

**TERMINAL BUILDING REHABILITATION PROJECT
&
TERMINAL ASBESTOS ABATEMENT PROJECT**

**MARSHALL MEMORIAL AIRPORT
STATE BLOCK GRANT NO. 13-018B-1
BMcD Project No. 76127**

ADDENDUM NO. 1

May 5, 2015

Addendum No. 1 consists of the following clarifications, changes, or additions as received from Bidders and questions at the pre bid meeting.

Attachments:

1. Meeting Agenda: (3-pages)
2. Meeting Sign-In Sheet: (2-pages)
3. 95123 – ACOUSITC TILE CEILING, Page 3 clarification (1-page)
4. Abatement Report: (52-pages)

A. Terminal Building Rehabilitation Project: The following are responses to questions, clarifications, changes or additions from perspective Bidders:

1. **Changes:** The Bid opening has been changed to June 3, 2015, 2:00 P.M. at the City Hall of the City of Marshall, Missouri, 214 North Lafayette, Marshall, Missouri 65340
2. **Question:** Is there an engineer's estimate for this project and can that value be provided?
RESPONSE: The estimated cost of construction is in the range of \$1M to \$1.2M.
3. **Clarification:** Regarding Acoustical Specification:
RESPONSE: Additional information has been included in section 95123 ACOUSTIC TILE CEILING, page 3, paragraph 2.03. See attachment.
4. **Question:** What is the thickness of the existing roof system?
RESPONSE: Weathercraft Inc. conducted a limited site investigation regarding this item. The information is as sampled (from top to top) within the south roof only is as follows:
PVC membrane (mechanically attached)
½" OSB board (mechanically attached)
3-4ply asphalt roof with gravel (hot asphalt attached)
½" fiberboard (hot asphalt attached)
Tapered EPS insulation (hot asphalt attached)
Concrete deck
5. **Question:** In regards to the ISO insulation scheduled for installation. Will a grade 2 (20psi) or a grade 3 (25psi) be required?
RESPONSE: Per specification section 075552 – MODIFIED BITUMINOUS MEMBRANE ROOFING, PAR. 2.07.C: The ISO insulation is to be 25 psi.
6. **Question:** What guidance or procedure is required for the installation of the ISO and cover board?
RESPONSE: The installation shall be hot asphalt per manufacturer's recommendation.

7. **Question:** What is the starting thickness of the ISO insulation at the gutters edge/scuppers?
RESPONSE: The insulation thickness is to be a minimum of 1-1/2-inches (R10). Reference drawing A-351, detail 7.
8. **Clarification:** Regarding the roofing installer's warranty. It is stated the roofing installer is to warrant the roof system for 20 years. Please clarify the intent of the project documents.
RESPONSE: The installer shall provide a 2-year installer's warranty. The manufacturer shall provide a product warranty of 20-years.
9. **Question:** Does exhaust fan EF-1 have an exhaust fan at the ceiling and a ventilator fan at the roof or is this just a fan at the ceiling?
RESPONSE: The shower exhaust fan (EF-1) is a ceiling mounted fan that is ducted to a roof cap/hood. The exhaust fan manufacturer should be able to provide this cap/hood as an accessory. The primary intent of this system is to serve as a sheet metal cap to prevent the intrusion of water and birds.
10. **Clarification:** Regarding hanging sanitary sewer pipe located in the basement. Is there a concern with the placement and support of the new sanitary sewer pipe?
RESPONSE: Assume the existing ceiling/floor structure will support the new sanitary sewer piping.
11. **Question:** Regarding the existing roof decking. Will the roof be stripped to the concrete deck?
RESPONSE: Yes, the existing roofing shall be stripped off to the concrete deck.
12. **Question:** If the General Contractor is listed as a MoDOT certified DBE, will it their work count towards the overall project goal?
RESPONSE: The General Contractor's participation will not apply to the DBE requirement for the project.
13. **Question:** HVAC. Can a schedule of Louvers be provided?
RESPONSE: Reference Drawing A651.
14. **Question:** Drawing M503: Regarding the condensate drain. The contract drawings indicate a 2-inch line? Can a smaller size be used?
RESPONSE: Provide a 2-inch condensate drain line. A smaller line is not acceptable.
15. **Question:** A concern was raised as to the condition of the existing ceiling (located in the basement) and whether the proposed sanitary sewer line (designated for the men's restroom) and shown as supported from the decking would have issues as shown.
RESPONSE: Assume the existing ceiling/floor structure will support the new sanitary sewer piping.

B. Terminal Building Asbestos Abatement Project: The following are responses to questions, clarifications, changes or additions from perspective Bidders:

1. **Comment:** The City of Marshall noted the following items:
a. Transfer Station: A transfer station is available in the city for asbestos.
2. **Question:** Can the abatement study prepared for this project be made available to Bidders?
RESPONSE: The abatement study is attached herein.
3. **Question:** Is the mastic scheduled to be removed?
RESPONSE: Yes.
4. **Question:** What is the date for the Asbestos Abatement Project Bid opening?
RESPONSE: The bid opening date is May 12, 2015.

Acknowledge receipt and acceptance of this addendum in the appropriate space below.

David G. Hadel, P.E.
Project Manager
Burns & McDonnell

Name of Firm

Signature of Authorized Person of Above Firm

Title

Date

Meeting Agenda



Meeting Subject: PREBID CONFERENCE
Meeting Date: April 28, 2015
Meeting Start Time: 1:30 PM
Project Name: Marshall Memorial Airport – Terminal Building Rehabilitation Project
AIP No.: MoDOT No. 13-018B-1
BMcD No.: 76127

1. Introductions

- A. City of Marshall Staff
- B. MoDOT Staff
- C. Burns & McDonnell

2. Review of Project

- A. Description of the scope of work:
- B. Contract time required to complete the project: 150 calendar days
- C. Liquidated damages \$1,800/calendar day

3. Bidding of Project

- A. Bid Opening: May 19, 2015, 2:00 P.M. at the City Hall of the City of Marshall, Missouri, 214 North Lafayette, Marshall, Missouri 65340.
- B. Anticipated Notice-To-Proceed: July 1 2015. Bids may be held up to 90 days from the Bid Opening.
- C. City reserves the right to award to the apparent lowest qualified bidder.
- D. Unbalanced Bids. Proposals are subject to consideration as being irregular if the proposal contains unit prices that are obviously unbalanced. Irregular proposals may be rejected.
- E. Award of project is contingent upon the Owner receiving Federal funding assistance under the Airport Improvement Program.
- F. A Bid Guarantee in the amount of 5% of the Bid is required at the time of the Bid submittal.

4. DBE Participation

- A. Participation Goal: 10.0%
- B. Good Faith Effort:
Bidder must demonstrate that they made good faith efforts to achieve participation with DBE firms. This requires that the bidder show that it took all necessary and reasonable steps to secure participation by certified DBE firms. Mere pro forma efforts will not be considered as a good faith effort.

Actions constituting evidence of good faith efforts are described in appendix A of 49 CFR Part 26. Such actions include but are not limited to:

- Soliciting DBE participation through all reasonable and available means. This may include public advertisements and phone calls/faxes to known certified DBE firms.
- Consult State Department of Transportation office to obtain a list of certified DBE firms.
- Selecting portions of work that increases the likelihood that DBE firms will be available to participate
- Providing DBE firms with sufficient information and time to review the project plans and specifications.
- Documenting all contacts with DBE firms. This includes name, address, phone number, date of contact and record of conversation/negotiation.

5. Buy American Certification

- A. Title 49 U.S.C., Section 50101

6. Keys to Construction

- A. Submittals
- B. Safety plan compliance and execution (access routes, barricade placement, signage)
- C. Coordination with Airport Manager and Engineer
- D. Construction start up (procurement period, site work)
- E. Removal operations
- F. Building
- G. Seeding
- H. Daily clean up

7. Owner Provided Items

- A. Issue NOTAMS when notified by the Contractor (72 hours in advance of need)

8. Miscellaneous Items

- A. Contractor staging areas
- B. Access routes

9. Clarifications

- A. This project is tax exempt.
- B. All questions or requests for clarifications must be submitted in writing (traditional mail, email and faxes) to Burns & McDonnell:
Attn: Cilicia Clarkson
9400 Ward Parkway
Kansas City, Missouri 64114
Fax: 816-822-3517
Email: cclarkson@burnsmcd.com
All requests for information shall be submitted to the Engineer no later than May 14, 2015, 5:00 P.M. (CDT).

