### REQUEST FOR PROPOSAL

### MIDWESTERN STATE UNIVERSITY PURCHASING & CONTRACT MANAGEMENT DEPARTMENT 3410 Taft Blvd., Daniel Bldg., Rm. 202

Wichita Falls, TX. 76308

**BID NUMBER** 

**BID TITLE** 

735-17-8174

**Demolition Multiple Buildings** 

## BIDS WILL BE RECEIVED BY SEALED BID OR EMAIL UNTIL: 2:00 P.M..

March 3, 2017:

the office's of the Director of Purchasing & Contract Management, 3410 Taft Blvd., Daniel Bldg., Rm. 202
Wichita Falls, TX. 76308

#### GENERAL TERMS AND CONDITIONS

These General Terms and Conditions apply to all offers made to Midwestern State University (herein after referred to as "University") by all prospective vendors (herein after referred to as "Bidders") on behalf of Solicitations including, but not limited to, Invitations to Bid and Request for Quotes.

#### INSTRUCTIONS FOR SUBMITTING BIDS

Review this document in its entirety. Be sure your bid is complete, and double check your bid for accuracy.

Questions requiring only clarification of instructions or specifications will be handled through the email process. If any questions results in a change or addition to this Bid, the change(s) and addition(s) will be addressed to all vendors involved as quickly as possible in the form of an addendum. It is the responsibility of the bidder to view the posting on the MSU purchasing web page located at http://mwsu.edu/purchasing/.

Sign the Vendor's Affidavit Notice and return with your bid.

**BIDDERS SHALL SUBMIT BID ON THE FORM PROVIDED, SIGN THE VENDOR AFFIDAVIT, AND RETURN ENTIRE BID PACKET.** In the event of inclement weather and the University Offices are officially closed on a bid opening day, bids will be received until 2:00 p.m. of the next business day. At which time said bids will be privately opened.

## BIDS SUBMITTED AFTER THE SUBMISSION DEADLINE SHALL BE RETURNED UNOPENED AND WILL BE CONSIDERED VOID AND UNACCEPTABLE.

SUCCESSFUL VENDOR WILL BE NOTIFIED BY EMAIL OR MAIL. All responding vendors will receive written notification regarding the outcome of the award. Bid tabulations will be posted to the MSU Purchasing we page.

#### PLEASE NOTE CAREFULLY

# THIS IS THE <u>ONLY APPROVED INSTRUCTION</u> FOR THIS BID. ITEMS BELOW APPLY TO AND BECOME PART OF TERMS AND CONDITIONS OF BID. ANY EXCEPTIONS THERETO MUST BE IN WRITING.

- Each bid shall be emailed or placed in a separate envelope completely and properly identified with the name and number of bid. Bids must be in the Purchasing Office <u>BEFORE</u> the hour and date specified.
- 2. **QUOTE F.O.B. DESTINATION.** If otherwise, show exact cost to deliver. Bid unit price on quantity specified extend and show total. In case of errors in extension, UNIT prices shall govern. Bids subject to unlimited price increase will not be considered.
- 3. Bids **MUST** give full firm name and address of the bidder. Failure to manually sign bid will disqualify it. Person signing bid should show TITLE or AUTHORITY TO BIND HIS FIRM IN A CONTRACT.
- 4. Bids **CANNOT** be altered or amended after opening time. Any alterations made before opening time must be initialed by bidder or his authorized agent. No bid can be withdrawn after opening without the approval by the Vice-President of Administration & Finance based on a written acceptable reason.
- 5. The University is exempt from State Sales Tax and Federal Excise Tax. **DO NOT INCLUDE TAX IN BID.**
- 6. Any catalog, brand name or manufacturer's reference used in a bid invitation is descriptive-NOT restrictive-it is to indicate type and quality desired unless otherwise indicated. Bids on brand of like nature and quality will be considered. If bid is based on other than referenced specifications, proposal must show manufacturer, brand or trade name, lot number, etc., of article offered. If other than brand(s) specified is offered, illustrations and complete description should be made part of the bid. If bidder takes no exception to specifications or reference data, he will be required to furnish brand names, numbers, etc., as specified.
- 7. Samples, when requested, must be furnished free of expense to the University. If not destroyed in examination, they will be returned to the bidder on request, at his

- expense. Each sample should be marked with bidder's name, address, and University bid number. **DO NOT ENCLOSE OR ATTACH SAMPLE TO BID.**
- 8. **Delivery:** Bid must show number of days required to make delivery to place material in receiving agency's designated location under normal conditions. Failure to state delivery time obligates bidder to complete delivery in 14 calendar days. A five-day difference in delivery promise may break a tie. Un realistically short or long delivery promises may cause bid to be disregarded. Consistent failure to meet delivery promises without valid reason may cause removal from bidder list. Delivery shall be made during normal working hours only, 8:00 a.m. to 5:00 p.m., unless prior approval for late delivery has been obtained from the Director of Purchasing.
- 9. If delay is foreseen, contractor shall give written notice to Director of Purchasing. The University has the right to extend delivery date if reasons appear valid. Contractor must keep University advised at all times of status of order. Default in promised delivery (without accepted reasons) or failure to meet specifications, authorizes the University to purchase supplies elsewhere and charge full increase in cost and handling to defaulting contractor.
- 10. All items proposed shall be new, in first class condition suitable for shipment and storage (Midwestern State University prefers recycled packaging whenever possible), unless otherwise indicated in bid. Verbal agreements to the University will not be recognized. All materials and services shall be subject to Purchaser's approval. Unsatisfactory materials will be returned at Seller's expense.
- 11. Written and verbal inquires pertaining to bids must give Bid Number and Commodity.
- 12. No substitutions or cancellations permitted without written approval of Director of Purchasing.
- 13. The University reserves the right to accept or reject all or any part of any bid, waive minor technicalities and award to the Bidder that bids to the Best Value to the University. The University reserves the right to award by item or by total bid. Prices should be itemized.
- 14. Consistent and continued tie bidding could cause rejection of bids by the University and/or investigation for Anti-Trust violations.
- 15. The contractor agrees to protect the University from claims involving infringement of patents or copyrights.
- 16. This is a Quotation inquiry only and implies no obligation on the part of the University. All costs quotations must include all the various features needed to satisfy the requirements. Note: No amounts will be paid for the items in this BID in excess of the amounts quoted.

- 17. **Award:** A written purchase order or notice of award mailed or otherwise furnished to the successful bidder within the time of acceptance specified in this package results in a binding contract without further action by either party.
- 18. **Variation in Quantity:** The University assumes no liability for commodities produced, processed or shipped in excess of the amount specified herein.
- 19. **Invoicing:** Bidder shall submit two (2) copies of an itemized invoice shoeing bid number and purchase order number to:

Midwestern State University Accounts Payable 3410 Taft Blvd. Wichita Falls, TX. 76308

- 20. **Payments:** The University, after receipt of completed order will make payment to the contractor within 30 days from the receipt of goods or invoice which ever is later. All partial shipment must be pre-approved by the Director of Purchasing. In the event of partial shipments the University is not required to make payments until the order is complete. Acceptance of and final payment for the item will be contingent upon satisfactory performance of the product received by the University.
- 21. **Discrimination:** In order to comply with the provisions of fair employment practices, the contractor agrees as follows; 1.) the contractor will not discriminate against any employee or applicant for employment because of race, sex, religion, handicap, or national origin; 2.) in all solicitations or advertisements for employees, the contactor will state that all qualified applicants will receive consideration without regard to race, color, sex, age, religion, handicap or national origin; 3.) the contractor will furnish such relevant information and reports as request by the University for the purpose of determining compliance with these regulations; and 4.) failure of the contractor to comply with these laws will be deemed a breach of contract and it may be cancelled, terminated or suspended in whole or in part.
- 22. **Assignment:** Any contract entered into pursuant to this request is not assignable, nor the duties thereunder, by either party without the written consent of the other party in the contract.
- 23. **Other Remedies:** In addition to the remedies stated herein, the University has the right to pursue other remedies permitted by law or in equity.
- 24. E-Verify: Contractor is responsible to verify all employees are approved by The Homeland Security E-Verify program.

#### REQUEST FOR PROPOSAL

#### DEMOLITION MULTIPLE BUILDINGS MIDWESTERN STATE UNIVERSITY

It is the intent of these specifications to describe the minimum requirements for **the above titled project** at Midwestern State University in sufficient detail to secure comparable bids.

Each bidder must confirm he fully understands these specifications and the University's needs and satisfies himself that he is cognizant of all factors relating to requirements contained in these specifications.

The bid analysis will include compliance to bid specifications, past performance with vendor, references, delivery time, which will have a weighted average of 30 percent and the overall cost to the university, which will have a weighted average of 70 percent. Midwestern State University reserves the right to consider deviations from these specifications.

Award of this bid will be contingent on availability of Midwestern State University funds.

References shall be included on this bid form. Three current customers with a comparable purchase shall be listed with complete name, address, telephone number and contact person.

Bids must be submitted on this form and the bidder shall return the entire bid/specification package which will constitute a contract equally binding between the bidder and Midwestern State University if bids accepted by the University. Each bid shall be placed in a sealed envelope or emailed, signed by a person having the authority to bind his/her firm in a contract.

This contract shall remain in effect until completion and acceptance by the University. Midwestern State University reserves the right to enforce the performance of this contract in any manner prescribed by law or deemed to be in the best interest of the University in the event of breach or default if this contract. Midwestern State University reserves the right to terminate the contract immediately in the event the successful bidder fails to make delivery in accordance with the specifications.

**Questions** concerning these specifications should be directed via email no later than February 22, 2017 to:

Stephen Shelley, Director of Purchasing and Contract Management 3410 Taft Blvd. Daniel Bldg. Rm. 202
Wichita Falls, TX. 76308
<a href="mailto:stephen.shelley@mwsu.edu">stephen.shelley@mwsu.edu</a>
(940) 397-4110

Midwestern State University may in it's sole discretion respond in writing to questions concerning this bid request. Only MSU responses made by formal written addendum to this proposal shall be binding and shall be posted on the MSU purchasing web site located at <a href="http://mwsu.edu/purchasing/">http://mwsu.edu/purchasing/</a>. Oral or other written interpretations or clarifications shall be without legal effect.

All bids meeting the intent of this invitation to bid will be considered for award. Bidders taking exception to the specifications, or offering substitutions, shall state these exceptions by attachment as part of the bid. The absence of such a list shall indicate that the bidder has not taken exception and shall hold the bidder responsible to perform in strict accordance with the specifications of the invitation. Midwestern State University reserves the right to accept any and all or none of the exception(s) / substitution(s) deemed to be in the best interest of the University.

<u>PRE-BID MEETING:</u> A *NON\_MANDATORY* pre-bid meeting will be held at **9:30 a.m. on Tuesday, February 14, 2017 starting at 2508 Hampstead**, This will be the only walk thru offered.

**Proposals** are to be sent via email or hand delivered to:

Stephen Shelley, Director of Purchasing and Contract Management 3410 Taft Blvd. Daniel Bldg. Rm. 202
Wichita Falls, TX. 76308
<a href="mailto:stephen.shelley@mwsu.edu">stephen.shelley@mwsu.edu</a>
(940) 397-4110

### SPECIFICATIONS RFP #735-15-8174

Please see specifications and drawing at the below Link under current bid opportunities listed under the RFP number:

http://mwsu.edu/purchasing/

Please supply a HUB Subcontracting Plan with your bid, which can be found at the below listed link: This is required if your bid is \$100,000 or above.

http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/

Please supply schedule and lead time for project with bid:

Supply an insurance certificate with your Bid.

Supply a W-9 With your Bid if new to Midwestern State University.

2005 Uniform General Conditions apply to this Bid and can be found at the below listed link: http://mwsu.edu/purchasing/contract-management

A Five Percent (5%) Bid Bond will required to accompany your Bid.

If awarded the project a Payment Bond will be required if your bid is \$25,000 or above.

If awarded the project a Performance Bond will be required if your bid is \$100,000 or above.

## Bid Breakdown and Timeframe

<b>BUILDING NAME</b>	ASBESTOS COST	# DAYS	DEMOLITION COST	# DAYS	LEAD COST	# DAYS
McGaha Building						
2508 Hampstead Ln						
2510 Hampstead Ln						
2512 Hampstead Ln						

Additive Alt		_
2525 Hampstead Ln		



## SECTION 2000 General and Specific Requirements for Abatement of Asbestos Containing Materials

#### For:

MULTIPLE BUILDING DEMOLITION

McGaha Building, 2508, 2510, 2512 Hampstead Lane

Additive Alternate: 2525 Hampstead

Lane

#### Owner:

Midwestern State University

3410 Taft Boulevard

Wichita Falls, TX 76308

Designed by: L. F. Skaggs AIC 105110

License Expires 05/09/2018

**Specification Date** 

Sunday, January 15, 2017

Flint Inspection Consulting Services, Inc.

P.O. Box 235 Burkburnett, TX 76354 (940) 569-4876 Fax (866) 469-0378

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Attachment 1 Certificate of Worker's Acknowledgement

Attachment 2 Project Manager Authorization Letter

Drawings of Asbestos Containing Materials for All Project Buildings

Asbestos Inspection reports for all buildings "SEPARATE ATTACHMENT"

#### **IMPORTANT NOTICE:**

This document is not designed to stand alone. It only covers the requirements for the removal and disposal of asbestos containing materials. Additional bid and contract requirements are covered in associated documents issued by the Owner. This document will be transmitted electronically and not all parts may be contained herein. Please refer to the above table as the attachments not included in this file are designated by the notation "SEPARATE ATTACHMENT FILE"

#### SECTION 2000 ASBESTOS ABATEMENT

#### **1.0 DOCUMENT EXPLANATION:**

1.1 These documents cover work to be conducted with regard to the complete removal and disposal of asbestos containing materials and asbestos contaminated materials, as shown on the specifications, drawings and contract documents, prepared by the Owner's Consultant, L. F. Skaggs, Individual Asbestos Consultant, herein referred to as the "Consultant". The specific requirements for this project will be specified within this document as designed by the Consultant.

#### **2.0 PROJECT NAME AND INFORMATION:**

- 2.1 Project Name and Location: "Multiple Building Demolition"
  - A. McGaha Building (Louis J Rodriguez & Comanche Trail, MSU Main Campus, Wichita Falls, Texas
  - B. 2508 Hampstead Lane, Wichita Falls, TexasC. 2510 Hampstead Lane, Wichita Falls, Texas
  - D. 2512 Hampstead Lane, Wichita Falls, Texas
  - E. (Additive Alternate 1) 2525 Hampstead Lane, Wichita Falls, Texas
- 2.2 Owner: Midwestern State University, 3410 Taft Boulevard, Wichita Falls, Texas 76308
- **2.3 RELATED DOCUMENTS:** Drawings and general provisions of the contract documents, other sections that apply to the work under this section. Specific references to required work will be listed in Subsection 9 as it relates to the drawings. As this project develops, changes may have to be made to the scope of the work to accommodate the needs of the Owner and the demolition design by the Architect. The referenced drawings are not for design of asbestos abatement containments but define the scope of work required by the Asbestos Abatement Contractor.

#### 3.0 DEFINITIONS AND STANDARDS

- **3.1 ASBESTOS ABATMENT CONTRACTOR:** Refers to the licensed asbestos abatement contractor selected for the project.
- **3.2 PRIME CONTRACTOR:** Refers to the contractor at risk selected by the Owner for the project.
- **3.3** OTHER CONTRACTOR: Refers to the other contractors selected for the mechanical and electrical work required by this project.
- **3.4 RELATED DOCUMENTS:** Drawings and general provisions of the contract documents, other sections that apply to the work under this section.
- 3.5 General Explanation: A substantial amount of specification language constitutes definitions for terms found in other contract documents, including the drawings. Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon. There are terms used in the project contract documents that are defined within these specifications. Definitions and explanations of this section are not necessarily complete, inclusive, nor exclusive, but are general for the work, to the extent they are not stated more explicitly in another element of the contract documents.
- **3.6** General Requirements: The provisions or requirements indicated herein apply to the entire scope of work under the project contract documents and, where so indicated, to other elements which are included in other project documents.
- **3.7** <u>Indicated:</u> The term "Indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications and to similar means of recording requirements in "as specified" are used in lieu of "indicated". The intended purpose is to aid the Contractor with document cross-references, and no limitation is intended except as specifically noted.

- **3.8** <u>Directed, Requested, etc.:</u> Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", required", "accepted", and "permitted" mean "directed by Owner's Representative", "requested by Owner's Representative", and similar phrases, and all such responses must be written and signed to carry contractual weight. No implied or written statement may be interpreted as extending the Owner Representative's authority or responsibility into the realm of the Contractor's responsibility for construction supervision.
- **3.9** Approve: Where used in conjunction with Owner Representative's response to submittals, change orders, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be limited to the responsibilities and duties granted the Owner Representative, under the clause of these specifications. In no case, and under no condition, will "approval" by the Consultant be interpreted as a release of the Contractor from his responsibilities in fulfilling the requirements of the contract documents, using state of the art techniques, and exercising due diligence.
- **3.10 Stop Work:** The Consultant shall have the authority to issue a stop work order when a serious problem arises, and a start work order when the problem is addressed to the satisfaction of the Consultant. A stop work order will only be issued as a last resort, when there is the potential for harm or asbestos exposure to any person or party, or if the Owner's property or business is jeopardized by the contract or subcontract work. Other reasons for issuing a stop work order may arise, and this paragraph is not meant to limit the use of stop work orders. All contractual scheduling lost because of the issuance of a stop work order, will be the contractor's responsibility.
- **3.11** <u>Asbestos Supervisor:</u> The Asbestos Supervisor is the abatement contractor's on site representative for the project. This person will generally be the competent person required by OSHA in §29 CFR 1924. This person must have received training under the requirements of NESHAP (§40 CFR 61 Subpart M), and be further licensed by the State of Texas as an Asbestos Abatement Supervisor.

#### 4.0 DEFINITIONS SPECIFIC TO ASBESTOS ABATEMENT:

- **4.1** <u>Aerosol:</u> A system consisting of particles, solid or liquid, suspended in air, that requires the use of some form of propellant to achieve atomization.
- **4.2** <u>Air Cell:</u> An Insulating material used in some thermal systems, which is comprised of corrugated cellulose fiber interwoven with asbestos fiber, and combined with polymer and refractory binders for structural strength.
- **4.3** <u>Air Monitoring:</u> The process collecting a measurable volume of air, straining the collected air through a suitable filter media, and using a phase contrast microscope (PCM) and the NIOSH 7400 dispersion statistics method to determine the amount of fibrous material collected on the filter media.
- **4.4** <u>Amended Water:</u> A surfactant (soap like substance) that is added to water in a 1/1 ratio, used as an aerosol, under high air pressure, to mitigate the dust and fiber concentrations that have become airborne in the course of demolition and abatement procedures.
- **4.5** <u>Asbestos:</u> The asbestiform varieties of Serpentine Group, Chrysotile, and the Amphibole Group, Riebeckite (Crocidolite), Cummingtonite Grunerite (Amosite), Anthophyllite, Actinolite, and Tremolite.
- **4.6** <u>Asbestos Abatement Contractor:</u> Any company or individual that conducts for the removal of asbestos containing materials and is responsible for all the work practices and procedures that anticipate or require the intentional disturbance of asbestos containing materials. The asbestos abatement Contractor must be currently licensed, according to the Texas Department of State Health Services, Texas Asbestos Health Protection Rules.
- **4.7** <u>Asbestos Containing Material (ACM):</u> Any material containing more than one (1%) percent of any of the listed asbestos minerals, or of any mixture of types of asbestos minerals are classified, under federal regulation, as an asbestos containing material.
- **4.8** <u>Asbestos Containing Waste Material:</u> Any material that has been contaminated, or is suspected of being contaminated with an asbestos containing material, must be treated as an asbestos containing material.

- **4.9** <u>Asbestos Disposal Bag:</u> A six (6) millimeter plastic bag used for the temporary storage and transportation of asbestos containing materials and asbestos contaminated waste materials.
- **4.10** <u>Project Site:</u> The term "project site" is defined as the locale available to Contractor in the performance of the work, either exclusively, or in conjunction with others, under the contract documents. The extent of project site is shown on the project drawings, and the trailer, disposal dumpster, material storage, and other Contractor considerations may be as indicated on the project drawings or modified by the Consultant.
- **4.11** <u>Furnish:</u> Except as otherwise defined, the term "furnish" is defined as "to supply and deliver to the project site, trained and licensed personnel in various disciplines, equipment, construction materials, portable toilets, disposal dumpsters, and any other items that are required to complete each phase of the project.
- **4.12** <u>Install:</u> Except as otherwise defined, the term "install" is used to describe all contractual operations at project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and all other similar operations, and any other operations that are required to complete each phase of the project.
- **4.13 Provide:** Except as otherwise defined, the term "provide" means to furnish and install all contractually required items, completely installed, tested, and ready for their intended use, that are required to complete each phase of the project.
- **4.14** <u>Installer:</u> The term "installer" is defined as the entity engaged by the Contractor or an approved subcontractor or subcontractors, engaged for performance of a particular unit of work at the project site. It is a general requirement that the "Installer" be expert and licensed, where applicable, in the operations they are engaged to perform, and approved by the Consultant. The Consultant will make all "Installer" qualification determinations, and such determinations will be final.
- **4.15** <u>Testing Laboratory:</u> The term "testing laboratory" is defined as an independent entity engaged to perform specific inspections or tests of the work, either at project site or elsewhere; and to report and (if required) interpret the results of those inspections or tests.
- **4.16** Consultant: The Consultant for the purpose of this document will be the assigned licensed Individual Asbestos Consultant of the asbestos consulting firm hired by the Owner to design the project, removal procedures and overall project oversight of the actions of the Asbestos Abatement Contractor. All air monitoring requirements and clearance sampling and determination will be the scope of work of the Consultant. Additional responsibilities are to document the activities of the project and to coordinate the work of the Asbestos Abatement Contractor with the work of the Owner and other contactors on the site. The Consultant shall act as an Owner Representative in regard to asbestos related activities.
- **4.17** Project Manager: This is a licensed Asbestos Project Manager that is under the direct supervision of the Consultant. The Project Manager will act as the full time representative of the Consultant during overall project activities, and shall report any needs to modify the work if the requirements of the contract are better served and will relay and record the modifications as needed. The Project Manager shall have complete authority to stop work on the project if the contract documents or specifications are being violated; the interests of the Owner are not being met, or if there is any serious safety violation. Under the authority of the Consultant, the Project Manager may conduct project documentation, pre-removal inspections, post removal inspections and collect all air quality sampling required under the duties of the Consultant.
- **4.18** <u>Authorized Visitor:</u> The Consultant will authorize the contents of the visitors list. The visitors list may include the asbestos abatement contractor and subcontractors, the building Owner, the Asbestos Consultant, Air Monitoring personnel, the Architect, Engineer, or a representative of any Federal, State and Local regulatory agency.
- **4.19** <u>Base bid:</u> The base bid shall include overhead, profit, labor, travel and lodging expenses, rental expenses, construction materials, asbestos disposal cost, and all and any miscellaneous expenses not stated herein. The base bid shall include all the contractual requirements and obligations, stated or implied that are called for in the drawings and specifications.

- **4.20 Barrier:** A wall, surface, tape, or other barrier fabricated according to the requirements of this set of specifications, with the intent of sealing or barring entry into one area from an adjoining area.
- **4.21** <u>Breathing Zone:</u> A persons breathing zone (hemisphere) forward of the shoulders, between the waist and chin, with a radius of approximately 6 to 9 inches.
- **4.22** <u>Certified Industrial Hygienist:</u> An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene (ABIH) and the American Industrial Hygiene Association (AIHA).
- **4.23** <u>Contractor:</u> The general use of the term "Contractor" under these specifications indicates the Asbestos Abatement Contractor. Any other mention of the term "Contractor" may indicate a subcontracting company or individual involved in project work, under the control of the Asbestos Abatement Contractor and approved by the Consultant.
- **4.24 <u>Demolition</u>:** The removal or wrecking of any building or structural building component, whether complete or partial, combined with the related waste material handling, storage, and waste transportation and disposal.
- **4.25** <u>Differential Pressure System:</u> An impermeable air tight containment or enclosure is fabricated, and then a vacuum system is applied to the inner atmosphere of the enclosure, lowering the atmospheric pressure inside the enclosure. An atmospheric pressure drop is established between the inner enclosure atmosphere and the outside atmosphere, thus insuring that any breech in the air tight enclosure will result in an inflow of air from higher pressure outside atmosphere to the lower pressure inner atmosphere of the enclosure. The net result yields no contamination to the outside air.
- **4.26** Encapsulate: An adhesive based liquid, applied under pressure, forming an aerosol spray which binds asbestos fibers in a hard adhesive matrix after drying, thus preventing the release of asbestos fibers.
- **4.27** Encapsulation: The treatment of asbestos containing materials with an encapsulating substance. This substance does not necessarily have be a commercial product designed specifically for the treatment of asbestos containing materials. Encapsulates may include a variety of paints, lacquers, and varnishes, that produce similar effects to commercially purchased asbestos specific encapsulates. The Consultant must approve all for use.
- **4.28** Enclosure: An airtight, impermeable, semi-permanent barrier used during asbestos abatement procedures, to prohibit asbestos containing materials and asbestos fibers from entering the clean outside atmosphere. The enclosure may or may not be under a negative differential pressure, and is generally used for very small projects.
- **4.29** <u>Filter:</u> A porous media component through which a liquid or gas is passed in order to remove unwanted components, especially suspended material. Refer to specific requirements for specialized filters to be utilized in conjunction with this project.
- **4.30** <u>Friable Asbestos Material:</u> Material that contains more than one (1%) percent asbestos by dry weight or volume, that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
- **4.31** Glove bag: An asbestos disposal bag, typically constructed of six (6) millimeter transparent polyethylene plastic, with two inward projecting long sleeve gloves, which are designed to enclose the asbestos containing object that is subject to removal.
- **4.32** HEPA Filtered Vacuum Cleaner (HEPA Vac): A vacuum cleaner equipped with a high efficiency particulate air filter air exhaust system capable of collecting and retaining asbestos and other fibers. The filter parameters are the same as for a HEPA filter, and should be capable of filtering and trapping 99.97% of all fibers greater than one (1) micron in diameter and three (3) microns or larger in length, prior to exhausting the air.
- **4.33 HEPA Filter:** A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos or other fibers greater than one (1) micron in diameter and three (3) microns or larger in length.

- **4.34** Negative Pressure Respirator: A head worn HEPA filtered device, powered by normal human respiration, used for breathing protection in an asbestos contaminated environment, by insuring that the air pressure inside the respirator is positive during exhalation with relation to the outside atmospheric air pressure, forcing the exhaust air stream through the mask exhaust valve and seals, and negative during inhalation with regard to the outside atmospheric air pressure, forcing the inlet air stream through the HEPA filter.
- 4.35 Negative Pressure Ventilation System: A ventilation and filtering system wherein a series of differential pressure machines are utilized to evacuate air from an air tight containment or enclosure, and provide the required atmospheric pressure drop between the air tight enclosed/contained work area, and the outside environment. Each differential pressure machine has a HEPA filtration installed in the exhaust air stream, allowing the evacuation of filtered clean air from inside of the enclosure/containment to the outside environment. The required pressure drop, under federal and state regulations is measured in inches of water column, with the minimum allowable pressure drop listed at -0.02" water column (W.C.), as measured with a recording manometer. OSHA requires this type of system be used and sized to completely exchange the enclosure/containment inside atmosphere (air) at least four (4) times per hour. See Differential Pressure Systems for more information.
- **4.36 Negative Pressure:** See Differential Pressure Systems and Negative Pressure Ventilation System.
- **4.37** Personnel Monitoring: OSHA regulation §29 CFR 1926 dictates that one asbestos abatement employee for each asbestos job description, and an aggregate of at least twenty-five (25%) of all asbestos abatement personnel, or a minimum of two (2) persons if the total number of asbestos personnel is less than four (4) have air samples collected in the employee's breathing zone. These samples will be collected in a fashion suitable for the collection of multiple air samples, providing sufficient sampling time throughout the work day in order to establish an eight (8) hour time weighted average (TWA), and random 30-minute exposure limit (EL) sampling through the work day.
- **4.38** <u>Protection Factor:</u> The outside air concentration of an airborne substance divided by the respirator air filtration system rated protection factor yields an inside the mask concentration of the substance. The protection factor is a measure of the degree of protection provided by a respirator to the wearer, as tested and certified by National Institute for Occupational Safety and Health (NIOSH)
- **4.39 Respirator:** A head worn device designed to protect the wearer from the inhalation of harmful substances. Each type of respirator has a protection factor assigned by OSHA and MSA, and each filtration system used with the respirator has additional safety ratings, and specific use ratings. The combination must be balanced perfectly to provide the maximum protection to the worker using the protective device.
- **4.40** <u>Surfactant:</u> Soap like substance that reduces the surface tension of water molecules to enhance the wetting properties. The surfactant is designed specifically for use in controlling airborne asbestos fibers. The surfactant is mixed with water to form "Amended Water" The amended water is used as an aerosol, under pressure, to mitigate the dust and fiber concentrations that have become airborne in the course of demolition and removal procedures.
- **4.41** Time Weighted Average (TWA): The statistical average of several personnel air samples collected over an approximate eight (8) hour period, used to determine the average outside concentration of an airborne substance during an average work day.
- **4.42** <u>Visible emissions:</u> Any emission emanating from an enclosure, containment, or building that contains particulate material that is visually detectable without the aid of instruments, is considered to be a visible emission. In some cases visible emissions may take place internal to an enclosure or containment area if, in the opinion of a Texas Department of State Health Services Inspector, there is not enough water being used to safely regulate the hazardous materials being removed. Visible emissions do not normally include condensed water vapor. Any visible airborne dust, water leaks, or debris found emanating from any asbestos removal enclosure or containment, worker decontamination unit, waste disposal containers, temporary disposal container storage areas, waste transport trailers, and dumpsters will be considered a visible emission, and therefore a violation of federal and state regulations. The asbestos abatement Contractor will be held solely liable for all damage, violations, and any other liability that may be incurred by the emanation of visible emissions.

