

**VOLUME II
ASBESTOS CONTAINING MATERIAL &
LEAD CONTAINING PAINT
SURVEY REPORT
BUILDING 80**

VISN 1
Bedford VA Medical Center
200 Springs Road
Bedford, Massachusetts

Project No. 2009023.008

February 15, 2011

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ACKNOWLEDGMENT

This Asbestos Containing Materials (ACM) and Lead Containing Paint (LCP) Building Survey Report was prepared for the Veterans Affairs (VA) New England Healthcare System (VISN 1) in accordance with an established scope of work as defined in Contract Number VA241-P-1653. The information presented herein is based on the facts and information conveyed to or received by Mabbett & Associates, Inc. (M&A) during the preparation of this report. If any of the information provided to M&A that was used in preparing this report is incorrect, incomplete, or subject to change, M&A would wish to alter its opinion(s) accordingly. In addition, the professional opinions and information contained in this report are based solely on the requirements of the applicable regulations and technical data as known to M&A as of the date of this report and considered applicable to this report.

This individual building report within Volume II, which contains building specific lead and asbestos findings, is part of the Comprehensive VAMC Lead and Asbestos Survey Report consisting of the following volumes:

Volume I - General

Chapter 1 - Introduction and Executive Summary
Chapter 2 - Asbestos Operations & Maintenance (O&M) Plan
Chapter 3 - Asbestos Containing Materials (ACM) Survey Tables
Chapter 4 - Lead Containing Paint Survey Tables

Volume II – Individual Building Reports

Individual Building Reports Chapters including:

- Cover page with building number
- Building narrative summary
- Floor plans
- Relevant asbestos findings for the building
- Relevant lead containing paint findings for the building
- Relevant photos

Volume III – Appendices and Supporting Data

Appendix A - Asbestos Laboratory Analysis Reports and Laboratory Certifications
Appendix B - Inspector Field Data Sheets/Chains-of-Custody
Appendix C - Personnel Certifications & Licenses
Appendix D - XRF Performance Characteristics/Calibration Records
Appendix E - Lead Laboratory Analysis Reports and Laboratory Certifications (If Applicable)

Volume IV – HUD Residential LBP Reports (If Applicable)

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- Appendix B – Table 5, Summary of XRF Measurements
- Appendix C – Representative Photographs of ACM
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1.0 INTRODUCTION & EXECUTIVE SUMMARY

Mabbett and Associates, Inc. (M&A), with Covino Environmental Associates, Inc. (Covino) as sub-contractors, performed surveys for suspect asbestos containing building materials (ACM) and screenings of suspect lead containing paint (LCP) surfaces utilizing an X-Ray Fluorescence (XRF) analyzer. Surveys were performed of selected buildings at the VA Medical Center (VAMC) located at 200 Springs Road, Bedford, MA, under Contract VA241-P-1653. A complete list of buildings surveyed is in Volume I of this report. Site survey work was performed in July, 2010, by appropriately credentialed personnel as required. Collected suspect ACM samples were submitted to a certified analytical laboratory for asbestos analysis by polarized light microscopy (PLM) using positive stop methodology and transmission electron microscopy (TEM) where indicated. When necessary, paint chip samples were collected and submitted to a certified analytical laboratory for lead content analysis using atomic absorption spectroscopy. The survey effort involved the collection or screening of the following samples, resulting in the following conclusions:

- 100 bulk samples for suspect ACM were collected in this building.
- **Based on laboratory analysis of suspect ACM, 15 of the collected samples contained asbestos greater than or equal to 1%.**
- 72 XRF analyzer screening measurements of building surfaces were taken in this building.
- **Based on XRF screening measurements, 19 of the XRF measurements revealed concentrations of lead in paint that exceeded 0.1 milligram per square centimeter (mg/cm²).**

This building report consists of a summary of findings, floor plans that indicate positive sample locations, detailed analytical findings for the specific surveyed building materials, and photos of identified ACM and LCP, greater than 1.0 mg/cm² and in an other than intact condition. Laboratory certificates of analysis and field data sheets for this building report are available in Volume III of the Comprehensive VAMC Lead and Asbestos Survey Report.

2.0 BUILDING DESCRIPTION

According to information provided by the VAMC Office of Facilities Management and observations made by the M&A team at the time of the survey, Building 80 was a two-story CWT/FMS/A&MM building built in 1960 and occupied approximately 22,955 square feet.

3.0 ASBESTOS SURVEY

3.1 Sampling Methodology

A visual screening inspection was conducted to identify locations of suspect ACM throughout the building by state licensed asbestos inspectors. Only areas that were accessible during the field work phase were inspected. Every effort was made during the initial field survey work to access areas as necessary to complete the survey; however, areas that remained inaccessible to the survey team are indicated in Table 1 below.

Table 1 – Specific Inaccessible Areas Bedford VA Medical Center, Building 80			
Building	Floor	Room No.	Reason Area Was Inaccessible and Survey Impacts, If Applicable
There were no inaccessible areas identified during this survey.			

Other general areas that were inaccessible or where the survey was limited to visual observation only are identified below:

- Within walls
- Enclosed pipe/duct chases
- Above fixed drywall or plaster ceilings
- Within fire doors
- Inside mechanical equipment/ductwork

Due to these access restrictions, ACM surveys should be performed prior to any proposed renovations or maintenance involving inaccessible areas.

Bulk samples were collected of suspect ACM in accordance with US Environmental Protection Agency (EPA) Asbestos Hazard and Emergency Response Act (AHERA) and VISN 1 approved M&A VISN 1 Survey Program Standard Operating Procedure (SOP). Roofing materials were not sampled unless otherwise indicated in order to maintain applicable warranties. Bulk suspect ACM sampling was conducted according to the following sampling plan:

(a) Surfacing material:

- (1) At least three bulk samples shall be collected from each homogeneous area that is 1,000 ft² or less.
- (2) At least five bulk samples shall be collected from each homogeneous area that is greater than 1,000 ft² but less than or equal to 5,000 ft².
- (3) At least seven bulk samples shall be collected from each homogeneous area that is greater than 5,000 ft².

(b) Thermal system insulation:

- (1) At least three bulk samples shall be collected from each homogeneous area of thermal system insulation.
- (2) At least one bulk sample shall be collected from each homogeneous area of patched area of thermal system insulation.
- (3) Sufficient samples shall be collected from elbows and fittings to determine if it contains ACM.
- (4) Bulk samples shall not be collected from any homogeneous area where the state licensed asbestos inspector determined that the thermal system insulation is fiberglass, foam glass, rubber, or other non-ACM.

(c) Miscellaneous material:

- (1) At least one bulk sample shall be collected from each homogeneous area that is less than 100 ft².
- (2) At least three bulk samples shall be collected from each homogeneous area that is greater than 100 ft².

3.2 Analytical Methodology

The collected bulk samples were submitted under chain of custody procedures to ProScience Analytical Services, Inc. (ProScience) of Woburn, MA for polarized light microscopy (PLM) analysis of bulk materials using EPA Method 600/R-93/116. When required, sample results that revealed trace concentrations (greater than 0% but less than or equal to 1%) of asbestos by PLM were analyzed using transmission electron microscopy (TEM) analysis. ProScience is accredited by the American Industrial Hygiene Association (AIHA) and participates in the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 200090-0). Duplicate bulk samples were submitted for PLM analysis to Covino. Covino is accredited by the American Industrial Hygiene Association (AIHA) and participates in the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101781-0). A summary table containing the duplicate bulk sample results is provided in Volume I, Chapter 1, Table 4. Copies of the laboratory accreditations are included in Volume III of the Comprehensive VAMC Lead and Asbestos Survey Report.

All bulk sample results are summarized in Table 4 – Summary of ACM Building Survey Results. The EPA, Occupational Safety and Health Administration (OSHA), and the Commonwealth of Massachusetts Division of Occupational Safety (DOS) defines any material that contains greater than one percent (>1%) asbestos as being an ACM. The Commonwealth of Massachusetts Department of Environmental Protection (DEP) defines any material that contains equal to or greater than one percent (≥1%) asbestos as being an ACM. As such, the analytical laboratory identified bulk samples as positive for asbestos that met the regulatory criteria of equal to or greater than one percent (≥1%) asbestos.

3.3 Summary of Asbestos Containing Materials (ACM) Findings

3.3.1 Data Tables, Laboratory Results, and Field Notes

Collected bulk samples confirmed by the analytical laboratory to contain ≥1% asbestos are listed in Table 2 - Summary of Positive ACM Samples. Samples analyzed by PLM containing trace levels of asbestos, defined as greater than 0% but less than 1%, are listed in Table 4 with the TEM analysis results. Volume III of the Comprehensive VAMC Lead and Asbestos Survey Report includes copies of the laboratory certificates of analysis (including duplicate samples) and Inspector Data Sheets.