Meeting Agenda



- 10. Federal and State Wage Rates Apply
- 11. Open Discussion

Meeting Attendance Sheet



Meeting Subject: PREBID CONFERENCE
 Meeting Date: April 28, 2015 Meeting Start Time: 1:30 PM
 Project Name: Terminal Building Rehabilitation Project & Asbestos Abatement Project
 AIP No.: 13-018B-1
 BMCD No.: 78127

Name / Title	Organization Name	Phone Number	E-Mail Address
JOEL HERMAN / ARCHITECT BURNS & MCD			
Connie Latimer / City Admin Marshall			
Brian Fischer / Project Manager	Weathercraft Inc.	573-685-0141	bf@wccrfg.com
BOB GERNER	BTR	9134921346	BOB.NSKLOS@GLOBAL.NET
Bill Bush	New Horizons	816 569-5256	William@new horizons-LLC.com
Mike Massey	Advanced Environmental	816 892-2200	mike.massey@ advancedmidwest.com
Steven Schaefer	Sunkelt Environmental	417 831-5052	sschaefer@sunkeltenv.com
Justin Dawson	Spartan Services	636-262 5904	jd.spartan@yahoo.com
Steve Bowyer	Beekman H.C. & Plumbing	660-631 2040	bbucstev@mmuonline.net
Mike Samson	G+S Electrical cont.	660-986 2240	gsec IL ATT.NET
DEAN PARSONS	GERKEN ENVIRONMENTAL	816-249 9004	DEAN@GERKENENVIRONMENTAL.COM
Jose Serrano	MAJOR ABATEMENT	816)874-4006	majorabatement@aol.com

Meeting Attendance Sheet (continued)



Page 2

<u>Name / Title</u>	<u>Organization Name</u>	<u>Phone Number</u>	<u>E-Mail Address</u>
Tamara Piths / MoDOT P.M.	MoDOT		Attended via CONFERENCE CALL
Tim Beerman	Beerman Htg + Ctg + Plbg	(661)-886-5867	j-beerman@sbcglobal.net
Dave Hadel	Burns & McDonnell	816-333-9400	dhadel@burnsmcd.com

5. Moldings of angle type with finish to match main and cross runners.
6. Provide plastic fixture trim where recessed fixtures occur of the types which would expose edges of acoustic panels in the finished Work.

2.03 ACOUSTIC UNIT MATERIALS:

A. General Requirements:

1. Conform to ASTM E84, flame-spread rating of 25 or less.
2. Surface design equivalent to those specified herein.
3. Surface finish of manufacturer's factory-applied white paint.

B. Lay-in Acoustic Panels:

1. Mineral fiber composition.
2. Size and Thickness: 24" x 24" x 5/8".
3. Tegular edges to extend below face of grid members.
4. Noise Reduction Coefficient Range: 0.70 or greater.
5. Surface Design: ~~Fine fissured~~

3/4"

Fine Textured

PART 3 - EXECUTION

3.01 PREPARATION:

- A. Coordinate with other trades to avoid potential interferences.
- B. Do not install acoustic units until installation areas meet the following requirements:
 1. Exterior openings closed and glazed.
 2. Roof is weathertight.
 3. Mechanical, electrical, and other Work above ceilings has been completed.
 4. Wet-work has been installed.
 5. Temperature and relative humidity have reached levels which comply with acoustic material manufacturer's recommendations.

3.02 INSTALLATION - SUSPENSION SYSTEMS:

A. General Requirements:

1. Conform to ASTM C636 and as specified herein.
2. Conform to grid layout as indicated in reflected ceiling plan. Balance border areas to avoid units of less than 1/2-unit width unless otherwise indicated.
3. Suspend hangers from structural supporting members only, except as otherwise specified herein.
 - a. Secure to structural and intermediate framing by attaching to metal clips designed for the type of member, or where possible, by looping and wire-tying directly to members.
4. Space hangers not more than 6 inches from each end and not more than 4'0" oc between ends of members to be supported. Provide additional hangers for support of fixtures and other items to be supported by the ceiling suspension system, and as required to prevent eccentric deflection or rotation of supporting runners.
5. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum which are not part of supporting structural or ceiling suspension system. Splay hangers only where required to miss obstructions and offset resulting horizontal force by bracing, countersplaying, or other equally effective means.
6. Install moldings where ceilings meet walls, partitions, and other vertical elements. Fasten to construction with applicable anchors. Miter-cut inside and outside corners. Do not bear supporting runners on walls or partitions.

B. Exposed Grid System:

1. Support main runners directly from hangers. Space 4'0" oc and as required to support acoustic panels and other Work resting in or on the ceiling. Join abutting sections



Marshall Municipal Airport Terminal Asbestos, Lead-Based Paint and Household Hazardous Materials Survey Report

City of Marshall, Missouri

Marshall T-Building

Project No. 76127

07/9/2014

Marshall Municipal Airport Terminal Asbestos, Lead-Based Paint and Household Hazardous Materials Survey Report

prepared for

**City of Marshall, Missouri
Marshall T-Building
Marshall, Missouri**

Project No. 76127

07/9/2014

prepared by

**Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri**

INDEX AND CERTIFICATION

City of Marshall, Missouri
Marshall Municipal Airport Terminal Asbestos, Lead-Based Paint and Household
Hazardous Materials Survey Report
Project No. 76127

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APPENDICES

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APPENDIX B – Lead-Based Paint Testing Report

APPENDIX C – Household Hazardous Material Inventory

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1.0 INTRODUCTION

This report summarizes the results of an asbestos, lead-based paint, and hazardous materials survey performed at the Marshall Municipal Airport Terminal, located at 1945 South Odell Street, Marshall, Missouri (Site). The survey was completed by Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) and Asbestos Consulting and Testing (ACT), under contract with Burns & McDonnell, and overseen by Burns & McDonnell personnel on May 27, 2014.

Supplemental asbestos samples were collected by Mr. Miles Tolbert of Burns & McDonnell under the direction of Mr. Mathew Crawford on June 17, 2014.

Professional judgment was used as the final authority to modify the sampling methods and procedures, as allowable, particularly regarding the location and number of samples collected, as well as the outline and format of this report. Although an effort was made to view all suspect materials, a possibility remains that within the survey area there are additional suspect materials that were not accessible or not visible during this survey, particularly above ceilings and behind existing walls. As a result, during renovation/demolition activities the contractor must be alert to isolate any newly found suspect material for sampling and properly communicate such information.

1.1 Inspector Credentials

Missouri-certified asbestos and lead inspector, Mr. Paul Van conducted the survey and collected the associated samples at the Site. The survey was overseen by Missouri-certified inspector, Mr. Mathew Crawford and the report reviewed and edited by Mr. Eric Wenger, Certified Industrial Hygienist (CIH) and AHERA-accredited asbestos project designer, both employed by Burns & McDonnell. Asbestos inspector accreditation was assured by following the EPA Model Accreditation Program (MAP) for asbestos training, as required by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA).

1.2 Functional Spaces Included in Survey

The areas included in this survey were grouped by the inspector(s) into functional spaces, which are areas/mechanical systems within the building that are used for a specific purpose and may be included in future renovation activities. Functional spaces included in this survey are listed below.

- All interior and exterior areas of the building were entered and visually inspected to determine the presence of suspect materials.

2.0 ASBESTOS SURVEY PROCEDURES

2.1 Asbestos Sampling Methods

The purpose of this asbestos survey was to identify whether asbestos is present in building areas that may be impacted by anticipated renovation activities. Therefore, this survey was primarily intended to meet the EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) for asbestos in 40 CFR 61, Subpart M, which requires, prior to demolition or renovation activities, that the owner is responsible to “thoroughly inspect the affected facility” for the presence of asbestos. Applicable portions of the Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926.1101 for asbestos were also followed. Other guidelines, including the ASTM E2356-10, *Standard Practice for Comprehensive Building Asbestos Surveys*, were reviewed and utilized as needed or noted in this report.

The accredited inspector(s) visited each functional space and identified materials suspect for asbestos that were uniform in color, texture, and apparent date of installation (per ASTM) as homogeneous areas.

Suspect materials are commonly grouped into one of three classifications:

- Thermal-system insulation (TSI)
- Surfacing materials
- Miscellaneous materials

Then, according to OSHA 29 CFR 1926.1101(K)(5)(B) and EPA MAP bulk sampling methods, the inspector(s) collected a sample(s) from each homogeneous area, and followed the MAP exception for TSI that ‘convenience sampling...may be more appropriate for...non-school buildings’.

Limited destructive sampling methods were used and this caused unavoidable minor impact and blemishes to facility structures and finishes. Amended water spray was used during sample collection to control dust and fiber release. Wetted bulk samples were placed into individual, sealable containers. The inspector(s) retained the samples until submittal to the laboratory.

