Testing Laboratories

Mt. Laurel, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2014-07-01 through 2015-06-30

Effective dates



A handwritten signature in black ink, appearing to read "William R. M. L. D.", written over a horizontal line.

For the National Institute of Standards and Technology

APPENDIX B

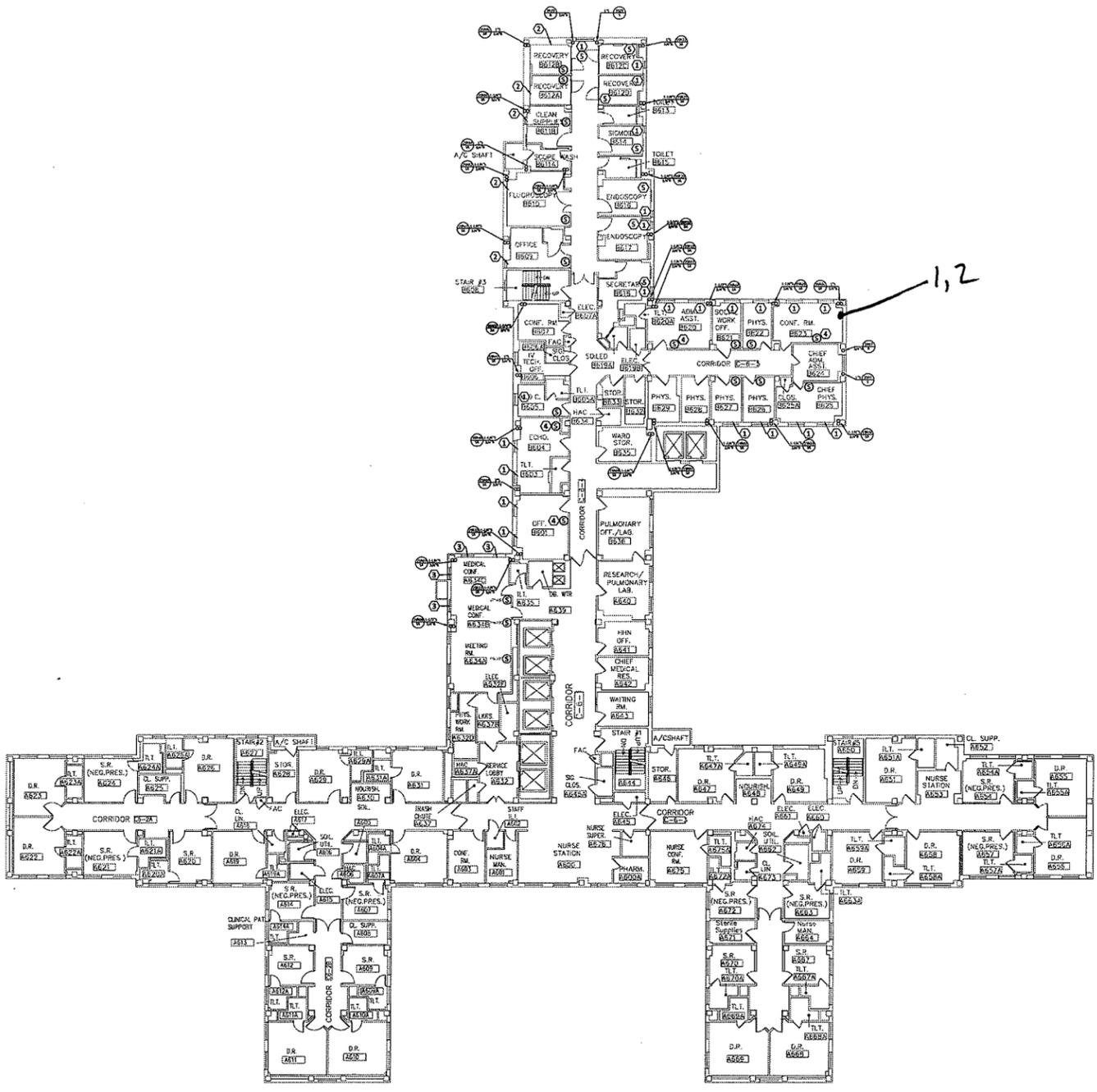
Renovation Area & Bulk Sample Floor Plan

NEW WORK GENERAL NOTES

- A. COORDINATE STEAM UTILITY DOWN TIME WITH COITR. A MINIMUM OF TWO WEEKS ADVANCED NOTICE WILL BE REQUIRED TO FACILITATE THIS SHUTDOWN.
- B. EXISTING VA PROJECT 539-13-107 DETAILS OUT THE FULL EXTENT OF THE STEAM RISERS IF FURTHER INFORMATION IS REQUIRED.
- C. COORDINATE INSTALLATION OF STEAM VALVE SENSOR WITH ALL ASSOCIATED FURNITURE AND WALL HANGINGS IN EACH LOCATION. THERMOSTAT SHOWN FOR REFERENCE, BUT WILL NEED TO BE CLOSELY COORDINATED WITH SPACE RESTRICTIONS.