- **4.43** Wet Cleaning: The process of eliminating surface asbestos contamination from the building surfaces and objects, using rags, disposable towels, cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulate. All disposable items used in this fashion must be disposed of in accordance with the state regulations regarding asbestos contaminated materials. HEPA filtered vacuum cleaners and other equipment may be cleaned and used again.
- **4.44** Regulated Work Area: The regulated work area generally uses barrier tape to prevent entry by unauthorized persons into the asbestos work area, where regulated asbestos work is being conducted. The regulated work area is to be isolated by a second barrier, to prevent the spread of asbestos contaminants, or other debris from the work area. The regulated work area is a regulated area as defined by §29 CFR 1924.
- **4.45** Work: As used herein the term "Work" is used to mean that normally done at the location of the regulated work area and surrounding areas. The term "Work" also includes all plans, scheduling, labor, materials, and supplies necessary to properly perform and/or incidental to, the completion of each phase of this contract.
- **4.46** Written Notice: Any oral notice of event, request, or intention given the Asbestos Consultant or Project Manager or the Contractors General Superintendent, must be forwarded in written form within five (5) working days, and delivered by registered mail to the last known business address of the recipient of the written document. The formal contract documents and specifications will take precedence over this clause unless otherwise agreed upon in writing.

#### **5.0 SPECIFICATION EXPLANATIONS:**

- 5.1 Overlapping and Conflicting Requirements: Where compliance with two (2) or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement is intended and will be enforced, unless specifically detailed language was written into the contract documents clearly indicating that a less stringent requirement is to be used. The Consultant will make the final decision in this situation, and such decisions will always reflect the best interests of the Owner.
- **5.2** Contractor's Options: With the above stated exception, and in full compliance with the project specifications and contract documents, the assignment, management, and possible modification of work practices to expedite contractual work is intended to be the asbestos abatement Contractor's domain, regardless of whether or not it is specifically indicated as such. The Consultant prior to implementation must approve all specification or approved submittal variation.
- 5.3 <u>Minimum Quality and Quantity:</u> In every instance, the quality level, quantity shown and work completed is intended to be at least within minimum condition and tolerances for the work required under the project specifications and the contract documents. Except as otherwise specifically indicated, actual work may either comply exactly with the minimum specified conditions and tolerances or exceed the minimum conditions and tolerances, except where such conditions and tolerances must be exact. The Consultant will interpret the contract specifications and contract documents in determining the parameters of the conditions and tolerances required for this project.
- 5.4 Specialists: In certain instances, the project specifications require that specific work or portions of work be assigned to specialists, or other expert entities, who must be engaged for the performance of that work. Such assignments shall be recognized as contractual requirements, over which the Contractor has no choice or option. These requirements should not be interpreted as to conflict with the enforcement of building codes and similar regulations governing the work. These requirements are not designed, or intended to interfere, with local labor union jurisdiction, grievance filings, strike, settlements, or other similar conventions. Such assignments are intended solely to establish which party or entity involved in a specific unit of work is recognized as "expert" for the indicated specific work or operation. Nevertheless, the final responsibility for the contractual completion of the current project remains with the Contractor.

- 5.5 <u>Trades:</u> Except as otherwise indicated, the use of titles such as the mechanical contractor, the carpenter, the electrical contractor, and other trades and subcontractors require that the corresponding work must be performed by an accredited, insured, bonded, licensed contractor, subcontractor, and/or tradesman. Time and experience may be taken into consideration and a variation allowed in areas that do not present a danger to the project, and at the discretion of the Consultant.
- 5.6 Abbreviations: The language of project specifications and contract documents is of the abbreviated type in certain instances, and implies words and meanings, which will be appropriately interpreted. Actual work abbreviations of a self-explanatory nature have been included in the text. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with the coordination of specification requirements with notations on drawings and in project schedules. These are frequently defined in a section at the first instance of use. Trade association names and titles of general standards are frequently abbreviated. Singular words may be interpreted as plural and plural words may be interpreted as singular, where applicable, and where the full context of the project specifications and contract documents indicates. The Consultant will decide the final terminology meaning as it applies to specific situations.

#### **6.0 INDUSTRY STANDARDS:**

- 6.1 General Applicability of Standards: Except to the extent that more explicit or more stringent requirements are written directly into the project specifications or contract documents, applicable standards of the asbestos abatement and construction industry have the same force and effect, and are made a part of the contract documents by reference. Refer to the other contract documents for resolution of overlapping and conflicting requirements, which may result from the application of several different industry standards to the same unit work. Refer to individual unit of work sections for indications of which specialized codes and standard the Contractor must keep at the project site. The Consultant will determine the applicability of all unremunerated industry standards.
- **6.2** Referenced standards: Asbestos abatement standards referenced directly in project specifications, contract documents or in federal, state, and local regulations have precedence over non referenced standards which are recognized in industry for their applicability to asbestos abatement or construction projects.
- **6.3** Non referenced standards: These asbestos abatement standards are general standards developed by and among asbestos abatement contractors and other parties, and have no applicability to the contractual work under this contract.
- **6.4** Publication Dates: The most recently published regulation or industry standard will be used to comply with the requirements of the project specifications and the contract documents, whether sited in these documents or not. The Consultant will weigh any change to federal or state regulation during the course of this project, and the asbestos abatement Contractor will be instructed on complying with these changes. The Consultant will keep current, and provide information on changes in these standards and determine the minimum response, if any, that is suitable.
- **6.5** <u>Updated Standards:</u> Asbestos abatement contractors should follow and be aware of pending federal and state regulations. The asbestos abatement contractor may submit a change order proposal when impacted through a sudden change in a federal, state, or local regulation, or industry standards. The Consultant will decide on the approval or disapproval of the submitted change order. If in the opinion of the Consultant, the Contractor has not been diligent in following industry changes, the change order will be denied, and the asbestos abatement contractor will be required to implement the current changes at no additional cost to the Owner.
- 6.6 <u>Copies of Standards:</u> The contract documents require that each person performing work be experienced in that part of the work being performed. Each person is also required to be familiar with recognized industry standards applicable to that part of the work. There are no copies of the applicable asbestos standards bound with the contract specifications or contract documents. Where copies of said standards are legally required on site or needed for the proper performance of the work, the asbestos abatement contractor is required to obtain such copies directly from the publication source.

- **6.7** <u>Site Standard Requirements:</u> The Consultant requires the asbestos abatement contractor to submit copies of these construction standards upon project award, and to maintain all the construction standards in the following listing, in a separate log located at the project site trailer.
- **6.8** <u>Abbreviations and Names:</u> The following acronyms or abbreviations as referenced in project specification and the contract documents are defined to mean the associated names. Both names and addresses are subject to change and are believed to be, but are not assured to be, accurate and up-to-date as of date of contract documents:
  - AIA American Institute of Architects 1735 New York Ave. NW; Washington, DC 20006 202-626-7474
  - ANSI American National Standards Institute 1430 Broadway; New York, NY 10018 212-/354-3300
  - **ASHRAE** American Society for Heating, Refrigerating, and Air Conditioning Engineers 1791 Tullie Circle NE; Atlanta, GA 30329 404-/636-8400
  - ASTM American Society for Testing and Materials 1916 Race St.; Philadelphia, PA 19103 215-/299-5400
  - CFR Code of Federal Regulations Available from Government Printing Office; Washington, DC 20402 (usually first published in Federal Register)
  - CGA Compressed Gas Association 1235 Jefferson Davis Hwy. Arlington, VA 22202 703-979-0900
  - CS Commercial Standard of NIST (U.S. Dept. of Commerce); Government Printing Office; Washington, DC 20402
  - EPA United States Environmental Protection Agency 401 M Street, SW; Washington, DC 20460 202-382-3949
  - GA Gypsum Association 1603 Orrington Avenue; Evanston, IL 60201 312-491-1744
  - NIST National Institute of Standards and Technology (U. S. Dept. of Commerce)
    Gaithersburg, MD 20234301-921-1000
  - NEC National Electrical Code (by NFPA)

    NFPA National Fire Protection Association
    Batterymarch Park, Quincy, MA 02269
    617-770-3000
  - OSHA Occupational Safety & Health Administration (U. S. Dept. of Labor) Government Printing Office, Washington, DC 20402
  - PS Product Standard of NIST (U. S. Dept. of Commerce)
    Government Printing Office, Washington, DC 20402
  - UL Underwriters Laboratories
    333 Pfingsten Road, Northbrook, IL 60062
    312-272-8800

#### 7.0 INSURANCE

#### General Requirements

The Contractor must maintain the type and amounts of insurance required in this contract throughout the term of the agreement for the section of work effected. Contractor must provide a Certificate of Insurance evidencing the required coverage types and amounts before the Contract is signed. All policies are subject to examination and approval by the Owner's Risk Manager for their adequacy. The Owner may terminate this contract if the Contractor fails to comply with all insurance requirements.

Insurance naming the Owner as additional insured must be primary insurance and not contributing with any other insurance available to the Owner, under any third party liability policy. These requirements are applicable to the contractor and all sub-contractors as it is applicable to their work. Any extended coverage of sub-contractors shall be in writing with affirmation from the carrier.

Before the start of work, the contractor shall submit for review certificates of insurance for their work and all sub-contractors that will be working on the site or working directly or indirectly with this project.

#### **Additional Requirements**

The required liability insurances and their certificates must:

- a. Name the Owner as an additional insured for operations under this contact.
- b. Provide for 30 days advance written notice of cancellation or material change.
- c. It is hereby agreed and understood that the insurance required by the Owner is <u>primary coverage</u> and that any insurance or self-insurance maintained by the Owner, its officers, agents, employees or authorized volunteers will not contribute to a loss. All insurance shall be in full force prior to commencing work and remain in force until the entire job is completed or the length of time that is specified in the contract.

#### 1. GENERAL LIABILITY COVERAGE

- A. Commercial General Liability
- (a) \$1,000,000 general aggregate
- (b) \$1,000,000 products completed operations aggregate
- (c) \$500,000 personal injury and advertising injury
- (d) \$500,000 each occurrence limit
- B. Insurance must include:
- (a) Premises and Operations Liability
- (b) Personal Injury
- (c) Explosion, collapse and underground coverage
- (d) Products/Completed Operations
- (e) The general aggregate must apply separately to this project/location

#### 2. BUSINESS AUTOMOBILE COVERAGE

- A. Limits \$250,000 each person/\$500,000 each accident for Bodily Injury and \$100,000 for Property Damage
  - (a) OR

- (b) \$500,000 Combined Single Limit for Bodily Injury and Property Damage each accident
- B. Must cover liability for "Any Auto" including Owned, Non-Owned and Hired Automobile Liability
- 3. **WORKERS COMPENSATION AND EMPLOYERS LIABILITY** If required by Texas State Statute or any Workers Compensation Statutes of a different state.
  - A. Must carry coverage for Statutory Workers Compensation and Employers Liability limit of:
    - (a) \$100,000 Each Accident
    - (b) \$500,000 Disease Policy Limit
    - (c) \$100,000 Disease Each Employee
- 4. AUTOMOBILE POLLUTION LIABILITY (including loading and unloading)
  - A. Limits \$1,000,000 each occurrence
  - B. \$2,000,000 annual aggregate
  - C. Maximum deductible is \$2,500. Insured is responsible for any claims under the deductible
  - D. Must cover pollutant clean up, and resulting bodily injury and property damage liability.
  - E. Must cover liability for "any auto" including owned, non-owned and hired automobile liability.

#### 5. ASBESTOS ABATEMENT CONTRACTOR

In addition to the requirements stated herein, the Asbestos Abatement Contractor shall as a General Contractor or as a Sub-contractor carry and supply said coverage to this project—the following coverage with at least the minimum limit: Environmental Impairment/Contractor's Pollution \$2,000,000 per occurrence

#### 6. ADDITIONAL PROVISIONS

- A. Additional Insured On the General Liability Coverage, Business Automobile Coverage, Umbrella Coverage, Automobile Pollution Liability and Environmental Impairment/Contractor's Pollution <u>The Owner, and its officers, agents, employees, and authorized volunteers shall be Additional Insured.</u>
- B. Endorsement The Additional Insured Policy endorsement must accompany the Certificate of Insurance.
- C. Certificates of Insurance A copy of the Certificate of Insurance must be on file with the Owner
- D. Notice Owner requires 30 day written notice of cancellation, non-renewal or material change in the insurance coverage.
- E. The insurance coverage required must be provided by an insurance carrier with the "Best" rating of "A" or better. All carriers shall be admitted carriers in the State of Texas.

#### 8.0 PROJECT OBJECTIVE

The objective of this project is the safe and thorough removal and disposal of asbestos containing materials, as shown on the project drawings and described in project specifications and contract documents.

**8.1** The work area for each phase will be precleaned using wet methods, HEPA vacuuming, and other techniques prior to the construction of any walls, enclosures, containments, or decontamination units. The Asbestos Abatement Contractor will establish barrier tape regulated areas prior to precleaning. The Asbestos Abatement Contractor will utilize respiratory protection that is appropriate for this function.

- **8.2** All remaining furniture, fixtures, equipment, and other miscellaneous items within the work area are to be removed by the Asbestos Abatement Contractor and stored in area provided the Owner. The Owner will be responsible for the storage of all removed furniture and fixtures. The Asbestos Abatement Contractor will not be required to install the stored items after project completion. The Asbestos Abatement Contractor will utilize respiratory protection that is appropriate for this function.
- **8.3** The Project will require a minimum of three stage decontamination units will be constructed, as specified in the submitted abatement work plan, in conjunction with the project specifications and documents. The Asbestos Abatement Contractor will utilize a minimum of one **decontamination unit** per containment / enclosure unit.
- 8.4 The Asbestos Abatement Contractor will install air filtration systems that maintain a constant differential pressure. The system shall be capable of maintaining a minimum deferential pressure of -0.030 inches of water column (WC). The minimum operating pressure during active removal shall be -0.025 WC. If the pressure drops below -0.02" WC, all work will stop until the situation is corrected. Continual measurement of the pressure differential between the interior of the enclosure unit and the area exterior the enclosure will be with a recording manometer provided by the Asbestos Abatement Contractor. Copies of the pressure differential record will be submitted to the Owner as Project Close-Out Documents. Said records will be annotated to indicate date and enclosure area from which the reading was collected. The differential pressure system must be properly designed to exchange the inside containment atmosphere at least four (4) times per hour while maintaining the required atmospheric pressure differential. The Asbestos Abatement Contractor will utilize respiratory protection that is appropriate for this function.
- **8.4** One or more enclosed asbestos disposal dumpsters or trailers must be on site and ready for use, prior to the start of any asbestos abatement activity. The Asbestos Abatement Contractor may not utilize the building or any exterior area as storage for asbestos containing waste material.
- 8.5 The work area for each phase will be set up as a regulated area, under OSHA regulations. The Contractor will have dedicated personnel to secure the regulated area, and the containment work areas access points inside the regulated area. The regulated area will be constructed according to the submittals, OSHA regulations, and the project specifications. It will be the responsibility of the Contractor to maintain continual security of the site during the course of asbestos removal or disturbance activities during the project. The Asbestos Abatement Contractor is responsible for security of the section of the building in which work is being conducted.
- **8.6** The Asbestos Abatement Contractor will take every precaution in preventing the exposure of any person to asbestos fibers include, but are not limited to, the proper construction of containment areas, the proper construction of regulated containment areas, and the prompt repair of any breech of containment that may occur during the course of the project.
- 8.7 All disturbance of Asbestos Containing Materials or Asbestos Contaminated Materials to include waste generated by the work process shall be maintained adequately wet. Large accumulations of un-containerized waste within the work area will not be allowed. All dislodged material shall be containerized before the end of the work shift. Dry removal is grounds for a stop work order from the Consultant. Continual incidences will be reported to the regional inspector for Texas Department of State Health Services. Continual abuse of not adequately wetting said materials can be considered a breach of contract.
- **8.8** Disturbance of ACBM in quantities greater than small scale short duration shall require a working airless with amended water to be operated within the containment to mist the air and to wet materials. Other devices may be used if it is proven that the atomize the water into the air and can deliver amended water. Small scale short duration disturbance may use pump-up garden sprayers for wetting.
- 8.7 The Consultant will inspect the work quality for each step or phase of work. The Consultant will conduct a thorough visual inspection of each finished removal area, prior to final air sampling, using the ASTM inspection protocol for asbestos projects. Final air quality sampling will not be conducted in any work area until all visible asbestos containing materials or presumed asbestos containing material residue required to be removed under this contract is completely removed as determined by the Consultant. Upon finding evidence of contamination the entire removal, area will be cleaned again.

- **8.8** The Asbestos Abatement Contractor must possess a current asbestos transporter license or use a properly licensed subcontractor to transport asbestos containing material, asbestos contaminated material, and any other asbestos abatement byproduct to an USEPA and TCEQ approved landfill.
- 8.9 The Asbestos Abatement Contractor will keep detailed project documents, including, but not limited to daily project logs, containment entry logs, visitor logs, pressure differential monitoring records, waste manifest shipment logs, OSHA personnel monitoring logs, and current bulletin boards. Copies of all project record documents will be bound in chronological order and will submit **two (2)** copies to the Consultant at the completion of the Project.

#### 9.0 SCOPE OF WORK:

The Asbestos Abatement Contractor will be required to complete all listed services and provide listed products to the Owner's satisfaction. Services are to include all services, labor, equipment, travel, clerical, communication, service fees, taxes, permits and associated items to complete all listed items for this phase of the renovation project.

The asbestos abatement contractor shall complete each of the following removal activities in accordance with this document and all referenced documents. It is the intent of this project for all known asbestos containing materials to be removed from the buildings. Material location, approximate quantities and details can be found in the attached asbestos inspection report for each Building.

**9.0.1** The following systems are assumed to contain asbestos fibers in concentrations greater than one percent:

- 1. Roofing Systems: These materials are non-friable Category I Asbestos Containing Material and can be demolished in place utilizing wet demolition methods as allowed in 40 CFR 61 Subpart M NESHAP regulations. All waste shall be transported and disposed of in a Class 1 Landfill.
- 2. Miscellaneous caulks and sealers: These materials are non-friable Category II Asbestos Containing Material and can be demolished in place utilizing wet demolition methods as allowed in 40 CFR 61 Subpart M NESHAP regulations. All waste shall be transported and disposed of in accordance to current rules and regulations.

#### 9.0.2 Asbestos Containing Materials are shown on drawings of each building.

#### 1. McGaha Building:

- a. Drywall systems with ACM Joint Compound and/or Texture This material is to be completely removed from the building before demolition of said building. The materials are located on walls and on original ceilings. The material is found behind panels in the shooting range. Approximately 7,700 Square Feet.
- b. Thermal System Insulation: There is a combination of pipe insulation, heat exchanger insulation and pipe fitting insulation. The scope of the project is to remove all known and unknown pipe insulation within the building. The verified amounts are in the mechanical rooms. Approximately 75 LF and 20 SF of TSI
- c. Cement Asbestos Shingles, associated felt paper and nails shall be removed from the exterior. The material is behind the brick veneer. Approximately 5,500 SF of material.
- d. Various ACM Floor Tiles and/or black floor adhesive These materials are to be completely removed from all buildings where the materials are present. If the Demolition Contractor is to dispose of these materials in place during the demolition of the wood floors of the building, they must provide a NESHAP trained person to be present during all disturbance. This person must provide an affidavit that the material is not in poor condition and that it will not be ground or pulverized during demolition by the machinery. This affidavit will also name the responsible party that will accept all citations if the regulatory agency deems that the statement and conditions are not as sworn. The Owner and the Consultant will be held harmless.

#### 2. 2508 Hampstead Lane

- a. Drywall systems with ACM Joint Compound and/or Texture This material is to be completely removed from the building before demolition of said building. The materials are located on walls and the ceilings of the original section of the house. Approximately 2,691 Square Feet.
- b. Cement Asbestos Shingles, associated felt paper and nails shall be removed from the exterior. The material is behind the vinyl siding and brick veneer of the original section of the house. Approximately 2,678 SF of material.

- c. Cement Asbestos Panels, associated felt paper and nails shall be removed from the exterior of the Garage. Approximately 590 SF of material.
- 3. 2510 Hampstead Lane
  - a. Drywall systems with ACM Joint Compound and/or Texture This material is to be completely removed from the building and detached Garage before demolition of said buildings. The materials are located on walls and the ceilings of the house and detached Garage. Approximately 5,400 Square Feet.
- 4. 2512 Hampstead Lane
  - a. Cement Asbestos pipes shall be removed from the Attic of the building. The material can be found around the HVAC unit and runs up through the roof. More than one pipe may be found in the building. The Contractor is to remove all said materials from the building.
- 5. 2525 Hampstead Lane (Additive Alternate 1)
  - a. Drywall systems with ACM Joint Compound and/or Texture The analysis of this material indicates that there are trace amounts of asbestos in the drywall applied to the house and the garage. According to current USEPA and State of Texas rules and regulations, no abatement activities are required. All personnel disturbing or handling this material must be trained as required by US Department of Labor OSHA standard with exposure monitoring and surveillance as required.

#### 9.1 Special Work Requirements:

- 9.1.1. **Work Place Hazards:** It is the Asbestos Abatement Contractor's responsibility to monitor hazardous conditions and comply with all standards which have relevance to this project. The Asbestos Abatement Contractor must assess the work area and develop contingencies for any safety / hazard issues.
- 9.1.2. **Proof of Training:** The Asbestos Abatement Contractor will supply positive proof that all project personnel have had the minimum required training for all potential hazards associated with this project. The training must include a walkthrough of the work areas in which the scopes of the project and safety considerations are explained to personnel in the applicable primary language of the workers. On-site work area training is to be limited to an instructor to student ratio of 1:5. Each training group must be comprised of same language participants.
- 9.1.3. **Electrical Systems:** The Asbestos Abatement Contractor will supply appropriate personnel to make all the appropriate electrical connections and disconnection.

#### 10.0 PROJECT ABATEMENT MEASUREMENTS:

All measurements were taken from the original scaled drawings, and should be considered to be close approximations. Scaled drawings will be made available to the Asbestos Abatement Contractor for viewing at the site. No extra charge or compensation will be allowed after contract award, for any perceived difference between actual dimensions and the measurements indicated in the contract specifications and contract drawings. Any variation between contract documents and actual conditions found by bidders in the field during the site visit will be verified by the Consultant, and if found to be true, an addendum to the contract will be sent to all bidding parties. Addendum for change will be issued only if the adjusted amount of materials is greater than five (5%) percent of the totals, as listed in this document. The asbestos abatement contractor will be responsible for the removal and disposal of all materials designated in the contract specifications, drawings, and contract documents.

#### 11 SPECIAL CONDITIONS

11.1. The working hours for all phases will be within the normal hours of a work day. A day is considered 8 hours normally worked 7 a.m. to 4 p.m. or 8 a.m. to 5 p.m. for a combined total of 40 hours per week. Any variance from this should be submitted for approval prior to the start of the Project. Overtime hours will only be allowed if there is an agreement between the Consultant and the Owner to pay the additional fees or if the Contractor is willing to reimburse the Owner for additional overtime fees of the Consultant. If the Asbestos Abatement Contractor desires to work extended hours, arrangements must be made in advance by submitting a request to the Project Consultant. Extended hours may not be worked unless approval of the Consultant is given.

#### 12.0 PRECLEANING OF WORK AREAS

- **12.1** Many of the work areas have ACBM that has been disturbed. Prior to preparation of the work area. Pre-cleaning will need to be conducted.
- **12.2** The workers will be fully protected with proper personal protection equipment due to the potential of airborne fiber concentrations
- 12.3 The work area will be demarcated with red barrier tape that bears the wording "DANGER ASBESTOS" in two-inch block letters. This tape will establish a regulated area, placed approximately 10 or more feet away from the entrances to the work area. Critical barriers will be established prior to the construction of the work area for precleaning and preparation work.
- 12.4 Critical barriers will be constructed of two independently sealed layers of 6 mil polyethylene sheeting sealed with framing as needed, spray adhesive and durable duct tape at all HVAC supply and return, doors, windows and other areas where air flow into or out of the work area is possible. These barriers must be sealed air and water tight. All work will stop immediately upon the failure of a critical barrier.
- 12.5 Once the regulated areas and critical barriers are in place, all furniture, equipment, wall mounted objects and other movable items are to be wet wiped and HEPA vacuumed. Once these items are clean, they are to be moved out of the work into a secure storage area. The storage location for these items will have to be coordinated with the Consultant.
- **12.6** All immovable objects, shelves, chillers, HVAC systems, electrical and communications trays, electrical outlets, thermostats, sensor units, wall mounted equipment and fixtures and other horizontal and vertical surfaces are to be cleaned, and then sealed with double layers of six (6) millimeter polyethylene sheeting. The barriers are to be sealed air and water tight with spray adhesive and duct tape. Care is to be taken to protect finishes.
- 12.7 Construct barriers that will prohibit the migration of airborne asbestos fibers from the work area to other areas of the building, during the precleaning phase of this project.
- 12.8 All floor drains and other openings will be sealed, prior to the start of the precleaning phase of the project.
- 12.9 All areas will be thoroughly wetted with amended water prior to precleaning.
- **12.10** All waste collected during the precleaning phase of the project will be placed in appropriately marked double wrapped asbestos disposal bags, and immediately transported to the asbestos dumpster for future disposal.
- **12.11** The Asbestos Abatement Contractor's air monitoring technician will collect and analyze personnel air samples during the precleaning, preparation, and abatement phases of this project.

#### 13.0 OTHER CONSIDERATIONS:

**13.1** All items of the project specifications must be completed to the Owner's satisfaction.

**13.2** The Asbestos Abatement Contractor will be responsible for all collection, transportation and analysis expenses for all additional final clearance sampling incurred by the Owner for additional clearance sampling due to the Asbestos Abatement Contractor's failure to meet final air quality standards.

#### 14.0 CONSTRUCTION MEETINGS:

- **14.1** The awarded Asbestos Abatement Contractor will attend a meeting with the Owner and the Consultant. Project scheduling and logistics will be discussed, in order for the Asbestos Abatement Contractor to generate the required time schedule and work plan for the project. This is an organizational meeting, to review responsibilities and personnel assignments, to locate the placement of trailers, dumpsters, containment and decontamination areas, and the establishment of temporary utilities.
- **14.2** The Asbestos Abatement Contractor will attend progress meetings on each day of the on-site work; with the Consultant to rectify problems, answer questions, and discuss the project scheduling.

#### 15.0 PROJECT REPORTS AND DOCUMENTATION:

The Asbestos Abatement Contractor will be required to submit two copies of the following documents to the Consultant no later than the scheduled Project Close Date. All copies must be bound and in chronological order.