**Table 2 - Summary of Positive ACM Samples
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*
					Amount	Units		
01A	Hallway	Rooms B6, B007F and Corridor	9"x9" Brown Floor Tile	5% Chrysotile	830	SF	Good	4
01B	B6							
01C	B6							
06A	Hallway	Throughout Basement	Duct Mastic	8% Chrysotile	5,000	SF	Damaged	3
06B	B4							
06C	Hallway							
08A	B13	Rooms B13 and B20	12"x12" Tan Floor Tile	10% Chrysotile	80	SF	Good	4
08B	B20							
08C	B20							
10C	B14	Throughout Basement	Brown Sheet Flooring	3% Chrysotile	900	SF	Good	4
12A	B1	Mechanical Room B1	Duct Insulation	50% Chrysotile, 10% Amosite	700	SF	Damaged	1
12B								
12C								
13A	Hallway	Throughout 1st Floor	12"x12" Off White Floor Tile	3% Chrysotile	9,500	SF	Good	4
13B	123							
13C	130							
18A	131	Throughout Building	Pipe Fitting Insulation	30% Chrysotile	150	EA	Damaged	2
18B	131							
18C	109							
19	122	Kitchen	Black Sink Undercoating	3% Chrysotile	1	EA	Good	4
20A	102	Room 102 - Office	12"x12" Gray Floor Tile	2% Chrysotile	150	SF	Good	4
20B								
20C								
23A	B1B	Room B1B - Bathroom	12"x12" Beige Speckled Floor Tile Mastic	2% Chrysotile	45	SF	Good	4
23B								
23C								
28A	B1A	Room B1A - Bathroom	Residual Black Mastic	3% Chrysotile	65	SF	Good	4
28B								
28C								
29A	Exterior	Exterior	Window Glazing	2% Chrysotile	1,025	LF	Damaged	3
29B								
29C								
30A	Exterior	Exterior	Window Caulking	3% Chrysotile	840	LF	Damaged	3
30B								
30C								
31A	Exterior	Exterior	Door Caulking	5% Chrysotile	250	LF	Damaged	3
31B								
31C								

**Table 2 - Summary of Positive ACM Samples
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*
					Amount	Units		
34A	Exterior	Exterior	Expansion Joint Caulking	5% Chrysotile	30	LF	Damaged	4
34B								
34C								
NA	NA	Bathrooms B1A & B1B	Pipe Insulation Identified in Previous Survey Confirmed	NA	40	LF	Good	4
Footnotes: 1 - Analyzed by TEM				SF - Square Feet LF - Linear Feet EA - Each CF - Cubic Feet				

* The VISN 1 risk hazard assessment scale 1 – 4 is a relative indicator of the risk and need for response/remediation. (1) represents the highest priority (e.g. removal or encapsulation) whereas a (4) represents the lowest priority (monitor as part of 6 month O&M program). The rating assigned by an Asbestos Management Planner, takes into account: condition, friable vs. non-friable, accessibility, occupancy (e.g. continuous, intermittent or occasional and patients/staff/visitors), potential for air erosion, potential for vibration damage, potential for disturbance/damage (e.g. exposed and in an accessible location), and potential for water damage.

3.3.2 Photographs

Representative photographs of identified ACM are provided in Appendix C of this report.

3.3.3 CADD Drawings

The location of each collected bulk sample and its abridged sample ID is shown on the CADD drawings in the Figures Section of this report. The sample ID on the drawings has been abridged (by excluding the individual room number from the full sample ID) for aesthetic purposes. Each positive ACM sample location is colored red and marked with an asterisk (*), while stop positives are marked with two asterisks (**). Collected bulk samples that were not positive are identified solely by the abridged sample ID. Building areas containing ACM have been indicated with hatching to identify the location of the identified ACM.

4.0 LEAD SCREENING SURVEY

4.1 Screening Survey Methodology

M&A completed a Lead Containing Paint Risk Analysis in accordance with the SOP and determined that a LCP screening survey was warranted in this building. The LCP screening survey was performed by trained lead inspectors/screeners meeting the qualifications outlined in

the SOP. The screening survey measured lead concentrations in accessible building surfaces by using a Niton XLp 303A XRF (serial number 18580). The XRF instrument was calibrated at the frequency specified in the SOP.

4.2 Summary of Lead Screening Survey Findings

4.2.1 Data Tables

As specified by VISN 1, a description of XRF-screened painted interior and exterior building components containing lead at concentrations greater than 0.1 mg/cm² have been included in Table 3 below:

Table 3 - Summary of Positive XRF Measurements Bedford VA Medical Center, Building 80							
Reading No.	Floor	Location	Substrate and Component	Side	Condition	Color	Results (mg/cm ²)
2921	First	121	Metal Window Casing	East	Intact	White	0.14
2943	First	Stairwell	Metal Handrail	North	Intact	White	4.9
2945	First	Stairwell	Metal Riser	West	Intact	Gray	3.6
2946	First	Stairwell	Metal Stringer	North	Intact	White	8.7
2957	Basement	Exterior	Metal Window Casing	West	Intact	Beige	0.22
2960	Basement	Exterior	Wood Door	West	Intact	Red	3.4
2961	Basement	Exterior	Wood Door Casing	West	Intact	Beige	0.6
2962	Basement	Exterior	Metal Lintel	West	Intact	Beige	6.6
2965	Basement	Exterior	Metal Corner Guard	West	Intact	Yellow	6.4
2966	Basement	Exterior	Metal Window Casing	North	Intact	Beige	0.21
2967	Basement	Exterior	Metal Window Sash	North	Intact	Beige	0.4
2968	Basement	Exterior	Metal Window Sill	North	Intact	Beige	0.4
2969	Basement	Exterior	Metal Lintel	North	Intact	Beige	6.4
2970	Basement	Exterior	Metal Window Casing	East	Intact	Beige	0.3
2971	Basement	Exterior	Metal Window Sash	East	Intact	Beige	0.5
2972	Basement	Exterior	Metal Window Sill	East	Intact	Beige	0.3
2973	First	Exterior	Metal Dock Edge	South	Intact	Yellow	9.3
2974	First	Exterior	Metal Handrail	South	Intact	Brown	4.6
2976	First	Exterior	Metal Guard Rail	South	Intact	Yellow	2.4

In addition, XRF measurements collected during the screening survey of interior and exterior building components are included in Table 5 – Summary of XRF Measurements. Table 5 includes a description of each screened surface and resulting XRF-measured lead concentration.

4.2.2 Photographs

Representative photographs of building materials greater than or equal to 1.0 mg/cm² and where in other than intact condition (e.g. fair, peeling, cracking) are provided in Appendix D of this report.

4.2.3 CADD Drawings

Based on the results of the lead screening survey, a table of LCP components identified with > 0.1 mg/cm² lead content was developed. This table is presented on the CADD drawings for use by the VAMC for exposure assessments and preliminary renovation planning. Based on the results of the survey, these components identified in the CADD table and on the plan should be assumed to be LCP unless otherwise determined.

5.0 LIMITATIONS

This survey report is the result of a diligent search of the building for ACM and LCP. Only accessible areas were included in this survey. Although a comprehensive inspection was performed, M&A does not claim to have identified all of the ACM and LCP that could be present in the facility (for example, materials potentially located within aforementioned inaccessible areas discussed in Section 3.1). M&A's survey was performed with limitations inherent to visual inspections. M&A has conducted this assessment with reasonable care and has performed this project within generally accepted industry standards. There can be no assurances, and M&A makes no assurances, that the information, research, and technology used to prepare this report may not change in the future, thus affecting the results reported herein.

6.0 CLOSING REMARKS

Prior to initiating plans for maintenance, renovation or demolition activities, the VAMC should review the asbestos and lead survey results to determine whether any of the materials identified as ACM or LCP will be disturbed by proposed work activities.

6.1 Asbestos

The purpose of the ACM survey was to identify ACM in the building within the limitations of the survey for worker protection purposes and future renovation or demolition planning purposes. In regards to asbestos, any suspect material encountered during renovation/demolition that is not identified in this report as being non-ACM should be assumed to be ACM unless laboratory analytical data for bulk samples prove otherwise. Suspect ACM that may be present within the walls, above inaccessible hard ceilings, or in other inaccessible locations, and that accordingly was not inspected should be assumed to contain asbestos if discovered until otherwise verified, as previously described. If ACM must be disturbed, the ACM must be removed by a licensed asbestos abatement contractor and be performed in accordance with applicable regulations. If proposed work activities will not disturb intact ACM, continuous monitoring of ACM should be conducted throughout work activities to ensure the ACM remains in an intact condition.