NEW WORK PLAN NOTES

- 1. EXISTING STEAM CONVECTOR. REMOVE ALL STEAM SUPPLY AND CONDENSATE PIPING FROM THIS LOCATION DOWN THROUGH THE SLAB BACK TO THE ASSOCIATED RISER. ABATE ALL IDENTIFIED ACM MATERIAL AS INDICATED IN THE ABATEMENT DRAWINGS. PROVIDE NEW PIPING, INSULATION, DOC CONTROL VALVE, ISOLATION VALVES, STEAM TRAP AND ASSOCIATED DOC CONTROLS FOR INDEPENDENT SPACE CONTROL.
- 2. EXISTING STEAM CONVECTOR. REMOVE ALL STEAM SUPPLY AND CONDENSATE PIPING FROM THIS LOCATION DOWN THROUGH THE SLAB BACK TO THE ASSOCIATED RISER. PROVIDE NEW PIPING, INSULATION, DOC CONTROL VALVE, ISOLATION VALVES, STEAM TRAP AND ASSOCIATED DOC CONTROLS FOR INDEPENDENT SPACE CONTROL. THESE CONVECTORS WERE INSTALLED UNDER PROJECT 539-03-106, NEED TO DETERMINE HOW THESE ARE CURRENTLY BEING CONTROLLED. AREA IS SERVED BY FAN COIL UNITS IN THE CEILING, THAT MAY HAVE DOC CONTROLS THAT WE COULD INTEGRATE THE CONVECTOR CONTROL INTO.
- 3. EXISTING STEAM CONVECTOR. REMOVE ALL STEAM SUPPLY AND CONDENSATE PIPING FROM THIS LOCATION DOWN THROUGH THE SLAB BACK TO THE ASSOCIATED RISER. ABATE ALL IDENTIFIED ACM MATERIAL AS INDICATED IN THE ABATEMENT DRAWINGS. PROVIDE NEW PIPING, INSULATION, DOC CONTROL VALVE, ISOLATION VALVES, STEAM TRAP, THE ASSOCIATED VAV BOXES THAT SERVE THIS SPACE WERE UPGRADED AS PART OF VA PROJECT 539-13-105. THE ASSOCIATED CONVECTORS FOR THIS SPACE SHOULD BE ABLE TO BE INTEGRATED INTO THE NEW DOC CONTROL SYSTEM THAT SERVES THIS SPACE. SENSORS SHOWN SHOULD BE EXISTING.
- 4. SENSOR TO CONTROL ALL CONVECTORS IN THIS ROOM.
- 5. CONFIRM IF DOC CONTROLS IN THIS AREA ARE ABLE TO INTEGRATE CONVECTOR CONTROL.