An effort was made to collect at least three samples of each suspect, homogeneous material, unless the inspector determined that the material was small and appeared to be of a consistent, manufactured product (per ASTM standard) such that fewer samples would be representative, or where three would not be practical. Typically, no samples were collected of non-suspect materials such as: fiberglass, foam glass, rubber, glass, steel, concrete, porcelain, and wood. Sampling did not include cloth-like casing of electric wiring, which, if found, may be assumed positive; however, none of that type of wiring was seen during

the survey. In some cases where suspect materials are present, asbestos may be assumed or presumed without collecting bulk samples.

A total of 29 bulk samples were collected from the Site. Sampled items include: floor tile with mastic, vinyl sheet flooring, ceiling tile, window glazing, roof materials, plaster, thermal systems insulations (TSI), fire brick, and fire brick mortar. Bulk sample locations for each floor of the Site building are illustrated on Figure 1.

Samples were submitted to ACT testing laboratory for asbestos analysis. ACT is certified by the National Voluntary Laboratory Accreditation Program (NVLAP), Laboratory Number 101649, to perform laboratory analyses for bulk asbestos samples. ACT analyzed the bulk samples using polarized light microscopy (PLM) with dispersion staining in accordance with the EPA test method for the determination of asbestos in bulk samples (EPA 600/R-93/116). The laboratory provides the approximate percentage of asbestos fibers in the sample and also identifies the crystal form of the asbestos. Some collected samples had two or more layers, such as a material with adhesive, and the laboratory analyzed all layers.

2.2 Supplemental Asbestos Samples

On June 17, 2014 two (2) additional bulk samples were collected. The material sampled was fire brick mortar and the samples were submitted to Environmental Hazards Services, L.L.C (EHS) of Richmond, Virginia for asbestos analysis using PLM and EPA 600/R-93/116.

2.3 ACM Definitions

Materials are considered asbestos-containing material (ACM) if they contain greater than one- percent (1%) asbestos. ACM is categorized by the inspector as either:

- **Friable** (can be crumbled, pulverized, or reduced to powder by hand pressure, when dry),
- **Category I non-friable** (asbestos-containing packings, gaskets, resilient floor coverings and asphalt roofing products), or
- **Category II non-friable** (any other non-friable asbestos material).

3.0 LEAD-BASED PAINT SURVEY PROCEDURES

3.1 Paint Sampling Methods

Paint sampling was conducted to provide lead concentration information to renovation contractors' for worker safety, per OSHA 29 CFR 1926.62, and for information on the need for further waste testing prior to disposal. ACT conducted lead-based paint testing in general accordance with the US Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 7; Lead-Based Paint Inspection, 1997 Revision as well as US EPA regulation for lead-based paint actives under 40 CFR 745. Since this building is not currently and is not planned to be a child-occupied facility or target housing, the lead activity is not regulated under the EPA/HUD lead 'inspection' method but was modified and is better described as a 'survey'.

A radiation monitoring device (RMD) lead paint analyzer 1 (LPA-1), x-ray fluorescence (XRF) instrument was utilized to perform real-time testing on each of the painted components tested. The RMD-LPA-1, Serial Number 1581 was operated in quick mode and contains a Cobalt-57 radioactive source.

All unique areas/rooms in the Site were entered and visually inspected prior to testing. XRF tests were performed on different paint variations on the interior and exterior of the structure. A total of 87 tests were performed. Lead XRF testing locations are illustrated on Figure 2.

3.2 Lead Paint Definitions

According to ASTM E 1605-04, EPA and HUD, lead-based paint (LBP) is defined as paint having a lead content exceeding 1 mg/cm² (XRF) or a lead concentration exceeding 0.5% (or 5,000 ppm) by mass.

3.3 Lead Regulations

OSHA regulates worker exposure to lead and considers any concentration of lead in paint to be evaluated by the employer for potential risk. When disturbing lead, contractors must follow OSHA's Lead-in-Construction standard 29 CFR 1926.62, which includes developing a written lead compliance program if planning to disturb lead-containing paint.

EPA has established the National Emission Standard for Hazardous Air Pollutants (NESHAP), which includes lead. This standard requires certain controls to prevent lead contamination into the environment, including the directive to have 'no visible emissions' into the environment from a lead activity.

A determination of whether a material is hazardous waste due to lead content can be made by the contractor, using the toxic characteristic leaching procedures (TCLP) for lead. If the leachable lead

content of the waste stream exceeds 5 ppm, then the material is considered to be hazardous waste and must be taken by a hazardous waste transporter to a hazardous waste landfill, or if allowable by regulation, to a recycling company . If the lead material is not hazardous waste, it can typically be disposed in a Subtitle D, municipal solid waste landfill; however, the contractor must notify the landfill of the lead content of the waste to determine whether the landfill will accept it. Such testing is usually necessary particularly for loose chips of LBP. If lead-containing paint adheres to a building material, there typically is no requirement for further waste testing, but landfill notification/ pre-approval is still necessary.

4.0 HAZARDOUS MATERIALS INVENTORY

4.1 Hazardous Materials Survey Methods

The ACT inspector(s) walked through the building in an effort to visually identify and catalogue (no sampling) the quantity and location of polychlorinated biphenyl (PCB)-containing materials, mercury-containing materials, and other visible, hazardous materials.

PCBs are no longer commercially produced in the United States. However, PCBs are still present in products where PCBs have been used including electrical transformers, electrical lamp ballasts, hydraulic fluids, etc. The facility was surveyed for the potential presence of such materials. According to the EPA, suspect materials, including transformers and lighting ballasts, must be considered positive for PCBs unless the product is clearly marked with a label stating “NO PCBs” in the product.

Mercury can be present in liquid form, such as in switches/thermostats, which were identified in this survey. Electrical lamps including fluorescent tubes, neon, compact fluorescent lamps, high-pressure sodium, mercury vapor, metal halide, and high-intensity discharge (HID) lamps may contain mercury at levels classifying tube disposal as hazardous waste according to the EPA. Recently, lighting companies have begun producing “low-level” mercury lamps. These “green” lamps are typically marked by green end caps (Phillips brand) or green labeling (GE and Sylvania brand). Other lighting companies may have varying methods of identifying low-level mercury lamps. Lighting tubes were identified and counted.

Other miscellaneous materials, suspect to be hazardous, such as chemical containers that were not stored in a designated chemical cabinet or storage area, were not included in the inventory.

5.0 RESULTS

Results of the surveys are representative of conditions on the day(s) of sampling. There is a possibility that other materials may be discovered during future activities.

5.1 Asbestos Results

The ACM Survey report, including tabular data summarizing the ACM that was identified by PLM analysis, is presented in Appendix A. As indicated in Appendix A, friable TSI ACM and non-friable ACM was identified during the survey of the Site. Friable TSI ACM included approximately 15 three-inch mudded joint fittings and approximately 35 linear feet (lf) of six-inch pipe insulation. Non-friable ACM included approximately 356 square feet (sf) of nine-inch by nine-inch green floor tile and associated mastic, approximately 50 sf of nine-inch by nine-inch grey floor tile and associated mastic, approximately 154 sf of mastic overlain by 12-inch by 12-inch floor tile, and approximately 5,000 sf of roof decking. Material quantities presented in Appendix A are considered to be estimates only.

Laboratory results of the supplemental fire brick mortar samples are provided in Appendix D and were found to be non-fibrous and no asbestos was detected.

5.2 Lead-Based Paint Results

The Lead-Based Paint Testing Report, including tabular data summarizing XRF testing, is presented in Appendix B. Numerous components tested around the exterior of the Site indicated lead concentrations greater than or equal to 1 milligram per square centimeter (mg/cm²).

5.3 Hazardous Materials Results

A summary of the hazardous materials, and associated quantities identified during the survey is presented in Appendix C. During the survey of the Site, the following household hazardous materials were noted:

- Fluorescent light bulbs: Approximate Quantity 98
- Ballasts associated with fluorescent light fixtures: Approximate Quantity 49
- Mercury thermostats: Approximate Quantity 3

6.0 RECOMMENDATIONS

This survey has identified the location and presence of asbestos-containing materials (ACM) and other miscellaneous, hazardous materials in the building.

Retain a copy of this survey report for future reference and update by the building owner.

In the future, if a specific remediation or demolition project scope of work is developed, a project-specific specification is recommended to be prepared for the project, and included in the construction project manual.