- 15.1 <u>Daily Project Log:</u> The onsite Asbestos Abatement Contractor project superintendent must maintain a day by day log of the project activities and occurrences, and time tag each entry into the daily log. The daily log must contain but is not limited to, the following items. All pertinent discussions, meeting purposes, attendees, personnel problems, safety meeting times and summaries, personnel by name, entering and leaving the work area, Special or unusual events, regulated area violations, containment breaches and remedies, equipment failures, documentation and confirmation by the Consultant of unscheduled changes, inspection of pre abatement containment areas, Inspection of post abatement pre encapsulation areas, ASTM visual final inspections, load out and shipping of asbestos waste materials. Copies of supporting documents will be incorporated into the Project Log as part thereof.
- **15.2** <u>Visitors Log:</u> The Asbestos Abatement Contractor will maintain a daily visitors log and sign in and sign out all visitors to the project site, whether the visitor is authorized or unauthorized, and regardless of whom they may represent. The visitors log must record the name, company affiliation, and reason for the visit to the project site. This log must be submitted to the Consultant each Monday, for the previous week.
- **15.3** Containment Entry Log: The Asbestos Abatement Contractor will maintain a separate containment entry log at each containment location, used to record the time of entry and exit to the work area for Asbestos Abatement Contractor personnel and authorized subcontractors and visitors. The log must record the name, time of ingress and egress, affiliation, and reason for containment entry. This log must be submitted to the Consultant each Monday, for the previous week.
- **15.4** Asbestos Abatement Contractor Bulletin Board: The Asbestos Abatement Contractor will maintain a bulletin board at the project site posted with appropriate TEXAS DEPARTMENT OF STATE HEALTH SERVICES poster, labor rates and standards, emergency telephone numbers, TEXAS DEPARTMENT OF STATE HEALTH SERVICES violations and other standard required information. The Asbestos Abatement Contractor must only submit a signed statement stating that this was posted at the site.
- **15.5** OSHA Personnel Monitoring Log: The Asbestos Abatement Contractor or his subcontractor will collect and have analyzed all the OSHA required personnel air samples. The personnel air sample results from the previous day must be posted in this log and on the bulletin board prior to the start of work on the day after the samples were collected.

- 15.6 Pressure Differential Monitoring Log: The Asbestos Abatement Contractor will install differential pressure systems at each of the containments, capable of maintaining a minimum negative deferential pressure of -0.030 inches of water column (WC). Continual measurement of the pressure differential between the interior of the enclosure unit and the area exterior the enclosure will be with a recording manometer provided by the Asbestos Abatement Contractor. Copies of the pressure differential record will be submitted to the Owner as Project Close-Out Documents. Said records will be annotated to indicate date and enclosure area from which the reading was collected.
- **15.7** <u>Verification of Personnel Eligibility:</u> The Asbestos Abatement Contractor will furnish copies of the following documents for all personnel in his employ and all sub-contractors as applicable:
  - of proof of current training
  - physician's written approval for work in a respirator
- proof of licensing or certification in the State of Texas for their position
- proof of current fit testing and respirator training
- Signed acknowledgement of asbestos hazard form. This acknowledge form is attached to this document as Attachment 1

#### 16.0 ASBESTOS ABATEMENT CONTRACTOR USE OF PREMISES:

- **16.1** General Use of the Construction Site: THE Asbestos Abatement Contractor shall limit his use of the premises to the work area as required by project phase, allowing other contractors, the Owner and the public to conduct business as usual. The following items will not be allowed within any regulated area, storage area, or work area of this project. A violation of these limitations may result in work stop order;
- **16.2** The Asbestos Abatement Contractor must confine operations at the site to the areas permitted under the contract documents, and as designated by the Consultant and Prime Contractor.
- 16.3 The Asbestos Abatement Contractor must keep the parking lot, adjacent driveways, and entrances serving the Asbestos Abatement Contractor storage and mobilization area secured from public use, and maintained in a clean and orderly condition. The Asbestos Abatement Contractor shall comply with the parking requirements imposed of this project.
- **16.4** The Asbestos Abatement Contractor must not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and the location of storage areas to the building areas designated or in the parking lot areas indicated. If additional storage is necessary the Asbestos Abatement Contractor will obtain and pay for such storage off site.
- 16.5 The Asbestos Abatement Contractor must lock and maintain in a secured condition at all times, all trailers, dumpsters, vehicles, equipment, storage facilities and the entry to the work. The Asbestos Abatement Contractor shall not leave waste dumpsters, material areas, or equipment storage trailers open and unattended. All construction dumpsters, material areas, and equipment trailers shall remain locked when unattended. The Asbestos Abatement Contractor shall not leave any vehicle or motorized equipment, unattended, with the motor running, or the ignition key in a location accessible to unauthorized persons.
- **16.6** The consumption of food or beverages is prohibited inside any asbestos work area. Any and all breaks will be taken in the designated break area. The Asbestos Abatement Contractor will be responsible for collection of all debris within and around work and break areas.
- **16.7** The chewing, sniffing, smoking or other use of tobacco products will only be allowed in designated areas. Tobacco use is prohibited in any building located on the Owner's facility.

- **16.8** The removal of protective equipment within a regulated work area or entering a regulated work area without proper personal protection equipment is strictly prohibited. Violation of this requirement will result in the violating person being ejected from the Project site for the duration of the Project. An exception will be made in the event of emergency medical treatment or work place fires.
- **16.9** The Asbestos Abatement Contractor will not allow employees to engage in any sort of horse play, practical jokes, fighting, hitting, or other physical contact or activity that might cause physical injury or a stoppage of work. The Asbestos Abatement Contractor will not allow employees to throw any items including, but not limited to food, equipment, disposal bags, clothing, or respirators.
- **16.10** The Asbestos Abatement Contractor must maintain the existing building in a safe and weather tight condition throughout the construction period.
- **16.11** The Asbestos Abatement Contractor must repair any and all damage caused by construction operations or personnel activities.
- **16.12** The Asbestos Abatement Contractor must take all precautions necessary, to protect the building and its occupants during the construction period.
- **16.13** The Asbestos Abatement Contractor must keep public areas free from any accumulation of materials, waste, rubbish or construction debris.
- **16.14** The Asbestos Abatement Contractor must provide his personnel with restroom facilities. The Asbestos Abatement Contractor will not be allowed to utilize building facilities. All port-a-potties or other enclosed toilet facilities must be maintained in a good condition with regular service. These units will be placed in an area designated by the Owner.

#### 17.0 OWNER OCCUPANCY:

**NOT APPLICABLE** Owner Occupancy: The Owner will occupy the area around the work area during the entire period of project. The Asbestos Abatement Contractor must cooperate fully with the Owner, other contractors and the Consultant during project operations, thereby minimizing conflicts and facilitating the business of the contractual parties.

#### 18.0 TRADE PERMITS AND LICENSING:

- **18.1** Permits and Regulations: All city building permits and tradesman licenses, either permanent or temporary, is the sole responsibility of the Asbestos Abatement Contractor. All fees paid to secure permits and licensing will be the responsibility of the Asbestos Abatement Contractor. All citations or other disciplinary action that is the result of an action by the Asbestos Abatement Contractor through a failure in securing a required permit or license shall be the sole responsibility of the Asbestos Abatement Contractor. Any and all legal and required fees are to be incorporated into the bid.
- 18.2 The Consultant will submit the required notifications and amendments, where necessary, to the Texas Department of State Health Services. The Asbestos Abatement Contractor will provide all the required information needed for the notification to the Consultant during the submittal process, or when requested. The Owner will pay all applicable State notification fees. The Contractor shall not file notifications and / or amendments unless specific authorization from the Consultant is granted.
- **18.3** The Asbestos Abatement Contractor must comply with all federal, state, and local regulations, laws, ordinances, and pay applicable fees that have a bearing on the conduct of the project, except where noted otherwise.

#### 19.0 INSPECTION OF WORK:

The Consultant or designated representative shall have access at all times, to all portions of the project site. The Asbestos Consultant or Project Manager shall conduct all final visual containment inspections. The Asbestos Consultant / Owners Representative retains the right to give interpretation, direction and require changes to the Asbestos Abatement Contractors work procedures and practices, when they vary from the written project documentation, or violate Federal, State, or Local regulations.

#### 20.0 WORK AREA ENTRY

- **20.1** It will be the responsibility of the Asbestos Abatement Contractor to assure that all personnel entering the work area meet the following criteria. Proof of these requirements must be established prior to ingress into the work area.
- **20.2** Personnel entering the work area must provide proof of training in the use and limitations of the respiratory protection equipment.
- **20.3** Personnel entering the work area must provide documentation that they have had a qualitative and quantitative fit test for the type of respirator they are using within the last six (6) months.
- **20.4** Personnel entering the work area must provide a current Texas Department of State Health Services medical document, physician's approval required for all personnel that are to conduct work while wearing negative pressure respiratory protection equipment or other respirators.
- **20.5** Personnel entering the work area must provide proof of the appropriate training and current licensing status with the Texas Department of State Health Services.
- **20.6** All verifiable Environmental Protection Agency, Occupational Safety and Health Administration, and Texas Department of State Health Services inspectors, along with certain other federal and state agencies have the right to investigate all areas of the project site, with no requirement to produce any documents, other than their identity cards and badges. All contracting parties will abide with this paragraph politely.

#### 21.0 WORK AREA ENTRY AND EXIT PROCEDURES:

#### 21.1 ENTRY PROCEDURES

- 21.1.1. All persons entering the abatement work area will put on protective disposable clothing in the clean room of the decontamination unit. All street clothes, including undergarments and jewelry will be removed and stored in a clean conveniently located locker inside the clean room.
- 21.1.2. The visitor, supervisor, or asbestos worker will enter the decontamination unit clean room through a double flapped airlock and put on disposable underpants.
- 21.1.3. The visitor, supervisor, or asbestos worker entering the clean room will then put on disposable coveralls.
- 21.1.4. The visitor, supervisor, or asbestos worker will then put on rubber boots, or may wait until entry into the equipment room and put on the rubber boots from the previous day's work.
- 21.1.5. The disposable suit wrists are taped, and ankles are taped to the rubber boots and other areas, as necessary, in order to reduce the hazard of tripping.
- 21.1.6. The required respiratory equipment is inspected, put on, and fit checked by the visitor, supervisor, or asbestos worker.
- 21.1.7. The visitor, supervisor, or asbestos worker will then put the disposable suit hood over the straps of the respirator.
- 21.1.8. The visitor, supervisor, or asbestos worker will then enter his name, social security number, and time of entry into either the daily containment entry log or the authorized visitor log and record the reason for entry into the work place.
- 21.1.9. The visitor, supervisor, or asbestos workers will then pass through a double flapped airlock, and proceed through the shower room, through another double flapped airlock into the equipment room.

21.1.10. The visitor, supervisor, or asbestos worker entering the equipment room will then put on disposable gloves, and possibly rubber boots from the previous day, and collects additional equipment and tools, and proceed through another double flapped airlock into the asbestos work area.

#### 21.2 AREA EXIT PROCEDURES

- 21.2.1. Whenever a supervisor, asbestos worker, or authorized visitor leaves the asbestos work area that individual must go through the decontamination sequence. This sequence will include the following.
- 21.2.2. The supervisor, asbestos worker, or authorized visitor will enter the equipment room through a double flapped airlock and proceed to clean reusable abatement equipment and protective equipment, including boots, safety glasses, and hard hats.
- 21.2.3. The supervisor, asbestos worker, or authorized visitor will use an HEPA vacuum to vacuum outer disposable suit and remove the disposable clothing. The disposable clothing will be removed, after cleaning, and disposed of as asbestos contaminated waste, in a container located in the equipment room, and marked for that purpose. The respiratory protection equipment must remain on the individual into the shower room.
- 21.2.4. The supervisor, asbestos worker, or authorized visitor will then proceed through a double flapped airlock into the shower room, still wearing the respiratory protection equipment.
- 21.2.5. The supervisor, asbestos worker, or authorized visitor will then completely shower from head to foot, using liquid soap. The supervisor, asbestos worker, or authorized visitor will then soak the filter cartridges of respirator under the shower and discard them in a plastic bag positioned for that purpose.
- 21.2.6. The supervisor, asbestos worker, or authorized visitor will then proceed through a double flapped airlock into to the clean room to dry off, and then dress in street clothes.
- 21.2.7. The supervisor, asbestos worker, or authorized visitor will then disinfect, inspect, dry, and store the respirator in a locker. New cartridges should be placed in respirator prior to storage in the locker.
- 21.2.8. The supervisor, asbestos worker, or authorized visitor will then sign time out on either the daily containment entry log or the authorized visitor entry log.
- 21.2.9. The supervisor, asbestos worker, or authorized visitor will then proceed through a double flapped airlock out of the decontamination unit and exit the regulated area.

#### 22.0 MEDICAL EXAMINATIONS:

- **22.1** Prior to the commencement of working in the abatement areas of this project, all personnel must have received a medical examination as stated in §29 CFR 1924.58(m) with special emphasis directed to the pulmonary, cardiovascular and gastrointestinal systems as per §29 CFR 1924.1101 Appendix D.
- **22.2** Each employee working within the control zone must have received a medical examination within the last twelve months. All employees will receive a reexamination that is in accordance with the regulations within twelve months of the last examination.
- **22.3** Documentation of this examination will be recorded on forms approved and supplied by the State of Texas Department of State Health Services, Occupational and Health Division.
- **22.4** The Asbestos Abatement Contractor must maintain copies of this document for each individual, on the project site, throughout the course of the project.

#### 23.0 SIMILAR OR EQUAL MATERIALS AND EQUIPMENT:

**23.1** It is not the intent of these specifications to limit the choice of the Asbestos Abatement Contractor to any specified product or to any one manufacturer, but to set a standard, which must be met or exceeded. The Consultant shall make the final decision as to similarity or equality of proposed changes, to the materials and equipment that are mentioned in the project specifications.

- **23.2** The Asbestos Abatement Contractor may submit proposed changes in materials or equipment specified herein, in the submittal package due with the project bid package.
- **23.3** The Asbestos Abatement Contractor may submit further changes regarding the project at the pre-construction meeting, prior to the notice to proceed.
- **23.4** The Asbestos Abatement Contractor is reminded that material safety data sheets (MSDS) or safety data sheets (SDS) are required for all submitted materials, whether specified or a request for change and the material safety data sheets for a requested change should accompany a written request for change, allowing five (5) working days for approval or disapproval of the request. All change order request documents are to be submitted to the Consultant.

#### 24.0 ASBESTOS ABATEMENT CONTRACTOR PERSONNEL:

- **24.1** <u>Project Superintendent</u>: The Asbestos Abatement Contractor shall maintain an experienced general construction project superintendent on site at all times that contractual work is in progress. This person must have the authority to make decisions, implement change requests, and schedule project alterations when required.
- **24.2** Project Abatement Supervisor: The Asbestos Abatement Contractor shall maintain a Texas Department of State Health Services licensed project abatement supervisor on site at all times that the project contractual work is in progress. This person must meet all Federal, State and Local laws for Asbestos Abatement Supervisors, this person must demonstrate that he has at least three years of experience as a primary supervisor of asbestos abatement projects, and that at least one (1) of the past projects was of similar size and scope.
- **24.3** <u>Asbestos Abatement Workers:</u> The Asbestos Abatement Contractor asbestos abatement personnel must qualify and be in possession of a current Asbestos Abatement Workers certification issued by the Texas Department of State Health Services, Occupational Safety and Health Division, along with a current respirator fit test certificate, and a current Texas Department of State Health Services model physical.
- 24.4 A record of all the Asbestos Abatement Contractor's project personnel with regard to training is to be maintained in the Asbestos Abatement Contractor's project records. The Asbestos Abatement Contractor must maintain copies of all employees' current Texas Department of State Health Services model physical examinations and approval, by a physician, to wear the current respirator. Respirator fit testing and job safety training documentation is to be submitted to the Consultant, for review, prior to their being involved in the work required on this project. The addition of new personnel will need to conform to this requirement.

#### 25.0 PROJECT SITE HAZARDS:

- **25.1** The Asbestos Abatement Contractor shall inform all asbestos worker, supervisory personnel, subcontractors, tradesmen, and all parties having project involvement, of the dangers of electricity in a wet environment, along with polyethylene plastic sheeting fire potential and smoke toxicity hazards and other hazards that might be associated with this project.
- 25.2 All contractors are to be advised of the following hazards of asbestos exposure, and are to inform all personnel involved with this project of that hazard. The disturbance or dislocation of asbestos containing materials can cause asbestos fibers to be released into the building's atmosphere, thereby creating a health hazard to workmen and building occupants. Consistent with the content of the training on asbestos control work, the Asbestos Abatement Contractor shall inform all asbestos workers, supervisory personnel, subcontractors, tradesmen, and all others that may visit the project site, of the seriousness of the health hazards, proper precautionary measures, and of proper work procedures, which must be followed.
- **25.3** When in the performance of the project work, asbestos workers, supervisory personnel, subcontractors, tradesmen, and others may encounter, disturb, or otherwise function in the immediate vicinity of an identified asbestos containing material. There will be appropriate continuous measures taken to protect all parties from the hazard of exposure to airborne asbestos fibers.

- 25.4 Such measures shall include the procedures and methods described herein, as well as the regulations of the Occupational Safety and Health Administration [OSHA] the Environmental Protection Agency [EPA], Texas Department of State Health Services [DSHS], Texas Commission on Environmental Quality [TCEQ], and other local rules and regulations.
- **25.5** The Asbestos Abatement Contractor will coordinate with the Consultant and the Owner to ensure that all sources of ignition is to be eliminated. All fuel sources are to be shut off and the pilot lights in all stoves, boilers, water heaters, compressors are to be extinguished. The Asbestos Abatement Contractor is to ensure that lighters, matches and other sources of flame or ignition are not allowed in the work area.
- 25.6 The Asbestos Abatement Contractor will make as minimum ten-pound dry chemical fire extinguishers with ABC ratings and current inspection stickers available in all work areas and in the Clean Room of all decontamination units. The Asbestos Abatement Contractor is to supply a minimum one (1) fire extinguisher at the decontamination unit and one extinguisher per one thousand square feet inside the work areas. The dry chemical fire extinguishers in the work area are to be positioned where they may be accessed at all times.
- 25.7 Fire and Emergency exits are to be clearly marked and directional fluorescent arrows are to be placed in adjacent areas indicating the exit route. All project personnel are to be made familiar with the location of the emergency exits. The Asbestos Abatement Contractor will establish an emergency evacuation plan for the facility. This plan will include a designated inside containment assembly location.
- **25.8** The Asbestos Abatement Contractor will maintain the project area and all adjacent areas in a neat, clean, and uncluttered manner.
- **25.9** A diagram of the facility that shows all work areas will be posted at the main entrance to the facility and at the entrance of all decontamination units. This diagram will bear the name of the facility, address, and phone numbers of local Fire Department, Rescue Squad, Police, Ambulance service, and Local Hospital. The location of the nearest phone that may be accessed during working hours will need to be clearly marked on the diagram.
- **25.10** The Asbestos Abatement Contractor will maintain an outside security person inside the regulated area and outside the containment, to handle project abatement assignments and to act as the lead man in response to emergency situations and in the interception of visitors. This person is to be trained in emergency procedures and should be trained in first aid, and treatment of heat stress.
- **25.11** The Asbestos Abatement Contractor will establish some means of warning, an air horn or alarm, the workers inside the work area of danger and the need for evacuation. This alarm system must be effectively heard throughout the project area.
- **25.12** The Asbestos Abatement Contractor is responsible for the safe operation of all tools and equipment. The Asbestos Abatement Contractor is to ensure that all personnel are aware of the proper operation of tools, equipment, and of the safety measures that should be observed with their operation.
- 25.13 The Asbestos Abatement Contractor will be responsible for the safety of all personnel and project visitors during the course of the project. The Asbestos Abatement Contractor will notify the Consultant of all injuries associated with the project as soon as possible. The Asbestos Abatement Contractor will submit a written report to the Consultant outlining the type and extent of the injuries, personnel involved, actions taken, resulting outcome, and preventive measures taken by the Asbestos Abatement Contractor to guard against additional accidents.

#### **26.0 AIR QUALITY MONITORING:**

**26.1** The Air Monitoring Laboratory selected by the Owner will provide the baseline, ambient and final air quality monitoring for the duration of the project, in compliance with provisions of the NESHAPS and NIOSH 7400 standards.

- **26.2** The Consultant will conduct the initial baseline air sampling. The Air Monitoring Technician will collect a set of phase contrast microscopy (PCM) baseline air samples, prior to any on site project activity.
- 26.3 The final clearance air sampling will be conducted using aggressive air sampling techniques in accordance to AHERA protocol. Clearance samples will be analyzed on-site by phase contract microscopy (PCM), under the NIOSH 7400 analytical method, "A "counting rules. The acceptable final clearance level will be less than one hundredth of a fiber per cubic centimeter (0.01 f/cc). The Consultant's laboratory will conduct the analysis of the PCM clearance samples.
- **26.4** Asbestos removal conducted using small enclosures and mini-containment of less than 160 square feet or 260 linear feet or 1 square meter of ACM to be disturbed will be required to achieve a final air clearance using Phase Contrast Microscopy (PCM). In these circumstances the NIOSH 7400 method will be used in the collection and analysis of samples. When this method is used, the clearance level will be equal to or less than 0.01 fibers per cubic centimeter (f/cc).
- 26.5 All OSHA Compliance Personnel Air Sampling results must be posted on the project bulletin board, and the sample results must be explained to the asbestos workers and supervisors on a daily basis. The asbestos laboratory must submit copies of three (3) of the most recent AIHA proficiency in analytical testing (PAT) rounds, along with a copy of the Texas Department of State Health Services asbestos laboratory license.
- 26.6 The Asbestos Abatement Contractor may provide the services of an air-monitoring technician, employed by a licensed asbestos laboratory, to conduct OSHA personnel airborne fiber monitoring and analysis prior to, during, and after each phase of project. The air-monitoring technician must demonstrate successful completion of instruction in the calibration of optical equipment, calculation of optimum fiber concentrations, and the OSHA Compliance Personnel Air Sample collection requirements.
- 26.7 The Asbestos Abatement Contractor may collect and ship the OSHA Compliance Personnel Air Samples out for analysis by an Asbestos Laboratory licensed by the Texas Department of State Health Services if the Asbestos Abatement Contractor has a Texas Department of State Health Services licensed air monitoring technician in his employ; however, this individual is prohibited from analyzing the air samples under state regulation. The reporting requirements are in effect with regard to posting the sample results the next day.
- **26.8** In either situation, the OSHA personnel analysis results must be given to the Consultant by midday of the next workday following the sample collection. Faxed or emailed air sample results are authorized, if legible, and must be immediately followed by hard copy reports.
- **26.9** The Asbestos Abatement Contractor's air monitoring technician will provide, install, and operate all necessary air sampling equipment to satisfy the OSHA requirements for time weighted averaging and short term exposure level air monitoring for the Asbestos Abatement Contractor's asbestos workers and supervisors.
- **26.10** The Asbestos Abatement Contractor's air monitoring technician will conduct the collection of samples, shipping of all samples, on site Phase Contrast analysis, properly record all data, and provide the Consultant with analysis results by midday of the next workday.

#### **27.0 ANALYTICAL METHODS:**

The following methods and equipment shall be used in the collection and analysis of the filter media used to collect particulate matter from the inside and outside atmosphere of each containment area.

27.1 Mixed cellulose ester filters will be analyzed using the NIOSH 7400 analysis method utilizing Phase Contrast Microscopy (PCM). The air-sampling filter must be twenty-five (25-mm) millimeters in diameter with an eight (0.8 μm) micron pore size.

- **27.2** All samples collected on the project will follow these specifications, except for Transmission Electron Microscopy (TEM) samples which will use the NIOSH 7401 analysis method, and a four (0.45 m) pore size.
- 27.3 All OSHA personnel air samples collection will not exceed a sampling pump flow rate of two point five (2.5 L/PM) liters per minute. The Asbestos Abatement Contractor's Air Monitoring Technician will endeavor to collect a sufficient number of personnel samples daily to calculate at least an eight hour time weighted average (TWA) for all the personnel tested.
- **27.4** The Asbestos Abatement Contractor's Air Monitoring Technician will collect periodic Excursion Limit (EL) thirty (30) minute personnel air samples.
- **27.5** Ambient air sample collection by high volume sampling pumps will not exceed ten (10 L/PM) liters per minute flow rate.

#### 28.0 SAMPLING REQUIREMENTS:

- 28.1 Personnel Sampling: Compliance with OSHA requirements for monitoring is the responsibility of the Asbestos Abatement Contractor. The following recommendations are made. Samples taken in this area should represent, with reasonable accuracy, the airborne concentration of asbestos fibers, which may reach the breathing zone of the asbestos removal personnel. A minimum of 25% of the workers, or at least two (whichever is greater), of each job type will be required to wear a sampling device designed for this type of sampling. Personnel exposure monitoring shall be conducted during the preparation, removal, cleaning, and disposal phases of this project.

  The Consultant may choose to conduct comparative personnel sampling of the project personnel. The Asbestos Abatement Contractor shall make his personnel available to the Consultant for the wearing of personnel pumps for periodic monitoring as deemed necessary for project monitoring by the Consultant.
- **28.2 Ambient outside Sampling:** In and around the immediate area of the containment, negative air machine exhausts, and the decontamination unit clean room ambient air monitoring will be conducted. The samples will be collected at a height of 3 to 5 feet above the floor level of the sampling area. Ambient samples should be changed on a scheduled basis with a minimum of twelve hundred (1200) liters of air collected when possible. Negative air machine exhaust samples should be rotated between different units on a daily basis, covering at least twenty-five (25%) percent of the machines in use.
- **28.3 Ambient inside Sampling:** Samples will be collected inside the work area in areas that have the highest potential for fiber concentration collection. The samples will be collected at a height of 3 to 5 feet above the floor level of the sampling area. Ambient inside samples should be changed on a shorter scheduled basis to avoid filter over load, however a minimum of twelve hundred (1200) liters of air collected is still required when possible.
- **28.4 Other Miscellaneous Sampling:** If non-protected personnel are working near the containment work area, ambient air samples will be collected in the area between them and the containment work area. Ambient air samples will be collected at regular intervals at the exit to the waste load unit, and entrance to the disposal trailer during asbestos disposal bag load out.

#### **29.0 SAMPLE LOCATION DRAWINGS:**

- **29.1** All stationary sample station locations will be marked on a drawing of the building. This drawing will indicate the containment enclosure unit with the location of air filtration systems, water filtration systems, recording manometers, negative air machines and exhaust, decontamination units and waste load-out units.
- **29.2** The sample location will be marked and the sample number will be noted next to the mark. There will be a drawing submitted for each day that air sampling is conducted. One drawing is required for each separate or individual containment, enclosure, mini enclosure, or single glove bag location.

#### **30.0 PROJECT UTILITIES:**

- **30.1** The Asbestos Abatement Contractor will provide all temporary electrical and water utility services for the project. Due to the continual need of electricity for the operation of air filtration units, the Contractor shall have a temporary service established at the site prior to the start of any asbestos abatement activities. Once the project is completed, the Asbestos Abatement Contractor will have said service removed.
- 30.2 The Asbestos Abatement Contractor will supply electricians to install electrical supply NEMA 12 rated main breaker panel, equipped with adequate breakers sized to carry the required construction equipment load. All electrical equipment, extension cords, and gang receptacle boxes used on this project must be equipped with a true 3-wire cord with the green safety ground wire permanently fixed to either a grounding rod or other true ground source. All electrical connections that enter the containment area must be connected to a ground fault indicating circuit (GFIC) panel that is correctly grounded and tested prior to use.
- **30.3** All electrical outlets and switches in the work areas will be sealed and water proofed for the duration of the project. The asbestos worker and supervisors must not plug electrical supply lines through the water proofed outlet covering.
- **30.4** The GFIC panel must be certified by an electrician to be capable of servicing the projected load and that all circuits are Ground Fault Circuit Interrupt (GFCI) protected. No aluminum wire or cords will be allowed on this project. No extension cords smaller than ten (10 AWG) American Wire Gauge may be used inside the containment enclosure.
- **30.5** Each negative air filtration unit is to have one (1) designated electrical supply line, of at least ten (10 AWG) stranded copper wire, with a 20 ampere GFIC circuit breaker. The circuit will be designated for the one (1) unit only.
- **30.6** The Asbestos Abatement Contractor will supply a singular electrical supply line, at least ten (10 AWG) of copper stranded wire, with a 20 ampere GFCI circuit breaker, to each decontamination unit. This line is to be GFCI protected with a four-gang receptacle for use with the decontamination unit.
- **30.7** The Asbestos Abatement Contractor is to supply sealed temporary lighting into the work area. The Asbestos Abatement Contractor must supply the electrical extension cords for this application. The Asbestos Abatement Contractor will follow the guidance previously listed for extension cords and other equipment that enter the containment enclosure.
- **30.8** The Asbestos Abatement Contractor will supply 120 volt GFCI protected supply circuits in each work area in which abatement is to be conducted. This line is to be equipped with a waterproof four-gang receptacle. This line is to be set aside for the use of the air monitoring technician's sampling and monitoring equipment. The Asbestos Abatement Contractor will also make available OSHA approved extension cords for the air monitoring technician's and the Consultant's use. This supply line is to remain in service until the Asbestos Abatement Contractor is given notice that it is no longer needed.
- **30.9** The Asbestos Abatement Contractor will use non-conducting tools and equipment in the work area as much as possible. All asbestos workers and supervisors will wear rubber boots with non-conducting soles and steel toes while in the work area.
- **30.10** The Asbestos Abatement Contractor will immediately replace any faulty or damaged electrical service lines, circuit breakers, extension cords, and equipment.
- **30.11** The Asbestos Abatement Contractor is responsible for supplying a continual water source to be used during the removal and cleaning process. If the source is a storage tank, the water must be used or changed every other day and the tank sanitized. The minimal size for stored water at the site at the beginning of each shift is 250 US gallons. All containers will be marked WATER and state whether it is potable or non-potable. All containers to store potable water must be designed for that use and have documentation to that use. All water used for decontamination process and respirator cleaning must be potable grade water or better.