Additionally, prior to commencing work activities, personnel involved with the work activities should be made aware of the location of ACM, within the building in which they will be working. Additional information regarding asbestos management and the Operations & Maintenance (O&M) program is outlined in the VAMC campus wide Asbestos O&M Management Plan available in Volume I of the Comprehensive VAMC Lead and Asbestos Survey Report.

6.2 Lead Containing Paint

The purpose of the LCP screening survey was to identify patterns of LCP. For the purpose of this LCP screening survey, representative interior and exterior building components were tested. The regulations addressing LCP in non-residential buildings are focused on protecting workers involved with paint disturbing activities and related waste disposal activities.

Worker protection is regulated by OSHA regulations as well as applicable state regulations. These regulations involve air monitoring of workers to determine exposure levels when disturbing paint containing measurable lead. A LCP determination cannot determine a safe level of lead, but is intended to provide guidance as to the locations of where LCP is present. VA employees and contractors may use this information to better determine exposures of workers to airborne lead by understanding the different concentrations of lead paint on representative components and surfaces. Worker exposure controls can then be implemented and air monitoring can then be performed during activities that disturb paint on representative surfaces.

A concentration of lead greater than or equal to 1.0 mg/cm^2 exceeds HUD residential standards and is an indicator of risk. OSHA does not specify a safe concentration of LCP. However, for the purposes of this LCP screening survey a lead concentration greater than 0.1 mg/cm^2 has been utilized as a threshold established by VISN 1 for areas where possible worker exposures may occur.

Figures

NOTES:

- DRAWINGS DO NOT CLAIM TO IDENTIFY ALL OF THE ASBESTOS CONTAINING MATERIAL (ACM) PRESENT IN THE BUILDING AND SHOULD NOT BE THE SOLE BASIS FOR IDENTIFYING ACM FOR FUTURE RENOVATION OR DEMOLITION PROJECTS, ABATEMENT SPECIFICATIONS, ETC. M&A'S SURVEY WAS PERFORMED WITH LIMITATIONS INHERENT TO NON-DESTRUCTIVE VISUAL INSPECTIONS. ANY SUSPECT MATERIAL ENCOUNTERED DURING RENOVATION/DEMOLITION THAT IS NOT IDENTIFIED AS BEING NON-ACM SHOULD BE ASSUMED TO BE ACM UNLESS SAMPLE RESULTS PROVE OTHERWISE.
- IF APPLICABLE, PIPE AND FITTING LOCATIONS ARE DRAWN SCHEMATICALLY TO SHOW APPROXIMATE LOCATION AND ARE NOT TO SCALE.
- INACCESSIBLE OR ENCLOSED ASBESTOS CONTAINING MATERIAL MAY BE ASSUMED BASED ON INSPECTION AND CONFIRMATION OF PREVIOUS BUILDING SURVEYS.

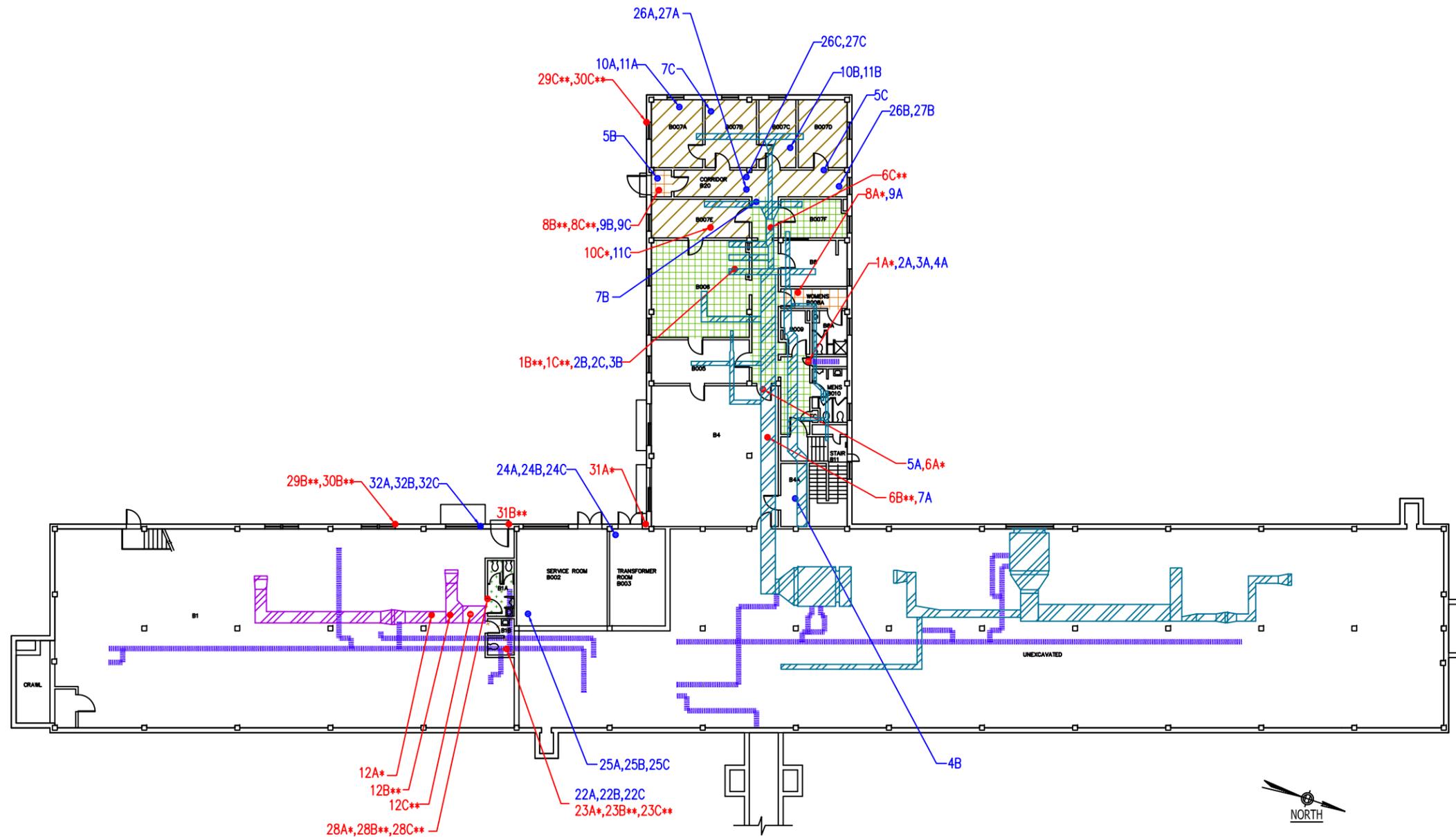
LEGEND

- 1,2 APPROXIMATE SAMPLE LOCATION
- 25x SAMPLE GREATER THAN 1% ASBESTOS
- 25x* STOP POSITIVE SAMPLE FOR ASBESTOS
- 25 NO ASBESTOS DETECTED (NAD)

HATCHED AREAS INDICATE POSITIVE DETECTION OF ASBESTOS CONTAINING BUILDING COMPONENTS

- SHEET FLOORING LINOLEUM
- 9"x9" FLOOR TILE
- 12"x12" FLOOR TILE
- ACM DUCT INSULATION
- ACM DUCT MASTIC
- ACM PIPE FITTING INSULATION

- *EXTERIOR WINDOW CAULK & GLAZE IS ACM*
- *EXTERIOR DOOR CAULKING IS ACM*
- *EXTERIOR BUILDING CAULKING IS ACM*



ASBESTOS SURVEY SUMMARY PLAN

Drawing Title BUILDING 80	Project Title ASBESTOS SURVEY		DATE OCTOBER 2010	
Floor BASEMENT	Building Number 80	CHECKED CAL	PROJ. NO. 2009023.008	
SCALE: NOT TO SCALE	Location BEDFORD	DWG. NO. 1	Dwg. 1 OF 1	

one-eighth inch = one foot
 one-quarter inch = one foot
 three-eighths inch = one foot
 one-half inch = one foot
 three-quarters inch = one foot
 one inch = one foot
 one and one-half inches = one foot
 three inches = one foot