6.1 Asbestos Recommendations

According to the OSHA asbestos standard, the following persons must be notified of these results, either in writing or by documented personal communication, such as a training class:

- Prospective contractors bidding for work, who may have contact with these materials;
- Employees in the building who will work in or adjacent to these materials (i.e. custodians, maintenance personnel, etc.);
- Tenants who may occupy areas containing such material;

If the asbestos is to remain in place, then the building owner is responsible to implement the following requirements for their employees working in the building. If asbestos is to remain in place, it is recommended to develop a written asbestos procedure (or performance specification), similar to an asbestos management plan for the building, such as recommended by the EPA publication Managing Asbestos in Place, 20T-2003 (“Green Book”) and the EPA MAP training for Asbestos Management Planners. Since this is not a school building, a management plan is not required and does not have to follow the prescribed regulatory outline, but may be helpful to provide recommended response actions for the asbestos remaining in place.

If the asbestos is to be removed, ensure that the asbestos abatement contractor is responsible for implementing the following asbestos requirements.

Perform all asbestos work according to applicable sections in the following regulations including:

- OSHA 29 CFR 1910.1001 and/or 1926.1101 (Asbestos standard for General Industry and/or Construction);

- Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA); Asbestos Worker Protection rule (which applies the OSHA asbestos rules to government employees); and the National Emission Standards for Hazardous Air Pollutants (NESHAP);
- Department of Transportation (DOT) regulations on the labeling, packaging, and transport of ACM waste requirements as outlined in a project specification.

6.1.1 OSHA Asbestos Recommendations

The following additional actions are required by the OSHA asbestos regulations.

According to OSHA, all asbestos exposure must be regulated. OSHA has specific work practice standards for friable and nonfriable Category I and Category II asbestos containing materials.

1. Determine the OSHA asbestos Class of work.
 - a. Class I – activities that involve the removal of TSI and surfacing ACM and PACM.
 - b. Class II – activities involving the removal of ACM which is not TSI or surfacing.
 - c. Class III – repair and maintenance operations where ACM, including TSI and surfacing, is likely to be disturbed.
 - d. Class IV – maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris from Class I, II, or III activities.
2. Regulated areas: All class I, II, and II asbestos work must be conducted within regulated areas as detailed by OSHA.
3. Exposure Assessment: Where employees have a potential exposure to asbestos fibers, an asbestos competent person must conduct full-shift and 30-minute personal air monitoring to measure employee exposure to fibers.
4. Engineering and work practice controls: For every type of asbestos disturbance, follow the OSHA methods of compliance detailed in 29 CFR 1926.1101(g) or 1910.1001(f). This section provides requirements on which type of work practices are acceptable, and which are prohibited for each Class of asbestos work.
5. Provide adequate respiratory protection, personal protective equipment (PPE), and hygiene facilities for employees who may be exposed to asbestos fibers.

6. Inform employees who may be exposed to asbestos and provide employee-asbestos training appropriate to the OSHA Class of asbestos work.
7. Establish housekeeping requirements specific to the building to prevent release of asbestos fibers during routine housekeeping and maintenance activities.
8. Establish a medical surveillance program for all employees who must wear a respirator for protection against asbestos and for those who will conduct Class I, II, or III asbestos work for 30 or more days per year or who are exposed above the permissible exposure limit.
9. Maintain required exposure and medical records as prescribed by OSHA.
10. Designate an asbestos competent person, having the qualifications and authorities for ensuring worker safety and health as stipulated by OSHA.

6.2 Lead-Based Paint Recommendations

For any amount of lead, OSHA requires that employees are to be protected from lead hazards according to OSHA 1926.62 Lead in Construction standard.

- Avoid saw cutting, torching, welding, or abrasive blasting of the paint coatings during the demolition process in order to reduce the potential for worker exposure to lead (OSHA 1926.62)
- Demolition debris need not be tested prior to disposal, so long as they are not chipped, shredded, milled, ground, mulched or similarly processed to enhance their leachability prior to disposal. Unprocessed wastes may be disposed of in either a sanitary or a demolition landfill, but first confirm with state regulations.

6.3 Hazardous Materials Recommendations

Since the scope of renovation work is not known at this time, written procedures (or performance specification) are recommended to be prepared to outline options and requirements for handling hazardous materials.

Mercury-containing light bulbs and thermostats, as well as PCB-containing lighting ballasts are considered part of the building and need to be properly handled by employees and/or contractors. The following provides basic guidelines for the mercury and PCB materials, which are to be detailed elsewhere in a written procedure or specification.

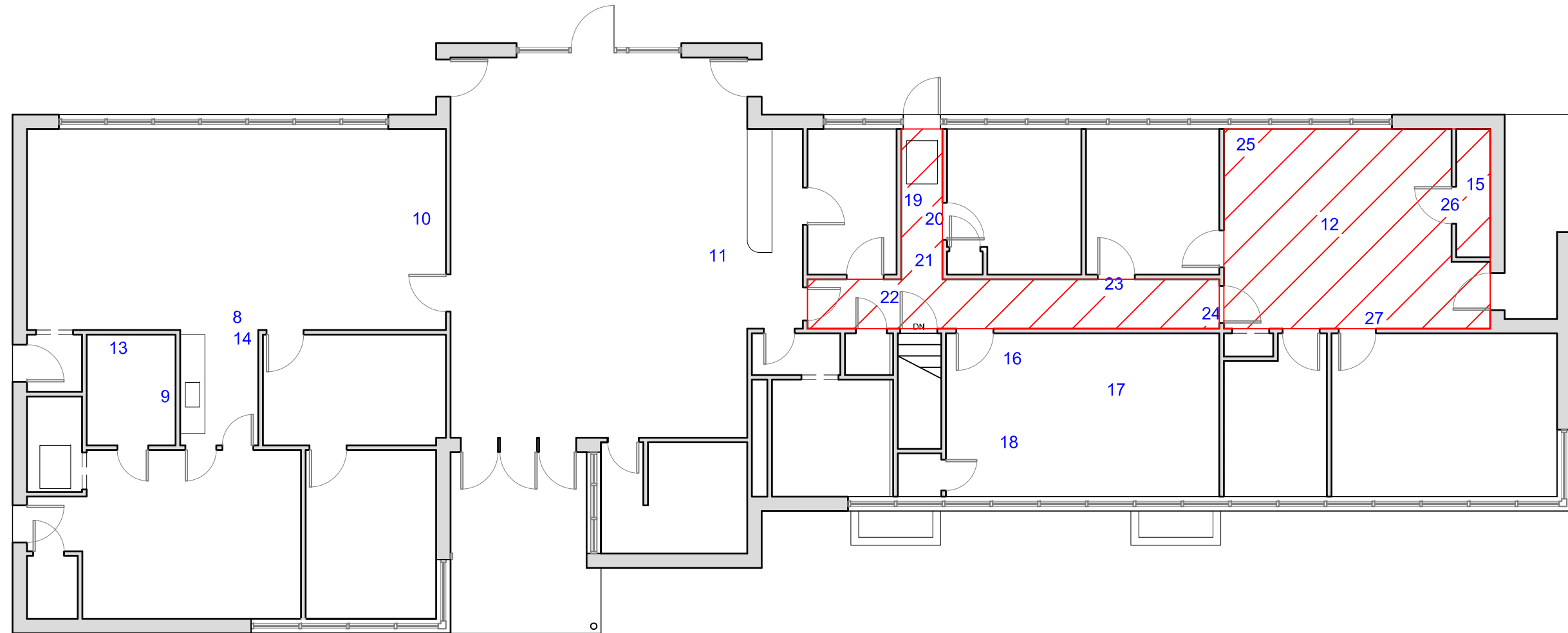
If the lighting fixtures will be removed or disturbed during renovation or demolition the carefully remove and package the mercury-containing lamps to prevent breakage during handling and transport. Manage the lamps under the Universal Waste Rule, and applicable portions incorporated by reference of 40 CFR

Part 273. Do not manage lamps as hazardous waste unless lamps are broken. Transport lamps for recycling. Recyclers outside of the state may also be used as long as they have valid permits, certifications, or other authorization from the state to receive hazardous lamps. Properly label the containers then ship the lamps according to U.S. DOT requirements. Do not dispose of the lamps in a sanitary landfill or in a construction & demolition landfill.

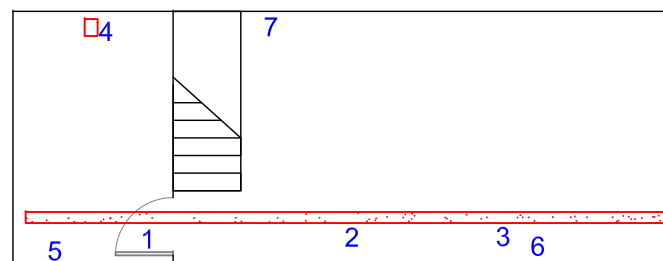
Perform PCB-related work in accordance with 40 CFR 761. Ballasts without a “No PCB” label shall be assumed to contain PCBs and containerized for transport and disposal. Carefully remove and package PCB-containing ballasts in accordance with applicable regulations for transportation to prevent breakage or leakage. If any PCB-containing ballasts are leaking, package separately to adequately adsorb leakage. Store PCB materials in containers approved by DOT (49 CFR 178) for PCBs. Affix labels to PCB waste containers in accordance with DOT and EPA (40 CFR 273).