- **30.12** All waste water will be collected and filtered, and then the clean water may be exhausted to a sanitary sewer connection designated on a project phase by phase basis.
- **30.13** The use of high-pressure spray equipment is prohibited on this project. High-pressure spray systems do not include airless sprayers operated at pressures under 1200 PSI.
- **30.14** Upon project completion, the Asbestos Abatement Contractor will engage electrician to remove all the temporary electrical services that the Asbestos Abatement Contractor had installed for this project. The Asbestos Abatement Contractor will be responsible for the restoration of the Owner's electrical system to original status or better.

#### 31.0 RESPIRATORS - ACTIVITY ORIENTED

- **31.1** <u>Precleaning:</u> All personnel involved in precleaning activities, prior to asbestos abatement will wear appropriate respiratory protection equipment as required by the Asbestos Abatement Contractor's respiratory protection program. The minimum respiratory protection shall be half mask respirator equipped with P100 filters.
- **31.2** <u>Preparation:</u> All personnel involved in preparation activities that do not directly disturb or might disturb asbestos containing materials, prior to asbestos abatement will wear appropriate respiratory protection equipment as required by the Asbestos Abatement Contractor's respiratory protection program
- 31.3 <u>Abatement:</u> All personnel conducting asbestos abatement will wear appropriate respirators determined air sample analysis fiber concentrations. At the start of gross removal operations of friable asbestos containing thermal or surfacing materials, the minimum use respirator will be type "C" pressure demand supplied air respirators. The Asbestos Abatement Contractor may supply historical air monitoring data from a similar project for down grade approval. The minimum down grade for friable materials will be a powered air purifying respirator (PAPR) equipped with HEPA filters. For the removal of non-friable miscellaneous materials such as floor tile and adhesives, the Asbestos Abatement Contractor may utilize half mask or full face negative pressure respirators with the appropriate filters for all hazards present.
- **31.4** Powered air purifying respirator (PAPR) will be worn by all personnel and authorized visitors entering the work area when asbestos containing elements are still present as long as this type of respirator provides adequate protection.
- **31.5** All respirators shall be fit tested to personnel by an experienced individual. Fit testing will be performed as stated in §29 CFR 1910.132. Fit tested respirators shall be permanently marked to identify the individual fit tested, and use of that respirator shall be limited to the tested individual.
- **31.6** No respirator shall be issued to personnel without the personnel participating in a respiratory protection-training program. This program must include the proper use, donning, care, and limitations of the type of respirators that shall be worn by personnel.
- **31.7** Reserve respirators will be maintained in serviceable condition on site at all times for spare units and for use by site visitors. This requirement will apply to each type of respiratory protection equipment utilized on this project.
- 31.8 The types of respirators and minimum use requirements must be in compliance with current regulations. The Respiratory Protection Program Coordinator of the Asbestos Abatement Contractor's company may follow a more stringent guideline in the selection of appropriate respirators. The selection of the respirator to be worn must be based on worse case situations. In evaluating personnel monitoring results, the highest concentrations should be considered as well as the time weighted average. The selection of the appropriate respirator is to be based on respiratory hazards in the work area
- .31.9 No respirators shall be issued to personnel without such personnel participating in a respiratory protection-training program. This program must include the proper use, donning, care and limitations of the type of respirators that shall be worn by personnel.

31.10 The Asbestos Abatement Contractor Project Supervisor shall evaluate all asbestos supervisors, asbestos workers, corporate employees, and authorized site visitors in their use of respirators. The Project Supervisor will question their knowledge of the type of respirator to be used, and will make a determination if their knowledge is sufficient to allow entry into a work area. In the event that a person is determined to be lacking in the skills or knowledge required, they will be notified they are not authorized to enter the work area, until additional training is obtained. The Project Supervisor may make this determination. The Project Supervisor will evaluate any individual designated by the Owner's Representative or the Asbestos Consultant. This section does not pertain to Federal, State, or Local regulatory personnel, which have identification and desire to enter the work area.

#### 32.0 WORKER PROTECTION EQUIPMENT AND CLOTHING:

<u>Protection Equipment:</u> Throughout each step of work area precleaning, preparation, asbestos abatement, and final cleaning activities, personnel entering the work area shall wear appropriate respirators, disposable coveralls with hoods, gloves and steel toed, skid resistant, nonconductive soled rubber boots.

- **32.1** The suits will be taped at the wrists and ankles or top of boots. All personnel will be required to wear appropriate eye and ear protection as necessary.
- **32.2** The Asbestos Abatement Contractor will have on site a sufficient quantity of earplugs designed for the reduction of noise.
- **32.3** The Asbestos Abatement Contractor will have on site a sufficient quantity of ANSI approved safety glasses, which must be worn when full-face respirators are not in use and the asbestos workers and supervisors are engaged in other activities at the project site.
- **32.4** The Asbestos Abatement Contractor will have on site a sufficient quantity of approved hard hats and bump caps, which will be worn when there is a potential for head injury, and whenever any overhead activity is conducted.
- 32.5 The Asbestos Abatement Contractor will have on site a sufficient quantity of rubber boots with arch support in various sizes that are available to personnel, upon request. When asbestos abatement is in progress all workers entering the work area must wear rubber boots. The specification for the rubber boot includes non-conducting soles, skid resistant sole design, calf high rubber sides, arch support, and steel toes. These boots will be cleansed, disinfected and dried on a daily basis.
- **32.6** The Asbestos Abatement Contractor will have on site a sufficient quantity of safety harnesses, lanyards, and other OSHA required items when work is conducted from scaffolding or other means. The safety lanyards and harness must be worn, possibly in conjunction with safety wires, whenever there is a potential for a fall that may cause bodily injury.
- **32.7** The Asbestos Abatement Contractor will have on site a sufficient quantity of fire retardant disposable protective whole body clothing, head coverings, gloves, foot coverings, and disposable plastic or rubber gloves for comfort. The disposable clothing must be secured with tape at the wrists and at the ankles.
- **32.8** The Asbestos Abatement Contractor will have on site a sufficient quantity of protective clothing articles ensuring that a minimum change of five complete disposable outfits per day is available for each individual on site. The Asbestos Abatement Contractor must provide additional protective disposable clothing for the air monitoring technician, and other authorized visitors.

#### 33.0 RECORD KEEPING - PROJECT INFORMATION:

- **33.1** The Asbestos Abatement Contractor must maintain copies of each of the following items on file at the project site for the duration of the project.
- 33.2 All items with an "\*" at the beginning indicates that these items are required project close out documentation.

- 33.3 All Asbestos Abatement Contractor project records must be maintained for a period of thirty (30) years. If the Asbestos Abatement Contractor goes out of business, the Asbestos Abatement Contractor must contact the Director of the Texas Department of State Health Services Occupational Health Division and the Director of the National Occupational Safety and Health Institute (NIOSH) and arrange to turn over all archived business and project records to those agencies.
- **33.4** Medical Records (30 years beyond termination)
- 33.5 \* Texas Department of State Health Services required physician statement and medical examination.
- 33.6 \* A copy of training courses attended including, the EPA approved initial course and consecutive refresher courses.
- 33.7 \*A copy of the Texas Department of State Health Services license, for position the employee occupies.
- 33.8 A copy of the Asbestos Abatement Contractor's respiratory training program.
- **33.9** \*A copy of the respirator fit test for each of the authorized visitor and the Asbestos Abatement Contractor's supervisor and asbestos workers.
- **33.10** \*A copy of the Supervisor's daily project log, containment entry log, visitors log, and the OSHA compliance personnel air monitoring log shall be submitted.
- **33.11** \* A copy of all daily manometer charts or tapes shall be submitted.

#### 34.0 CONTAINMENT ENCLOSURE UNIT CONFIGURATION:

**Containment Unit:** The work area containment enclosures will be constructed in the following manner.

- **34.1** The Containment enclosure shall consist of a minimum of two layers of four- (4) millimeter polyethylene sheeting for vertical surfaces. A minimum of two layers of six- (6) millimeter polyethylene sheeting will be used for the floor surface and all horizontal surface areas of the enclosure. An additional layer of six (6) millimeter polyethylene floor sheeting is to be installed after the completion of the enclosure unit, and used as a drop cloth.
- 34.2 Vertical polyethylene sheeting shall be secured to walls and temporary framing with spray adhesive and then sealed with duct tape. Floor polyethylene sheeting shall be placed so that the seams in the floor will not overlap one another. In the event of failure of any polyethylene layer it is to be patched upon discovery. Floor polyethylene sheeting will be extended a minimum of 12 inches up walls, secured with spray adhesive, and then sealed with duct tape. Wall polyethylene sheeting will be extended a minimum of 12 inches beyond the wall floor junction into the floor, secured with spray adhesive, and then sealed with duct tape. Each layer of polyethylene sheeting is to be installed so that it may be removed separately.
- **34.3** In areas where there is carpet that is not removed as part of the work; double layers of six (6) millimeter polyethylene will be placed on the cleaned carpet. A layer of corrugated paper will be placed on the floor over the polyethylene sheeting. Two more layers of six (6) millimeter polyethylene sheeting will be installed.
- **34.4** Access to the containment enclosure shall be restricted to the decontamination unit clean room airlock. Emergency fire exits shall be framed out, taped and posted with red spray paint or fluorescent tape, as emergency exits only. Use of emergency exits is intended for egress from the containment area in case of fire or medical emergency.
- 34.5 All areas where floor tile and adhesive are to be the only material removed the Asbestos Abatement Contractor may install a single layer of 6 mil polyethylene sheeting over walls in the work area. This section does not negate the requirements for critical barriers as required in these sections. Wall sheeting will be sealed at the top and bottom of the walls. Sheeting floors will still be required in areas where floor tile and / or adhesive is not being removed but still within the containment area. This variance may not be used in areas where asbestos containing materials are friable or may become friable during the removal process.
- **34.6** The Asbestos Abatement Contractor may not leave the containment floor sheeting out of areas where both friable materials and floor tile are to be removed. Flooring will be required during the removal of friable materials.

#### 35.0 AIR QUALITY ENGINEERING CONTROLS:

The following air quality engineering control practices will be utilized to minimize airborne fiber concentrations inside and outside the asbestos work areas.

- 35.1 The Asbestos Abatement Contractor shall set up a differential pressure air filtration system within each containment enclosure. This equipment should be of the proper size and horsepower to maintain a negative pressure deferential of 0.03 inches of WC (water column) in the work area, and be shall be capable of changing the containment enclosure atmosphere at least four times per hour. This equipment will have an appropriate HEPA filtration system inhibiting the release of airborne fibers beyond the containment enclosure area. The HEPA filtration system must be 99.97% efficient in filtering out fibers of three (0.3 μm) microns in diameter or larger.
- 35.2 This equipment will be positioned to reduce fiber concentrations within the containment area, and to prevent the escape of airborne fibers from the work area. Whenever possible the units will be set opposite the decontamination units and other make up air intakes for the containment enclosure unit. The equipment will be positioned so that the HEPA filters can be changed from inside the containment area. Use of the differential pressure filtration system will be in accordance with manufacturer's instructions.
- 35.3 The Project Supervisor will verify to the Consultant that the appropriate numbers of air filtration machines are being utilized, prior to the commencement of abatement activities. One (1) additional differential air filtration machine will be integrated into each containment enclosure as a backup, in case of unit malfunction and for scheduled filter change. All differential air filtration machines must have pressure alarms, and the alarm systems must be demonstrated, as to being operational to the Consultant.
- **35.4** The effectiveness of the air filtration unit to maintain the pressure differential of 0.03 inches of WC (water column), will be measured with a recording device, a manometer, that records a written time and dated record of the pressure readings at fifteen (15) minute intervals throughout each working day. Each containment enclosure must have one (1) recording manometer installed, prior to the start of abatement.
- 35.5 The Consultant will inspect each containment enclosure, under pressure, prior to the start of asbestos abatement. The Asbestos Abatement Contractor may not commence asbestos related activities until notice to proceed has been given by the Consultant. The recordings of each manometer will be collected and analyzed daily and corrective action will be instigated where necessary. These recordings will be submitted as part of the daily and final project documentation.
- **35.6** The Consultant will halt the contractual work if, in his judgment, there is a situation of serious health risk to workers or building occupants, due to the performance of work, inefficiency of the differential pressure filtration systems, or problems caused by mechanical or electrical problems.

#### **36.0 CRITICAL BARRIERS:**

Temporary enclosures shall be provided to completely isolate the asbestos work area from other unsealed parts of the building to prevent asbestos containing dust or debris from passing beyond the isolated area.

**36.1** Critical barriers constructed of doubled; independently sealed layers of six (6-mil) millimeter polyethylene sheeting will be established on all exits and entrances to the work areas. All accounterments and fixtures within the work area will be thoroughly sealed with 6 mil polyethylene, adhesive tape and spray adhesive to form an airtight internal enclosure. All openings, vents, room penetrations, and areas with a potential for airflow to areas outside of the work area will have critical barriers established. A layer of six (6-mil) millimeter polyethylene sheeting will be used to form an airtight critical barrier at all locations where temporary framing is utilized.

#### 37.0 DECONTAMINATION UNIT - CONSTRUCTION:

- **37.1** The Asbestos Abatement Contractor will construct a decontamination unit consisting of a separate air lock, clean room, air lock, shower room, air lock, equipment room, and air lock, located at the entry to each containment or enclosure work area.
- **37.2** The Asbestos Abatement Contractor will build these units in a watertight drip pan that is oversized for the size of the units. This pan is to be approximately 12 inches deep. The Asbestos Abatement Contractor will install these units so, as it is level and structurally sound.
- 37.3 The decontamination units will be constructed and then lined with two (2) layers of six (6) millimeter polyethylene sheeting on the interior floor, walls, and ceiling, with two (2) exterior layers of four (4) millimeter polyethylene sheeting on the walls and ceiling. If the decontamination unit will be exposed to the weather the Asbestos Abatement Contractor must use reinforced ten (10) millimeter polyethylene sheeting for construction.
- **37.4** All sections of the decontamination units are to be wet wiped at the end of each shift. The equipment room is to be cleaned daily.
- 37.5 The decontamination unit shower and washing area are to be equipped with a shower head, adequate amounts of soap, towels, continual warm water and a waste pump that has a higher capacity output than the shower unit input capacity. Water is not to be left standing in any section of the decontamination unit. Leaks in this unit must be immediately repaired.
- **37.6** Both sections of the decontamination unit, on either side of the shower, will have a clean drop cloth placed on the floor at the beginning of each shift. The drop cloths are to be constructed of four (4) millimeter polyethylene sheeting secured to the floor of the decontamination unit, thus reducing the potential for tripping or slipping. The four (4) millimeter polyethylene sheet drop clothes are to be disposed of as asbestos contaminated waste material at the end of the each shift.
- **37.7** The clean room must meet the following requirements:
  - 37.7.1. The Asbestos Abatement Contractor will provide access to and from clean room shall be through triple layered six (6) millimeter polyethylene sheeting doorway, weighted to close quickly and tightly against the outside entrance to the clean room doorway frame.
  - 37.7.2. This area will be constructed in a way that will accommodate all personnel working within the containment enclosure area. Appropriate lighting is to be provided by either natural or artificial means. If artificial lighting is used, the system must be waterproofed, and properly grounded.

#### 37.8 Decontamination Unit Shower Room:

The shower room must meet the following requirements:

- 37.8.1. The Asbestos Abatement Contractor will construct the shower room providing a minimum size of thirty-two (32") inches wide, by thirty-two (32") inches long, by ninety (90") inches in height.
- The Asbestos Abatement Contractor will supply the shower room with hot and cold running water, soap, and clean towels for all personnel.
- 37.8.3. The Asbestos Abatement Contractor will construct the shower room with the aim of providing the maximum amount of privacy and lighting.
- The Asbestos Abatement Contractor will provide access to and from shower room through double layers of six (6) millimeter polyethylene sheeting doorways, weighted to close quickly and tightly against the entrances to the shower room doorway frame.
- The Asbestos Abatement Contractor will provide access to and from the shower will through double layers of six (6) millimeter polyethylene sheeting airlocks, approximately three (3') feet by three (3') feet or larger, with double flap doorways at all entrances and exits.

#### MUTIPLE BUILDING DEMOLITION

- All personnel shall shower prior to removing respirators and entering clean locker room. The Asbestos Abatement Contractor will provide a sufficient supply of disposable twenty (20") inch by forty (40") inch bath towels to accommodate a minimum of five showers per day for each individual entering the containment enclosure work area.
- 37.8.7. The Asbestos Abatement Contractor may dispose of all filtered water by collecting the clean filtered water and putting the water into a sanitary drain or as directed by the Consultant. All waste water must be filtered through a twenty five (25 μm) micron filter, then a five (5 μm) micron final filter prior to discharging the filtered water a sanitary drain.
- All contaminated water from shower areas and abatement area must be disposed of in compliance with all local State and Federal regulations. Contaminated water will be treated in accordance with work practices specified for asbestos containing materials and waste.
- Any visible water leaks from the containment or shower unit will constitute a stop work order until the water has been cleaned up and the breach of the containment or shower unit patched in a satisfactory manner.

#### 37.9 EQUIPMENT DECONTAMINATION / STORAGE ROOM

The equipment room must meet the following requirements:

- **A.** The Asbestos Abatement Contractor will provide access to and from the equipment room through double layered six (6) millimeter polyethylene sheeting airlocks, weighted to close quickly and tightly against the entrances to the equipment and shower room doorway frames.
- **B.** The Asbestos Abatement Contractor will provide a HEPA vacuum to clean asbestos contaminated equipment and disposable protective clothing, prior to entry into shower room.
- C. The Asbestos Abatement Contractor will provide impermeable, labeled bags for the disposal of contaminated disposable protective clothing and respirator filters. All personnel shall remove and bag their contaminated clothing prior to entering shower area. Personnel shall clean their respirators in the shower room, and dispose of the filters in the disposal bag in the equipment room.

#### 38. SIGNS AND LABELS:

- **38.1** The Asbestos Abatement Contractor is to affix the Texas Department of State Health Services required poster at the entrance to the work area prior to commencing any asbestos related activity.
- **38.2** The Asbestos Abatement Contractor is to affix danger signs and barrier tape at all approaches to asbestos control work area. Locate these signs where personnel may read the sign and take any necessary protective steps required before entering the area.
- **38.3** The Asbestos Abatement Contractor is to affix OSHA asbestos warning labels and TCEQ generator information labels to all asbestos disposal bags, polyethylene wrapped disposal packets and any other properly wrapped and sealed package that contains asbestos materials, asbestos contaminated materials, or asbestos contaminated waste materials.
- **38.4** The Asbestos Abatement Contractor is to affix OSHA required warning signs in vertical format conforming to OSHA requirements a minimum of twenty (20") inches by fourteen (14") inches displaying the OSHA legend. The wording on the OSHA warning signs must be printed in both the English language and the Spanish language.
- **38.5** All asbestos dumpsters must display the OSHA warning signs on all sides in both the Spanish and English language. The dumpster should also display the Department of Transportation sign with the designation of "NA2212".
- **38.6** All asbestos disposal trailers must display the OSHA warning signs on the inside of all doors that may be opened to receive asbestos disposal materials. The OSHA warning signs must be printed in both the Spanish and English language. The trailer should also display the Department of Transportation sign with the designation of "NA2212".

#### 39.0 GLOVEBAG REMOVAL OPERATIONS

The following section will apply for the removal of thermal system insulation with the use of glovebags. The Asbestos Abatement Contractor must comply with all Federal and State regulations concerning the use of glovebags if this removal method is utilized. The use of glovebags will not be allowed on high temperature applications unless the Asbestos Abatement Contractor can prove that it can be done effectively and safely.

- **39.1** Installation of critical barriers in accordance with conditions set forth in this document. The Asbestos Abatement Contractor will preclean the work area and install a single layer of 6-mil polyethylene sheeting that completely covers the floor of the work area.
- **39.2 Glovebag:** Remove ACM inside a glove bag according to the following procedure:
  - 1. Use at least two persons to perform glovebag removals operations.
  - 2. Use each glovebag only once
  - 3. Do not move glovebag once it has been mounted in place.
  - **4.** Do not use glovebag on surface whose temperature exceeds 150°F (65.6°C).
  - **5.** Check materials adjacent to locations where glovebag will be installed. Wrap damaged (broken lagging, hanging, etc.), loose or friable material in 2 layers of 6 mil (0.15 mm) plastic and "candy-stripe" with duct tape, or render material intact by some other method. Place one layer of duct tape around undamaged pipe at each location where the glove bag will be attached.
  - **6.** Slit top of the glove bag open (if necessary) and cut down the sides to accommodate the size of the pipe (about two inches longer than the pipe diameter) and allow additional so that the top of the glove bag will be clear of the pipe after installation.
  - 7. Place necessary tools into pouch located inside glove bag. This will usually include: bone saw, utility knife, rags, scrub brush, wire cutters, tin snips and pre-wetted cloth.
  - 8. Place a strip of duct tape along both edges of the open top slit of glove bag for reinforcement.
  - 9. Place the glove bag around section of pipe to be worked on and staple top together through reinforcing duct tape. Staple down sides approximately 6 inches so that top of the glove bag is clear of pipe. Seal top and sides with duct tape. Next, duct tape the ends of glove bag to pipe itself, where previously covered with plastic or duct tape.
  - 10. Install glovebag so that it completely covers the circumference of pipe or other structures where the work is to be done.
  - 11. Use smoke tube and aspirator bulb to test seal. Place tube into water sleeve (two-inch opening to glove bag) squeezing bulb and filling bag with visible smoke. Remove smoke tube and twist water sleeve closed. While holding the water sleeve tightly, gently squeeze glove bag and look for smoke leaking out, (especially at the top and ends of the glove bag). If leaks are found, tape closed using duct tape and re-test.
  - **12.** Insert wand from garden sprayer through water sleeve. Duct tape water sleeve tightly around the wand to prevent leakage.
  - **13.** Thoroughly wet material to be worked on with amended water or removal encapsulant and allow the liquid to soak into the material. Wet adequately to penetrate and soak material through to substrate.
  - **14.** One person places their hands into the long-sleeved gloves while the second person directs garden sprayer at the work.
  - **15.** Use bone saw, if required, to cut insulation at each end of the section to be removed. A bone saw is a serrated heavy gauge wire with ring-type handles at each end. Throughout this process, spray amended water or removal encapsulant on the cutting area to keep dust to a minimum.
  - 16. Remove insulation using putty knives or other tools. Place pieces in bottom of bag without dropping.

- 17. Rinse all tools with water inside the bag and place back into pouch.
- 18. Using scrub brush, rags and water, scrub and wipe down the exposed pipe.
- 19. Thoroughly wash and wipe down interior of glovebag to a point below the location where the bag will be twisted and taped to seal waste in bottom of bag.
- **20.** Remove water wand from water sleeve and attach the small nozzle from HEPA-filtered vacuum. Turn on the vacuum only briefly to collapse the bag.
- 21. Remove the vacuum nozzle, twist water sleeve closed and seal with duct tape.
- 22. From outside the bag, pull the tool pouch away from the bag. Place duct tape over twisted portion and then cut the tool bag from the glove bag, cutting through the twisted/taped section. Contaminated tools may then be placed directly into next glove bag without cleaning. Alternatively, tool pouch with the tools can be placed in a bucket of water, opened underwater, and tools cleaned and dried. Discard rags and scrub brush with asbestos waste.
- 23. With removed insulation in the bottom of the bag, twist the bag several times and tape it to seal material in the bottom during removal of the glove bag from the pipe.
- **24.** Slip a 6 mil (0.15 mm) disposal bag over the glove bag (still attached to the pipe). Remove tape or cut bag and open the top of the glove bag and fold it down into disposal bag.
- 25. Clean all surfaces in the Work Area using disposable cloths wetted with water with surfactant or removal encapsulant added. When these surfaces have dried, clean with a HEPA filtered vacuum. Material adhered to a surface with removal encapsulant may require the application of additional removal encapsulant to facilitate cleaning.
- 26. Seal exposed ends of remaining pipe insulation in accordance with Section on Encapsulation.
- 27. Remove disposable suits and place these into bag with waste.
- **28.** Collapse the bag with a HEPA vacuum twist top of bag, seal with at least 3 wraps of duct tape, bend over and seal again with at least 3 wraps of duct tape.
- 29. After all glovebags in the area are completed, request a visual inspection by the Consultant.
- **30.** After visual and air quality clearance have been verified by the Consultant, remove all barriers and coverings from the work area.

#### 40.0 ENCAPSULATION OF POST ASBESTOS CONTAINING MATERIALS REMOVAL:

The following section will apply for the encapsulation of a substrate material from which asbestos containing materials have been removed, and the encapsulation and sealing of exposed ends of pipe insulation.

- **40.1** <u>Types of Encapsulate</u>: The type of encapsulates will be determined by the Asbestos Abatement Contractor through the submittal process, and has to be approved for use by the Consultant.
- **40.2** The composition and adhesion of new acoustical and other finishes to an encapsulated base or substrate material must be considered in selecting an encapsulant, and determining if the encapsulate should be exhibit these various qualities.

Penetrating Encapsulant

**Bridging Encapsulant** 

Bridging Encapsulant Paste for Pipe insulation

Unless specified directly by the Consultant, the Asbestos Abatement Contractor is to provide the specified liquid encapsulant. The Asbestos Abatement Contractor is to use a colored encapsulant on thermal systems and acoustical plaster over spray areas. A clear encapsulate will be used in all areas where a new finish will be applied after the abatement of asbestos containing materials have been removed. This material is to be applied with a low-pressure airless spray unit.

- **40.3** Worker Protection: Before beginning work with any material verify that the Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) is available and that the appropriate personal protection equipment is used. This equipment will include, but is not limited, to full body coverage with impermeable coveralls, gloves, head and foot coverings.
- **40.4** Equipment: The Asbestos Abatement Contractor will provide and use airless spray equipment.
  - The Asbestos Abatement Contractor will apply the selected encapsulate with an airless spray gun, using air pressures and the nozzle orifice size recommended by the encapsulate manufacturer.
  - Apply the first coat encapsulate while the substrate is still damp from the asbestos removal procedures. If the surface has been permitted to dry, vacuum the surface with a HEPA filtered vacuum cleaner prior to spraying with the encapsulate. Apply a second coat over first coat in strict conformance with manufacturer's instructions.
- **40.5** <u>Sealing Exposed Edges:</u> Seal the edges of asbestos containing material exposed by the abatement up to an inaccessible spot, with two coats of encapsulate. Prior to sealing, permit the exposed edges to dry completely to permit penetration of the sealer.

The Asbestos Abatement Contractor will vacuum all loose pipe insulation debris with HEPA vacuum, spray the exposed ends with a penetrating encapsulate. The Asbestos Abatement Contractor will then apply a woven cloth doughnut or wrap that has been saturated with encapsulate over the exposed insulation, and then apply one (1) coat of a bridging encapsulate, and then allow the piping to dry.