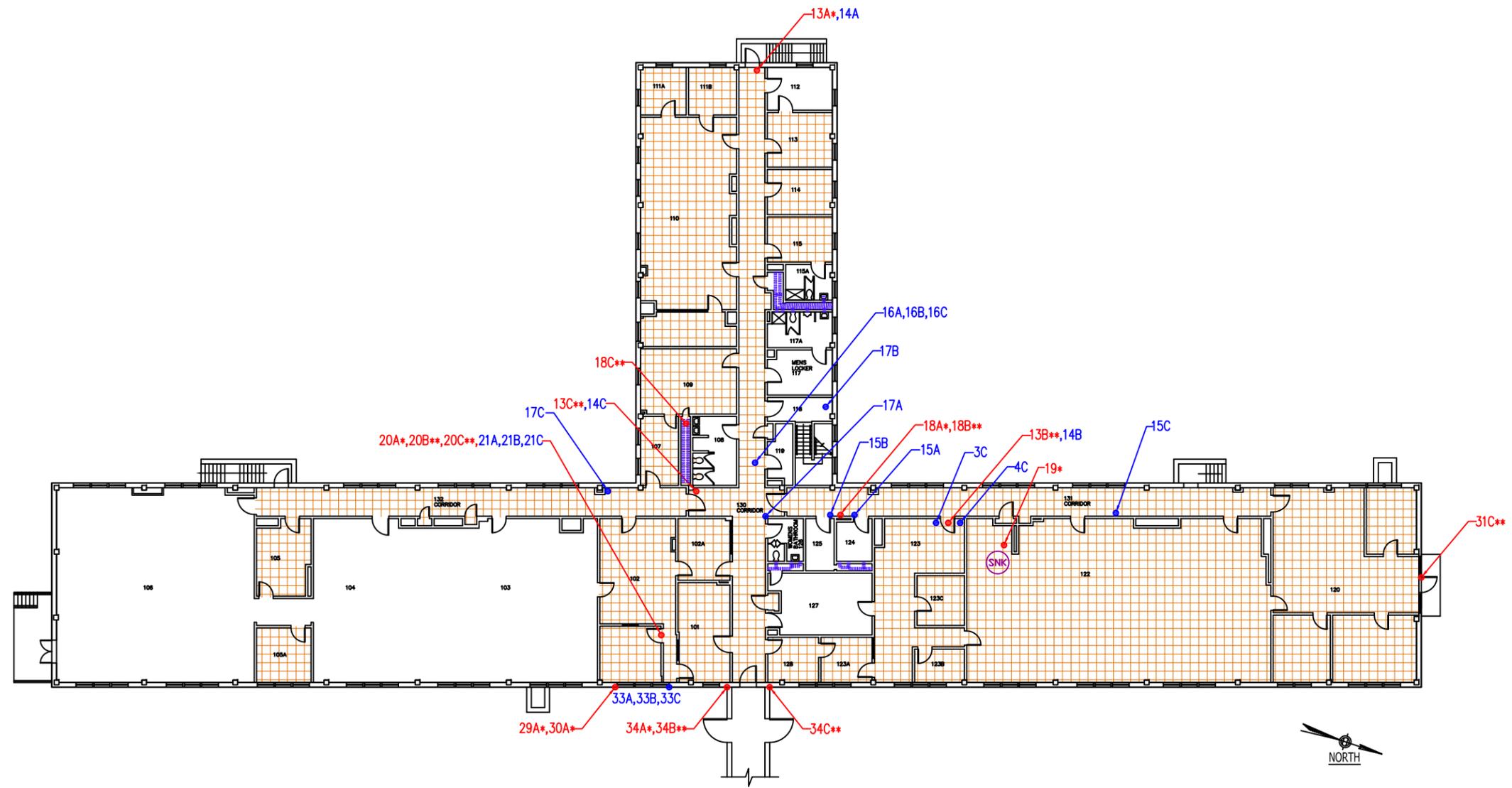
NOTES:

- DRAWINGS DO NOT CLAIM TO IDENTIFY ALL OF THE ASBESTOS CONTAINING MATERIAL (ACM) PRESENT IN THE BUILDING AND SHOULD NOT BE THE SOLE BASIS FOR IDENTIFYING ACM FOR FUTURE RENOVATION OR DEMOLITION PROJECTS, ABATEMENT SPECIFICATIONS, ETC. M&A'S SURVEY WAS PERFORMED WITH LIMITATIONS INHERENT TO NON-DESTRUCTIVE VISUAL INSPECTIONS. ANY SUSPECT MATERIAL ENCOUNTERED DURING RENOVATION/DEMOLITION THAT IS NOT IDENTIFIED AS BEING NON-ACM SHOULD BE ASSUMED TO BE ACM UNLESS SAMPLE RESULTS PROVE OTHERWISE.
- IF APPLICABLE, PIPE AND FITTING LOCATIONS ARE DRAWN SCHEMATICALLY TO SHOW APPROXIMATE LOCATION AND ARE NOT TO SCALE.
- INACCESSIBLE OR ENCLOSED ASBESTOS CONTAINING MATERIAL MAY BE ASSUMED BASED ON INSPECTION AND CONFIRMATION OF PREVIOUS BUILDING SURVEYS.

LEGEND

- 1,2 APPROXIMATE SAMPLE LOCATION
- 25x SAMPLE GREATER THAN 1% ASBESTOS
- 25x* STOP POSITIVE SAMPLE FOR ASBESTOS
- 25 NO ASBESTOS DETECTED (NAD)
- HATCHED AREAS INDICATE POSITIVE DETECTION OF ASBESTOS CONTAINING BUILDING COMPONENTS
- 12"x12" FLOOR TILE
- ACM PIPE FITTING INSULATION
- ACM SINK UNDERCOAT

- *EXTERIOR WINDOW CAULK & GLAZE IS ACM*
- *EXTERIOR DOOR CAULKING IS ACM*
- *EXTERIOR BUILDING CAULKING IS ACM*



ASBESTOS SURVEY SUMMARY PLAN

Drawing Title BUILDING 80	Project Title ASBESTOS SURVEY	DATE OCTOBER 2010	
Floor FIRST FLOOR	Building Number 80	PROJ. NO. 2009023.008	
SCALE: NOT TO SCALE	CHECKED CAL	DWG. NO. 2	Dwg. 1 OF 1
	Location BEDFORD		

three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 one inch = one foot
 one and one half inches = one foot
 three inches = one foot

PLEASE SEE THE SAFETY OFFICE PRIOR TO PERFORMING MAINTENANCE/RENOVATION ACTIVITIES ON ANY OF THE FOLLOWING COMPONENTS IN HATCHED AREAS.

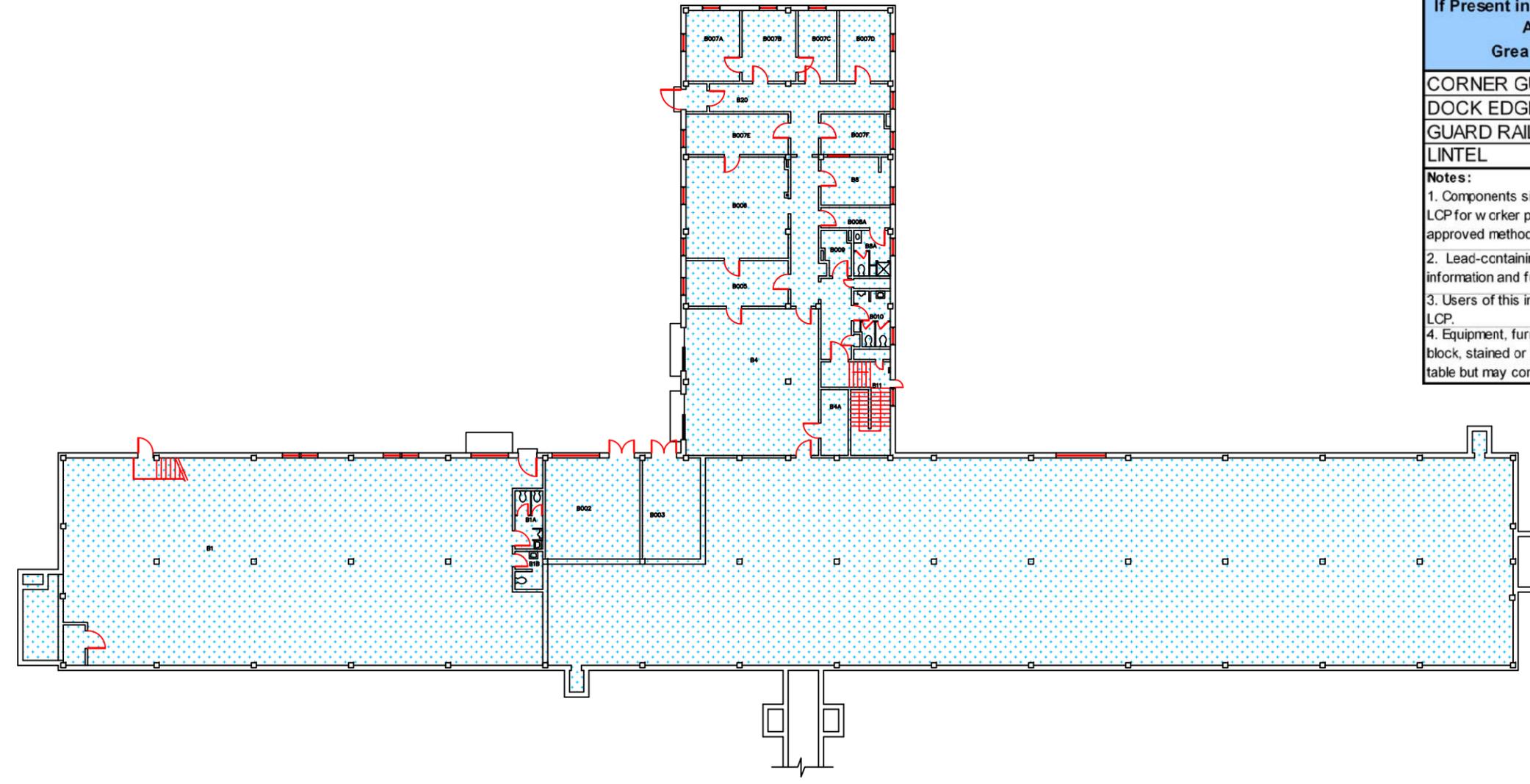
These Building Components Depicted in **Red** Are Assumed To Contain Lead Containing Paint (LCP) at Greater Than 0.1 mg/cm² unless otherwise determined.