Federal regulations 40 CFR 761, and 40 CFR 263 require that generators, transporters, commercial storers, and disposers of PCB waste possess U.S. EPA identification numbers. Unless sending to a recycler (preferred) verify that the activity has a U.S. EPA generator identification number for use on the Uniform Hazardous Waste manifest. Contractor must immediately report to owner any PCB spills on the ground, building, or water and initiate PCB spill cleanup as soon as possible, wearing appropriate personal protective equipment.

FIGURES



MAIN FLOOR PLAN



APPROXIMATE BASEMENT FLOOR PLAN

LEGEND

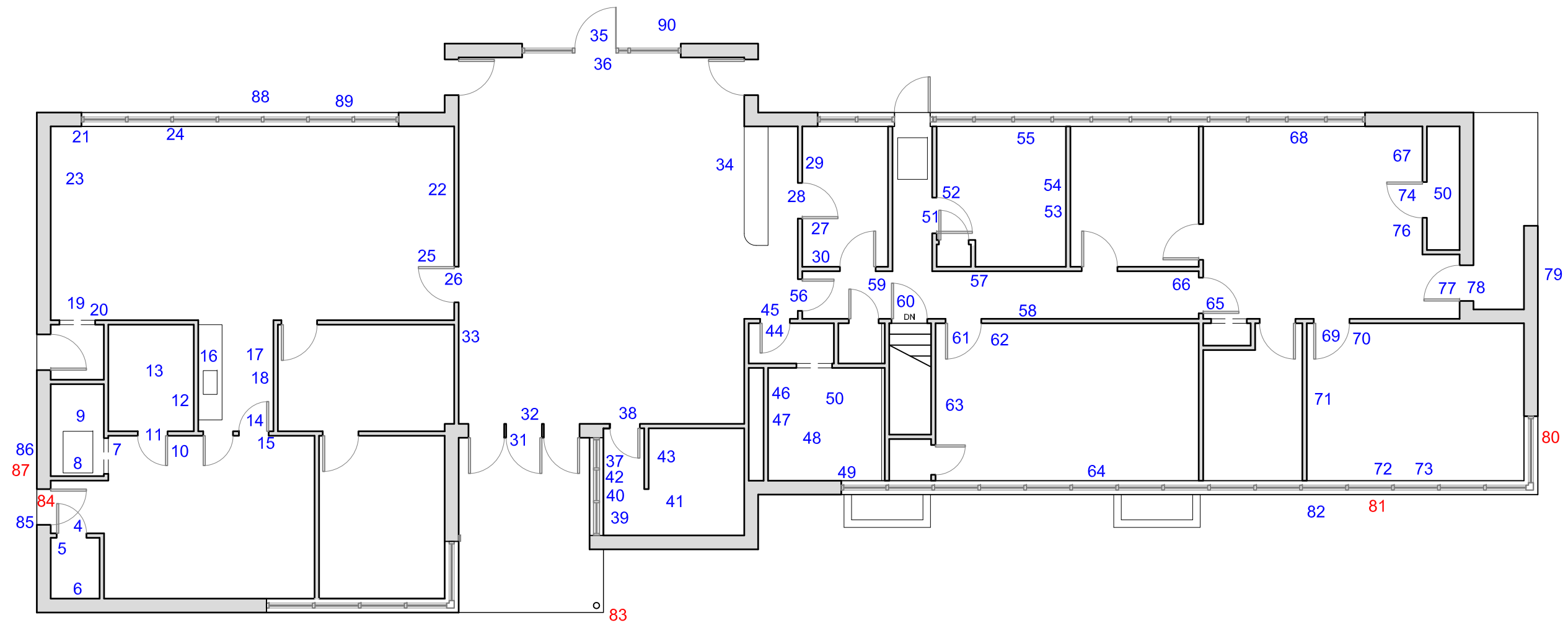
- 5 ASBESTOS SAMPLE LOCATION
- THERMAL SYSTEMS INSULATION (>1% ASBESTOS; NOT TO SCALE)
- FLOOR TILE AND/OR MASTIC (>1% ASBESTOS)

NOTE:

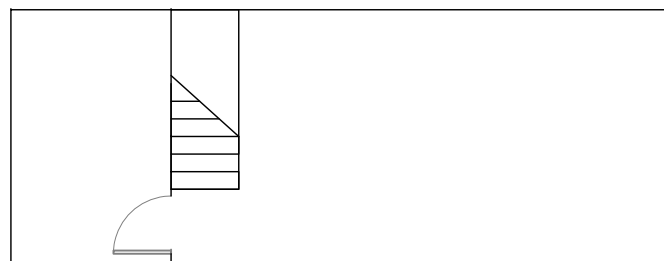
Sample 28 was collected from the roof decking and contained >1% asbestos.



Figure 1
Asbestos Sample Locations
Marshall Municipal Airport
Terminal
Marshall, Missouri



MAIN FLOOR PLAN



APPROXIMATE BASEMENT FLOOR PLAN

LEGEND

5

LEAD X-RAY FLUORESCENCE TEST LOCATION
(TEXT RED WHEN LEAD CONCENTRATION IS \geq
1 MILLIGRAM PER CUBIC CENTIMETER)

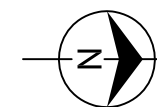


Figure 2
Lead X-Ray Fluorescence Test
Locations
Marshall Municipal Airport
Terminal
Marshall, Missouri

APPENDIX A
Asbestos Containing Material Survey Report

ACT

14953 W. 101st Terrace
Lenexa, Kansas 66215
(913) 492-1337 • Fax (913) 492-1392

June 10, 2014

Mr. Matt Crawford
Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114

Re: Asbestos-Containing Material Survey Report – Marshall Airport Terminal
1945 South Odell, Marshall, Missouri

Dear Matt,

Asbestos Consulting and Testing, Inc. (ACT) has completed the asbestos-containing material survey for the building referenced above.

The survey was performed on June 6, 2014 by ACT representatives, EPA accredited and State of Missouri certified asbestos inspectors, Mr. Paul Van.

Following the completion of the survey and sampling activities, the collected samples were submitted to the NVLAP accredited, ACT testing laboratory for analysis utilizing polarized light microscopy with dispersion staining.

The results of the material sampling laboratory analysis indicate the following sampled building materials tested positive and are considered **asbestos-containing materials (ACM)**:

- Friable **3" Mudded Joint Fittings**** – located in the basement: Approximate Quantity: 15 each
- Friable **6" Pipe Insulation**** – located in the basement: Approximate Quantity: 35 LF
- Non-friable **9"x9" Green Floor Tile*** – located in the hall near HVAC unit #2: Approximate Quantity: 50 SF
- Non-friable **Residual Floor Tile Mastic*** (associated 12"x12 Lt. Tan Floor Tile tested negative) – located in the main hall: Approximate Quantity: 154 SF
- Non-friable **9"x9" Gray Floor Tile*** – located in the pilot's lounge, electrical closet and flight testing office closet: Approximate Quantity: 356 SF

- Non-friable **Roof Decking*** – located on the roof: Approximate Quantity: 5,000 SF

**Please note, that nonfriable, ACM, such as the floor tile, floor tile mastic, and roof decking only needs to be abated prior to demolition activities that may disturb and render it friable by means such as sanding, grinding, cutting or abrading.*

*** Please note, that friable ACM, such as the pipe insulation and mudded joint fittings, needs to be abated by a State of Missouri licensed asbestos abatement contractor prior to demolition or renovation, if activities may disturb the materials.*

Please find the attached *Asbestos Inspection Data Table* for sample material locations.

Please contact me with any questions you may have regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Van', enclosed within a faint rectangular border.