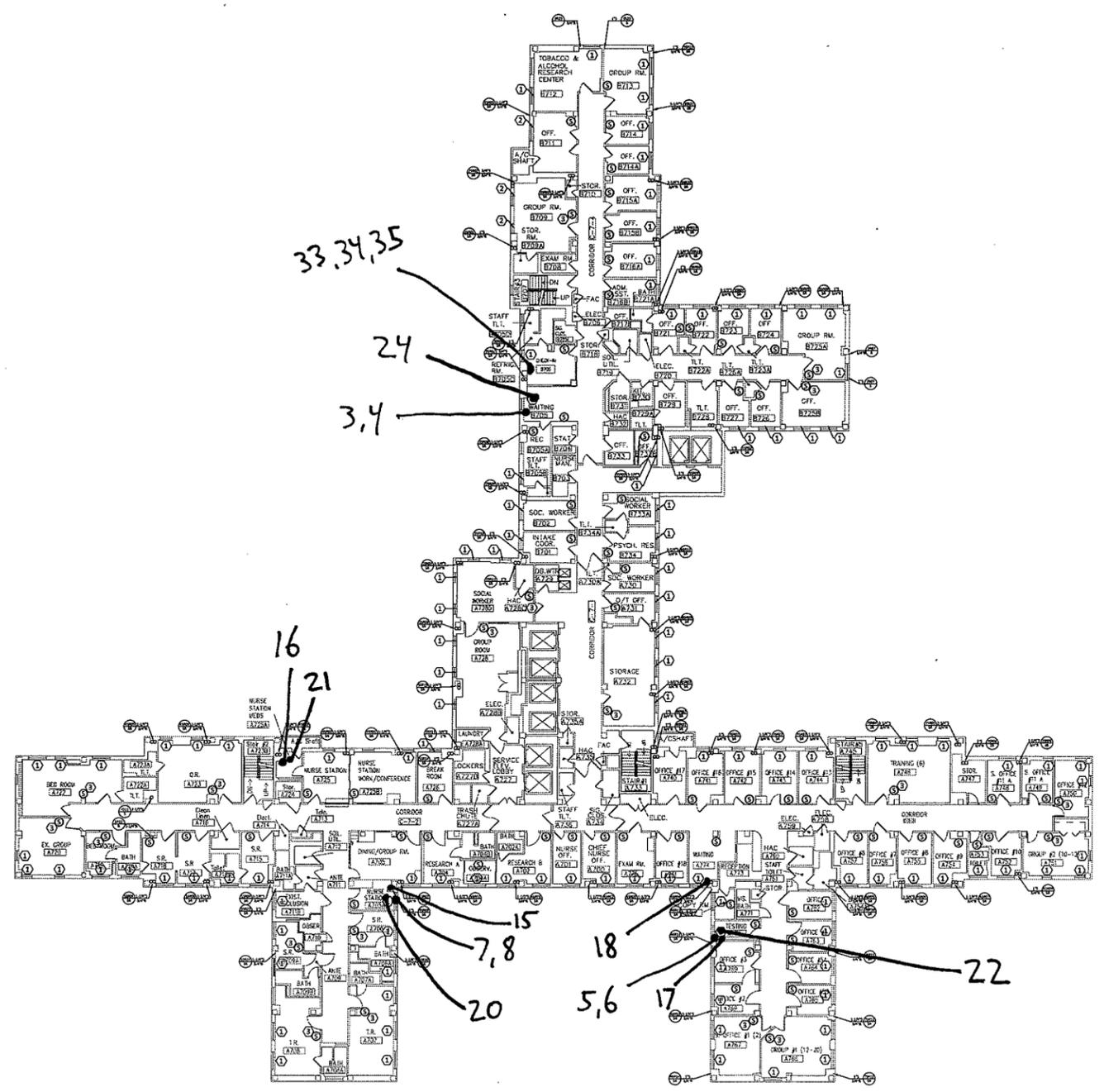


**BUILDING 1
OVERALL FLOOR 6 HVAC NEW WORK PLAN**
SCALE: 1/16"=1'-0"
NORTH

35% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

Revisions Date	 855 Grandview Avenue, 3rd Floor Phone: (614)443-1178 · Fax: (614)443-1594 · Email: dynamix@dynamix-llc.com Colum, Ohio 43215 Comm. No.: 140041	Revised By: Professional Seal	Drawing Title BUILDING 1 FLOOR 6 HVAC PLAN	Project Title ABATE ASBESTOS ON CONVECTOR PIPING	Date 6-6-2014	 Department of Veterans Affairs
			Approved: Project Engineer Zach Schmidt	Building Number 1	Checked DYNAMIX	
			Approved: Engineer Service Terry Brothers	Location 3200 VINE STREET CINCINNATI, OH 45220		

A three inches = one foot
 B one and one half inches = one foot
 C one inch = one foot
 D three quarters inch = one foot
 E one half inch = one foot
 F three eighths inch = one foot
 G one quarter inch = one foot
 H one eighth inch = one foot
 I one eighth inch = one foot



**BUILDING 1
 OVERALL FLOOR 7 HVAC NEW WORK PLAN**
 SCALE: 1/16"=1'-0"
 NORTH

35% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

NEW WORK GENERAL NOTES

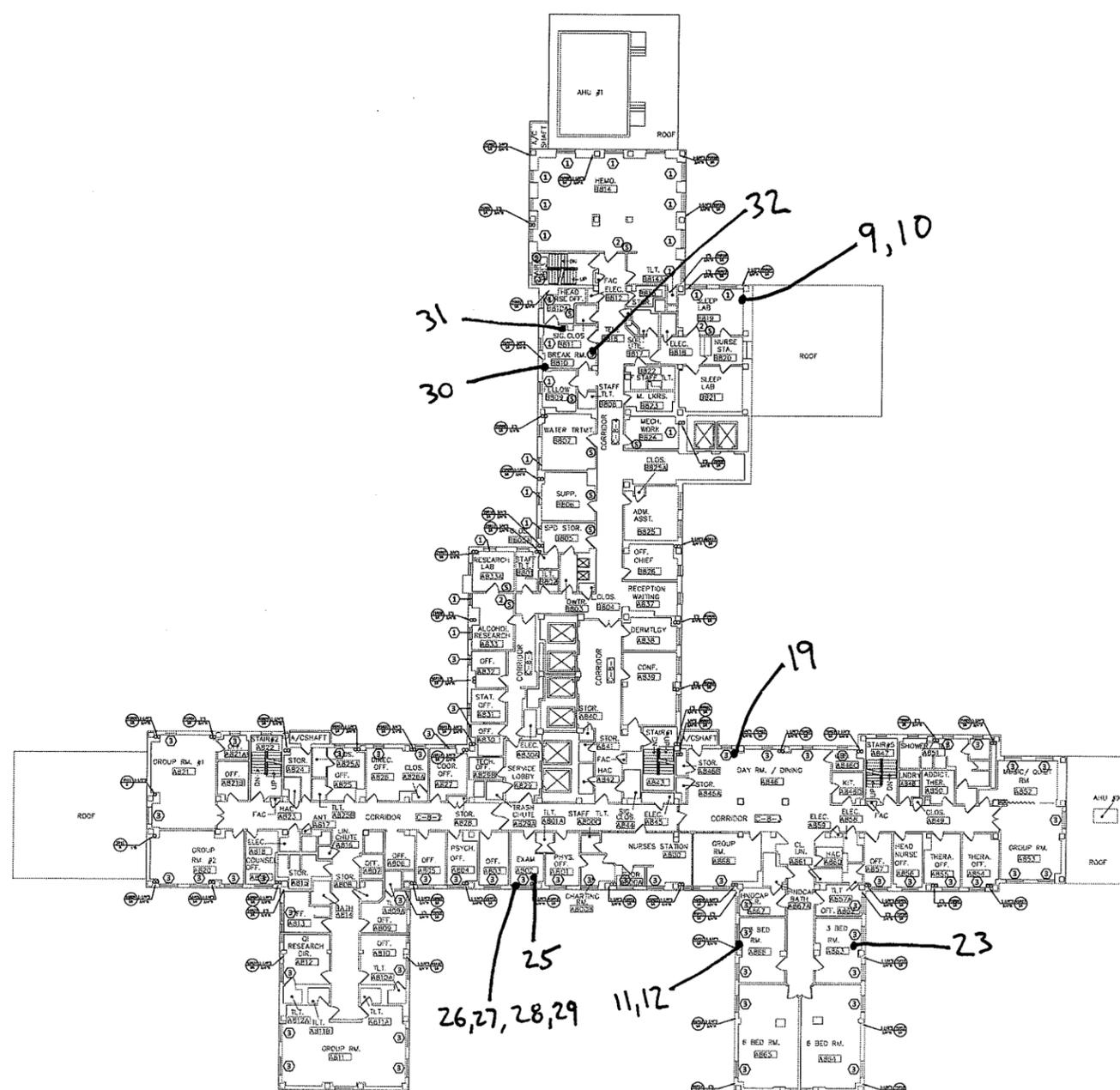
A- COORDINATE STEAM UTILITY DOWN TIME WITH COST. A MINIMUM OF TWO WEEKS ADVANCED NOTICE WILL BE REQUIRED TO FACILITATE THIS SHUTDOWN.
 B- EXISTING VA PROJECT 539-16-202 DETAILS OUT THE FULL EXTENT OF THE STEAM RISERS IF FURTHER INFORMATION IS REQUIRED.
 C- COORDINATE INSTALLATION OF STEAM VALVE SENSOR WITH ALL ASSOCIATED FURNITURE AND WALL HANGINGS IN EACH LOCATION. THERMISTAT SHOWN FOR REFERENCE, BUT WILL NEED TO BE CLOSELY COORDINATED WITH SPACE RESTRICTIONS.