COMPONENT	SUBSTRATE	SYMBOL
DOOR	WOOD	
DOOR CASING	WOOD	
HANDRAILS	METAL	
WINDOW CASING	METAL	
WINDOW SASH	METAL	
WINDOW SILL	METAL	
STRINGER	METAL	
RISER	METAL	

If Present in the Hatched Area These Other Building Components Are Assumed To Be Lead Containing Paint (LCP) at Greater Than 0.1 mg/cm² unless otherwise determined.

COMPONENT	SUBSTRATE	SYMBOL
CORNER GUARD	METAL	
DOCK EDGE	METAL	
GUARD RAIL	METAL	
LINTEL	METAL	

- Notes:**
- Components similar to those listed in the table above found in the hatched areas should be assumed to contain LCP for worker protection, maintenance, renovation, disposal, etc. purposes unless otherwise determined by an approved method.
 - Lead-containing paint (LCP) screening measurements were collected using an XRF analyzer. For additional information and full screening results refer to the M&A Asbestos & LCP building report.
 - Users of this information should not rely on color alone to decide whether similar building components contain LCP.
 - Equipment, furniture, non structural items, and non-painted building components such as glazed tile, glazed block, stained or leaded glass, unpainted piping, etc. were not included in the survey and are not included in the table but may contain Lead.



PLEASE SEE THE SAFETY OFFICE PRIOR TO PERFORMING MAINTENANCE/RENOVATION ACTIVITIES ON ANY OF THE FOLLOWING COMPONENTS IN HATCHED AREAS.

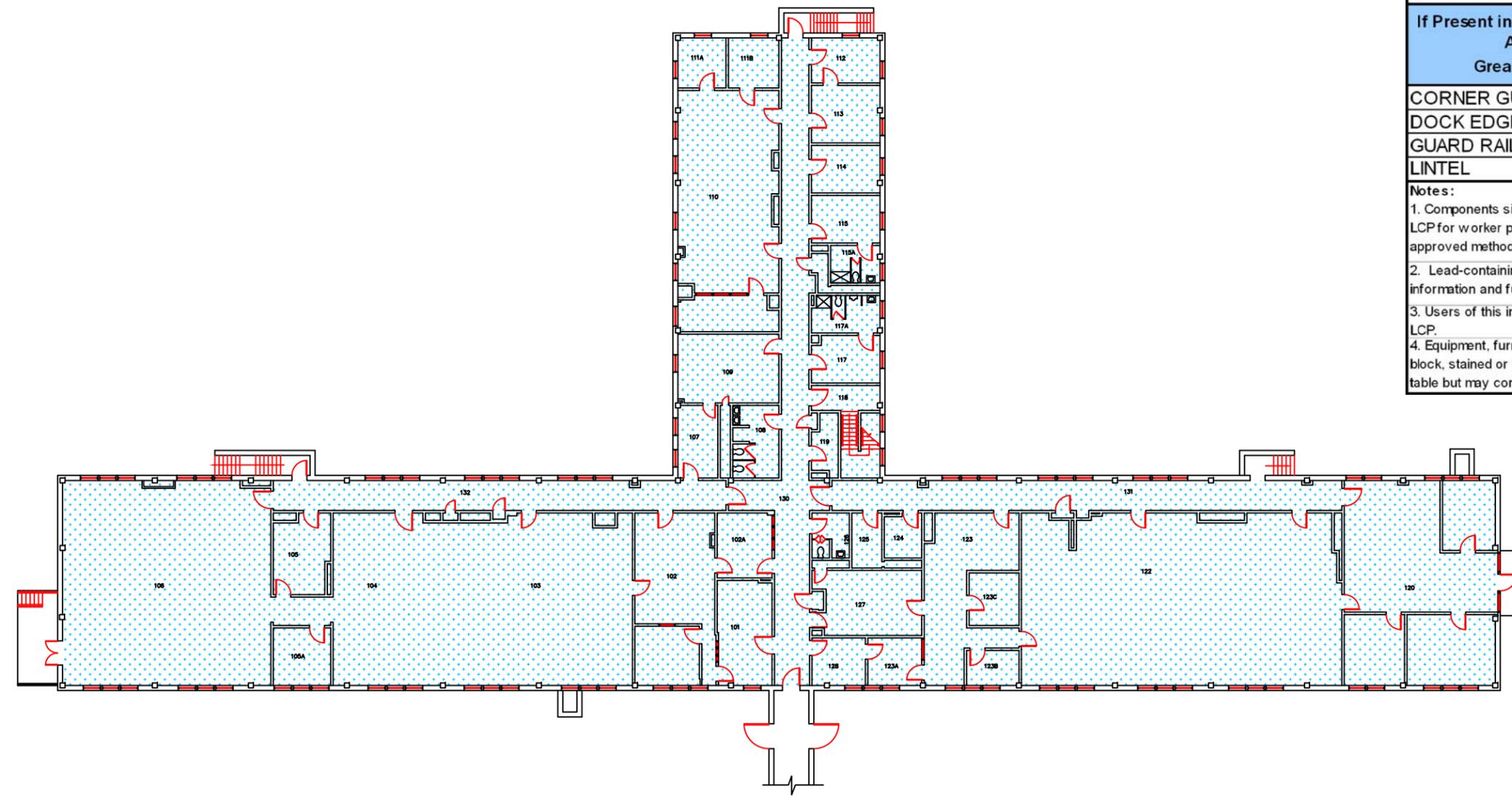
These Building Components Depicted in Red Are Assumed To Contain Lead Containing Paint (LCP) at Greater Than 0.1 mg/cm² unless otherwise determined.

COMPONENT	SUBSTRATE	SYMBOL
DOOR	WOOD	
DOOR CASING	WOOD	
HANDRAILS	METAL	
WINDOW CASING	METAL	
WINDOW SASH	METAL	
WINDOW SILL	METAL	
STRINGER	METAL	
RISER	METAL	

If Present in the Hatched Area These Other Building Components Are Assumed To Be Lead Containing Paint (LCP) at Greater Than 0.1 mg/cm² unless otherwise determined.

	SYMBOL
CORNER GUARD	
DOCK EDGE	
GUARD RAIL	
LINTEL	

- Notes:**
- Components similar to those listed in the table above found in the hatched areas should be assumed to contain LCP for worker protection, maintenance, renovation, disposal, etc. purposes unless otherwise determined by an approved method.
 - Lead-containing paint (LCP) screening measurements were collected using an XRF analyzer. For additional information and full screening results refer to the M&A Asbestos & LCP building report.
 - Users of this information should not rely on color alone to decide whether similar building components contain LCP.
 - Equipment, furniture, non structural items, and non-painted building components such as glazed tile, glazed block, stained or leaded glass, unpainted piping, etc. were not included in the survey and are not included in the table but may contain Lead.