Paul B. Van

Attachments: Asbestos Inspection Data Table
Bulk Sample Analysis Report



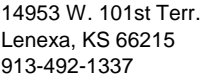
14953 W. 101st Terr.
Lenexa, KS 66215
913-492-1337

ASBESTOS INSPECTION DATA TABLE

Client: Burns & McDonnell
Address: 9400 Ward Parkway
City: Kansas City, Missouri 64114

Survey Location: Marshall Regional Airport
Address: 1945 S. Odell, Marshall, MO
Inspector: Paul Van
Date: June 6, 2014

Location	Material Description	Quantity	Asbestos	Friable	Sample #	General Notes
Basement	3" Mudded Joint Fittings	15 Each	Yes	Yes	1	
					2	
					3	
Basement	6" Pipe Insulation	35 LF	Yes	Yes	4	
					5	
					6	
Basement	Plaster	NA	No	NA	7	
Civil Air Patrol Meeting Rm.	Plaster	NA	No	NA	8	
Supply Closet	Plaster	NA	No	NA	9	
Civil Air Patrol Meeting Rm.	1'x1' Ceiling Tiles	NA	No	NA	10	
Main Lobby	1'x1' Ceiling Tiles	NA	No	NA	11	
Pilot Lounge	1'x1' Ceiling Tiles	NA	No	NA	12	
CAP Store Room	Fire Brick	NA	No	NA	13	
Civil Air Patrol Meeting Rm.	Fire Brick	NA	No	NA	14	
South End Electrical Closet	Fire Brick	NA	No	NA	15	
Operations Office	Tan Vinyl Sheet Flooring	NA	No	NA	16	
Operations Office	Tan Vinyl Sheet Flooring	NA	No	NA	17	
Operations Office	Tan Vinyl Sheet Flooring	NA	No	NA	18	
HVAC Area in Hallway	9"x9" Green Floor Tile / Mastic	50 SF	Yes/Yes	No	19	
					20	
					21	
Main Hallway	12"x12" Lt. Tan Floor Tile / Mastic	154 SF	No/Yes	No	22	
					23	
					24	



14953 W. 101st Terr.
Lenexa, KS 66215
913-492-1337

ASBESTOS INSPECTION DATA TABLE

Client: Burns & McDonnell
Address: 9400 Ward Parkway
City: Kansas City, Missouri 64114

Survey Location: Marshall Regional Airport
Address: 1945 S. Odell, Marshall, MO
Inspector: Paul Van
Date: June 6, 2014

[illegible]

ACT

14953 W. 101st Terrace
Lenexa, Kansas 66215
913-492-1337 * fax 913-492-1392

June 9, 2014

Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

PROJECT: 1945 S. Odell, Marshall, MO
REPORT NO. B-59089

Enclosed please find results for bulk samples submitted to our laboratory for asbestos analysis from the above referenced project.

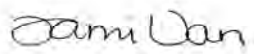
The asbestos analysis was performed using Polarized Light Microscopy (PLM) with dispersion staining in accordance with the EPA test method for the determination of asbestos in bulk samples, EPA/600/R-93/116. If the sample(s) submitted was inhomogeneous (layered), the components of sub-samples were analyzed and reported separately. The asbestos fiber type and percentage are reported. The method of measurement is based on calibrated visual estimation. The data provided herein is related only to those samples submitted for analysis. Samples comprised of **greater than one percent (1%) asbestos** are to be considered an asbestos containing material.

Verification by PLM point counting is available upon request. Due to limitations of the PLM microscope and the matrix of floor tile, any floor tile sample found to contain NO asbestos may be verified by TEM analysis upon the client's request. An additional fee will apply.

This report may not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, without the written approval of ACT.

If you have any questions, please contact me at 913-492-1337.

Respectfully submitted,



Tami L. Van
Laboratory Director



NVLAP Lab Code: 101649

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
 Project Name: 1945 S. Odell, Marshall, MO
 Project No.:

REPORT NO.: **B-59089**
 RUSH TAT _____

Date collected: 6/6/2014
 Collected by: Paul Van

Submitted by: Paul IVan
 Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: <u>1</u>		Location of Material: <u>Mudded joint fitting</u>			
Layer No.: _____		Description of Material: <u>Gray fibrous chalky</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	20	Fibrous glass	20	Bulk/Binder	60

Sample No.: <u>2</u>		Location of Material: <u>Mudded joint fitting</u>			
Layer No.: _____		Description of Material: <u>Gray fibrous chalky</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	20	Fibrous glass	20	Bulk/Binder	60

Sample No.:	<u>3</u>	Location of Material:	<u>Mudded joint fitting</u>		
Layer No.:	<u> </u>	Description of Material:	<u>Gray fibrous chalky</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	20	Fibrous glass	20	Bulk/Binder	60

Sample No.: <u>4</u>		Location of Material: <u>Pipe insulation</u>		
Layer No.: <u> </u>		Description of Material: <u>White fibrous chalky</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	35	Cellulose	3	Bulk/Binder 62

Sample No.:	5	Location of Material:	Pipe insulation		
Layer No.:		Description of Material:	Gray fibrous chalky		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	25	Cellulose	5	Bulk/Binder	50
		Fibrous glass	20		

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: <u>6</u>		Location of Material: <u>Pipe insulation</u>		
Layer No.: _____		Description of Material: <u>White fibrous chalky</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	35	Cellulose	3	Bulk/Binder 62

Sample No.: <u>7</u>		Location of Material: <u>Plaster</u>		
Layer No.: _____		Description of Material: <u>Brown rocky cementitious</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	trace	Bulk/Binder 99.9

Sample No.: <u>8</u>		Location of Material: <u>Plaster</u>		
Layer No.: _____		Description of Material: <u>Brown rocky cementitious / white chalky</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Sample No.: <u>9</u>		Location of Material: <u>Plaster</u>		
Layer No.: _____		Description of Material: <u>Brown rocky cementitious / white chalky</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Sample No.: <u>10</u>		Location of Material: <u>1x1 ceiling tile</u>		
Layer No.: _____		Description of Material: <u>Brown fibrous / paint</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	97	Bulk/Binder 3

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: 11		Location of Material: 1x1 ceiling tile		
Layer No.:		Description of Material: Brown fibrous / paint		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	97	Bulk/Binder 3

Sample No.: 12		Location of Material: 1x1 ceiling tile			
Layer No.:		Description of Material: Brown fibrous / paint			
Asbestos Fiber Type	Percentage	Non-Asbestos Fiber Type	Percentage	Non-Fibrous Percentage	
NONE DETECTED		Cellulose	97	Bulk/Binder	3

Sample No.: 13		Location of Material: Fire brick		
Layer No.:		Description of Material: White fibrous brittle chalky		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	3	Bulk/Binder 97

Sample No.: 14		Location of Material: Fire brick		
Layer No.:		Description of Material: White fibrous brittle chalky		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	3	Bulk/Binder 97

Sample No.: 15		Location of Material: Fire brick		
Layer No.:		Description of Material: White fibrous brittle chalky		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	3	Bulk/Binder 97

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: <u>16</u>	Location of Material: <u>Linoleum</u>			
Layer No.: <u>1</u>	Description of Material: <u>Tan flat smooth pliable</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Sample No.: <u>16</u>	Location of Material: <u>Backing</u>			
Layer No.: <u>2</u>	Description of Material: <u>Gray compact fibrous</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose 75		Bulk/Binder 15
		Fibrous glass 10		

Sample No.: <u>17</u>	Location of Material: <u>Linoleum</u>			
Layer No.: <u>1</u>	Description of Material: <u>Tan flat smooth pliable</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Sample No.: <u>17</u>	Location of Material: <u>Backing</u>			
Layer No.: <u>2</u>	Description of Material: <u>Gray compact fibrous</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose 75		Bulk/Binder 15
		Fibrous glass 10		

Sample No.: <u>18</u>	Location of Material: <u>Linoleum</u>			
Layer No.: <u>1</u>	Description of Material: <u>Tan flat smooth pliable</u>			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: 18		Location of Material: Backing			
Layer No.: 2		Description of Material: Gray compact fibrous			
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
NONE DETECTED		Cellulose	75	Bulk/Binder	15
		Fibrous glass	10		

Sample No.: 19		Location of Material: 9x9 floor tile		
Layer No.: 1		Description of Material: Green flat smooth hard		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	10			Bulk/Binder 90

Sample No.: 19		Location of Material: Mastic		
Layer No.: 2		Description of Material: Black tarry		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	5			Bulk/Binder 95

Sample No.: 20		Location of Material: 9x9 floor tile		
Layer No.: 1		Description of Material: Green flat smooth hard		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	10			Bulk/Binder 90

Sample No.:	20	Location of Material:	Mastic		
Layer No.:	2	Description of Material:	Black tarry		
Asbestos Fiber Type	Percentage	Non-Asbestos Fiber Type	Percentage	Non-Fibrous Percentage	
CHRYSTILE	5			Bulk/Binder	95

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.:	21	Location of Material:	9x9 floor tile		
Layer No.:	1	Description of Material:	Green flat smooth hard		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	10			Bulk/Binder	90

Sample No.:	<u>21</u>	Location of Material:	<u>Mastic</u>		
Layer No.:	<u>2</u>	Description of Material:	<u>Black tarry</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	5			Bulk/Binder	95