NEW WORK PLAN NOTES

1- EXISTING STEAM CONVECTOR. REMOVE ALL STEAM SUPPLY AND CONDENSATE PIPING FROM THIS LOCATION DOWN THROUGH THE SLAB BACK TO THE ASSOCIATED RISER. ABATE ALL IDENTIFIED ACM MATERIAL AS INDICATED IN THE ABATEMENT DRAWINGS. PROVIDE NEW PIPING, INSULATION, DOC CONTROL VALVE, ISOLATION VALVES, STEAM TRAP AND ASSOCIATED DOC CONTROLS FOR INDEPENDENT SPACE CONTROL.
 2- EXISTING STEAM CONVECTOR. REMOVE ALL STEAM SUPPLY AND CONDENSATE PIPING FROM THIS LOCATION DOWN THROUGH THE SLAB BACK TO THE ASSOCIATED RISER. PROVIDE NEW PIPING, INSULATION, DOC CONTROL VALVE, ISOLATION VALVES, STEAM TRAP AND ASSOCIATED DOC CONTROLS FOR INDEPENDENT SPACE CONTROL. THESE CONVECTORS WERE INSTALLED UNDER PROJECT 539-08-115. NEED TO DETERMINE HOW THESE ARE CURRENTLY BEING CONTROLLED.
 3- SENSOR TO CONTROL ALL CONVECTORS IN THIS ROOM.

REVISIONS Date		Dynamix Engineering Ltd. Facility Engineering Consultants 855 Grandview Avenue, 3rd Floor Columbus, Ohio 43215 Phone: (614)445-1178 Fax: (614)445-1584 Email: dynamix@dynamix-llc.com Comm. No.: 140041		Revised By: _____	Drawing Title BUILDING 1 FLOOR 7 HVAC PLAN	Project Title ABATE ASBESTOS ON CONVECTOR PIPING	Date 7-16-2014 Project No. 539-16-202		Department of Veterans Affairs
Approved: Project Engineer Zach Schmidt		Building Number 1	Checked DYNAMIX	Drawn IC	Drawing No. H2.9				
Approved: Engineer Service Terry Brothers		Location 3200 VINE STREET CINCINNATI, OH 45220							

A three inches = one foot
 B one and one half inches = one foot
 C one inch = one foot
 D three quarters inch = one foot
 E one half inch = one foot
 F three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot



NEW WORK GENERAL NOTES

- A- COORDINATE STEAM UTILITY DOWN TIME WITH COTR. A MINIMUM OF TWO WEEKS ADVANCED NOTICE WILL BE REQUIRED TO FACILITATE THIS SHUTDOWN.
- B- EXISTING VA PROJECT 539-13-107 DETAILS OUT THE FULL EXTENT OF THE STEAM RISERS IF FURTHER INFORMATION IS REQUIRED.
- C- COORDINATE INSTALLATION OF STEAM VALVE SENSOR WITH ALL ASSOCIATED FURNITURE AND WALL HANGINGS IN EACH LOCATION. THERMOSTAT SHOWN FOR REFERENCE, BUT WILL NEED TO BE CLOSELY COORDINATED WITH SPACE RESTRICTIONS.

NEW WORK PLAN NOTES

- 1- EXISTING STEAM CONVECTOR. REMOVE ALL STEAM SUPPLY AND CONDENSATE PIPING FROM THIS LOCATION DOWN THROUGH THE SLAB BACK TO THE ASSOCIATED RISER. ABATE ALL IDENTIFIED ACM MATERIAL AS INDICATED IN THE ABATEMENT DRAWINGS. PROVIDE NEW PIPING, INSULATION, DDC CONTROL VALVE, ISOLATION VALVES, STEAM TRAP AND ASSOCIATED DDC CONTROLS FOR INDEPENDENT SPACE CONTROL.
- 2- SENSOR TO CONTROL ALL CONVECTORS IN THIS ROOM.
- 3- STEAM CONVECTOR CABINET AND VALVE REPLACED UNDER VA PROJECT 539-15-205. PIPING FROM NEW VALVES BACK TO RISER ON FLOOR BELOW SHALL BE REPLACED UNDER THIS PROJECT.