LEAD SURVEY SUMMARY PLAN

Drawing Title BUILDING 80	Project Title LEAD SURVEY	DATE SEPTEMBER 2010	
Floor FIRST FLOOR	Building Number 80	PROJ. NO. 2009023.008	
SCALE: NOT TO SCALE	CHECKED WJP	DWG. NO. 4	Dwg. 1 OF 1

three inches = one foot
 one and one-half inches = one foot
 one inch = one foot
 three-quarters inch = one foot
 one-half inch = one foot
 three-eighths inch = one foot
 one-quarter inch = one foot
 one-eighth inch = one foot

Revisions _____ Date _____

Appendix A

Table 4 Summary of ACM Building Survey Results, including negative results

**Table 4 - Summary of ACM Building Survey Results
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*
					Amount	Units		
01A	Hallway	Rooms B6, B007F and Corridor	9"x9" Brown Floor Tile	5% Chrysotile	830	SF	Good	4
01B	B6	Rooms B6, B007F and Corridor	9"x9" Brown Floor Tile	Stop Positive See 01A				
01C	B6	Rooms B6, B007F and Corridor	9"x9" Brown Floor Tile	Stop Positive See 01A				
02A	Hallway	-	9"x9" Brown Floor Tile Mastic	NAD	-	-	-	-
02B	B6	-	9"x9" Brown Floor Tile Mastic	NAD	-	-	-	-
02C	B6	-	9"x9" Brown Floor Tile Mastic	NAD	-	-	-	-
03A	Hallway	-	Carpet Mastic	NAD	-	-	-	-
03B	B6	-	Carpet Mastic	NAD	-	-	-	-
03C	123	-	Carpet Mastic	NAD	-	-	-	-
04A	Hallway	-	4" Cove Base Mastic	NAD	-	-	-	-
04B	B4A	-	4" Cove Base Mastic	NAD	-	-	-	-
04C	123	-	4" Cove Base Mastic	NAD	-	-	-	-
05A	Hallway	-	2'x2' Textured Ceiling Tile	NAD	-	-	-	-
05B	B20	-	2'x2' Textured Ceiling Tile	NAD	-	-	-	-
05C	B20	-	2'x2' Textured Ceiling Tile	NAD	-	-	-	-
06A	Hallway	Throughout Basement	Duct Mastic	8% Chrysotile	5,000	SF	Damaged	3
06B	B4	Throughout Basement	Duct Mastic	Stop Positive See 06A				
06C	Hallway	Throughout Basement	Duct Mastic	Stop Positive See 06A				
07A	B4	-	2'x2' Fissured Ceiling Tile	NAD	-	-	-	-
07B	B20	-	2'x2' Fissured Ceiling Tile	NAD	-	-	-	-
07C	B007B	-	2'x2' Fissured Ceiling Tile	NAD	-	-	-	-

**Table 4 - Summary of ACM Building Survey Results
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*	
					Amount	Units			
08A	B13	Rooms B13 and B20	12"x12" Tan Floor Tile	10% Chrysotile	80	SF	Good	4	
08B	B20	Rooms B13 and B20	12"x12" Tan Floor Tile	Stop Positive See 08A					
08C	B20	Rooms B13 and B20	12"x12" Tan Floor Tile	Stop Positive See 08A					
09A	B13	-	12"x12" Tan Floor Tile Mastic	NAD	-	-	-	-	
09B	B20	-	12"x12" Tan Floor Tile Mastic	NAD	-	-	-	-	
09C	B20	-	12"x12" Tan Floor Tile Mastic	NAD	-	-	-	-	
10A	B8A	-	Brown Sheet Flooring	NAD	-	-	-	-	
10B	B4	-	Brown Sheet Flooring	NAD	-	-	-	-	
10C	B14	Throughout Basement	Brown Sheet Flooring	3% Chrysotile	900	SF	Good	4	
11A	B8A	-	Brown Sheet Flooring Mastic	NAD	-	-	-	-	
11B	B4	-	Brown Sheet Flooring Mastic	NAD	-	-	-	-	
11C	B14	-	Brown Sheet Flooring Mastic	NAD	-	-	-	-	
12A	B1	Throughout Basement	Duct Insulation	50% Chrysotile, 10% Amosite	700	SF	Damaged	1	
12B	B1	Throughout Basement	Duct Insulation	Stop Positive See 12A					
12C	B1	Throughout Basement	Duct Insulation	Stop Positive See 12A					
13A	Hallway	Throughout 1st Floor	12"x12" Off White Floor Tile	3% Chrysotile	9,500	SF	Good	4	
13B	123	Throughout 1st Floor	12"x12" Off White Floor Tile	Stop Positive See 13A					
13C	130	Throughout 1st Floor	12"x12" Off White Floor Tile	Stop Positive See 13A					
14A	Hallway	-	12"x12" Off White Floor Tile Mastic	NAD	-	-	-	-	
14B	123	-	12"x12" Off White Floor Tile Mastic	NAD	-	-	-	-	
14C	130	-	12"x12" Off White Floor Tile Mastic	NAD	-	-	-	-	

**Table 4 - Summary of ACM Building Survey Results
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*
					Amount	Units		
15A	131	-	6" Cove Base Mastic	NAD	-	-	-	-
15B	131	-	6" Cove Base Mastic	NAD	-	-	-	-
15C	131	-	6" Cove Base Mastic	NAD	-	-	-	-
16A	Hallway	-	Plaster Above 1'x1' Ceiling Tile	NAD	-	-	-	-
16B	Hallway	-	Plaster Above 1'x1' Ceiling Tile	NAD	-	-	-	-
16C	Hallway	-	Plaster Above 1'x1' Ceiling Tile	NAD	-	-	-	-
17A	131	-	1'x1' Ceiling Tile	NAD	-	-	-	-
17B	118	-	1'x1' Ceiling Tile	NAD	-	-	-	-
17C	132	-	1'x1' Ceiling Tile	NAD	-	-	-	-
18A	131	Throughout Building	Pipe Fitting Insulation	30% Chrysotile	150	EA	Damaged	2
18B	131	Throughout Building	Pipe Fitting Insulation	Stop Positive See 18A				
18C	109	Throughout Building	Pipe Fitting Insulation	Stop Positive See 18A				
19	122	Kitchen	Black Sink Undercoating	3% Chrysotile	1	EA	Good	4
20A	102	Room 102 - Office	12"x12" Gray Floor Tile	2% Chrysotile	150	SF	Good	4
20B	102	Room 102 - Office	12"x12" Gray Floor Tile	Stop Positive See 20A				
20C	102	Room 102 - Office	12"x12" Gray Floor Tile	Stop Positive See 20A				
21A	102	-	12"x12" Gray Floor Tile Mastic	NAD	-	-	-	-
21B	102	-	12"x12" Gray Floor Tile Mastic	NAD	-	-	-	-
21C	102	-	12"x12" Gray Floor Tile Mastic	NAD	-	-	-	-
22A	B1B	-	12"x12" Beige Speckled Floor Tile	NAD	-	-	-	-
22B	B1B	-	12"x12" Beige Speckled Floor Tile	NAD	-	-	-	-
22C	B1B	-	12"x12" Beige Speckled Floor Tile	NAD	-	-	-	-

**Table 4 - Summary of ACM Building Survey Results
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*
					Amount	Units		
23A	B1B	Room B1B - Bathroom	12"x12" Beige Speckled Floor Tile Mastic	2% Chrysotile	45	SF	Good	4
23B	B1B	Room B1B - Bathroom	12"x12" Beige Speckled Floor Tile Mastic	Stop Positive See 23A				
23C	B1B	Room B1B - Bathroom	12"x12" Beige Speckled Floor Tile Mastic	Stop Positive See 23A				
24A	B003	-	Spray Applied Fireproofing	NAD	-	-	-	-
24B	B003	-	Spray Applied Fireproofing	NAD	-	-	-	-
24C	B003	-	Spray Applied Fireproofing	NAD	-	-	-	-
25A	B002	-	Tank Insulation	NAD	-	-	-	-
25B	B002	-	Tank Insulation	NAD	-	-	-	-
25C	B002	-	Tank Insulation	NAD	-	-	-	-
26A	Hallway	-	Drywall	NAD	-	-	-	-
26B	Hallway	-	Drywall	NAD	-	-	-	-
26C	Hallway	-	Drywall	NAD	-	-	-	-
27A	Hallway	-	Joint Compound	NAD	-	-	-	-
27B	Hallway	-	Joint Compound	NAD	-	-	-	-
27C	Hallway	-	Joint Compound	NAD	-	-	-	-
28A	B1A	Room B1A - Bathroom	Residual Black Mastic	3% Chrysotile	65	SF	Good	4
28B	B1A	Room B1A - Bathroom	Residual Black Mastic	Stop Positive See 28A				
28C	B1A	Room B1A - Bathroom	Residual Black Mastic	Stop Positive See 28A				
29A	Exterior	Exterior	Window Glazing	2% Chrysotile	1,025	LF	Damaged	3
29B	Exterior	Exterior	Window Glazing	Stop Positive See 29A				
29C	Exterior	Exterior	Window Glazing	Stop Positive See 29A				
30A	Exterior	Exterior	Window Caulking	3% Chrysotile	840	LF	Damaged	3
30B	Exterior	Exterior	Window Caulking	Stop Positive See 30A				
30C	Exterior	Exterior	Window Caulking	Stop Positive See 30A				
31A	Exterior	Exterior	Door Caulking	5% Chrysotile	250	LF	Damaged	3
31B	Exterior	Exterior	Door Caulking	Stop Positive See 31A				
31C	Exterior	Exterior	Door Caulking	Stop Positive See 31A				