#### 41.0 WASTE DISPOSAL:

The Asbestos Abatement Contractor will dispose of asbestos containing waste materials in a manner that adheres to all Federal, State and Local regulations. The Asbestos Abatement Contractor will adhere to the requirements set forth in this document for the disposal of asbestos containing waste materials

- **41.1** All asbestos containing material will be placed in one (1) sealed, six (6) millimeter polyethylene disposal bags or similar wrapped package, and transferred to the decontamination unit shower for final cleaning
- **41.2** The disposal bag or package from the work area will be handed into the shower operator. The shower operator will cleanse the exterior of the disposal package. The disposal package will then be placed in a second, clean leak tight container. The Department of Transportation warning label bearing the designation of "NA2212" and the TCEQ generator identification label will be affixed to the disposal package and passed to the outside man, for transfer to the asbestos dumpster or trailer.
- **41.3** The clean disposal package is placed in an asbestos dumpster or trailer that has been lined with two (2) layers of six (6) millimeter polyethylene sheeting. The asbestos disposal waste materials will be transported to an EPA and TCEQ approved landfill periodically.
- **41.4** The asbestos transporter must possess a current Texas Department of State Health Services asbestos transporter license. The transporter must have a Texas Water Commission Hazardous Materials Waste Manifest completed prior to taking the asbestos dumpster or trailer to the landfill.
- **41.5** The dumpster is bear OSHA warning signs on all inside doors, and Department of Transportation warning label bearing the designation of "NA2212" on each side of the asbestos disposal dumpster or trailer.

#### **42.0 VISUAL INSPECTIONS:**

**42.1** <u>Pre-removal Inspection:</u> The Asbestos Abatement Contractor will request an inspection by the Consultant of the enclosure unit prior to the disturbance of asbestos containing materials. The Consultant will verify that the enclosure meets the requirements set forth in this document and governing regulations and guidance. The Asbestos Abatement Contractor must correct all deficiencies pointed out by the Consultant or his representative prior to the start of any activity that disturbs asbestos containing materials.

**42.2** Removal Procedures Inspection: Throughout the removal process, the Consultant will make inspections of the enclosure unit to insure that the unit is maintained in a good condition. At any time, the enclosure is found to have a breach, work will stop until the breach is repaired. The Consultant will make compliance inspections of the work procedures and will note areas of non-compliance to the Project Supervisor. All such non-compliance items must be corrected as soon as possible. Failure to correct non-compliance items in a timely manner will result in a work stop order being issued. The Consultant and his Project Manager do have contractual authority to issue a work stoppage for breaches of contract or in the interest of public health and client liability.

#### 43.0 FINAL CLEANING, VISUAL INSPECTIONS AND CLEARANCE PROCEDURES:

Final air quality clearance sample collection will not be initiated by the Consultant until a successful final cleaning of the area has been completed and the area has passed all required visual inspections as stated below:.

- 43.1 First Visual Inspection and Final Cleaning: Once all of the asbestos containing material to be removed has been completely removed, the Asbestos Abatement Contractor shall request the first visual inspection of the removal surface. Removal requirements have not been met until the material(s) specified for removal have completely been removed to where they are not visibly detectable to the Consultant. Once the Consultant has conducted the visual inspection as stated in 43.2 VISUAL INSPECTIONS and has released the area as visually clean, the Asbestos Abatement Contractor will carry out a first cleaning of all surfaces within the work area, including polyethylene sheeting, tools, scaffolding, and staging with damp cleaning towels, mopping, and a HEPA filtered vacuum. Do not perform dry dusting or dry sweeping. Continue the first cleaning until there is no visible debris or residue on plastic sheeting or other surfaces. Replace the pre filters on the air filtration units. Dispose of the old filters as asbestos contaminated waste, properly double bagged and labeled. Once the initial cleaning has been completed, the Asbestos Abatement Contractor shall remove all layers of the polyethylene sheeting except for the final layer and critical barriers. Any excessively damaged sheeting or sections contaminated with debris or water bearing debris shall be replaced and the protected surface shall be wet wiped and HEPA vacuumed.
- 43.2 <u>Visual Inspection</u>: The work area must pass a visual inspection administered by the Consultant before the project is cleared for the removal of the containment or the collection of the final air quality clearance samples. The Asbestos Abatement Contractor will contact the Consultant when ready for inspection. The Consultant will conduct the visual inspection, using the current version of "ASTM Visual Inspection Practices for Asbestos Abatement Projects" protocol, established for use by the Consultant and as specified by the protocol. Only the Consultant or his Project Manager may determine as to whether the removal process has successfully been completed and the area is ready for final air quality clearance. The visual inspection will cease when it is determined by the Consultant that there is visible amounts of the materials that were to be removed or contamination and or debris from the removed materials that will take more than fifteen minutes of spot removal or cleaning to correct. If the Consultant can remove the material with a sharp object or wipe visibly detectible amounts onto a cloth or other wiping device, the area does not pass visual inspection. If all conditions set forth in the protocol are met, the area does not pass visual inspection. The cessation of the visual inspection for any of said reasons will be a failure of the visual inspection process.

- 43.3 Inspection Failure: Each time the visual inspection, by the Consultant is failed or incomplete, the Asbestos Abatement Contractor is required to continue to clean the work area and remove the specified asbestos containing material or assumed asbestos containing / contaminated material until all visible amounts have been removed. Once this has been completed the Asbestos Abatement Contractor shall notify the Consultant that he is ready for another visual inspection. If the Asbestos Abatement Contractor does not agree that the remaining residue of the failed inspection is the material specified in this document, they may request the Consultant to collect 3 to 5 samples of the suspect material and submit the material for comparative analysis with a material sample collected by the Consultant prior to the start of the removal by the Asbestos Abatement Contractor. The samples will be analyzed by a laboratory selected by the Consultant by transmission electron microscopy for comparison and for asbestos content. The Asbestos Contractor shall bear the cost of said sample collection, transport and analysis. The containment will not be cleared nor is the project deemed completed until the results of sample analysis available from the laboratory and the determination the suspect material is not the same material and does not contain asbestos fibers. No additional fees will be paid by the Owner or the Consultant to the Asbestos Abatement Contractor for additional labor, time, materials, and other additional cost incurred by the Asbestos Abatement Contractor due to inspection failure or shut down for additional testing.
- **43.4** Encapsulation of substrate: Once a successful completion of the Perform encapsulation of substrate in all areas. The Asbestos Abatement Contractor will utilize the encapsulate selected through the submittal process. The Asbestos Abatement Contractor will maintain the differential pressure filtration system in operation during the encapsulation of the work areas. The Asbestos Abatement Contractor will apply the encapsulation after authorization from the Consultant. Encapsulate will be applied with an airless spray set on low pressure.
- **43.5** Cleaning of Air in Work Area: Wait twelve (12) Hours to allow differential pressure air machines to clean the air of airborne asbestos fibers and allow the encapsulate to dry. The use of fans and leaf blowers during this phase is prohibited. The Asbestos Abatement Contractor will maintain the differential pressure system in operation for the entire twelve- (12) hour period.
- 43.6. Final Cleaning and Final Visual Inspection: Once the drying and air scrubbing process is complete:
  - 43.6.1. the Asbestos Abatement Contractor will remove the last layer of enclosure sheeting from the containment. The Asbestos Abatement Contractor is to leave all critical barriers in place.
  - 43.6.2. Upon completion of the removal of the enclosure layer, the Consultant will conduct a visual inspection to determine if visible amounts of asbestos containing material or debris have all been removed exposed area of the containment. The Asbestos Abatement Contractor will remove or clean all areas where ACM, asbestos containing debris or presumed ACM is detected by the Consultant.
  - 43.6.3. Upon completion of the visual clearance, the Asbestos Abatement Contractor shall conduct a final cleaning of the containment and all personnel and unused equipment shall be processed out of the work area.
  - 43.6.4. the Consultant will conduct final air quality clearance sampling as specified.
  - 43.6.5. In case of failure of the work area air quality clearance samples, the Asbestos Abatement Contractor and the Consultant will restart the clearance and cleaning procedure.
  - 43.6.6. Once notified by the Consultant that the area has passed final air quality clearance, the Asbestos Abatement Contractor will remove the remainder of the enclosure unit.
  - 43.6.7. Upon completion of the removal of the enclosure, the Asbestos Abatement Contractor will request a visual inspection of the work area and surrounding area to be conducted by the Consultant and the Owner.
  - 43.6.8. The Asbestos Abatement Contractor will be responsible for the completion of all items listed by the Owner and the Consultant for the completion of the required work under this contract. At the completion of the walkthrough, all damage and punch list items know at the time will be explained to the Asbestos Abatement Contractor.

#### MUTIPLE BUILDING DEMOLITION

- 43.6.9. Once all punch list items have been completed, the Asbestos Abatement Contractor will proceed with the Final Cleaning to include the removal of tape, adhesives, all generated waste, equipment and waste containers from the Owner's site immediately.
- 43.6.10. The Asbestos Abatement Contractor will then clean all vertical and horizontal surfaces of any type of visible debris. All surfaces will be cleaned of tape and adhesive residue.
- 43.6.11. The Asbestos Abatement Contractor will then restore any surface that has been damaged, any flooring that has been damaged, and any other finish that has been damaged.

#### 44.0 ORDER OF WORK

The order of the work for this project will be determined during initial pre-work meetings.

The End of Section

# ATTACHMENT NUMBER 1 WORKER ACKNOWLEDGEMENT FORM

#### MUTIPLE BUILDING DEMOLITION

### CERTIFICATE OF WORKER'S ACKNOWLEDGMENT PROJECT NAME: \_\_\_\_ PROJECT DATES: PROJECT ADDRESS: ASBESTOS ABATEMENT CONTRACTOR'S NAME: WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC. Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you. **RESPIRATORY PROTECTION:** You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project. TRAINING COURSE: You must have been trained at a course the equivalent in curriculum and training method to the asbestos workers course developed by EPA for asbestos workers who conduct activities that will result in the disturbance of ACM. This course must have been provided by a State of Texas approved trainer and meet all requirements as outlined in 25 TAC 295.64. This course must have included "hands-on" training in the use of respiratory protection and work practices and shall take at least 24 hours. STATE OF TEXAS REGISTRATION: You must be registered with the State of Texas, Department of State Health Services as an Asbestos Worker or licensed as an Asbestos Abatement Supervisor as specified in 25 TAC 295.46 as it relates specifically to your position on the above named project. MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest xray. By signing this document you are acknowledging only that the Owner of the building you are about to work in has advised you of your rights to training and protection relative to your employer. Signature Employee Number: Printed Name: Date:

1/15/2017 ASBESTOS ABATEMENT SECTION 2000 Page 38

Witness Signature:

Witness Printed Name:



### FLINT INSPECTION CONSULTING SERVICES, INC

P.O. BOX 235, BURKBURNETT, TEXAS 76354-0235

Letter of Authorization

#### **Project Name and Location:**

"Multiple Building Demolition"

A. McGaha Building (Louis J Rodriguez & Comanche Trail, MSU Main Campus, Wichita Falls, Texas

January 15, 2017

- B. 2508 Hampstead Lane, Wichita Falls, Texas
- C. 2510 Hampstead Lane, Wichita Falls, TexasD. 2512 Hampstead Lane, Wichita Falls, Texas
- E. (Additive Alternate 1) 2525 Hampstead Lane, Wichita Falls, Texas

I, Leroy F. Skaggs, do authorize Mark D. Griffin, Kathleen Anderson, or Katherine D. Skaggs to serve as the Project Manager for this project as defined in the following and specified in the project specifications for the removal of asbestos containing materials.

**Project Manager:** This is a licensed Asbestos Project Manager that is under the direct supervision of the Consultant. The Project Manager will act as the full time representative of the Consultant during overall project activities, and shall report any needs to modify the work if the requirements of the contract are better served and will relay and record the modifications as needed. The Project Manger shall have complete authority to stop work on the project if the contract documents or specifications are being violated; the interests of the Owner are not being met, or if there is any serious safety violation. Under the authority of the Consultant, the Project Manager may conduct project documentation, pre-removal inspections, post removal inspections and collect or have collected all air quality sampling required under the duties of the Consultant as they are so licensed.

This letter shall be in effect throughout the duration of the project.

Cordially,

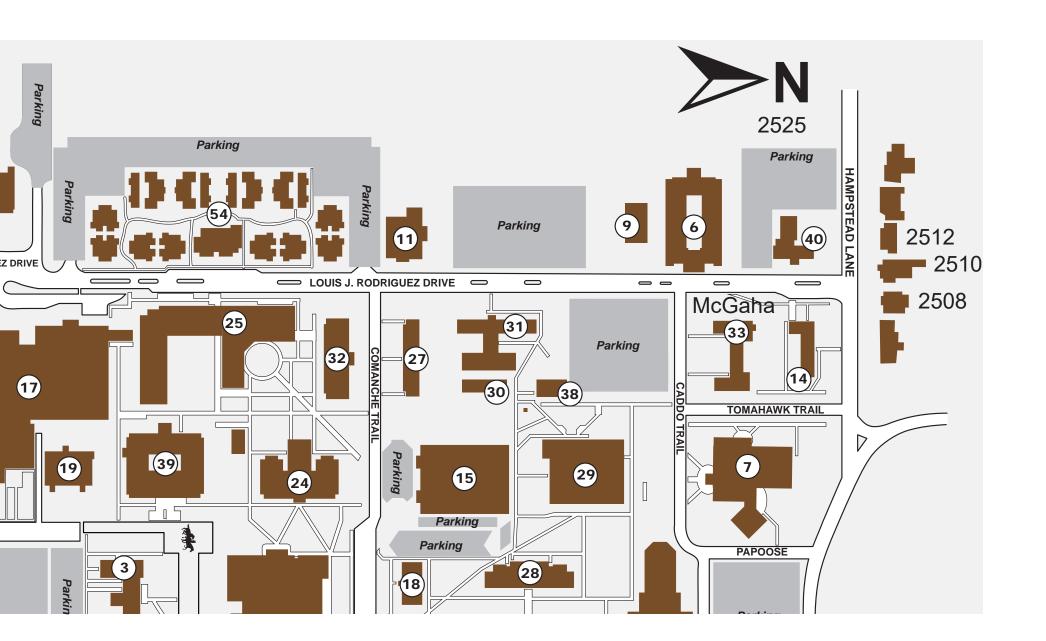
Leroy F. "Flint" Skaggs

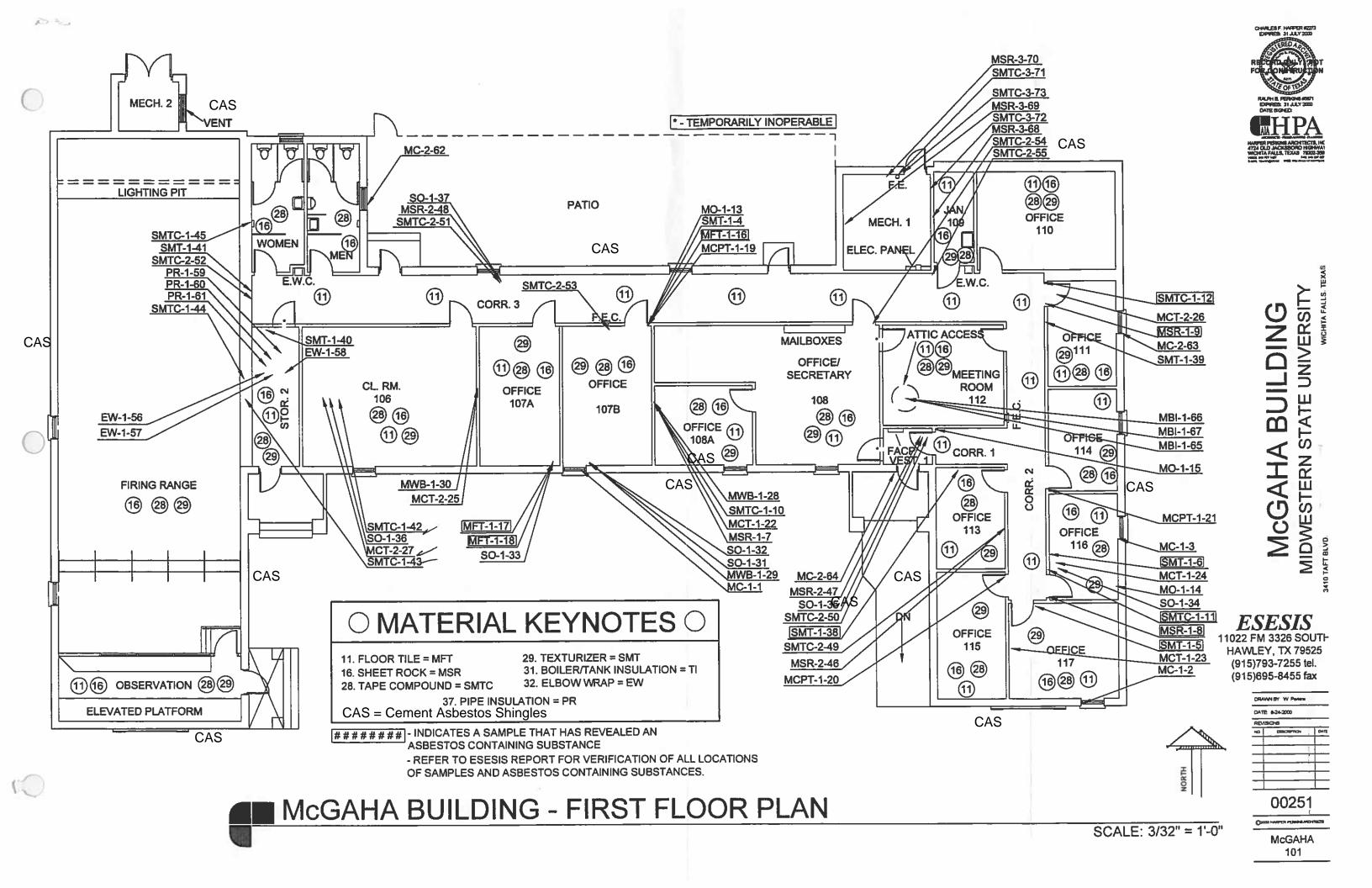
Individual Asbestos Consultant 10-5110

My Licenses expires May 9, 2018

PHONE: (940) 569-4876 <u>www.ficsinc.com</u> FAX: (866) 469-0378

File: FICSI Authorization Letter







HTHON

SCALE: 1/4" = 1'-0"

SMTC-3-73

SMTC-3-72

SMTC-3-71

MSR-3-70 PR-4-74

PR-4-76

MSR-3-68 EW-4-79

PR-3-96

EW-3-98

PR-3-95

PR-3-97

TI-1-86

EW-5-83

PR-5-80 TI-1-87 EW-3-99 PR-5-82

EW-3-100

(31)

# ROOM ONE FLOOR PLAN

McGAHA BUILDING - MECHANICAL

O MATERIAL KEYNOTES O

11. FLOOR TILE = MFT

29. TEXTURIZER = SMT

16. SHEET ROCK = MSR

31. BOILER/TANK INSULATION = TI

ELEC. PANEL-

**MECHANICAL** 

ROOM 1

(32)

28. TAPE COMPOUND = SMTC 32. ELBOW WRAP = EW

PR-4-75

EW-4-78

EW-4-77

PR-2-91

PR-2-90

EW-2-93

EW-2-94

MSR-3-69

PR-2-89

EW-2-92

EW-5-84

EW-5-85

PR-5-81

TI-1-88

37. PIPE INSULATION = PR

####### - INDICATES A SAMPLE THAT HAS REVEALED AN ASBESTOS CONTAINING SUBSTANCE
- REFER TO ESESIS REPORT FOR VERIFICATION OF ALL LOCATIONS OF SAMPLES AND ASBESTOS CONTAINING SUBSTANCES.

ESESIS
11022 FM 3326 SOUTH
HAWLEY, TX 79525
(915)793-7255 tel.
(915)695-8455 fax

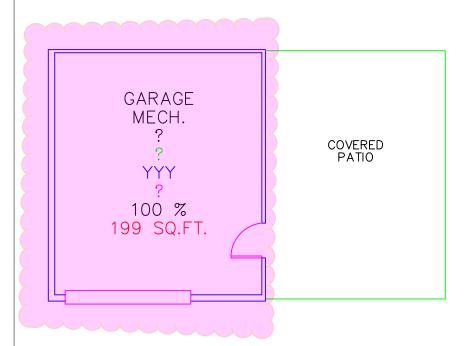
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DAT	E 6-24-300			
REVISIONS				
МО	CENTRON	DATE		
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	00054			

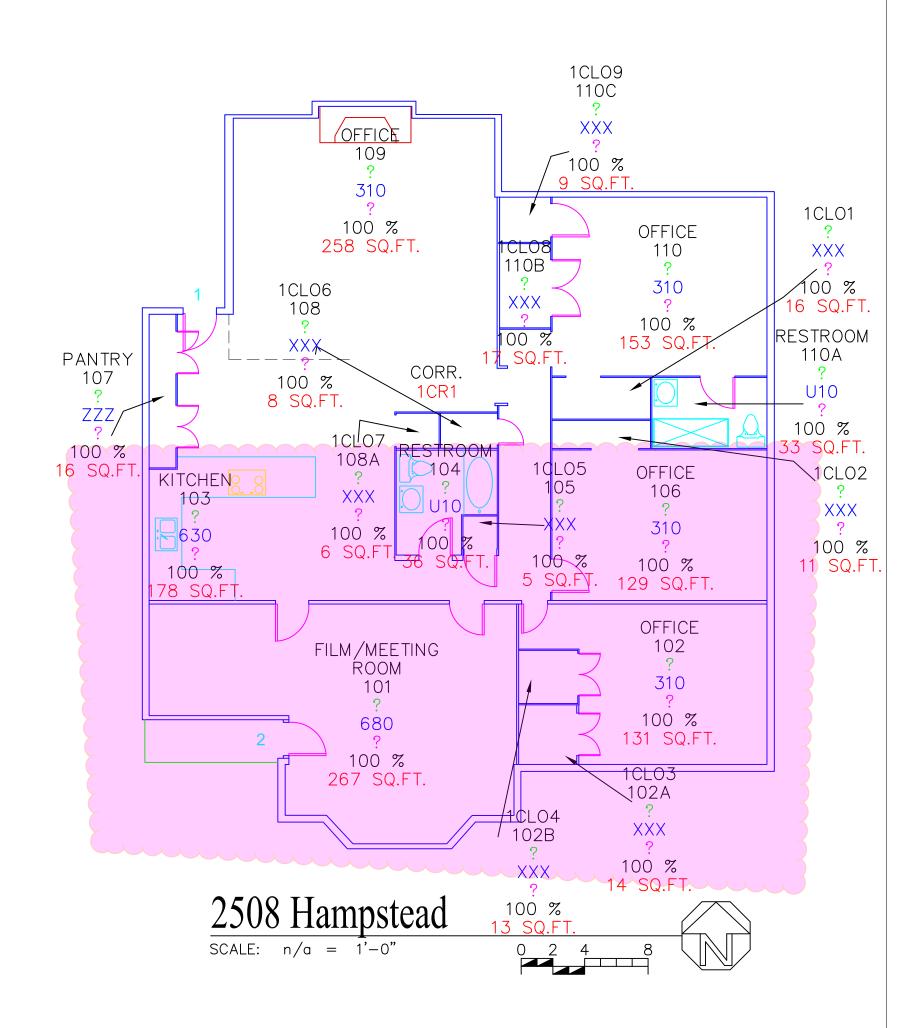
MIDWESTERN STATE UNIVERSITY

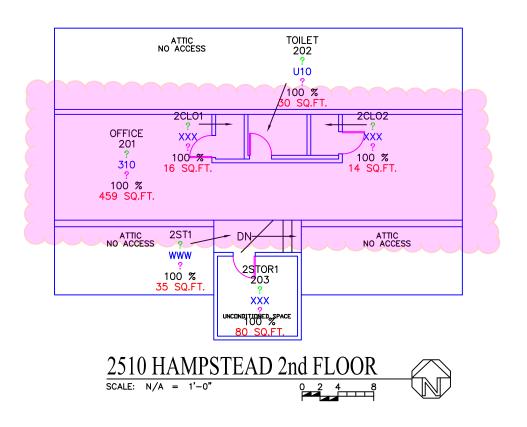
McGAHA BUILDING

00251

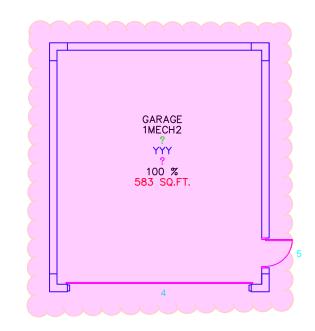
McGAHA MECH. RM.

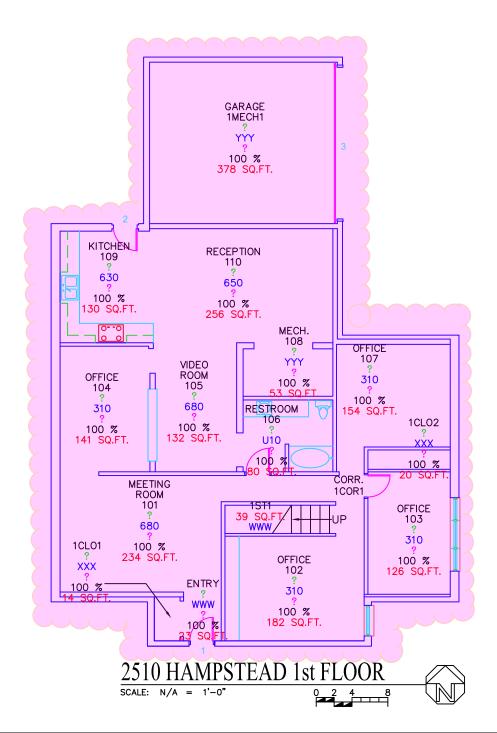


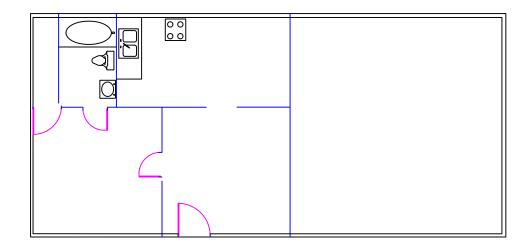


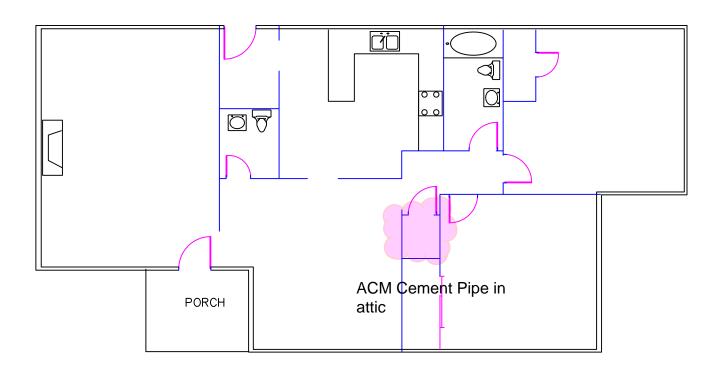


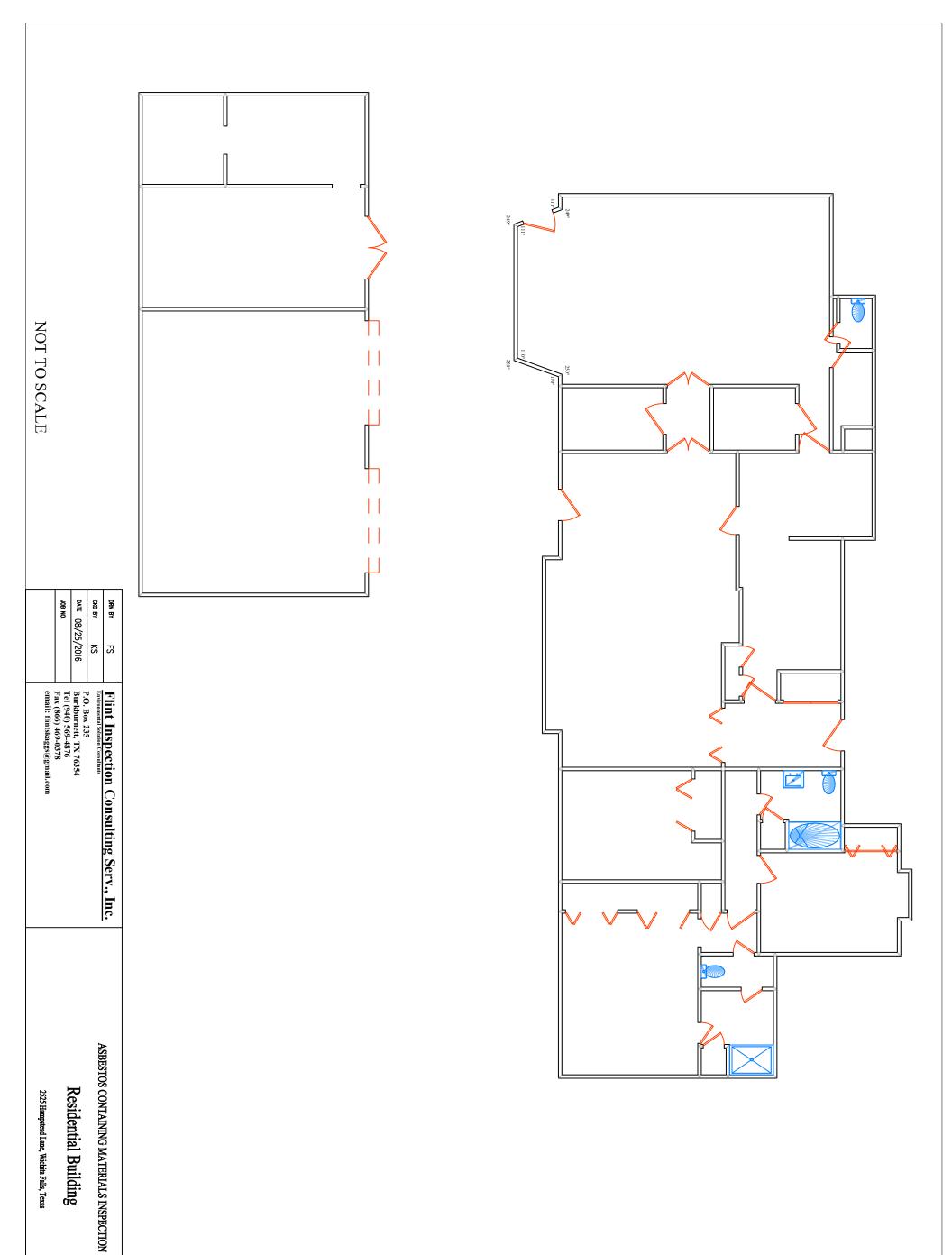
# **ACM Drywall Systems**















#### **DEMOLITION SPECIFICATIONS**

It is the intent of the Owner to award a contract for the demolition, clearing and cleaning for residential and commercial properties located at the corner of Louis J. Rodriguez and Comanche Trail, 2508, 2510, 2512 Hampstead Lane in Wichita Falls, Texas. An additive alternate building is located at 2525 Hampstead Lane. Contractor shall be responsible for all costs associated with demolition to include fill dirt to level the lot to grade. The utilities to the properties will be disconnected as part of the project. The contractor shall be responsible to provide all utilities (ie water) as needed for the demolition. These costs shall be included in the bid price.