**BUILDING 1
 OVERALL FLOOR 8 HVAC NEW WORK PLAN**

SCALE: 1/16"=1'-0" NORTH

35% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

Revisions Date	Dynamix Engineering Ltd. Facility Engineering Consultants 855 Grandview Avenue, 3rd Floor Columbus, Ohio 43215 Phone: (614)443-1170 · Fax: (614)443-1594 · Email: dynamix@dynamix-llc.com Comm. No.: 140041	Revised By:	Drawing Title BUILDING 1 FLOOR 8 HVAC PLAN	Project Title ABATE ASBESTOS ON CONVECTOR PIPING	Date 7-16-2014 Project No. 539-16-202
		Professional Seal	Approved: Project Engineer Zach Schmidt	Building Number 1	Checked DYNAMIX
			Approved: Engineer Service Terry Brothers	Location 3200 VINE STREET CINCINNATI, OH 45220	VAMC, CINCINNATI Department of Veterans Affairs

APPENDIX C

Inventory of Asbestos Containing Materials

INVENTORY OF ASBESTOS CONTAINING MATERIALS
VAMC Cincinnati, Ohio (Building 1)
Abate Asbestos on Convectur Piping
Project Number: 539-16-202

Location	Asbestos Containing Material	App. Qty.	Condition	EPA NESHAP Classification & Comments
9 th Floor Throughout	Transite Backing Board within Recessed Radiator Enclosure (1)	56 each 392 square feet	Intact	Category II Non-Friable
	Caulking Around Transite Backing Board within Recessed Radiator Enclosures (1)	56 each 28 square feet	(2)	Category II Non-Friable
8 th Floor Throughout (3)	Transite Backing Board within Recessed Radiator Enclosure (1)	65 each 455 square feet	Intact	Category II Non-Friable
	Caulking Around Transite Backing Board within Recessed Radiator Enclosures (1)	65 each 32.5 square feet	(2)	Category II Non-Friable
	Hidden/ Inaccessible Pipe Insulation (4)	200 linear feet	Unknown	RACM
7 th Floor- East Wing	Pipe Insulation Above Drop Ceiling/ within Vertical Riser Enclosures (2 Line Loop with Vertical Risers)	1,900 linear feet	(5)	RACM
7 th Floor- West Wing	Transite Backing Board within Recessed Radiator Enclosure (1)	40 each 280 square feet	Intact	Category II Non-Friable
	Caulking Around Transite Backing Board within Recessed Radiator Enclosures (1)	40 each 20 square feet	(2)	Category II Non-Friable
6 th Floor- Far East Wing (7)	N/A	N/A	N/A	N/A

- Notes:
- (1) Material not projected to be impacted by this renovation project. Material listed for reference only.
 - (2) Material was mostly observed to be intact. L&A did observe in some cases caulking which has become loose from substrate and laying on the surface on the radiator enclosure.
 - (3) There was limited access to the East Wing (Dialysis).
 - (4) Random spot checks throughout the floor concluded that accessible convectur pipe insulation (including within vertical riser drywall enclosures) was comprised of fiberglass and most likely previously abated under a separate project. A general assumption must be made; however, that some ACM pipe insulation exists throughout the floor and will require abatement under this project.
 - (5) Material only verified in random locations. Material identified was in intact condition; however, not all material was visually observed.
 - (6) Asbestos containing flooring materials have been assumed to be located beneath radiators/ enclosures. The flooring materials are not projected to be impacted by the project and piping is projected to be run through existing floor penetrations. However; if flooring shall be impacted or is found to have significant damage, the abatement contractor shall properly remove and dispose of the flooring.
 - (7) This area under construction at the time of the assessment and excluded from the assessment.

INVENTORY OF ASBESTOS CONTAINING MATERIALS
VAMC Cincinnati, Ohio (Building 1)
Abate Asbestos on Convectur Piping
Project Number: 539-16-202

Location	Asbestos Containing Material	App. Qty.	Condition	EPA NESHAP Classification & Comments
6 th Floor Throughout	Pipe Insulation Above Drop Ceiling, Inaccessible/ Hidden Above Ceilings or within Enclosures	200 linear feet	(5)	RACM
Throughout Floors 6-9	Flooring Materials (Assumed) (1)	Not Quantified (6)	Unknown	Category I Non-Friable

- Notes:
- (1) Material not projected to be impacted by this renovation project. Material listed for reference only.
 - (2) Material was mostly observed to be intact. L&A did observe in some cases caulking which has become loose from substrate and laying on the surface on the radiator enclosure.
 - (3) There was limited access to the East Wing (Dialysis).
 - (4) Random spot checks throughout the floor concluded that accessible convectur pipe insulation (including within vertical riser drywall enclosures) was comprised of fiberglass and most likely previously abated under a separate project. A general assumption must be made; however, that some ACM pipe insulation exists throughout the floor and will require abatement under this project.
 - (5) Material only verified in random locations. Material identified was in intact condition; however, not all material was visually observed.
 - (6) Asbestos containing flooring materials have been assumed to be located beneath radiators/ enclosures. The flooring materials are not projected to be impacted by the project and piping is projected to be run through existing floor penetrations. However; if flooring shall be impacted or is found to have significant damage, the abatement contractor shall properly remove and dispose of the flooring.
 - (7) This area under construction at the time of the assessment and excluded from the assessment.