Sample No.:	<u>22</u>	Location of Material:	<u>12x12 floor tile</u>		
Layer No.:	<u>1</u>	Description of Material:	<u>Lt tan flat smooth hard</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
NONE DETECTED				Bulk/Binder	100

Sample No.:	<u>22</u>	Location of Material:	<u>Mastic</u>	
Layer No.:	<u>2</u>	Description of Material:	<u>Black tarry</u>	
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	5			Bulk/Binder 95

Sample No.:	<u>23</u>	Location of Material:	<u>12x12 floor tile</u>		
Layer No.:	<u>1</u>	Description of Material:	<u>Lt tan flat smooth hard</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
NONE DETECTED				Bulk/Binder	100

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: 23
Layer No.: 2

Location of Material: Mastic
Description of Material: Black tarry

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	5			Bulk/Binder 95

Sample No.: 24
Layer No.: 1

Location of Material: 12x12 floor tile
Description of Material: Lt tan flat smooth hard

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Sample No.: 24
Layer No.: 2

Location of Material: Mastic
Description of Material: Black tarry

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	5			Bulk/Binder 95

Sample No.: 25
Layer No.: 1

Location of Material: 9x9 floor tile
Description of Material: Gray flat smooth hard

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	10			Bulk/Binder 90

Sample No.: 25
Layer No.: 2

Location of Material: Mastic
Description of Material: Black tarry

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	5			Bulk/Binder 95

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
 Project Name: 1945 S. Odell, Marshall, MO
 Project No.:

REPORT NO.: **B-59089**
 RUSH TAT _____

Date collected: 6/6/2014
 Collected by: Paul Van

Submitted by: Paul Ivan
 Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: 26		Location of Material: 9x9 floor tile		
Layer No.: 1		Description of Material: Gray flat smooth hard		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	10			Bulk/Binder 90

Sample No.:	<u>26</u>	Location of Material:	<u>Mastic</u>		
Layer No.:	<u>2</u>	Description of Material:	<u>Black tarry</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	5			Bulk/Binder	95

Sample No.:	<u>27</u>	Location of Material:	<u>9x9 floor tile</u>		
Layer No.:	<u>1</u>	Description of Material:	<u>Gray flat smooth hard</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	10			Bulk/Binder	90

Sample No.:	<u>27</u>	Location of Material:	<u>Mastic</u>		
Layer No.:	<u>2</u>	Description of Material:	<u>Black tarry</u>		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>	
CHRYSTILE	5			Bulk/Binder	95

Sample No.: 28		Location of Material: Roof deck		
Layer No.: 1		Description of Material: Black fibrous tar		
<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
CHRYSTILE	25	Cellulose	40	Bulk/Binder 25
		Hair	10	

Asbestos Bulk Analysis Laboratory Report

Client Name: Burns & McDonnell
Project Name: 1945 S. Odell, Marshall, MO
Project No.:

REPORT NO.: **B-59089**
RUSH TAT _____

Date collected: 6/6/2014
Collected by: Paul Van

Submitted by: Paul Ivan
Date sample submitted: 6/6/2014

ANALYST: Tami Van

Analysis date: 6/9/2014

Sample No.: 28
Layer No.: 2

Location of Material: Roof deck
Description of Material: Brown fibrous

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED		Cellulose	100	Bulk/Binder 0

Sample No.: 29
Layer No.: _____

Location of Material: Roof flashing
Description of Material: Gray putty

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
NONE DETECTED				Bulk/Binder 100

Sample No.: _____
Layer No.: _____

Location of Material: _____
Description of Material: _____

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
				Bulk/Binder

Sample No.: _____
Layer No.: _____

Location of Material: _____
Description of Material: _____

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
				Bulk/Binder

Sample No.: _____
Layer No.: _____

Location of Material: _____
Description of Material: _____

<u>Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Asbestos Fiber Type</u>	<u>Percentage</u>	<u>Non-Fibrous Percentage</u>
				Bulk/Binder

APPENDIX B
Lead-Based Paint Testing Report

ACT

14953 W. 101st Terrace
Lenexa, Kansas 66215
(913) 492-1337 • Fax (913) 492-1392

June 6, 2014

Mr. Matt Crawford
Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114

Re: Limited Interior XRF Lead-based Paint Testing – Marshall Airport Terminal
1945 South Odell, Marshall, Missouri

Dear Matt,

Asbestos Consulting and Testing, Inc. (ACT) is pleased to provide this letter report of findings associated with the lead-based paint testing performed at the referenced location on June 6, 2014. This testing was performed to determine the extent of lead-based paint on components in the building's interior and exterior.

Lead-Based Paint Testing

ACT representative and certified lead paint inspector Mr. Paul Van conducted lead-based paint testing of the structure by initially viewing the areas of the structure. This testing was performed in general accordance with the US Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 7; Lead-Based Paint Inspection, 1997 Revision as well as USE.P.A. Regulations for lead-based paint activities under 40 CFR 745, Requirements for Lead-Based Paint Activities in Target Housing.

ACT utilized a Radiation Monitoring Device (RMD) Lead Paint Analyzer 1 (LPA-1), x-ray fluorescence (XRF) instrument to perform real-time testing assays on each of the painted components tested. The RMD-LPA-1, serial number 1581 was operated in quick mode and contains a Cobalt-57 radioactive source.

A total of eighty-seven (87) XRF tests were performed on different paint variations on the interior and exterior of the structure.

Conclusions

The results of this testing indicate **several wood and metal exterior** components testing indicated lead in amounts greater than or equal to 1 mg/cm² in paint

Other painted surfaces may contain levels of lead below 1.0 mg/cm², which could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping or sanding.

See attached Lead-based Paint Survey Results Sheet for exact locations.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. B. Van', with a large, stylized initial 'P'.

Paul B. Van

Attachments – Lead-based Paint Survey Results

ACT

14953 W. 101st Terr.
Lenexa, KS 66215
913-492-1337

XRF: RMD/1 - SERIAL #1581

KANSAS RADIATION LICENSE #: 22-B587-01

TESTING DATE: June 4, 2014

TESTING LOCATION 1945 S. Odell
Marshall, Missouri

INSPECTOR: Paul Van

TEST #	BUILDING LOCATION	COMPONENT	COLOR	SUBSTRATE	COND.	XRF READING (mgcm2)	LEAD PAINT
1	Calibration					1.0	N/A
2	Calibration					1.0	N/A
3	Calibration					1.0	N/A
4	Southeast Electrical Closet	Door	Brown	Wood	Fair	0.2	No
5	Southeast Electrical Closet	Door Frame	White	Wood	Fair	0.2	No
6	Southeast Electrical Closet	East Wall	Tan	Plaster	Fair	0.4	No
7	HVAC Room	Door Frame	White	Wood	Fair	0.4	No
8	HVAC Room	East Wall	White	Plaster	Fair	0.2	No
9	HVAC Room	Ceiling	White	Plaster	Fair	0.2	No
10	Supply Closet	Door	Brown	Wood	Fair	0.3	No
11	Supply Closet	Door Frame	Gray	Wood	Fair	0.1	No
12	Supply Closet	North Wall	Tan	Plaster	Fair	0.1	No
13	Supply Closet	Ceiling	Tan	Plaster	Fair	0.2	No
14	Old Kitchen	Door to Exterior	Brown	Wood	Good	0.2	No
15	Old Kitchen	Door Frame	White	Wood	Good	0.0	No
16	Old Kitchen	South Wall	White	Plaster	Good	0.3	No
17	Old Kitchen	Ceiling	White	Plaster	Good	0.2	No
18	Old Kitchen	Covebase	White	Wood	Good	0.5	No
19	Civil Air Patrol Meeting Room	French Doors	Brown	Wood	Good	0.2	No
20	Civil Air Patrol Meeting Room	Door Frame	White	Wood	Good	0.1	No
21	Civil Air Patrol Meeting Room	West Wall	White	Plaster	Good	0.3	No
22	Civil Air Patrol Meeting Room	North Wall	Brown	Paneling	Good	0.1	No
23	Civil Air Patrol Meeting Room	Cabinets	Brown	Wood	Good	0.0	No
24	Civil Air Patrol Meeting Room	Window Frame	Brown	Wood	Good	0.0	No
25	Civil Air Patrol Meeting Room	Door to Exterior	Brown	Wood	Good	0.0	No
26	Civil Air Patrol Meeting Room	Door Frame	Brown	Wood	Good	0.1	No