Successful bidder shall obtain required permits for the residential properties within ten (10) working days of contract award. Project shall START upon specified project dates. The estimated date is April 10, 2017. Demolition will be completed on the residential buildings no later than May 26, 2017. Asbestos abatement and demolition dates for McGaha are set as June 1, 2017 with a completion date of July 15, 2017.

BUILDING	AVAILABLE DATE	COMPLETION DATE
2508 Hampstead	April 10	May 26, 2017
2510 Hampstead	May 17	May 26, 2017
2512 Hampstead	April 10	May 26, 2017
McGaha Building	June 1	July 15, 2017
Additive Alternate		
2525 Hampstead	April 10	May 26, 2017

Exceptions to this schedule requirement will only be negotiable based upon consultant recommendations and inclement weather which restricts working conditions and will result in extensions on an as required basis. If bidder fails to finish project by said dates, bidder may be liable to the Owner, or may have deducted from funds owed, as liquidated damages two hundred & fifty dollars (\$250.00) per day per location for each calendar day of delay until the project is completed.

#### **SPECIAL REQUIREMENTS**:

#### A. ASBESTOS REPORTING UNITS (ARU'S):

As required by the Texas Department of State Health Services, Regulated Asbestos Containing Materials (RACM) must pay a fee based on the quantity of RACM material removed. The Owner will be responsible for payment of this fee. DO <u>NOT</u> INCLUDE IN BID PRICE.

#### If required:

The Owner has hired Flint Inspection and Consulting Services Inc. to provide air monitoring during the asbestos abatement of the building. DO <u>NOT</u> INCLUDE IN BID PRICE.

#### **B. DISPOSAL FEE.**

Landfill fees shall be paid by the Contractor at time of debris disposal. **These fees shall be included in the bid price.** 

ALL debris (unless other approval is received for recycling purposes) shall be

taken to an approved Landfill. Clean masonry debris may be disposed of in an approved hard fill.

Landfill tickets shall be submitted with invoice once the asbestos abatement and/or demolition is complete. Any outstanding invoices to the Landfill shall be paid before contractor will receive final payment for awarded demolitions.

#### C. PERMITS:

It is the Contractors responsibility to obtain and pay for all permits and comply with all requirements of local, State and Federal laws, and assure that no legal requirement has been or will be violated in making or accepting this bid. **Permits from the City of Wichita Falls will only be required for the residential buildings** 

Note: Permits must be obtained for demolition from Building Inspection, Room 401, Memorial Auditorium, 1300 7th Street, Wichita Falls, TX, 76301, phone number (940) 761-7459.

#### D. TREES AND FENCE:

Contractor shall be required to remove all trees and shrubbery on the residential properties. The trees around McGaha will be maintained un-harmed.

Contractor shall remove all nonparty fences. All fences that borders the property shall be protected. The fence along the alley at 2525 Hampstead Lane will be removed and returned to the Owner. Any damage to perimeter fences is to be repaired by the Contractor. All materials shall be of same brand and color.

#### **E. EMISSIONS CONTROL:**

Awarded contractor named herein is required to furnish water truck(s), hoses, and related hardware necessary to provide control of dust and particle emissions during all demolition and debris removal. **Obtaining water and the cost of the water will be the responsibility of the awarded contractor.** 

All contractor furnished equipment, pumps, hoses and all related hardware shall meet standards of acceptance by City Plumbing Inspection and Public Works personnel.

Water availability will be the nearest fire hydrant at each demolition location. City water may not be expended by contractor personnel from any fire hydrant prior to the placement of a meter. Coordination and location of meters shall be the responsibility of the awarded contractor. Installation of the meter will be accomplished by the Public Utilities Department, Telephone (940) 761-7411. Note: a twenty-four-(24) hour notice is required when re-location of a meter is required.

#### F. FILL DIRT:

The Contractor shall be responsible for the cost of fill dirt required to bring lot to grade. Lots must be brought <u>level to grade</u>, clean of all vegetation, bladed, and <u>mowable by a riding mower</u> when work is completed. *Large debris that would either cause damage to a riding mower blade or be harmful to the person mowing shall be removed.* 

#### **G. POOLS – STORM CELLARS**

Remove all components of pools and storm cellars. Fill with compacted clean fill to grade.

#### **H. FOUNDATIONS**

Remove all foundations, slabs and piers up to two feet below grade. Remove concrete slab or pier and beam foundations. Fill with compacted clean fill to grade.

#### I. INDOOR FIRING RANGE

The West side of McGaha Building is an inactive indoor gun range. The Contractor will collect all berm sand and dust from this section of the building. All said materials will be properly disposed of as lead bearing materials. The backstop shall be dismantled and transferred to a facility for recycling. Documentation must be provided to the Consultant that verifies the disposal of said materials.

All personnel working in this area must be trained in the dangers and handling of lead based materials and dust. Proper personal protection equipment and decontamination procedures shall be adhered to.

Clearance: Once all removal has been completed, a visual inspection will be conducted by the Consultant. If visible dust or debris is found in the work area, the area fails the inspection.

Once the area has passed the visual inspection and the space has set static a minimum of two hours, the Consultant will collect 3 wipe samples. Samples will be collected in accordance with HUD clearance criteria for housing units. The 3 samples must all be below  $100~\mu g/ft^2$  as sampled on the floor of the space for the space to pass analytical clearance. The samples will be sent to a laboratory of the Consultant's choice. The results will be available within two business days from the time of collection.

Once the area passes clearance, the Contractor may proceed with demolition activities.

#### **CONTRACT CONDITIONS:**

#### TERMINATION FOR DEFAULT:

The Owner reserves the right to terminate the contract immediately in the event the successful vendor fails to meet delivery or completion schedules, or otherwise perform in accordance with the contract.

#### **HOLD HARMLESS:**

Vendor shall protect, indemnify and hold the Owner harmless from and against any damage, cost or liability for any injuries to persons or property arising from acts or omissions of vendor, his employees, agents or sub-contractors, howsoever caused.

#### **INSURANCE REQUIREMENTS:**

The successful bidder shall furnish certificates of insurance issued by an insurance company authorized to do business in the State of Texas. The certificate shall provide that the coverage not be reduced or cancelled without thirty (30) days advance written notice to the City, and shall provide the following coverage:

Contractor shall provide comprehensive general liability insurance having limits no less than \$100,000. each occurrence; \$300,000 aggregate; or \$300,000. combined limits and, in either case, an excess policy with limits to \$1,000,000

The policy shall name the Owner as an additional insured.

#### **COMMERCIAL GENERAL LIABLITY\*\*\***

(same as Comprehensive General Liability)

Insurance including coverage for the following:

- a. Premises operations
- b. Independent contractors
- c. Products/completed operations
- d. Personal injury
- e. Advertising injury
- f. Contractual liability
- g. Medical payments
- h. Underground hazard
- i. Explosion and collapse hazard

#### **COMPREHENSIVE AUTOMOBILE LIABILITY**

Shall provide Comprehensive Automobile Liability insurance, including coverage for loading and unloading hazards, for:

- a. Owned/leased vehicles
- b. Non-owned vehicles

#### **Workers' Compensation** Insurance Coverage.

#### A. Definitions:

Certificate of coverage ("certificate")-A copy of a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project-includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in SS406.096)- includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering

equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401,.011(44) for all employees of the contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.
- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:
- (1) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and
- (2) no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage needs during the duration of the project.
- F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- G. The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:
- (1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;

- (2) provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
- (3) provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- (4) obtain from each other person with whom it contracts, and provide to the contractor:
- (a) a certificate of coverage, prior to the other person beginning work on the project; and
- (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during duration of the project;
- (5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
- (6) notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
- (7) contractually require each person with whom it contracts, to perform as required by paragraphs (1) (7), with the certificates of coverage to be provided to the person for whom they are providing services.
- J. By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who

will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

K. The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within 10 days after receipt of notice of breach from the governmental entity.

#### **ASSIGNMENT:**

It is further agreed that the performance of this contract, either in whole or in part, shall not be sublet or assigned to anyone else by said Contractor.

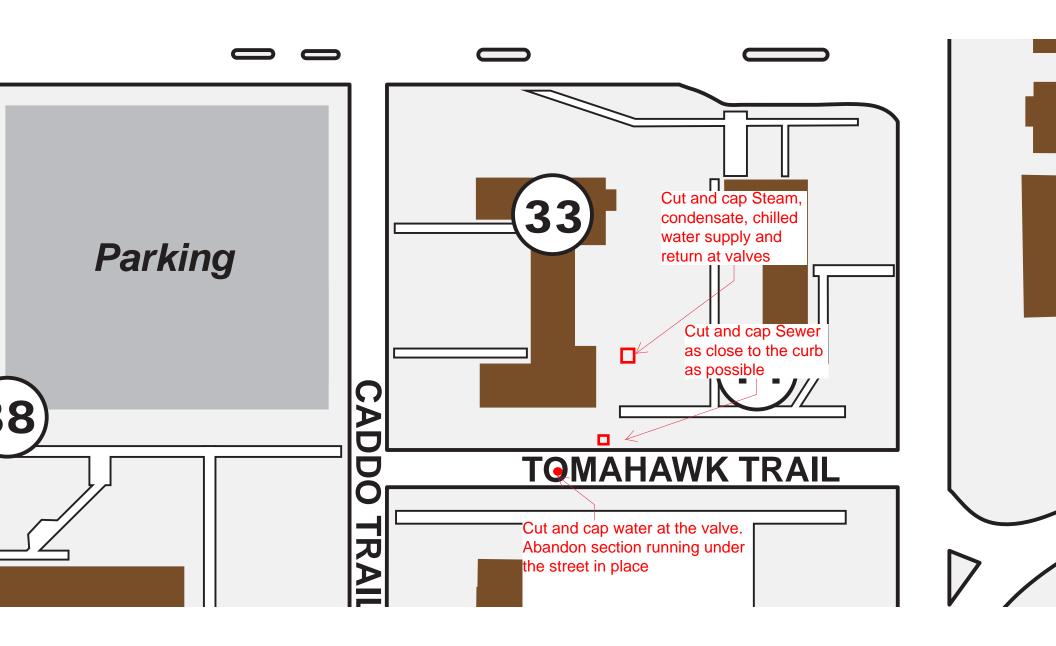
#### **WAGE RATE:**

The Contractor agrees to pay at least the minimum wage per hour for all labor as the same is classified, promulgated and set out by the Owner, Texas.

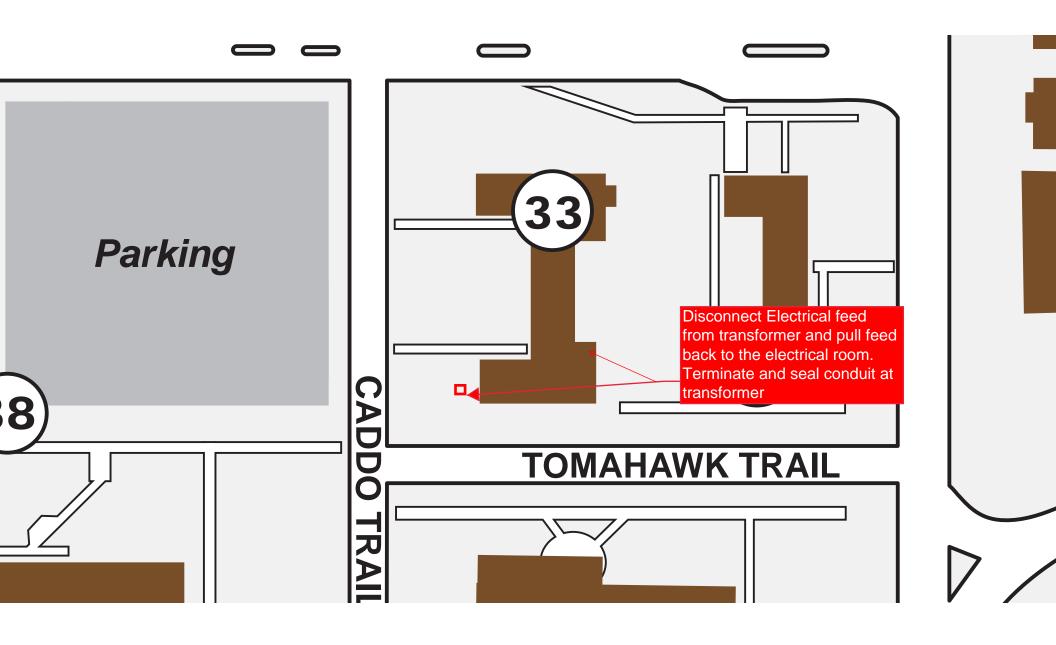
#### **ADDITIONAL REQUIREMENTS:**

- 1. Structures have been tested for asbestos and verified by Flint Inspection Consulting Services, Inc. The demolition cannot begin until after the asbestos has been abated or does not need to be removed prior to demolition.
- 2. It will be the responsibility of the contractor to provide <u>all needed utilities</u> (water, electric, etc.) required for the demolition to the various sites. The utilities have been disconnected. The Contractor shall utilize duly licensed electricians and plumbers to make all disconnects from, electrical, communication, plumbing supply, mechanical and sewer. All such disconnects will be permanent and durable back to the main source.
- Concrete MAY BE taken to a state approved hard fill and the name with location of the hard fill <u>must be submitted in writing</u> to the Consultant prior to any fill be taken to that location.
- 4. The Owner and/or Flint Inspection Consulting Services Inc. will prepare TDSHS demolition notifications and any subsequent amendments. The filing fees will be paid by the Owner and should not be included in the bid.
- 5. Awarded contractor shall contact Texas811 prior to any work being done on site (<a href="http://www.texas811.org/">http://www.texas811.org/</a>) to have all lines marked.
- **6.** Contractor will coordinate with the Consultant for a final inspection when the lot is completed as per the following specifications for each property.

**END OF SECTION** 



PLUMBING DISCONNECTS



#### **ESESIS**

110022 FM 3326 South - Hawley, Texas 79525 (915) 672-5719 - Fax (915) 695-8455 - (800) 793-7255 - email Thorncm@aol.com In Conjunction with

### NORTH AMERICAN ANALYTICAL LABS Inc.

4601 Buffalo Gap Road Suite A-5 - Abilene, TX 79606/ P.O. Box 6865/79608 (915) 691-0172 - (800) 234-3056 - email DEWalker555@aol.com

#### ASBESTOS BUILDING SURVEY

of

MCGaha Building 3410 Taft Boulevard Wichita Falls, TX 76308

Building Number:

0018

Completed for

### Midwestern State University

Report Date: September 08, 2000

**Report Number:** 200065017

**CONSULTANT:** 

Denny E. Walker

TDH License #10-5023

**INSPECTOR:** 

Steven E. Robb

TDH License #60-2004

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# SUMMARY EVALUATION

# ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc. SUMMARY EVALUATION

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Project Number: ACM-2000-01 Date: September 08, 2000

#### PAST SITE HISTORY/CONSTRUCTION

Records provided by MSU show this building to be 6,667 square feet in size. Original construction was completed in 1949. Construction of this building consists mainly of wood and masonry. The exterior of the building is typical construction for MSU properties, clay brick with herring bone accents. The interior finishes consists of painted and papered walls, carpeted and tiled floors and drop ceiling tile grids. The ceiling tile grid does in some places, conceal the original ceiling tile.

# ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc. SUMMARY EVALUATION

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Project Number: ACM-2000-01 Date: September 08, 2000

#### ASBESTOS CONTAINING MATERIAL SUMMARY

(The square and linear footages are approximations.)

This asbestos survey was conducted using the basic guidelines of the Asbestos Hazard Emergency Response Act (AHERA), except for the number of samples collected for each homogeneous area/material. The amount of samples were collected is consistent with the Texas Department of Health regulations. Samples were assigned a unique identifying number, placed in sealed containers and sent to the laboratory for analysis.

One hundred, (100), samples were collected and analyzed in this survey. The samples were analyzed for asbestos content using polarized light microscopy (PLM) in accordance with the Environmental Protection Agency's "Interim method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020, December, 1982).

The percentages of asbestos, where applicable, were determined by microscopic visual examination based on volume. Analyses were performed by Crisp Analytical Laboratory, LLC. This lab is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), and licensed by the Texas Department of Health.

Asbestos containing building materials (ACBM) are assessed as being friable or non-friable. Friable materials can be pulverized into dust by hand pressure and have a higher potential for fiber release than non-friable ACM. Each type of material is also assigned a hazard rank based upon the level of damage currently apparent in the material and that, due to external factors, is likely to be damaged in the future. The hazard rank may range from 1, indicating little problem, to 7, which can indicate a serious health risk.

### ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc. SUMMARY EVALUATION

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#### Miscellaneous Materials



Floor Tile

16

Non-Friable Hazard Rank: 2

Homog. Area Description:

Amount of Material:

Homog. Area Definition:

**Functional Space:** 

Sample Location:

Primary Analysis Results: Secondary Analysis Results::

Floor tile, 12", tan

~3,600Sf

This material can be found in the hallway and rooms 107,115, and 114.

Public Area

Chrysotile

2%

Collected from room 107, wall #1, corner to wall #2.

2% in mastic

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#### Miscellaneous Materials

Floor Tile 1 - 17 - Non-Friable Hazard Rank: 2

Homog. Area Description: Floor tile, 12", tan

Amount of Material: ~3,600Sf

Homog. Area Definition: This material can be found in the hallway and rooms 107,115, and 114.

Functional Space: Public Area

Sample Location: Collected from room 107, below window.

Primary Analysis Results: Chrysotile 5% Secondary Analysis Results: Chrysotile 2%

2% in second layer

Floor Tile 1 - 18 - Non-Friable Hazard Rank: 2

Homog. Area Description: Floor tile, 12", tan

Amount of Material: ~3,600Sf

Homog. Area Definition: This material can be found in the hallway and rooms 107,115, and 114.

Functional Space: Public Area
Sample Location: Collected from room 107, below window.

Primary Analysis Results: Chrysotile 6%

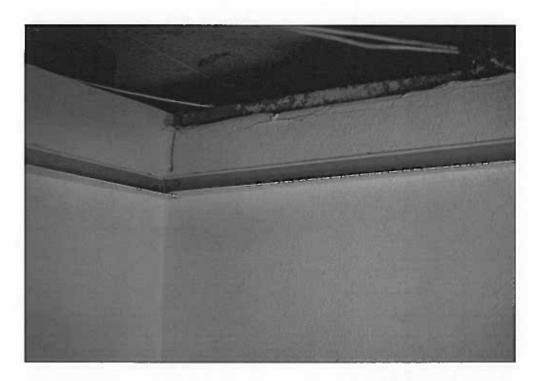
Secondary Analysis Results:: Chrysotile 3%

3% in second layer

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#### Miscellaneous Materials



**Sheet Rock** 9 Non-Friable Hazard Rank: 3

Homog. Area Description:

Amount of Material:

Homog. Area Definition:

Functional Space:

Sample Location:

Primary Analysis Results: Secondary Analysis Results:: Sheetrock, wall

See SMT-1

This material can be found in the offices and classrooms.

Public Area

Collected from room 111, wall #2, above ceiling. Chrysotile

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#### Miscellaneous Materials

**Sheet Rock** 

8

1

Non-Friable Hazard Rank: 3

Homog. Area Description:

Sheetrock, wall

Amount of Material:

See SMT-1

Homog. Area Definition:

This material can be found in the offices and classrooms.

Functional Space:

Public Area

Sample Location:

Collected from room 116, wall #1, above door, above ceiling.

Primary Analysis Results:

Chrysotile 2%

Secondary Analysis Results::

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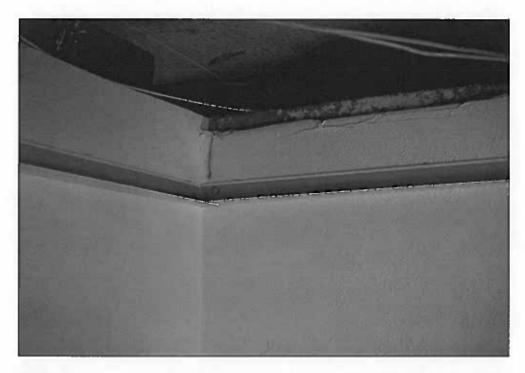
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#### Surfacing Material



Tape Compound 1

11

Non-Friable Hazard Rank: 3

Homog. Area Description:

Amount of Material:

Homog. Area Definition:

Functional Space:

Sample Location:

Primary Analysis Results:

Secondary Analysis Results::

Tape compound

See SMT-1

This material can be found on sheetrock, MSR-1.

Public Area

Chrysotile

Collected from room 116, wall #1, above door, above ceiling.

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### Surfacing Material

Tape Compound 1

12

Non-Friable Hazard Rank: 3

Homog. Area Description:

Tape compound

Amount of Material:

See SMT-1

Homog. Area Definition:

This material can be found on sheetrock, MSR-1.

Functional Space:

Public Area

Sample Location:

Collected from room 111, wall #1, above ceiling.

Primary Analysis Results:

Chrysotile

2% 0%

Secondary Analysis Results::

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### Surfacing Material



Non-Friable Hazard Rank: 3 **Texturizer** 1 6

Homog. Area Description: Texture, wall light

Amount of Material: ~7,700Sf

Homog. Area Definition: This material can be found throughout the building.

Functional Space: Public Area

Sample Location: Collected from room 116, wall #1 above thermostat.

Primary Analysis Results: Chrysotile 2% Secondary Analysis Results:: Chrysotile 2%

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#### Surfacing Material

Texturizer 1 - 38 - Non-Friable Hazard Rank: 3

Homog. Area Description: Texture, wall light

Amount of Material: ~7,700Sf

Homog. Area Definition: This material can be found throughout the building.

Functional Space: Public Area

Sample Location: Collected from room 113, wall #4, at center.

Primary Analysis Results: Chrysotile 2% Secondary Analysis Results:: 0%

Texturizer 1 - 5 - Non-Friable Hazard Rank: 3

Homog. Area Description: Texture, wall light

Amount of Material: ~7,700Sf

Homog. Area Definition: This material can be found throughout the building.

Functional Space: Public Area
Sample Location: Collected from room 117, wall #1, below light switch.

Primary Analysis Results: Chrysotile 2%

Secondary Analysis Results:: 2%

0%

Texturizer 1 - 39 - Non-Friable Hazard Rank: 3

Homog. Area Description: Texture, wall light

Amount of Material: ~7,700Sf

Homog. Area Definition: This material can be found throughout the building.

Functional Space: Public Area

Sample Location: Collected from room 111, wall #1, above light switch.

Primary Analysis Results: Chrysotile 0%
Secondary Analysis Results:: 0%

Less than 1% chrysotile

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### Thermal System Insulation



Elbow Wrap

.

Friable

Hazard Rank: 5

Homog. Area Description:

Amount of Material:

Homog. Area Definition:

Functional Space:

Sample Location:

Primary Analysis Results: Secondary Analysis Results::

94 -

Elbow insulation, blue

~6 elbows

This material can be found on pipe, PR-2, in the mechanical room.

Mechanical

Collected from mechanical room. See drawing for location.

**Chrysotile** 

18%

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#### Thermal System Insulation

Elbow Wrap 2 - 92 - Friable Hazard Rank: 5

Homog. Area Description: Elbow insulation, blue

Secondary Analysis Results::

Amount of Material: ~6 elbows

Homog. Area Definition: This material can be found on pipe, PR-2, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 2%

2% asbestos detected in second layer

Elbow Wrap 2 - 93 - Friable Hazard Rank: 5

0%

Homog. Area Description: Elbow insulation, blue

Amount of Material: ~6 elbows

Homog. Area Definition: This material can be found on pipe, PR-2, in the mechanical room.

Functional Space: Mechanical
Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 16%

Secondary Analysis Results:: 0%

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### Thermal System Insulation



Elbow Wrap

3

98

Friable

Hazard Rank: 6

Homog. Area Description:

Amount of Material:

Homog. Area Definition:

**Functional Space:** 

Sample Location:

Primary Analysis Results: Secondary Analysis Results::

Elbow insulation, orange

~8 elbows

This material can be found on pipe, PR-3, in the mechanical room.

Collected from mechanical room. See drawing for location.

Chrysotile

18%

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#### Thermal System Insulation

Elbow Wrap 3 - 99 - Friable Hazard Rank: 6

Homog. Area Description: Elbow insulation, orange

Amount of Material: ~8 elbows

Homog. Area Definition: This material can be found on pipe, PR-3, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 20%
Secondary Analysis Results:: 0%

Elbow Wrap 3 - 100 - Friable Hazard Rank: 6

Homog. Area Description: Elbow insulation, orange

Amount of Material: ~8 elbows

Homog. Area Definition: This material can be found on pipe, PR-3, in the mechanical room

Homog. Area Definition: This material can be found on pipe, PR-3, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrvsotile 20%
Secondary Analysis Results:: 0%

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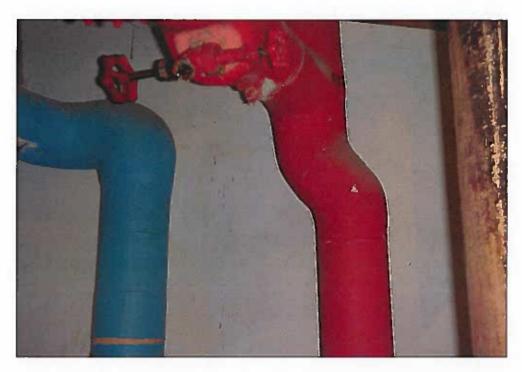
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#### Thermal System Insulation



Elbow Wrap

4

79

Friable

Hazard Rank: 4

Homog. Area Description:

Elbow insulation, red

4 albania

Amount of Material: Homog. Area Definition: ~4 elbows

This material can be found on pipe, PR-4, in the mechanical room.