**Table 4 - Summary of ACM Building Survey Results
Bedford VA Medical Center, Building 80**

Sample No.	Sample Location	ACM Location	Description of Material	Percent and Type of Asbestos	Estimated Quantity		Condition	VISN 1 RISK Hazard Category 1-4*
					Amount	Units		
32A	Exterior	-	Residual Overhead Door Caulking	NAD	-	-	-	-
32B	Exterior	-	Residual Overhead Door Caulking	NAD	-	-	-	-
32C	Exterior	-	Residual Overhead Door Caulking	NAD	-	-	-	-
33A	Exterior	-	A/C Caulking	NAD	-	-	-	-
33B	Exterior	-	A/C Caulking	NAD	-	-	-	-
33C	Exterior	-	A/C Caulking	NAD	-	-	-	-
34A	Exterior	Exterior	Expansion Joint Caulking	5% Chrysotile	30	LF	Damaged	3
34B	Exterior	Exterior	Expansion Joint Caulking	Stop Positive See 34A				
34C	Exterior	Exterior	Expansion Joint Caulking	Stop Positive See 34A				

Footnotes:

1 - Analyzed by TEM

NAD - No Asbestos Detected (PLM)

ND - None Detected (TEM)

TR - Trace

SF - Square Feet

LF - Linear Feet

EA - Each

CF - Cubic Feet

* - The VISN 1 hazard assessment scale 1 – 4 is a relative indicator of the risk and need for response/remediation. (1) represents the highest priority (e.g. removal or encapsulation) whereas a (4) represents the lowest priority (monitor as part of 6 month O&M program). The rating, assigned by an Asbestos Management Planner, takes into account the following criteria: condition, friable vs. non-friable, accessibility, occupancy (e.g. continuous, intermittent or occasional, patients/staff/visitors), potential for air erosion, potential for vibration damage, potential for disturbance/damage (e.g. exposed and in an accessible location), and potential for water damage.

Appendix B

Table 5 Summary of XRF Measurements

**Table 5 - Summary of XRF Measurements
Bedford VA Medical Center, Building 80**

Reading No.	Floor	Location	Substrate and Component	Side	Condition	Color	Results (mg/cm ²)
2919	First	121	Block Wall (Exterior)	East	Intact	White	0
2920	First	121	Block Column	East	Intact	White	0
2921	First	121	Metal Window Casing	East	Intact	White	0.14
2922	First	121	Metal Swinging Screen	East	Intact	White	0
2923	First	121	Metal Door	West	Intact	Gray	0
2924	First	121	Metal Door Casing	West	Intact	Gray	0
2925	First	Corridor	Metal Door Casing	West	Intact	Gray	0
2926	First	Corridor	Metal Door	West	Intact	Gray	0
2927	First	Corridor	Metal Lintel	West	Intact	Gray	0
2928	First	Corridor	Metal Lintel	West	Intact	White	0
2929	First	Corridor	Metal Door	West	Intact	Gray	0
2930	First	Corridor	Metal Door Casing	West	Intact	Gray	0
2931	First	Corridor	Metal Window Casing	West	Intact	White	0
2932	First	Corridor	Metal Swinging Screen	West	Intact	White	0
2933	First	Corridor	Block Wall (Exterior)	West	Intact	White	0
2934	First	Corridor	Block Column	West	Intact	White	0
2935	First	104	Block Column	East	Intact	Beige	0
2936	First	104	Block Wall (Exterior)	East	Intact	Beige	0
2937	First	104	Metal Window Casing	East	Intact	Beige	0
2938	First	104	Metal Swinging Screen	East	Intact	Beige	0
2939	First	104	Wood Door Casing	South	Intact	Gray	0
2940	First	Stairwell	Metal Door Casing	South	Intact	Gray	0
2941	First	Stairwell	Metal Door	South	Intact	Gray	0
2942	First	Stairwell	Concrete Floor	North	Intact	Gray	0
2944	First	Stairwell	Concrete Tread	West	Intact	Gray	0
2947	Basement	B6	Block Wall (Exterior)	South	Intact	Beige	0
2948	Basement	B6	Block Wall (Interior)	East	Intact	Beige	0
2949	Basement	B6	Block Column	South	Intact	Beige	0
2950	Basement	B6	Metal Swinging Screen	South	Intact	Beige	0
2951	Basement	B6	Metal Door Casing	South	Intact	Beige	0
2952	Basement	B6	Metal Door Casing	North	Intact	Gray	0
2953	Basement	B6	Wood Door	North	Intact	Gray	0
2954	Basement	Exterior	Metal Door	West	Intact	Red	0
2955	Basement	Exterior	Metal Door Casing	West	Intact	Beige	0
2956	Basement	Exterior	Metal Lintel	West	Intact	Beige	0
2957	Basement	Exterior	Metal Window Casing	West	Intact	Beige	0.22
2958	Basement	Exterior	Metal Window Sash	West	Intact	Beige	0
2959	Basement	Exterior	Metal Window Sill	West	Intact	Beige	0
2961	Basement	Exterior	Wood Door Casing	West	Intact	Beige	0.6
2963	Basement	Exterior	Concrete Tread	West	Intact	Yellow	0.06
2964	Basement	Exterior	Metal Threshold	West	Intact	Gray	0
2966	Basement	Exterior	Metal Window Casing	North	Intact	Beige	0.21
2967	Basement	Exterior	Metal Window Sash	North	Intact	Beige	0.4
2968	Basement	Exterior	Metal Window Sill	North	Intact	Beige	0.4

**Table 5 - Summary of XRF Measurements
Bedford VA Medical Center, Building 80**

Reading No.	Floor	Location	Substrate and Component	Side	Condition	Color	Results (mg/cm ²)
2970	Basement	Exterior	Metal Window Casing	East	Intact	Beige	0.3
2971	Basement	Exterior	Metal Window Sash	East	Intact	Beige	0.5
2972	Basement	Exterior	Metal Window Sill	East	Intact	Beige	0.3
2975	First	Exterior	Metal Lamp Post 80-3	South	Intact	Green	0
3007	Basement	B1	Concrete Wall (Exterior)	West	Intact	White	0
3008	Basement	B1	Concrete Floor	West	Poor	Gray	0
3009	Basement	B1	Metal Handrail	Right	Intact	Brown	0
3010	Basement	B1	Metal Stringer	West	Intact	Brown	0
3011	Basement	B1	Metal Riser	South	Fair	Gray	0
3012	Basement	B1	Concrete Column	West	Intact	White	0
3013	Basement	B1	Concrete Ceiling	West	Intact	White	0
3014	Basement	B1	Wood Door	North	Intact	White	0
3015	Basement	B1	Wood Door Casing	North	Intact	Gray	0
3016	Basement	B1	Block Wall (Interior)	North	Intact	White	0
3017	Basement	B2	Concrete Wall (Interior)	East	Intact	White	0
3018	Basement	B2	Metal Ladder	East	Intact	Yellow	0
3019	Basement	B2	Wood Door Casing	West	Intact	White	0
3020	Basement	B2	Metal Door	West	Intact	White	0

Font Color Annotation

- Black - Below the VISN1 Threshold of 0.1 mg/cm²
- Blue - Above the VISN1 Threshold of 0.1 mg/cm², but less than 1.0 mg/cm²
- Greater than 1.0 mg/cm²