APPENDIX D

Asbestos Bulk Sample Summary

BULK SAMPLE SUMMARY
VAMC Cincinnati, Ohio
Abate Asbestos on Convactor Piping
Project Number: 539-16-202

Sample Number	Material Sampled	Sample Location	Percent Asbestos
1	Hard Plaster- White Finish Coat	B623	NAD
2	Hard Plaster- Grey Base Coat	B623	NAD
3	Hard Plaster- White Finish Coat	B705	NAD
4	Hard Plaster- Grey Base Coat	B705	NAD
5	Hard Plaster- White Finish Coat	A770	NAD
6	Hard Plaster- Grey Base Coat	A770	NAD
7	Hard Plaster- White Finish Coat	A705A	NAD
8	Hard Plaster- Grey Base Coat	A705A	NAD
9	Hard Plaster- White Finish Coat	B819	NAD
10	Hard Plaster- Grey Base Coat	B819	NAD
11	Hard Plaster- White Finish Coat	B866	NAD
12	Hard Plaster- Grey Base Coat	B866	NAD
13	Hard Plaster- White Finish Coat	A901	NAD
14	Hard Plaster- Grey Base Coat	A901	NAD
15	Drywall Joint Compound	A705A	NAD
16	Drywall Joint Compound	A725A	NAD
17	Drywall Joint Compound	A770	NAD
18	Drywall Joint Compound	A774	NAD
19	Drywall Joint Compound	A846	NAD
20	2' x 4' Ceiling Panel- Pinhole/ Fissured (White Track)	A705A	NAD

Notes: **Bold** text denotes an Asbestos Containing Material; as defined by EPA, ODH, and OSHA.

<u>Legend</u>			
Abbreviation:	Definition:	Abbreviation:	Definition:
NAD	No Asbestos Detected	A/W	Associated with

BULK SAMPLE SUMMARY
VAMC Cincinnati, Ohio
Abate Asbestos on Convectur Piping
Project Number: 539-16-202

Sample Number	Material Sampled	Sample Location	Percent Asbestos
21	2' x 4' Ceiling Panel- Pinhole/ Fissured (White Track)	A725A	NAD
22	2' x 4' Ceiling Panel- Pinhole/ Fissured (White Track)	A770	NAD
23	2' x 4' Ceiling Panel- Pinhole/ Fissured (White Track)	A863	NAD
24	2' x 4' Ceiling Panel- Pinhole/ Fissured (Black Track)	B705	NAD
25	2' x 4' Ceiling Panel- Pinhole/ Fissured (Black Track)	A802	NAD
26	Recessed Radiator Cement Backing Board (Transite)	A802	20% Chrysotile
27	Recessed Radiator Cement Backing Board (Transite)	A802	Sample Not Analyzed
28	Cementitious Caulking on Radiator Backing Board	A802	10% Chrysotile
29	Cementitious Caulking on Radiator Backing Board	A802	Sample Not Analyzed
30	Spray Applied Fireproofing	B810	NAD
31	Spray Applied Fireproofing	B810	NAD
32	Spray Applied Fireproofing	B810	NAD
33	Magnesia Block Pipe Insulation	B705	20% Chrysotile
34	Magnesia Block Pipe Insulation	B705	Sample Not Analyzed
35	Magnesia Block Pipe Insulation	B705	Sample Not Analyzed

Notes: **Bold** text denotes an Asbestos Containing Material; as defined by EPA, ODH, and OSHA.

Legend

Abbreviation: NAD
Definition: No Asbestos Detected

Abbreviation: A/W
Definition: Associated with

APPENDIX E

Asbestos Laboratory Analysis Certifications

and

Chain of Custody

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvectopPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376661	Description / Location: Off-White Plaster			
Client No.: 1	B623			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376662	Description / Location: Grey Plaster			
Client No.: 2	B623			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376663	Description / Location: Off-White Plaster			
Client No.: 3	B705			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376664	Description / Location: Grey Plaster			
Client No.: 4	B705			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

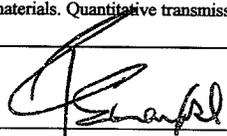
Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: R. Kennedy

Approved By: 

Date: 7/21/2014

Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvactorPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376665 **Description / Location:** Tan Joint Compound
Client No.: 5 A770

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376665 **Description / Location:** Off-White Plaster **Layer No.:** 2
Client No.: 5 A770

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376666 **Description / Location:** Grey Plaster
Client No.: 6 A770

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	Trace	Hair	100

Lab No.: 5376667 **Description / Location:** Off-White Plaster
Client No.: 7 A705A

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188

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Analysis Performed By: R. Kennedy

Date: 7/21/2014

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvectopPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376668 **Description / Location:** Grey Plaster
Client No.: 8 A705A

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376669 **Description / Location:** Off-White Plaster
Client No.: 9 B819

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376670 **Description / Location:** Grey Plaster
Client No.: 10 B819

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376671 **Description / Location:** Off-White Plaster
Client No.: 11 A866

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188

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Analysis Performed By: R. Kennedy 

Date: 7/21/2014

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvectopPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376672 **Description / Location:** Grey Plaster
Client No.: 12 A866

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376673 **Description / Location:** Off-White Plaster
Client No.: 13 A901

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376674 **Description / Location:** Grey Plaster
Client No.: 14 A901

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	Trace	Hair	100

Lab No.: 5376675 **Description / Location:** Off-White Joint Compound
Client No.: 15 A705A

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188
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Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: R. Kennedy

Date: 7/21/2014

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvactorPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376676 **Description / Location:** Off-White Joint Compound
Client No.: 16 A725A

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376677 **Description / Location:** Off-White Joint Compound
Client No.: 17 A770

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376678 **Description / Location:** Off-White Joint Compound
Client No.: 18 A774

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 5376679 **Description / Location:** Off-White Joint Compound
Client No.: 19 A846

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188

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Analysis Performed By: R. Kennedy

Date: 7/21/2014



CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvectopPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376680 **Description / Location:** Tan Ceiling Tile; 2x4
Client No.: 20 A705A; White Track

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	60
		Trace	Fibrous Glass	

Lab No.: 5376681 **Description / Location:** Tan Ceiling Tile; 2x4
Client No.: 21 A725A; White Track