Functional Space: Sample Location:

Mechanical

Primary Analysis Results:

Chrysotile

Secondary Analysis Results::

13%

Collected from mechanical room. See drawing for location.

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#### Thermal System Insulation

Elbow Wrap 4 - 78 - Friable Hazard Rank: 4

Homog. Area Description: Elbow insulation, red

Amount of Material: ~4 elbows

Homog. Area Definition: This material can be found on pipe, PR-4, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 16%
Secondary Analysis Results:: 0%

Elbow Wrap 4 - 77 - Friable Hazard Rank: 4

Homog. Area Description: Elbow insulation, red

Amount of Material: ~4 elbows

Homog. Area Definition: This material can be found on pipe, PR-4, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 15%

Secondary Analysis Results:: 0%

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#### Thermal System Insulation



Elbow Wrap 85 Friable Hazard Rank: 5

Homog. Area Description:

Elbow insulation, gray

Amount of Material:

Sample Location:

~6 elbows

Homog. Area Definition:

This material can be found on pipe, PR-5, in the mechanical room.

Functional Space: Mechanical

Collected from mechanical room. See drawing for location.

Primary Analysis Results: Secondary Analysis Results:: Chrysotile 18% 0%

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#### Thermal System Insulation

Elbow Wrap 5 - 84 - Friable Hazard Rank: 5

Homog. Area Description: Elbow insulation, gray

Amount of Material: ~6 elbows

Homog. Area Definition: This material can be found on pipe, PR-5, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 2%

Primary Analysis Results: Chrysotile 2%
Secondary Analysis Results:: 0%

Elbow Wrap 5 - 83 - Friable Hazard Rank: 5

Homog. Area Description: Elbow insulation, gray

Amount of Material: ~6 elbows

Homog. Area Definition: This material can be found on pipe, PR-5, in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 15%

Secondary Analysis Results:: 0%

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### Thermal System Insulation



Pipe Insulation 3 - 96 - Friable Hazard Rank: 6

Homog. Area Description:

Pipe insulation, orange

Amount of Material:

~15Lf

Homog. Area Definition:

This material can be found in the mechanical room.

Functional Space:

Mechanical

Sample Location:

Collecte from mechanical room. See drawing for location.

Primary Analysis Results: Secondary Analysis Results::

Chrysotile 36%

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### Thermal System Insulation

Pipe Insulation 3

- 95

Friable

Hazard Rank: 6

Homog. Area Description:

Pipe insulation, orange

Amount of Material:

~15Lf

Homog. Area Definition:

This material can be found in the mechanical room.

Functional Space:

Mechanical

Sample Location:

Collecte from mechanical room. See drawing for location.

Primary Analysis Results:

Chrysotile

38%

Secondary Analysis Results::

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### Thermal System Insulation



Pipe Insulation 4

74

Friable

Hazard Rank: 4

Homog. Area Description:

Pipe insulation, red

Amount of Material:

~20 Lf

Homog. Area Definition:

This material can be found in the mechanical room.

Functional Space:

Mechanical

Sample Location:

Collected from mechanical room. See drawing for location.

Primary Analysis Results: Secondary Analysis Results::

Chrysotile 29%

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#### Thermal System Insulation

Pipe Insulation 4 - 75 - Friable Hazard Rank: 4

Homog. Area Description: Pipe insulation, red

Amount of Material: ~20 Lf
Homog. Area Definition: This material can be found in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 12%
Secondary Analysis Results:: 0%

Pipe Insulation 4 - 76 - Friable Hazard Rank: 4

Homog. Area Description: Pipe insulation, red

Amount of Material: ~20 Lf

Homog. Area Definition: This material can be found in the mechanical room.

Functional Space: Mechanical

Sample Location: Collected from mechanical room. See drawing for location.

Primary Analysis Results: Chrysotile 13%
Secondary Analysis Results:: 0%

Occomany islanysis results.

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### Thermal System Insulation



**Pipe Insulation** 

81

Friable

Hazard Rank: 6

Homog. Area Description:

Pipe insulation, gray

Amount of Material:

~10 Lf

Homog. Area Definition:

This material can be found in the mechanical room.

Functional Space:

Mechanical

Chrysotile

Sample Location:

Collected from mechanical room. See drawing for location.

Primary Analysis Results:

38%

Secondary Analysis Results::

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#### Thermal System Insulation

Pipe Insulation 5

- 82

Friable

Hazard Rank: 6

Homog. Area Description:

Pipe insulation, gray

Amount of Material:

~10 Lf

Homog. Area Definition:

This material can be found in the mechanical room.

Functional Space:

Mechanical

Sample Location:

Collected from mechanical room. See drawing for location.

Primary Analysis Results:

Chrysotile

33%

Secondary Analysis Results::

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#### Thermal System Insulation



Tank Insulation 1

86 -

Friable

Hazard Rank: 4

Homog. Area Description:

Heat exchanger insulation

Amount of Material:

~18Sf

Homog. Area Definition:

Found on the heat exchanger in the mechanical room.

Functional Space:

Mechanical

Sample Location:

From heat exchanger in mechanical room

Primary Analysis Results:

Chrysotile

44%

Secondary Analysis Results::

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### Thermal System Insulation

Tank Insulation 1

88

Friable

Hazard Rank: 4

Homog. Area Description:

Heat exchanger insulation

Amount of Material:

~18Sf

Homog. Area Definition:

Found on the heat exchanger in the mechanical room.

Functional Space: Sample Location:

Mechanical

Primary Analysis Results:

From heat exchanger in mechanical room

Heat exchanger insulation

**Chrysotile** 

35%

Secondary Analysis Results::

0%

Tank Insulation 1

87

Friable

Hazard Rank: 4

Homog. Area Description:

Amount of Material:

~18Sf

Homog. Area Definition:

Found on the heat exchanger in the mechanical room.

Functional Space:

Mechanical

Sample Location:

From heat exchanger in mechanical room

Primary Analysis Results:

Chrysotile

32%

Secondary Analysis Results::

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#### **CONCLUSIONS AND RECOMMENDATIONS**

#### **CONCLUSION:**

One hundred, (100), samples were collected from twenty-eight homogenous materials or areas. Twelve of those areas or materials were found to contained over one percent asbestos by one or both of the laboratories. Individual sample values or composition can be found in the homogenous area report in section 2.0 of this report.

The light wall texture referred to in this report as area SMT-1. Seven samples, 4, 5, 6, 38, 39, 40, and 41 were taken and three, (5, 6, 38), identified positive. This material can be found throughout the offices and classrooms of the entire building. There is approximately 7,700 square feet of this material.

The sheetrock referred to in this report as area MSR-1. Three samples, 7, 8, and 9 were taken and two, (8, 9), identified positive. This material can be found in the offices and classrooms throughout the entire building. The quantities for this material can be found under SMT-1.

The tape compound referred to in this report as area SMTC-1. Seven samples, 10, 11, 12, 42, 43, 44, and 45 were taken and two, (11, 12), identified positive. This material can be found on the sheetrock in the offices and classrooms throughout the entire building. The quantities for this material can be found under SMT-1.

The 12" tan floor tile referred to in this report as area MFT-1. Three samples, 16, 17, and 18 were taken and all identified positive. This material can be found throughout the entire building underneath the carpet. There is approximately 3,600 square feet of this material.

The red pipe insulation referred to in this report as area PR-4. Three samples, 74, 75, and 76 were taken and all identified positive. This material can be found in the mechanical room. There is approximately 20 linear feet of this material.

The red elbow insulation referred to in this report as area EW-4. Three samples, 77, 78, and 79 were taken and all identified positive. This material can be found in the mechanical room. There are approximately 4 elbows.

The gray pipe insulation referred to in this report as area PR-5. Three samples, 80, 81, and 82 were taken and two, (81, 82), identified positive. This material can be found in the mechanical room. There is approximately 10 linear feet of this material.

The gray elbow insulation referred to in this report as area EW-5. Three samples, 83, 84, and

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85 were taken and all identified positive. This material can be found in the mechanical room. There are approximately 6 elbows.

The heat exchanger insulation referred to in this report as area TI-1. Three samples, 86,87, and 88 were taken and all identified positive. This material can be found on the heat exchanger in the mechanical room. There is approximately 18 square feet of this material.

The blue elbow insulation referred to in this report as area EW-2. Three sample s were taken and all identified positive. This material can be found in the mechanical room. There are approximately 6 elbows.

The orange pipe insulation referred to in this report as area PR-3. Three samples, 95,96, and 97 were taken and two, (95, 96), identified positive. This material can be found in the mechanical room. There is approximately 15 linear feet of this material.

The orange elbow insulation referred to in this report as area EW-3. Three samples, 98, 99, and 100 were taken and all identified positive. This material can be found in the mechanical room. There are approximately 8 elbows.

#### **RECOMMENDATION:**

Should any of the above identified ACM need to be disturbed or removed, the following regulations should be adhered to. State of Texas, Federal, and OSHA regulations require that all asbestos containing building materials (ACBM) in public buildings in Texas that will be disturbed in any demolition or renovation activities must be removed by Texas Department of Health licensed and certified personnel (i.e., Asbestos Consultant, Asbestos Abatement Contractor, Asbestos Abatement Workers, and Air Monitoring Technicians) prior to the demolition or renovation activities by general construction personnel.

#### **LIMITATIONS AND REPRODUCTIONS**

Neither ESESIS, nor NAAL Inc. makes any warranty, assurance, or guarantee that other asbestos containing materials may not be in the building in hidden or inaccessible areas.

This report has been prepared on behalf of and for the exclusive use of Midwestern State University for use in an environmental evaluation of this building. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the written consent of ESESIS, or NAAL Inc.

**ESESIS & NAAL Inc.** 

Consultants-Specializing in: ASBESTOS, LEAD and INDOOR AIR QUALITY

Homogeneous Area		Amount of Material	Type and Percent of Asbestos Detected	
Elbow Wrap	2	~6 elbows		
Sample Number	92	****	Chrysotile	2%
			•	0%
Comments: 2% ast	estos detec	eted in second layer		
Sample Number	93		Chrysotile	16%
			Cinysonic	0%
Comments:				O /c
Sample Number	94		Chrysotile	18%
			em ysome	0%
Comments:				07
Elbow Wrap	3	~8 elbows		
Sample Number	100	3 3 4 M VAI	Chrysotile	20%
			-	0%
Comments:				
Sample Number	98		Chrysotile	18%
			<b>,</b>	0%
Comments:				
Sample Number	99		Chrysotile	20%
			<b></b>	0%
Comments:				0 70

Amount of Material		Type and Percent of Asbestos Detected	
4	~4 elbows		
<b>7</b> 7		Chrysotile	15%
			0%
78	100	Chrysotile	16%
		<i></i>	0%
			07.
79		Chrysotile	13%
		Cili ysothe	0%
			071
5	~6 elbows		
83		Chrysotile	15%
		-	0%
84		Chrysotile	2%
		<b>,</b>	0%
85		Chrysotile	18%
		2 <b>/22</b>	0%
			270
	77 78 79 5 83	4 ~4 elbows  77  78  5 ~6 elbows  83	Asbestos Dete  4 ~4 elbows  77 Chrysotile  78 Chrysotile  5 ~6 elbows  83 Chrysotile  Chrysotile

Homogeneous Area		Amount of Material		Type and Percent of Asbestos Detected	
Floor Tile	1	~3,600Sf			
Sample Number	16		Chrysotile	2%	
Comments: 2% in	mastic				
Sample Number	17		Chrysotile	5%	
			Chrysotile	2%	
Comments: 2% in	second layer		•		
Sample Number	18		Chrysotile	6%	
			Chrysotile	3%	
Comments: 3% in	second layer				
Pipe Insulation	3	~15Lf			
Sample Number	95		Chrysotile	38%	
				0%	
Comments:					
Sample Number	96		Chrysotile	36%	
			<b>y</b>	0%	
Comments:					

Homogeneous Area	Amount of Material	Type and Percent of Asbestos Detected		
Pipe Insulation	4	~20 Lf		
Sample Number	74		Chrysotile	29%
				0%
Comments:				
Sample Number	75		Chrysotile	12%
			0.11,500.10	0%
Comments:				070
Sample Number	76		Chrysotile	13%
			<i></i>	0%
Comments:				0.0
Pipe Insulation	5	~10 Lf		
Sample Number	81		Chrysotile	38%
			·	0%
Comments:				
Sample Number	82	ů.	Chrysotile	33%
				0%
Comments:				0,0

Page 5 of 7

Homogeneous Area		Amount of Material	Type and Percent of Asbestos Detected	
Sheet Rock	1	See SMT-1		
Sample Number	8		Chrysotile	2%
			•	0%
Comments:				
Sample Number	9	****	Chrysotile	2%
				0%
Comments:				070
Sheet Rock	3			
Sample Number	69		Chrysotile	0%
			·	0%
Comments: Less that	an 1%			
Sample Number	70		Chrysotile	0%
			· · · · · · · · · · · · · · · · · · ·	0%
Comments: Less that	an 1%			070

Page 6 of 7

Homogeneous Area		Amount of Material	Type and Percent of Asbestos Detected	
Tank Insulation	1	~18Sf		
Sample Number	86	· · · · · · · · · · · · · · · · · · ·	Chrysotile	44%
			•	0%
Comments:				
Sample Number	87		Chrysotile	32%
				0%
Comments:				
Sample Number	88		Chrysotile	35%
			<i>y</i>	0%
Comments:				
Tape Compound	1	See SMT-1		
Sample Number	11	Δ)	Chrysotile	2%
				0%
Comments:				
Sample Number	12		Chrysotile	2%
			•	0%
Comments:				- 11

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### HOMOGENEOUS AREA REPORT

#### **ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc.** HOMOGENEOUS AREA REPORT

Prepared for: Midwestern State University Page 1 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number-Homogeneous Area Name Field Number -

MB!-1-66 Lab Sample #: - 1 **Building Insulation** 66

Miscellaneous Materials Material Category:

Insulation, attic Homog. Area Description:

Condition: Unaccessible

Collected at random from attic. See drawing for Collection Location:

location.

No Asbestos Detected 0% Asbestos Type / Percent:

Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MB!-1-67 **Building Insulation** 1 67

Miscellaneous Materials Material Category:

Insulation, attic Homog. Area Description: Condition: Unaccessible

Collected at random from attic. See drawing for Collection Location:

location.

No Asbestos Detected 0% Asbestos Type / Percent:

Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

**Building Insulation** Lab Sample #: MB!-1-65 1 65

Miscellaneous Materials Material Category:

Insulation, attic Homog. Area Description: Condition: Unaccessible

Collected at random from attic. See drawing for Collection Location:

location.

No Asbestos Detected

Asbestos Type / Percent: 0% Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

## ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc. HOMOGENEOUS AREA REPORT

Prepared for: Midwestern State University Page 2 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MCPT-1-19 - Carpet Mastic - 1 19

Material Category: Miscellaneo

Miscellaneous Materials

Homog. Area Description: Car Condition: Una

Carpet mastic Unaccessible

Collection Location:

Collected from room 107, wall #1 corner to wall #2.

Asbestos Type / Percent:

No Asbestos Detected 0%

Asbestos Type / Percent: 0%

Page Number 2 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCPT-1-20 - Carpet Mastic - 1 20

Material Category:

Miscellaneous Materials

Homog. Area Description:

Carpet mastic Unaccessible

Condition:
Collection Location:

Collected from room 115, at door, right side.

Asbestos Type / Percent:

No Asbestos Detected 0%

Asbestos Type / Percent:

0%

Page Number 3 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCPT-1-21 - Carpet Mastic - 1 21

Material Category:

Miscellaneous Materials

Homog. Area Description:

Carpet mastic

Condition:

Unaccessible

Collection Location:

Collected from room 114, at door, right side.

Asbestos Type / Percent:

No Asbestos Detected 0%

Asbestos Type / Percent:

0%

Page Number 3 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MC-1-3 - Caulk - 1 3

Material Category:

Miscellaneous Materials

Homog. Area Description:

Caulk, window

Condition:

Accessible

Collection Location:

Collected from Room 116, at window, right side.

**Asbestos Type / Percent:** 

No Asbestos Detected

Asbestos Type / Percent:

0%

Page Number 1 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

### ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc. HOMOGENEOUS AREA REPORT

Prepared for: Midwestern State University Page 3 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MC-1-2 - Caulk - 1 2

Material Category: Miscellaneous Materials

Homog. Area Description: Caulk, window Condition: Accessible

Collection Location: Collected from Room 117, at window, right side.

Asbestos Type / Percent: No Asbestos Detected

Asbestos Type / Percent: 0%

Page Number 1 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MC-1-1 - Caulk - 1 1

Material Category: Miscellaneous Materials

Homog. Area Description: Caulk, window Condition: Accessible

Collection Location: Collected from Room 107, at window, left side.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Aspestos Type / Percent: 0%

Page Number 1 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

**Lab Sample #:** MC-2-64 - Caulk - 2 64

Material Category: Miscellaneous Materials Homog. Area Description: Caulk, window and door

Condition: Accessible

Collection Location: Collected from southeast entrance door frame.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MC-2-62 - Caulk - 2 62

Material Category: Miscellaneous Materials

Homog. Area Description: Caulk, window and door

Condition: Accessible

Collection Location: Collected from exterior men's restroom window.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 4 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MC-2-63 - Caulk - 2 63

Material Category: Miscellaneous Materials Homog. Area Description: Caulk, window and door

Condition: Accessible

Collection Location: Collected from exterior window room 111.

Asbestos Type / Percent: No Asbestos Detected 0% Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCT-1-24 - Ceiling Tile - 1 24

Material Category: Miscellaneous Materials

Homog. Area Description: Ceiling tile, 24"x48", white. With tiny dots and

fishers.

Condition: Unaccessible

Collection Location: Collected from room 116, at door, at ceiling.

Asbestos Type / Percent: No Asbestos Detected 0% Asbestos Type / Percent: 0%

Page Number 3 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCT-1-23 - Ceiling Tile - 1 23

Material Category: Miscellaneous Materials

Homog. Area Description: Ceiling tile, 24"x48", white. With tiny dots and

fishers.

Condition: Unaccessible

Collection Location: Collected from room 117, at ceiling.

Asbestos Type / Percent: No Asbestos Detected 0% Asbestos Type / Percent: 0%

Page Number 3 of 17 of Report #CAL00082544 Analysis Lab:

Prepared for: Midwestern State University Page 5 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MCT-1-22 - Ceiling Tile - 1 22

Material Category: Miscellaneous Materials

Homog. Area Description: Ceiling tile, 24"x48", white. With tiny dots and

fishers.

Condition: Unaccessible

Collection Location: Collected from room 107, wall #2, center.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 2 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCT-2-27 - Ceiling Tile - 2 27

Material Category: Miscellaneous Materials

Homog. Area Description: Ceiling tile, 12", white, fixed dot

Condition: Unaccessible

Collection Location: Collected from room 106, wall #4 above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%

Asbestos Type / Percent: 0%

Page Number 4 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCT-2-26 - Ceiling Tile - 2 26

Material Category: Miscellaneous Materials

Homog. Area Description: Ceiling tile, 12\*, white, fixed dot

Condition: Unaccessible

Collection Location: Collected from room 111, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Asbestos Type / Percent: 0%

Page Number 4 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MCT-2-25 - Ceiling Tile - 2 25

Material Category: Miscellaneous Materials

Homog. Area Description: Ceiling tile, 12", white, fixed dot

Condition: Unaccessible

Collection Location: Collected from room 107, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 2 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 6 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number-Homogeneous Area Name Field Number -

EW-1-56 Lab Sample #: Elbow Wrap 1 56

Material Category: Thermal System Insulation

Elbow insulation, white Homog. Area Description:

Accessible Condition:

Collection Location: Collected from firing range mechanical room.

drawing for location

No Asbestos Detected 0% **Asbestos Type / Percent:** Asbestos Type / Percent:

Page Number 9 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

EW-1-58 Elbow Wrap

Lab Sample #: 1 58

Thermal System Insulation Material Category: Homog. Area Description: Elbow insulation, white

Accessible Condition:

Collection Location: Collected from firing range mechanical room.

drawing for location

No Asbestos Detected 0% Asbestos Type / Percent:

**Asbestos Type / Percent:** 0%

Page Number 9 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

EW-1-57 Lab Sample #: Elbow Wrap 57 1

Thermal System Insulation Material Category:

Homog. Area Description: Elbow insulation, white

Condition: Accessible

Collected from firing range mechanical room. Collection Location:

drawing for location

No Asbestos Detected Asbestos Type / Percent: 0%

Asbestos Type / Percent: 0%

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Prepared for: Midwestern State University Page 7 of 29

Regarding: MCGaha Building Date: September 08, 2000

Report Number: 200065017

3410 Taft Boulevard Lab number -Homogeneous Area Name Field Number -Lab Sample #: EW-2-94 Elbow Wrap 2 94 Thermal System Insulation Material Category: Homog. Area Description: Elbow insulation, blue Condition: Accessible Collection Location: Collected from mechanical room. See drawing for location. **Asbestos Type / Percent:** Chrysotile 18% **Asbestos Type / Percent:** 0% Page Number 16 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab EW-2-92 Lab Sample #: Elbow Wrap 2 92 Thermal System Insulation Material Category: Elbow insulation, blue Homog. Area Description: Accessible Condition: Collected from mechanical room. See drawing for Collection Location: location. Chrysotile **Asbestos Type / Percent:** 2% **Asbestos Type / Percent:** 0% 2% asbestos detected in second layer Page Number 15 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

EW-2-93 Elbow Wrap 93 Lab Sample #: 2

Thermal System Insulation

Material Category: Elbow insulation, blue Homog. Area Description:

Condition: Accessible

Collected from mechanical room. See drawing for Collection Location:

location. Chrysotile Asbestos Type / Percent:

16% 0% Asbestos Type / Percent:

Page Number 16 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 8 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number 
Lab Sample #: EW-3-100 - Elbow Wrap - 3 100

Material Category: Thermal System Insulation
Homog. Area Description: Elbow insulation, orange
Condition: Accessible

Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotile 20%
Asbestos Type / Percent: 0%

Page Number 17 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: EW-3-98 - Elbow Wrap - 3 98

Manual Contains Tanalahan

Material Category: Thermal System Insulation
Homog. Area Description: Elbow insulation, orange

Condition: Accessible

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Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotile 18%
Asbestos Type / Percent: 0%

Asbestos Type / Percent: 0%

Analysis Lab: Crisp Analytical Lab

**Lab Sample #:** EW-3-99 - Elbow Wrap - **3 99** 

Material Category: Thermal System Insulation

Homog. Area Description: Elbow insulation, orange Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotile 20%

Asbestos Type / Percent: Chrysotile 20%
Asbestos Type / Percent: 0%

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Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -EW-4-78 Lab Sample #: Elbow Wrap 4 78 Thermal System Insulation Material Category: Homog. Area Description: Elbow insulation, red Condition: Accessible Collected from mechanical room. Collection Location: See drawing for location. **Asbestos Type / Percent:** Chrysotile 16% **Asbestos Type / Percent:** 0%

Page Number 13 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

EW-4-77 Lab Sample #: Elbow Wrap 77

Thermal System Insulation Material Category:

Homog. Area Description: Elbow insulation, red

Condition: Accessible Collected from mechanical room. Collection Location: See drawing for

location.

Chrysotile Asbestos Type / Percent: 15%

Asbestos Type / Percent: 0%

Page Number 13 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: EW-4-79 Elbow Wrap 4 79

Thermal System Insulation

Material Category: Elbow insulation, red Homog. Area Description:

Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for location.

Chrysotile

13% Asbestos Type / Percent: **Asbestos Type / Percent:** 0%

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Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: EW-5-83 - Elbow Wrap - 5 83

Material Category: Thermal System Insulation

Material Category: Thermal System Insulation Homog. Area Description: Elbow insulation, gray

Homog. Area Description: Elbow insulation, gray Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotlle 15%
Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: EW-5-84 - Elbow Wrap - 5 84

Lau Sample #: LW-3-04 - Elbow Wap - 5 04

Material Category: Thermal System Insulation Homog. Area Description: Elbow insulation, gray

Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotile 2%
Asbestos Type / Percent: 0%

Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

**Lab Sample #:** EW-5-85 - Elbow Wrap - 5 85

Material Category: Thermal System Insulation

Homog. Area Description: Elbow insulation, gray

Condition: Accessible
Collection Location: Collected from mechanical room. See drawing f

Collection Location: Collected from mechanical room. See drawing for location.

Asbestos Type / Percent: Chrysotile 18%
Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 11 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number-Homogeneous Area Name Field Number -MFT-1-17 Floor Tile Lab Sample #: 1 17 Miscellaneous Materials Material Category:

Homog. Area Description: Floor tile, 12", tan

Condition: Accessible

Collected from room 107, below window. Collection Location:

**Asbestos Type / Percent:** Chrysotile 5% Chrysotile **Asbestos Type / Percent:** 2% 2% in second layer

Page Number 2 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MFT-1-16 Floor Tile 16 1

Miscellaneous Materials Material Category: Homog. Area Description: Floor tile, 12", tan

Accessible Condition:

Collected from room 107, wall #1, corner to wall #2. Collection Location:

Analysis Lab: Crisp Analytical Lab

Chrysotile Asbestos Type / Percent: 2%

Asbestos Type / Percent:

2% in mastic

MFT-1-18 Floor Tile 18 1 Lab Sample #:

Miscellaneous Materials Material Category: Homog. Area Description: Floor tile, 12", tan Condition: Accessible

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Collected from room 107, below window. Collection Location:

Chrysotile Asbestos Type / Percent: 6% Chrysotile Asbestos Type / Percent: 3% 3% in second layer

Page Number 2 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Other Miscellaneous

13 Lab Sample #: MO-1-13 1

Miscellaneous Materials Material Category:

Homog. Area Description: Cove base, tan Condition: Accessible

Collected from room 107, wall #1, corner to wall #2. Collection Location:

No Asbestos Detected 0% Asbestos Type / Percent: **Asbestos Type / Percent:** 0%

Page Number 1 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

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Date: September 08, 2000 Regarding: MCGaha Building

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -

Lab Sample #: MO-1-14 Other Miscellaneous 1 14

Miscellaneous Materials Material Category:

Homog. Area Description: Cove base, tan Accessible Condition:

Collected from room 116, wall #3, at right corner. Collection Location:

No Asbestos Detected 0% Asbestos Type / Percent: **Asbestos Type / Percent:** 0%

Page Number 2 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MO-1-15 Other Miscellaneous 1 15

Miscellaneous Materials Material Category:

Cove base, tan Homog. Area Description:

Condition: Accessible

Collected from hallway southeast of entrance. Collection Location:

drawing.

No Asbestos Detected 0% **Asbestos Type / Percent:** 

**Asbestos Type / Percent:** 0%

Page Number 2 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SO-1-37 Other Surfacing 1 37

Material Category: Surfacing Material Trowelled ceiling Homog. Area Description:

Unaccessible Condition:

Collected from hallway, across from room 107A, Collection Location:

Analysis Lab: Crisp Analytical Lab

ceiling.

Page Number 5 of 17 of Report #CAL00082544

No Asbestos Detected 0% **Asbestos Type / Percent: Asbestos Type / Percent:** 0%

Lab Sample #: SO-1-35 Other Surfacing 1 35

Material Category: Surfacing Material Trowelled ceiling Homog. Area Description:

Unaccessible Condition:

Collected from southeast foyer, above ceiling. Collection Location:

No Asbestos Detected 0% Asbestos Type / Percent: **Asbestos Type / Percent:** 0%

Page Number 5 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 13 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: SO-1-33 - Other Surfacing - 1 33

Material Category: Surfacing Material Homog. Area Description: Trowelled ceiling

Condition: Unaccessible

Collection Location: Collected from room 107, wall 3, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 5 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SO-1-36 - Other Surfacing - 1 36

Material Category: Surfacing Material Homog. Area Description: Trowelled ceiling

Condition: Unaccessible

Collection Location: Collected from room 106, wall #4, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 5 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SO-1-31 - Other Surfacing - 1 31

Material Category: Surfacing Material Homog. Area Description: Trowelled ceiling

Condition: Unaccessible

Collection Location: Collected from room 107, wall 3, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 3 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SO-1-32 - Other Surfacing - 1 32

Material Category: Surfacing Material Homog. Area Description: Trowelled ceiling

Condition: Unaccessible

Collection Location: Collected from room 107, wall 3, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 5 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 14 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: SO-1-34 - Other Surfacing - 1 34

Material Category: Surfacing Material

Homog. Area Description: Trowelled ceiling

Condition: Unaccessible

Collection Location: Collected from room 116, above ceiling at door.