ACT

14953 W. 101st Terr.
Lenexa, KS 66215
913-492-1337

XRF: RMD/1 - SERIAL #1581

KANSAS RADIATION LICENSE #: 22-B587-01

TESTING DATE: June 4, 2014

TESTING LOCATION 1945 S. Odell
Marshall, Missouri
INSPECTOR: Paul Van

TEST #	BUILDING LOCATION	COMPONENT	COLOR	SUBSTRATE	COND.	XRF READING (mgcm2)	LEAD PAINT
27	Office	Door	Brown	Wood	Good	0.2	No
28	Office	Door Frame	Brown	Wood	Good	0.2	No
29	Office	South Wall	Brown	Paneling	Good	0.1	No
30	Office	East Wall	Cream	Plaster	Good	0.3	No
31	Main Lobby	Door	Brown	Wood	Good	0.1	No
32	Main Lobby	Door Frame	Brown	Wood	Good	0.1	No
33	Main Lobby	South Wall	White	Plaster	Good	0.3	No
34	Main Lobby	Counter	White	Wood	Good	0.0	No
35	Main Lobby	Door to Tarmac	Brown	Wood	Good	0.1	No
36	Main Lobby	Door Frame	Brown	Wood	Good	0.1	No
37	Ladie's Room	Door	Brown	Wood	Good	0.3	No
38	Ladie's Room	Door Frame	Brown	Wood	Good	0.1	No
39	Ladie's Room	South Wall	White	Plaster	Good	0.3	No
40	Ladie's Room	South Wall	White	Ceramic Tile	Good	0.7	No
41	Ladie's Room	Ceiling	White	Plaster	Good	0.7	No
42	Ladie's Room	Window Frame	White	Wood	Good	0.4	No
43	Ladie's Room	Stall	White	Metal	Good	0.3	No
44	Men's Room	Door	Brown	Wood	Good	0.2	No
45	Men's Room	Door Frame	Brown	Wood	Good	0.1	No
46	Men's Room	East Wall	White	Plaster	Good	0.1	No
47	Men's Room	East Wall	White	Ceramic Tile	Good	0.8	No
48	Men's Room	Ceiling	White	Plaster	Good	0.3	No
49	Men's Room	Window Frame	White	Wood	Good	0.0	No
50	Men's Room	Stall	White	Metal	Good	0.2	No
51	Ops Office	Door	Brown	Wood	Good	0.1	No
52	Ops Office	Door Frame	Brown	Wood	Good	0.0	No

ACT

14953 W. 101st Terr.
Lenexa, KS 66215
913-492-1337

XRF: RMD/1 - SERIAL #1581
KANSAS RADIATION LICENSE #: 22-B587-01

TESTING DATE: June 4, 2014

TESTING LOCATION 1945 S. Odell
Marshall, Missouri
INSPECTOR: Paul Van

TEST #	BUILDING LOCATION	COMPONENT	COLOR	SUBSTRATE	COND.	XRF READING (mgcm2)	LEAD PAINT
53	Ops Office	North Side	White	Plaster	Good	0.1	No
54	Ops Office	North Side	White	Wood	Good	0.1	No
55	Ops Office	Window Frame	White	Wood	Good	0.1	No
56	Hallway	Door Frame - South End	Brown	Wood	Good	0.1	No
57	Hallway	West Wall	White	Plaster	Good	0.0	No
58	Hallway	East Wall	White	Plaster	Good	0.1	No
59	Hallway	Door to Basement	White	Wood	Good	0.2	No
60	Hallway	Door Frame	White	Wood	Good	0.2	No
61	Manager's Office	Door	White	Wood	Good	0.2	No
62	Manager's Office	Door Frame	White	Wood	Good	0.2	No
63	Manager's Office	South Wall	White	Plaster	Good	0.1	No
64	Manager's Office	Window Frame	White	Wood	Good	0.1	No
65	Pilot's Lounge	Door	White	Wood	Good	0.3	No
66	Pilot's Lounge	Door Frame	Brown	Wood	Good	0.1	No
67	Pilot's Lounge	North Side	Brown	Paneling	Good	0.1	No
68	Pilot's Lounge	Window Frame	Brown	Wood	Good	0.1	No
69	Flight School Office	Door	Brown	Wood	Good	0.0	No
70	Flight School Office	Door Frame	Brown	Wood	Good	0.0	No
71	Flight School Office	South Wall	Cream	Paneling	Good	0.0	No
72	Flight School Office	East Wall	Cream	Plaster	Good	0.0	No
73	Flight School Office	Window Frame	Cream	Wood	Good	0.2	No
74	Electrical Closet	Door	Brown	Wood	Good	0.0	No
75	Electrical Closet	Door Frame	Brown	Wood	Good	0.0	No
76	Electrical Closet	North Side	Green	Plaster	Good	0.3	No
77	Exterior - North	Door	White	Wood	Good	0.1	No
78	Exterior - North	Door Frame	White	Wood	Good	0.2	No

ACT

14953 W. 101st Terr.
Lenexa, KS 66215
913-492-1337

TESTING DATE: June 4, 2014

TESTING LOCATION 1945 S. Odell

Marshall, Missouri

INSPECTOR: Paul Van

Paul Van

XRF: RMD/1 - SERIAL #1581

KANSAS RADIATION LICENSE #: 22-B587-01

[illegible]

APPENDIX C
Household Hazardous Materials Inventory

ACT

14953 W. 101st Terrace
Lenexa, Kansas 66215
(913) 492-1337 • Fax (913) 492-1392

June 6, 2014

Mr. Matt Crawford
Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114

Re: Household Hazardous Waste Inventory – Marshall Airport Terminal
1945 South Odell, Marshall, Missouri

Dear Matt,

Asbestos Consulting and Testing, Inc. (ACT) has completed the inventory for household hazardous waste for the building referenced above.

The inventory was performed on June 6, 2014 by ACT representative, Mr. Paul Van.

Visual Inspection

The general condition of the vacant building was good. It is well maintained and the paint is in generally poor and peeling condition.

During the inventory ACT noted the following household hazardous waste materials in the building:

- Florescent light bulbs: Approximate Quantity 98
- Ballasts associated with florescent light fixtures: Approximate Quantity 49
- Mercury Thermostats: approximate Quantity 3

Please feel free to contact me with any questions you may have regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Van", with a stylized flourish at the end.

Paul B. Van

APPENDIX D
Supplemental Asbestos Sample Laboratory Results



Environmental Hazards Services, L.L.C.

7469 Whitepine Rd

Richmond, VA 23237

Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Report Number: 14-06-03142

Client: Burns & McDonnell Engineering
9400 Ward Pkwy.
Kansas City, MO 64114

Received Date: 06/25/2014

Analyzed Date: 06/28/2014

Reported Date: 06/30/2014

Project/Test Address: 76127; Marshall, MO

Client Number:

26-3514

Fax Number:

816-822-3494

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
14-06-03142-001	Sample 1 CAP		Gray Granular; Homogeneous	NAD	100% Non-Fibrous
14-06-03142-002	Sample 2 CAP		Gray Granular; Homogeneous	NAD	100% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 26-3514
Project/Test Address: 76127; Marshall, MO

Report Number: 14-06-03142

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
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QC Sample: 7-M1-1991-3

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Vickie Holmes

Reviewed By Authorized Signatory:



Tasha Eaddy
QA/QC Clerk

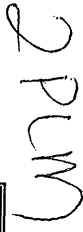
The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected



THE

THE

APPENDIX E
Certifications and Accreditations

Expiration Date **7/24/2014**

Certificate Number: 7001071713MOIR10076

Training Date: **7/17/2013**

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102

Phone (573) 751-4817

Paul B. Van

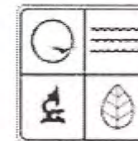
has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

7/25/2013

Date

Kyra L Moore

Director of Air Pollution Control Program



STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD OCCUPATION LICENSE REGISTRATION

Issued to:

PAUL VAN

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

Lead Inspector
Category of License

Issuance Date: **9/29/2013**
Expiration Date: **9/29/2015**
License Number: **030929-300000164**



Gail Vasterling
Acting Director
Department of Health and Senior Services

Expiration Date **6/20/2014**
Training Date: **6/6/2013**

Certificate Number: 7011060613MOIR16187

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources

P.O. Box 176
Jefferson City, MO 65102
Phone (573) 751-4817

Mathew D. Crawford

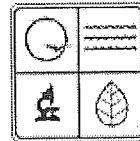
has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

6/21/2013

Date

Kyra Z Moore

Director of Air Pollution Control Program





Burns & McDonnell World Headquarters
9400 Ward Parkway
Kansas City, MO 64114
Phone: 816-333-9400
Fax: 816-333-3690
www.burnsmcd.com

Burns & McDonnell: Making our clients successful for more than 100 years