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Cellulose	60
		Trace	Fibrous Glass	

Lab No.: 5376682 **Description / Location:** Tan Ceiling Tile; 2x4
Client No.: 22 A770; White Track

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	60
		20	Fibrous Glass	

Lab No.: 5376683 **Description / Location:** Tan Ceiling Tile; 2x4
Client No.: 23 A863; White Track

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	60
		20	Fibrous Glass	

Accreditations: NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA-LAP, LLC No. 100188

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Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: R. Kennedy

Date: 7/21/2014

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvectopPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376684 **Description / Location:** Tan Ceiling Tile; 2x4
Client No.: 24 B705; Black Track

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	60
		20	Fibrous Glass	

Lab No.: 5376685 **Description / Location:** Tan Ceiling Tile; 2x4
Client No.: 25 B802; Black Track

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	60
		20	Fibrous Glass	

Lab No.: 5376686 **Description / Location:** Grey Transite
Client No.: 26 Radiator Backing Board; A802

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
20	Chrysotile	None Detected	None Detected	80

Lab No.: 5376687 **Description / Location:** Sample Not Analyzed
Client No.: 27

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

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Analysis Performed By: R. Kennedy 

Date: 7/21/2014

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvactorPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376688 **Description / Location:** Grey Caulk; A/W Radiator Backing Board
Client No.: 28 A802

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	None Detected	None Detected	90

Lab No.: 5376689 **Description / Location:** Sample Not Analyzed
Client No.: 29

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Lab No.: 5376690 **Description / Location:** Off-White Insulation
Client No.: 30 Spray Applied Fireproofing; B810

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	10	Cellulose	90

Lab No.: 5376691 **Description / Location:** Off-White Insulation
Client No.: 31 Spray Applied Fireproofing; B810

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	10	Cellulose	90

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: R. Kennedy

Date: 7/21/2014

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Report Date: 7/21/2014
Report No.: 340338
Project: Dynamix-VAMC;Bldg1ConvectopPipin
Project No.: 15-0033

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 5376692 **Description / Location:** Off-White Insulation
Client No.: 32 Spray Applied Fireproofing; B810

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	10	Cellulose	90

Lab No.: 5376693 **Description / Location:** Tan Insulation
Client No.: 33 A/W Magnesia Pipe; B705

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
20	Amosite	None Detected	None Detected	80

Lab No.: 5376694 **Description / Location:** Sample Not Analyzed
Client No.: 34

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Lab No.: 5376695 **Description / Location:** Sample Not Analyzed
Client No.: 35

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
	Sample Not Analyzed		Sample Not Analyzed	

Accreditations: **NIST-NVLAP No. 101165-0** **NY-DOH No. 11021** **AIHA-LAP, LLC No. 100188**

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Analytical Method: US EPA 600/R-93/116 by Polarized Light Microscopy, (ELAP 198.1 where applicable)

Comments: Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analysis Performed By: R. Kennedy

Date: 7/21/2014

1441 King Avenue
 Columbus, OH 43212
 Phone: (614) 481-8600
 Fax: (614) 481-8610

Sent To: IATL

No 08139

VIA: FedEx

Page 1 of 2

Date: 7/17/14

Turn around:

1 DAY

ASBESTOS BULK SAMPLE CHAIN-OF-CUSTODY RECORD

Project Name: <u>DYNAMIX - CINCINNATI VAMC -</u>		Project No.:	Project Contact:	Sampler (print):	Signature
<u>B-06 1 CONCRETE PIPING</u>		<u>15-0033</u>	<u>JORDAN MEDERER</u>	<u>[Signature]</u>	
Sample I.D. No.	Homog. Area No.	Sample /Homogeneous Area Description	Sample Location	Remarks	
1	1	HAND PLASTER-WHITE FINISH COAT	<u>53766661</u>		
2	2	HACO PLASTER-GRY BASE COAT	<u>53766662</u>		
3	1	HP-FINISH	<u>53766663</u>		
4	2	HP-BASE	<u>53766664</u>		
5	1	HP-FINISH	<u>53766665</u>		
6	2	HP-BASE	<u>53766666</u>		
7	1	HP-FINISH	<u>53766667</u>		
8	2	HP-BASE	<u>53766668</u>		
9	1	HP-FINISH	<u>53766669</u>		
10	2	HP-BASE	<u>53766670</u>		
11	1	HP-FINISH	<u>53766671</u>		
12	2	HP-BASE	<u>53766672</u>		
13	1	HP-FINISH	<u>53766673</u>		
14	2	HP-BASE	<u>53766674</u>		
15	3	DRYWALL JOINT COMPOUND	<u>53766675</u>		
16	1		<u>53766676</u>		
17	1		<u>53766677</u>		
18	1		<u>53766678</u>		

E-MAILED
[Signature]

RECEIVED
 JUL 21 2014

IATL-BY

SAMPLE ANALYSIS BY EPA METHOD 600/R-93/116 UNLESS OTHERWISE NOTED.