Appendix C

Representative Photographs of ACM



9"x9" Brown Floor Tile
Sample 01A



Duct Mastic
Sample 06A



12"x12" Tan Floor Tile
Sample 08A



Brown Sheet Flooring
Sample 10C



Duct Insulation
Sample 12A



12"x12" Off White Floor Tile
Sample 13A



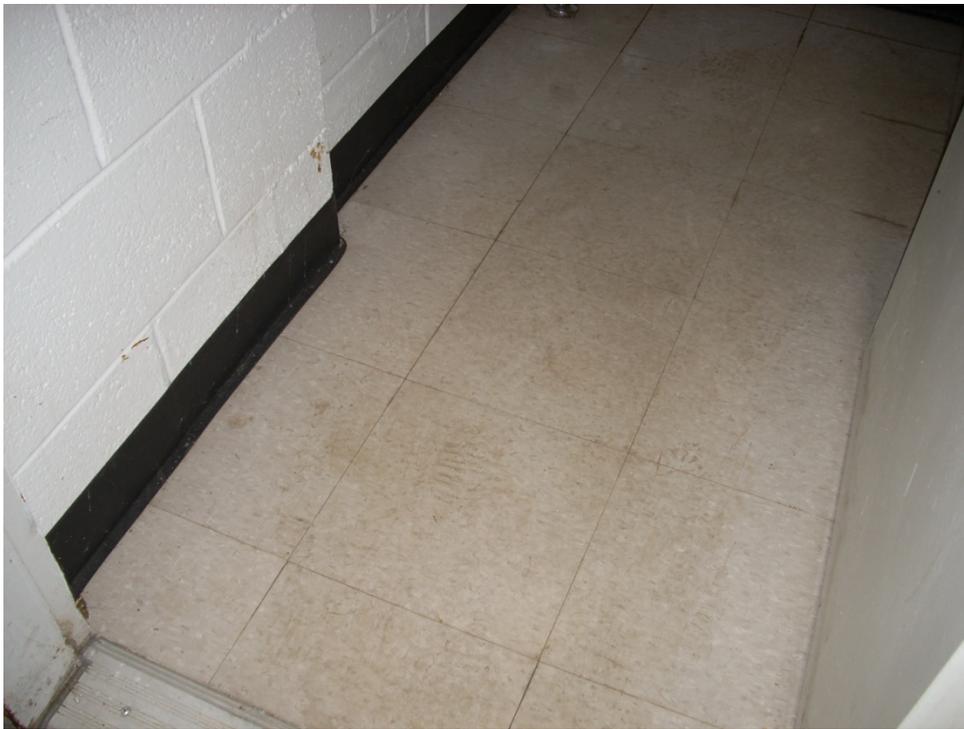
Pipe Fitting Insulation
Sample 18A



Black Sink Undercoating
Sample 19



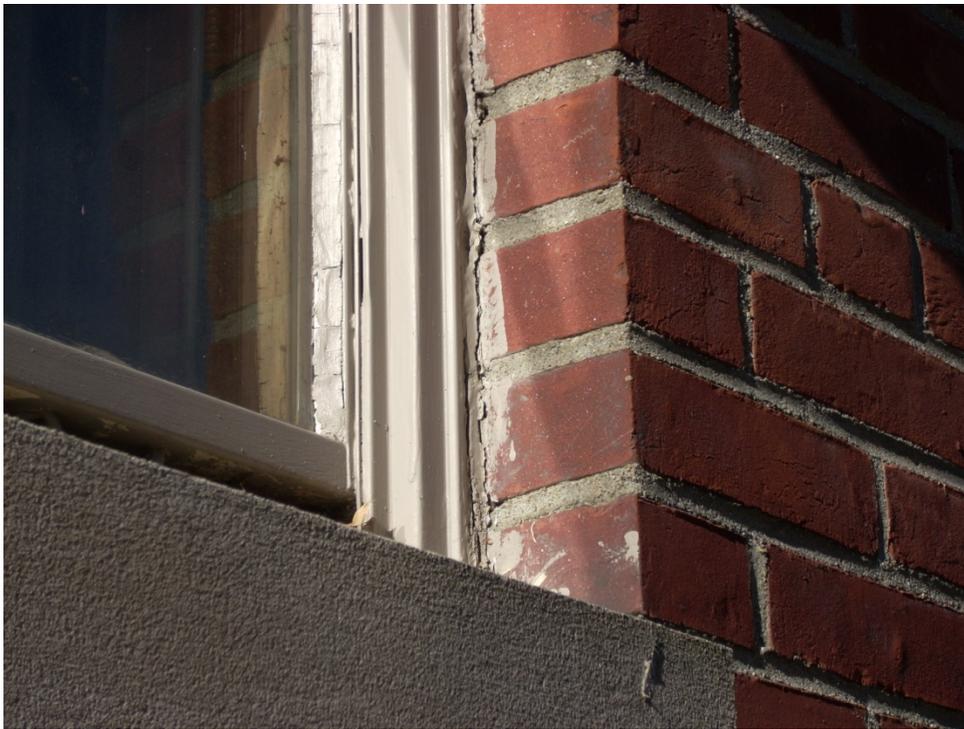
12"x12" Gray Floor Tile
Sample 20A



12"x12" Beige Speckled Floor Tile Mastic
Samples 23A



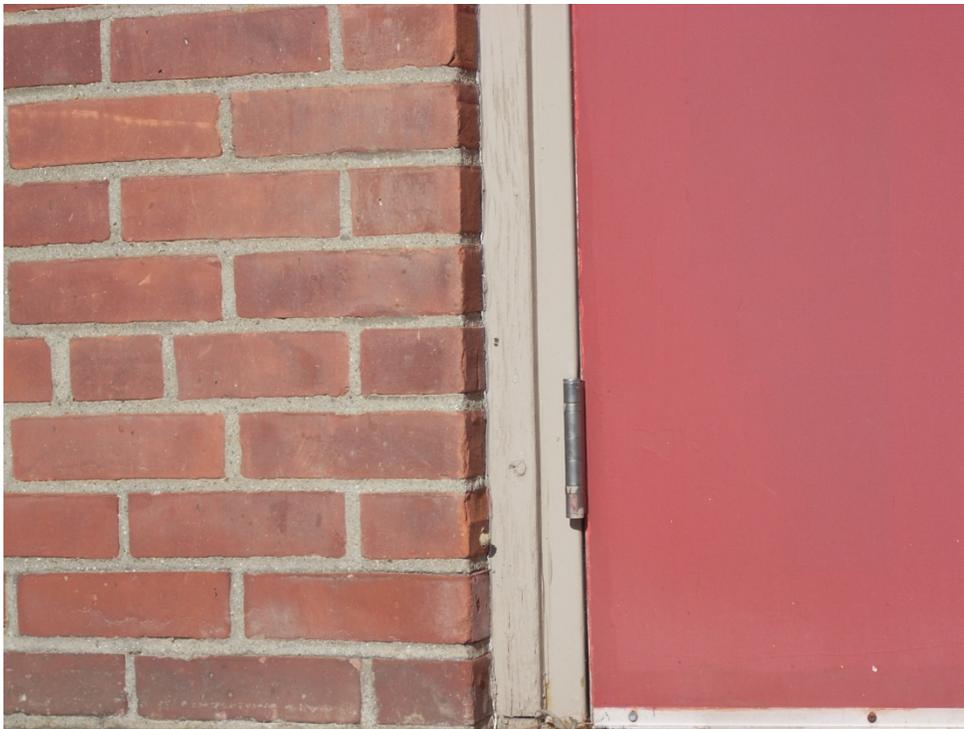
Residual Black Mastic
Sample 28A



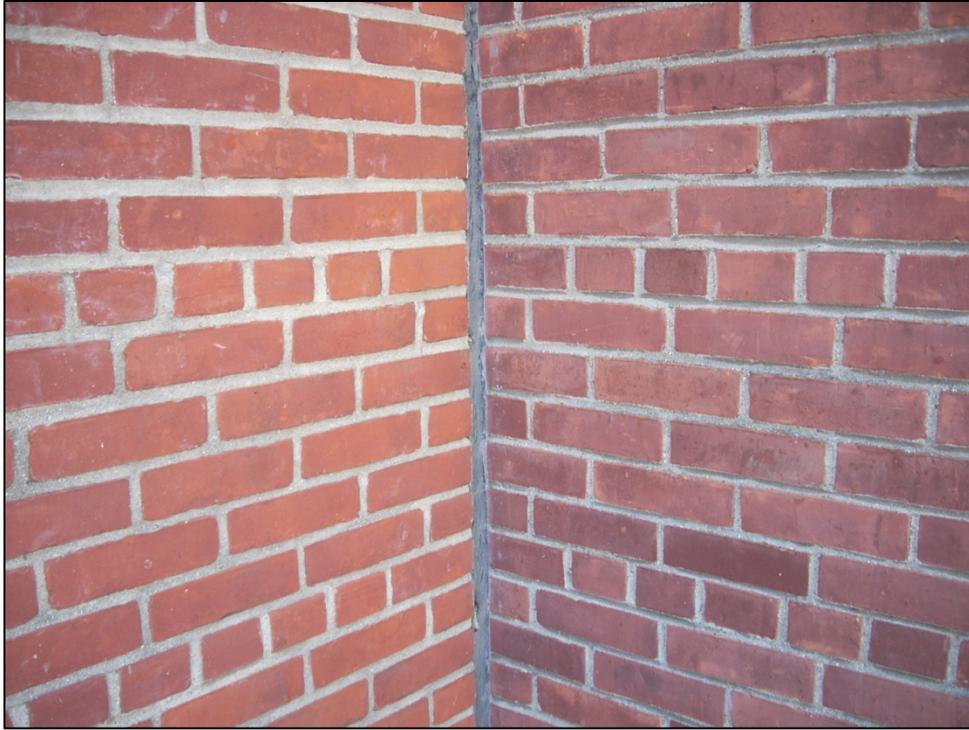
Window Glazing
Sample 29A



Window Caulking
Sample 30A



Door Caulking
Sample 31A



Expansion Joint Caulking
Sample 34A



Pipe Insulation Identified in Previous Survey Confirmed

Appendix D

Representative Photographs of Non-Intact
Lead Containing Paint,
Greater than 1.0 mg/cm²