Stop 1st Positive Analyze All Samples

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
<u>[Signature]</u>	<u>7/18/14</u>						

[Signature] 7-22-14

[Signature] 7/21/14

Distributor: White - File; Yellow - Lab

1441 King Avenue
 Columbus, OH 43212
 Phone: (614) 481-8600
 Fax: (614) 481-8610

Sent To: IATL No 08140

VIA: FoEx Page 2 of 2

Date: 7/17/14
 Turn around: 1 DAY

ASBESTOS BULK SAMPLE CHAIN-OF-CUSTODY RECORD

Sample I.D. No.	Homog. Area No.	Sample / Homogeneous Area Description	Project No.:	Project Contact:	Sampler (print):	Signature	Remarks
B061 - CONCRETE PLUMB		15-0633		J MEDENEK			
19	3	DRYWALL JOINT COMPOUND	A846		53766679		
20	4	2x4 CEILING PANEL-PH/F	A705A		53766680		WHITE TRACK
21	1		A725A				
22	1		A770		53766682		
23	1		A863		53766683		
24	5		B705		53766684		BLACK TRACK
25	1		A802		53766685		
26	6	RADIATOR CEMENT BACKING BOARD			53766686		
27	1				53766687		
28	7	CAULKING ON RADIATOR BACKING BOARD			53766688		
29	1				53766689		
30	8	SPRAY APPLIED FIREPROOFING	B810		53766690		
31	1				53766691		
32	1				53766692		
33	9	MAGNESIA PIPE INSULATION	B705		53766693		
34	1				53766694		
35	1				53766695		

RECEIVED
 JUL 21 2014
IATL-BY

SAMPLE ANALYSIS BY EPA METHOD 600/R-93/116 UNLESS OTHERWISE NOTED.

Stop 1st Positive Analyze All Samples

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
	7/18/14						

Distributor: White - File; Yellow - Lab

Rdbk 7-22-14 ANG 7/21/14 RK07212014

APPENDIX F

Survey Photograph Log



Lawhon and Associates, Inc.
1441 King Avenue, Columbus, Ohio 43212
(614) 481-8600 (O) | (614) 481-8610 (F)

VAMC Cincinnati, OH, Abate Asbestos on Convector Piping (539-16-202)
Hazardous Materials Survey Photograph Log

7th Floor Patient Room



Figure 1: Representative view of radiator cover. Lead based paint was not detected in excess of 1.0 mg/cm².

7th Floor Perimeter Pipe Chase



Figure 2: Representative view of pipe enclosure in area previously abated, indicating that in renovated areas, ACM pipe insulation was also abated within the enclosures.

7th Floor East Wing (B706)



Figure 3: Representative view of asbestos containing pipe insulation above drop ceiling.

8th Floor (A802)



Figure 4: Representative view of recessed radiator enclosure with asbestos containing transite backing board with asbestos caulking. Metal cover plate does not contain lead paint in excess of 1.0 mg/cm².

APPENDIX G

Lead Based Paint XRF Data



XRF Data Cincinnati VAMC Building 1

Index	Time	Results	Component	Substrate	Side	Color	Site	Inspector	Floor	Room	PbC
1	2014-07-17 09:25	Negative	WALL	PLASTER	S	GREEN	CINCY VA	JMEDERER	7	A705A	0.40 ± 0.20
2	2014-07-17 09:25	Negative	WALL	DRYWALL	S	WHITE	CINCY VA	JMEDERER	7	A705A	<LOD:0.03
3	2014-07-17 09:26	Negative	RADIATOR	METAL	S	WHITE	CINCY VA	JMEDERER	7	A705A	<LOD:0.05
4	2014-07-17 09:29	Negative	RADIATOR	METAL	N	BEIGE	CINCY VA	JMEDERER	7	A711B	<LOD:0.03
5	2014-07-17 09:30	Negative	WALL	PLASTER	N	WHITE	CINCY VA	JMEDERER	7	A711B	<LOD:1.02
6	2014-07-17 09:47	Negative	WALL	PLASTER	N	WHITE	CINCY VA	JMEDERER	7	A709A	<LOD:0.03
7	2014-07-17 09:48	Negative	RADIATOR	METAL	N	BEIGE	CINCY VA	JMEDERER	7	A709A	<LOD:0.03
8	2014-07-17 10:01	Negative	RADIATOR	METAL	S	BEIGE	CINCY VA	JMEDERER	7	A707	<LOD:0.03
9	2014-07-17 10:01	Negative	WALL	PLASTER	S	WHITE	CINCY VA	JMEDERER	7	A707	<LOD:0.03
10	2014-07-17 10:12	Negative	WALL	PLASTER	W	BEIGE	CINCY VA	JMEDERER	7	A774	<LOD:0.03
11	2014-07-17 10:12	Negative	RADIATOR	METAL	W	WHITE	CINCY VA	JMEDERER	7	A774	<LOD:0.04
12	2014-07-17 10:21	Negative	RADIATOR	METAL	N	WHITE	CINCY VA	JMEDERER	7	A770	<LOD:0.03
13	2014-07-17 10:21	Negative	WALL	PLASTER	N	BEIGE	CINCY VA	JMEDERER	7	A770	<LOD:0.03
14	2014-07-17 10:35	Negative	WALL	PLASTER	N	BEIGE	CINCY VA	JMEDERER	7	B705 REC	<LOD:1.07
15	2014-07-17 10:35	Negative	RADIATOR	METAL	N	BEIGE	CINCY VA	JMEDERER	7	B705 REC	<LOD:1.06
16	2014-07-17 10:54	Negative	RADIATOR	METAL	W	BEIGE	CINCY VA	JMEDERER	9	943	<LOD:1.87
17	2014-07-17 10:54	Negative	WALL	PLASTER	W	BEIGE	CINCY VA	JMEDERER	9	943	<LOD:0.75
18	2014-07-17 11:03	Negative	WALL	PLASTER	S	BEIGE	CINCY VA	JMEDERER	9	926	<LOD:0.15
19	2014-07-17 11:03	Negative	RADIATOR COVR	METAL	S	BEIGE	CINCY VA	JMEDERER	9	926	<LOD:1.16