Asbestos Type / Percent: No Asbestos Detected 0%

Asbestos Type / Percent: 0%

Page Number 5 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: PR-1-60 - Pipe Insulation - 1 60

Lab Sample #. 110-1-00 - Tipe manation - 1 00

Material Category: Thermal System Insulation
Homog. Area Description: Pipe insulation, white

Condition: Accessible

Collection Location: Collected from firing range mechanical room. See

Analysis Lab: Crisp Analytical Lab

drawing for location.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544

Lab Sample #: PR-1-61 - Pipe Insulation - 1 61

Material Category: Thermal System Insulation

Homog. Area Description: Pipe insulation, white Condition: Accessible

Collection Location: Collected from firing range mechanical room. See

drawing for location.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 10 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 15 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Analysis Lab: Crisp Analytical Lab

59

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: PR-1-59 - Pipe Insulation - 1

Material Category: Thermal System Insulation

Homog. Area Description: Pipe insulation, white

Condition: Accessible

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Collection Location: Collected from firing range mechanical room. See

drawing for location.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

TICLE DD 200 D'. T. L.'... A OO

Lab Sample #: PR-2-89 - Pipe Insulation - 2 89

Material Category: Thermal System Insulation Homog. Area Description: Pipe insulation, blue

Homog. Area Description: Pipe insulation, blue Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: No Asbestos Detected 0%

Asbestos Type / Percent: 0%

Page Number 15 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: PR-2-90 - Pipe Insulation - 2 90

Material Category: Thermal System Insulation

Homog. Area Description: Pipe insulation, blue

Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 15 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 16 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: PR-2-91 - Pipe Insulation - 2 91

Material Category: Thermal System Insulation

Homog. Area Description: Pipe insulation, blue

Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 15 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: PR-3-96 - Pipe Insulation - 3 96

Material Category: Thermal System Insulation

Homog. Area Description: Pipe insulation, orange

Condition: Accessible
Collection Location: Collecte from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotile 36%

Asbestos Type / Percent: 0%

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Lab Sample #: PR-3-95 - Pipe Insulation - 3 95

Date Sumple #1

Material Category: Thermal System Insulation Homog. Area Description: Pipe insulation, orange

Condition: Accessible

Collection Location: Collecte from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotlie 38%

Asbestos Type / Percent: 0%

Page Number 16 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 17 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -PR-3-97 Lab Sample #: Pipe Insulation 3 97 Material Category: Thermal System Insulation Homog. Area Description: Pipe insulation, orange Condition: Accessible Collecte from mechanical room. See drawing for Collection Location:

location.

No Asbestos Detected 0% **Asbestos Type / Percent:** Asbestos Type / Percent: 0%

Page Number 16 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: PR-4-76 Pipe Insulation 76

Thermal System Insulation

Material Category: Homog. Area Description: Pipe insulation, red

Accessible Condition:

Collected from mechanical room. See drawing for Collection Location:

Analysis Lab: Crisp Analytical Lab

location.

Page Number 12 of 17 of Report #CAL00082544

Chrysotile Asbestos Type / Percent: 13%

Asbestos Type / Percent: 0%

Lab Sample #: PR-4-75 Pipe Insulation 75

Thermal System Insulation Material Category:

Pipe insulation, red Homog. Area Description: Accessible Condition:

See drawing for Collection Location: Collected from mechanical room.

location.

Chrysotile 12% Asbestos Type / Percent: Asbestos Type / Percent: 0%

Page Number 12 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 18 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number-Homogeneous Area Name Field Number -

PR-4-74 Lab Sample #: 74 Pipe Insulation

Thermal System Insulation Material Category:

Homog. Area Description: Pipe insulation, red

Condition: Accessible

Collected from mechanical room. Collection Location: See drawing for

location.

Chrysotile Asbestos Type / Percent: 29%

Asbestos Type / Percent: 0%

Page Number 12 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: PR-5-81 Pipe Insulation 5 81

Thermal System Insulation Material Category:

Pipe insulation, gray Homog. Area Description:

Accessible Condition:

Collection Location: Collected from mechanical room. See drawing for

location.

Chrysotile Asbestos Type / Percent: 38% Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

80 Lab Sample #: PR-5-80 Pipe Insulation 5

Thermal System Insulation Material Category:

Pipe insulation, gray Homog. Area Description: Condition: Accessible

Collected from mechanical room. See drawing for Collection Location:

location.

No Asbestos Detected 0% Asbestos Type / Percent:

**Asbestos Type / Percent:** 0%

Page Number 13 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 19 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: PR-5-82 - Pipe Insulation - 5 82

Material Category: Thermal System Insulation

Homog. Area Description: Pipe insulation, gray

Condition: Accessible

Collection Location: Collected from mechanical room. See drawing for

location.

Asbestos Type / Percent: Chrysotile 33% Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MSR-1-9 - Sheet Rock - 1 9

Lab bample #. More 1-9 - Sheet Rock - 1

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall Condition: Accessible

Collection Location: Collected from room 111, wall #2, above ceiling.

Asbestos Type / Percent: Chrysotile 2%

Asbestos Type / Percent: 0%

Page Number 1 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MSR-1-8 - Sheet Rock - 1 8

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall

Condition: Accessible

Collection Location: Collected from room 116, wall #1, above door, above

ceiling.

Asbestos Type / Percent: Chrysotile 2%
Asbestos Type / Percent: 0%

Page Number 1 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MSR-1-7 - Sheet Rock - 1 7

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall Condition: Accessible

Collection Location: Collected from room 107, wall #2, above ceiling.

Asbestos Type / Percent: Chrysotile 0%

Asbestos Type / Percent: 0%

Page Number 1 of 3 of Report #CAL0061989 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 20 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MSR-2-48 - Sheet Rock - 2 48

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall

Condition: Accessible

Collection Location: Collected from hallway across from door 107A, above

ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 7 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MSR-2-47 - Sheet Rock - 2 47

Minerallaneous Mahamiala

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall Condition: Accessible

Collected from southeast foyer, wall #3, above

ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 7 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MSR-2-46 - Sheet Rock - 2 46

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall

Condition: Accessible

Collection Location: Collected from hallway outside room 113, above

ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 7 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 21 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MSR-3-68 - Sheet Rock - 3 68

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall Condition: Accessible

Collection Location: Collected from mechanical room, wall #2, below

electrical boxes.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 11 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MSR-3-70 - Sheet Rock - 3 70

West Company

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall Condition: Accessible

Collection Location: Collected from mechanical room, wall #1, left of door.

Asbestos Type / Percent: Chrysotile 0%
Asbestos Type / Percent: 0%

Page Number 11 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

**Lab Sample #:** MSR-3-69 - Sheet Rock - 3 69

Material Category: Miscellaneous Materials

Homog. Area Description: Sheetrock, wall

Condition: Accessible

Collection Location: Collected from mechanical room, wall #4, near center.

Asbestos Type / Percent: Chrysotile 0%
Asbestos Type / Percent: 0%

Page Number 11 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: TI-1-87 - Tank Insulation - 1 87

Material Category: Thermal System Insulation
Homog. Area Description: Heat exchanger insulation

Homog. Area Description: Heat exchanger i
Condition: Accessible

Collection Location: From heat exchanger in mechanical room

Asbestos Type / Percent: Chrysotile 32%
Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 22 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Homogeneous Area Name Lab number -Field Number -

TI-1-86 Lab Sample #: Tank Insulation 1 86

Material Category: Homog. Area Description:

Thermal System Insulation Heat exchanger insulation

Condition:

Accessible

Collection Location:

From heat exchanger in mechanical room

Asbestos Type / Percent:

Chrysotile 44%

Asbestos Type / Percent: 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: TI-1-88 Tank Insulation 88 1

Material Category:

Thermal System Insulation Heat exchanger insulation

Homog. Area Description: Condition:

Accessible

Collection Location:

From heat exchanger in mechanical room

Asbestos Type / Percent:

Chrysotile

35% **Asbestos Type / Percent:** 0%

Page Number 14 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-1-11 Tape Compound 11 Lab Sample #: 1

Material Category:

Surfacing Material

Homog. Area Description:

Tape compound

Condition:

Accessible

Collection Location:

Collected from room 116, wall #1, above door, above

ceiling.

Asbestos Type / Percent:

Chrysotile 2%

**Asbestos Type / Percent:** 

0%

Page Number 2 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-1-43 Tape Compound 43 Lab Sample #: 1

Material Category:

Surfacing Material

Homog. Area Description:

Tape compound

Condition:

Accessible

Collection Location:

Collected from firing range air handling room, wall

#4, at center.

Asbestos Type / Percent:

No Asbestos Detected 0%

**Asbestos Type / Percent:** 

0%

Page Number 6 of 17 of Report #CAL00082544

Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 23 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -

Lab Sample #: SMTC-1-12 Tape Compound 1 12

Surfacing Material Material Category:

Tape compound Homog. Area Description: Condition: Accessible

Collected from room 111, wall #1, above ceiling. Collection Location:

Asbestos Type / Percent: Chrysotile 2%

Asbestos Type / Percent: 0%

Page Number 2 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMTC-1-45 Tape Compound 45 1

Surfacing Material Material Category:

Homog. Area Description: Tape compound

Accessible Condition:

Collected from women's restroom, wall #2, at center Collection Location:

above ceiling.

No Asbestos Detected 0% Asbestos Type / Percent:

Asbestos Type / Percent: 0%

Page Number 7 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-1-44 Tape Compound 44 1

Lab Sample #:

Surfacing Material Material Category: Homog. Area Description: Tape compound

Condition: Accessible

Collected from firing range air handling room, wall Collection Location:

#3, at corner to wall #4.

No Asbestos Detected 0% Asbestos Type / Percent:

Asbestos Type / Percent: 0%

Page Number 6 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-1-42 Tape Compound 42 1

Lab Sample #:

Surfacing Material Material Category: Homog. Area Description: Tape compound

Accessible Condition:

Collected from room 106, window, left side. Collection Location:

No Asbestos Detected Asbestos Type / Percent: 0%

**Asbestos Type / Percent:** 0%

Page Number 6 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 24 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: SMTC-1-10 - Tape Compound - 1 10

Material Category: Surfacing Material Homog. Area Description: Tape compound

Homog. Area Description: Tape compound Condition: Accessible

Collection Location: Collected from room 107, wall #2, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 1 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMTC-2-50 - Tape Compound - 2 50

Material Category: Surfacing Material

Homog. Area Description: Tape compound Condition: Accessible

Collection Location: Collected from southeast foyer, wall #3 at corner to

wall #4, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%

Asbestos Type / Percent: 0%

Page Number 7 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMTC-2-55 - Tape Compound - 2 55

Material Category: Surfacing Material

Homog. Area Description: Tape compound

Condition: Accessible

Collection Location: Collected from hallway, above door 109, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 9 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMTC-2-54 - Tape Compound - 2 54

Material Category: Surfacing Material

Homog. Area Description: Tape compound
Condition: Accessible

Collection Location: Collected from hallway, above door 108, above ceiling.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 8 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 25 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -

Lab Sample #: SMTC-2-53 Tape Compound 2 53

Surfacing Material Material Category:

Homog. Area Description: Tape compound Condition: Accessible

Collected from hallway, above door 107B, above Collection Location:

ceiling.

No Asbestos Detected 0% Asbestos Type / Percent: Asbestos Type / Percent: 0%

Page Number 8 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-2-51 Lab Sample #: Tape Compound 2 51

Surfacing Material Material Category: Homog. Area Description: Tape compound

Condition: Accessible Collection Location: Collected from hallway across from door 107A, above

ceiling.

No Asbestos Detected Asbestos Type / Percent: 0%

Asbestos Type / Percent: 0%

Page Number 8 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-2-49 Tape Compound 49 Lab Sample #: 2

Surfacing Material Material Category:

Tape compound Homog. Area Description: Accessible Condition:

Collection Location: Collected from hallway outside room 113, above

ceiling.

No Asbestos Detected Asbestos Type / Percent: 0% **Asbestos Type / Percent:** 0%

Page Number 7 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 26 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -

Lab Sample #: SMTC-2-52 Tape Compound 2 52

Surfacing Material Material Category:

Homog. Area Description: Tape compound Condition: Accessible

Collected from hallway at west end outside women's Collection Location:

restroom, above ceiling.

No Asbestos Detected 0% Asbestos Type / Percent:

Asbestos Type / Percent: 0%

Page Number 8 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-3-73 Tape Compound 73 Lab Sample #: 3

Surfacing Material Material Category:

Tape compound Homog. Area Description: Condition: Accessible

Collected from wall #1,above door at left side. Collection Location:

Chrysotile Asbestos Type / Percent: 0%

**Asbestos Type / Percent:** 0% Less than 1% chrysotile

Page Number 12 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

71 Lab Sample #: SMTC-3-71 Tape Compound 3

Material Category: Surfacing Material

Homog. Area Description: Tape compound

Condition: Accessible

Collected from mechanical room, wall #1, left of door. Collection Location:

Asbestos Type / Percent: Chrysotile 0%

Asbestos Type / Percent: Less than 1% chrysotile

Page Number 12 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

SMTC-3-72 Tape Compound 3 72 Lab Sample #:

Surfacing Material Material Category: Tape compound

Homog. Area Description: Accessible Condition:

Collected from mechanical room, wall #2, below Collection Location:

electrical boxes.

Chrysotile Asbestos Type / Percent: 0%

**Asbestos Type / Percent:** 0% Less than 1% chrysotile

Page Number 12 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 27 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: SMT-1-6 - Texturizer - 1 6

Material Category: Surfacing Material

Homog. Area Description: Texture, wall light

Condition: Accessible

Collection Location: Collected from room 116, wall #1 above thermostat.

Asbestos Type / Percent: Chrysotlie 2%
Asbestos Type / Percent: Chrysotlie 2%

Page Number 1 OF 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMT-1-40 - Texturizer - 1 40

Material Category: Surfacing Material Homog. Area Description: Texture, wall light

Condition: Accessible

Collection Location: Collected from firing range air handler room, wall #1

by switch.

Asbestos Type / Percent: No Asbestos Detected 0%

Asbestos Type / Percent: 0%

Page Number 6 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMT-1-38 - Texturizer - 1 38

Material Category: Surfacing Material Homog. Area Description: Texture, wall light

Condition: Accessible

Collection Location: Collected from room 113, wall #4, at center.

Asbestos Type / Percent: Chrysotile 2% Asbestos Type / Percent: 0%

Page Number 5 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMT-1-41 - Texturizer - 1 41

Lab dample #. Ott. 1.1.

Material Category: Surfacing Material Homog. Area Description: Texture, wall light

Condition: Accessible

Collection Location: Collected from hallway, west end next to men's

restroom.

Asbestos Type / Percent: No Asbestos Detected 0%
Asbestos Type / Percent: 0%

Page Number 6 OF 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 28 of 29

Regarding: MCGaha Building Date: September 08, 2000

> 3410 Taft Boulevard Report Number: 200065017

Lab number -Homogeneous Area Name Field Number -

SMT-1-39 Lab Sample #: Texturizer 39 1

Material Category:

Surfacing Material

Homog. Area Description:

Texture, wall light

Condition:

Accessible

Collection Location:

Collected from room 111, wall #1, above light switch. Chrysotile

Asbestos Type / Percent:

0%

**Asbestos Type / Percent:** 

0%

Less than 1% chrysotile

Page Number 6 of 17 of Report #CAL00082544

Analysis Lab: Crisp Analytical Lab

SMT-1-4 Texturizer 4 Lab Sample #: 1

Material Category:

Surfacing Material

Homog. Area Description:

Texture, wall light

Condition:

Accessible

Chrysotile

Collection Location:

Collected from room 107, wall #1, corner to wall #2.

Asbestos Type / Percent:

0%

**Asbestos Type / Percent:** 

0%

<1% in texture

Page Number 1 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

Lab Sample #: SMT-1-5 **Texturizer** 5

Material Category:

Surfacing Material Texture, wall light

Homog. Area Description: Condition:

Accessible

Collection Location:

Collected from room 117, wall #1, below light switch.

1

Asbestos Type / Percent:

Chrysotile 2%

Asbestos Type / Percent:

0%

Page Number 1 OF 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MWB-1-30 Wallboard 1 30

Material Category:

Miscellaneous Materials

Homog. Area Description:

Wall board

Condition:

Unaccessible

Collection Location:

Collected from wall #4 above ceiling, behind

sheetrock.

Asbestos Type / Percent: Asbestos Type / Percent: No Asbestos Detected 0%

0%

Page Number 4 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Prepared for: Midwestern State University Page 29 of 29

Regarding: MCGaha Building Date: September 08, 2000

3410 Taft Boulevard Report Number: 200065017

Lab number - Homogeneous Area Name - Field Number -

Lab Sample #: MWB-1-29 - Wallboard - 1 29

Material Category:

Miscellaneous Materials
Wall board

Homog. Area Description:

Unaccessible

Condition:
Collection Location:

Collected from wall #3 above ceiling, behind

sheetrock.

Asbestos Type / Percent: Asbestos Type / Percent:

No Asbestos Detected 0%

0%

Page Number 4 of 17 of Report #CAL00082544 Analysis Lab: Crisp Analytical Lab

Lab Sample #: MWB-1-28 - Wallboard - 1 28

Material Category:

Miscellaneous Materials

Homog. Area Description:

Wall board

Condition:

Unaccessible

Collection Location:

Collected from wall #2 above ceiling, behind

sheetrock.

Asbestos Type / Percent:

No Asbestos Detected 0%

**Asbestos Type / Percent:** 

0%

Page Number 3 of 3 of Report #CAL00061989 Analysis Lab: Crisp Analytical Lab

# BULK SAMPLE REPORT

Labs

2081 Hutton Dr. Suite 309 • Carrollton, TX 75006 • (972) 488-1414 • Fax (972) 488-8006

CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

#### POLARIZED LIGHT MICROSCOPY BULK ASBESTOS ANALYSIS LABORATORY ANALYSIS REPORT

Midwestern State University 3410 Taft Blvd.
Wichita Falls, TX 76308-2099 reference number: CAL00082544

#### LABORATORY ANALYSIS METHOD:

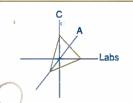
Summary of polarizing light microscopy (PLM / stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Improved Interim) and EPA/600/R-93/116 (AHERA). All analysts have received the necessary in-house and extramural training (McCrone Research and/or University Degree in Geology, Chemistry, Environmental and Material Science) to perform analysis of bulk samples for the presence or absence of asbestos. Greater than ten percent of all samples are re-examined by a second analyst for intralaboratory quality control. Greater than one percent are re-examined by the same analyst for quality control. All analysts are required to participate in quality control analysis rounds. Microscopic calibrations are performed on a daily, weekly and monthly basis.

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages are susceptible to variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full, without written permission by CA Labs.

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at Crisp Analytical Labs, L.L.C. 2081 Hutton Dr. Suite 309 Carrollton, TX 75006; phone (972)488-1414, fax (972)488-8006, after-hours mobile (972)977-1958 or (214)564-8366.

David Bertolacci, Laboratory Director



2081 Hutton Dr. Suite 309 • Carrollton, TX 75006 • (972) 488-1414 • Fax (972) 488-8006

#### CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

## Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

940-397-4859

phone # 940-397-4827

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544 Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

San	nple #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
M	C-1-2	1	white caulking	у	none detected	1% cellulose	2% mica 28% carbonates 69% binder
M	C-1-3	1	white caulking	у	none detected	1% cellulose	2% mica 30% carbonates 67% binder
) SM	T-1-5	1	tan surfaced white compound	n	2% chrysotile		6% mica 28% binder 64% carbonates
SM'	T-1-6	1	tan surfaced white compound	n	2% chrysotile		7% mica 29% binder 62% carbonates
MS	R-1-8	1	tan surfaced white compound	n	2% chrysotile		11% mica 31% binder 56% carbonates
		2	white drywall with brown paper	n	none detected	11% cellulose	2% quartz 87% gypsum
MSI	R-1-9	1	tan surfaced white compound	n	2% chrysotile		12% mica 30% binder 56% carbonates
		2	white drywall with brown paper	n	none detected	13% cellulose	2% quartz 85% gypsum

NVLAP #200349-0

TDH #30-0235

page 1 of 17

Approved Signatories:

Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

Notes:

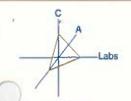
Keith Malone & David Bertolacci

Analyst(s)

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages are susceptible to a coefficient of variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber ralysis (PLM) and airborne asbestos fiber analysis (TEM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not reproduced except in full, without written permission by CA Labs.

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.



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#### CA Labs L.L.C.

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## Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827 940-397-4859

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

Client project name

McGaha

and number:

AMC-2000-01

CAL00082544

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
SMTC-1-11	1	tan surfaced white compound	n	2% chrysotile		11% mica 32% binder 55% carbonates
SMTC-1-12	1	tan surfaced white compound	n	2% chrysotile		13% mica 34% binder 51% carbonates
MO-1-14	1	tan cove base	У	none detected	<1% cellulose	1% quartz 99% binder
MO-1-15	1	tan cove base	У	none detected	< 1% cellulose	1% quartz 99% binder
MFT-1-17	1	tan floor tile	У	5% chrysotile		1% quartz 94% carbonates
	2	black mastic with blue surfacing	У	3% chrysotile		1% mica 96% other
	3	tan mastic	У	none detected	1% cellulose	2% mica 97% carbonates
MFT-1-18	1	tan floor tile	У	6% chrysotile		1% quartz 94% carbonates

NVLAP #200349-0

TDH #30-0235

page 2 of 17

Approved Signatories:

Leslie Crisp, General Manager

David Bertolacci. Laboratory Director

Notes:

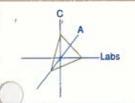
Keith Malone & David Bertolacci

Analyst(s)

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages are susceptible to a coefficient of variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber alysis (PLM) and airborne asbestos fiber analysis (TEM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not reproduced except in full, without written permission by CA Labs.

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#### CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

### Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

Client Information:

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827 fax # 940-397-4859

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no. Client project name

and number:

CAL00082544 McGaha

McGaha AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
MFT-1-18	2	black mastic with blue surfacing	n	3% chrysotile		2% mica 95% other
	3	tan mastic	У	none detected	1% cellulose	1% mica 98% matrix
MCPT-1-20	1	tan mastic	У	none detected	< 1% cellulose	1% mica 99% matrix
MCPT-1-21	1	tan mastic	У	none detected	1% cellulose	1% mica 98% matrix
MCT-1-23	1	tan ceiling tile	у	none detected	24% cellulose 58% mineral wool	2% quartz 16% perlite
	2	white surfacing	У	none detected		3% mica 11% carbonates 86% binder
MCT-1-24	1	tan ceiling tile	У	none detected	21% cellulose 61% mineral wool	2% quartz 16% perlite
	2	white surfacing	у	none detected		3% mica 10% carbonates 87% binder

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s) TDH #30-0235

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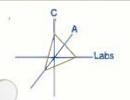
Leslie Crisp, General Manager David Bertolacci, Laboratory Director

Notes:

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

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#### CA Labs L.L.C.

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### Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method,

Client Information:

Midwestern State University

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Wichita Falls, TX 76308-2099

phone # 940-397-4827

fax # 940-397-4859 Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

Client project name

McGaha

and number:

AMC-2000-01

CAL00082544

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- gencous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
MCT-2-26	1	brown ceiling tile	у	none detected	100% cellulose	
	2	white surfacing	у	none detected		1% mica 10% carbonates 89% binder
	3	brown mastic	у	none detected	1% cellulose	2% mica 97% matrix
MCT-2-27	1	brown ceiling tile	у	none detected	100% cellulose	
	2	brown mastic	у	none detected	1% cellulose	2% mica 97% matrix
MWB-1-29	1	brown fibrous insulation	у	none detected	100% cellulose	
	2	white compound	у	none detected		8% mica 92% gypsum
MWB-1-30	ı	brown fibrous	у	none detected	100% cellulose	

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235

page 4 of 17

Leslie Crisp, General Manager

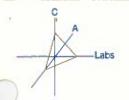
David Bertolacci. Laboratory Director

Notes:

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#### **CA Labs L.L.C.**

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## Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827 fax # 940-397-4859

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

Client project name

McGaha

and number:

AMC-2000-01

CAL00082544

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type percent
SD-1-32	1	brown granular compound	у	none detected		6% quartz 94% gypsum
	2	white granular compound	у	none detected		6% quartz 94% gypsum
SD-1-33	1	white granular compound	У	none detected		5% quartz 95% gypsum
SD-1-34	1	white granular compound	у	none detected		6% quartz 94% gypsum
SD-1-35	1	white granular compound	у	none detected		4% quartz 96% gypsum
SD-1-36	1	tan granular compound	у	none detected		5% quartz 95% gypsum

NVLAP #200349-0

none detected

2% chrysotile

Approved Signatories:

Keith Malone & David Bertolacci
Analyst(s)

tan granular compound

tan surfaced white

compound

TDH #30-0235

page 5 of 17

Leslie Crisp, General Manager David Bertolacci, Laboratory Director

5% quartz

95% gypsum

8% mica

26% binder 64% carbonates

Notes:

SD-1-37

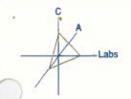
SMT-1-38

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

у

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## Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

940-397-4859 fax # Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

Client project name

McGaha

and number:

AMC-2000-01

CAL00082544

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
SMT-1-39	1	white compound with tan surfacing	n	<1% chrysotile		11% mica 29% binder
SMT-1-40	1	white compound with tan surfacing	n	none detected		4% mica 36% binder 60% carbonates
SMT-1-41	1	white compound with tan surfacing	n	none detected		6% mica 30% binder 64% carbonates
SMT-1-42	1	white compound with tan surfacing	n	none detected		13% mica 24% binder 63% carbonates
SMTC-1-43	1	white compound	у	none detected		2% mica 24% gypsum 76% carbonates
	2	white drywall with brown paper	n	none detected	12% cellulose	3% quartz 85% gypsum
SMTC-1-44	i	white compound	У	none detected		3% mica 24% gypsum 73% carbonates
	2	white drywall with brown paper	n	none detected	13% cellulose	3% quartz 84% gypsum

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

handling fee may be assessed for the return of any samples.

TDH #30-0235

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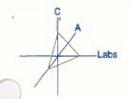
Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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## Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

940-397-4859 fax #

Attn: Flint Skaggs

**Report Date:** 

28 August 2000

CA Labs project no.

Client project name

and number:

CAL00082544 McGaha

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
SMTC-1-45	1	white compound	у	none detected		3% mica 26% gypsum 71% carbonates
MSR-2-46	1	white drywall with brown paper	n	none detected	13% cellulose	2% quartz 85% gypsum
	2	green surfaced white compound	n	none detected		2% mica 18% binder 80% gypsum
MSR-2-47	1	white drywall with brown paper	n	none detected	15% cellulose	2% quartz 83% gypsum
MSR-2-48	1	white drywall with brown paper	n	none detected	14% cellulose	2% quartz 84% gypsum
SMTC-2-49	1	white compound	У	none detected		13% mica 7% gypsum 80% carbonates
	2	white drywall with brown paper	n	none detected	12% cellulose	2% quartz 86% gypsum
SMTC-2-50	1	white compound	у	none detected		11% mica 8% gypsum 81% carbonates

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235

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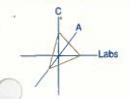
Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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### Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

Client Information:

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

940-397-4859 fax # Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
SMTC-2-50	2	white drywall with brown paper	n	none detected	15% cellulose	2% quartz 83% gypsum
SMTC-2-51	1	white compound	у	none detected		12% mica 10% gypsum 78% carbonates
)	2	white drywall with brown paper	n	none detected	13% cellulose	3% quartz 84% gypsum
SMTC-2-52	1	white compound	У	none detected		10% mica 18% gypsum 72% carbonates
	2	white drywall with brown paper	n	none detected	12% cellulose	3% quartz 85% gypsum
SMTC-2-53	1	white compound	У	none detected		3% mica 13% gypsum 84% carbonates
	2	white drywall with brown paper	n	none detected	14% cellulose	2% quartz 85% gypsum
SMTC-2-54	1	white compound	у	none detected		11% mica 16% gypsum 73% carbonates

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235

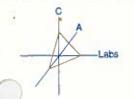
page 8 of 17

Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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# Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

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phone # 940-397-4827

940-397-4859 fax #

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
SMTC-2-54	2	white drywall with brown paper	n	none detected	14% cellulose	2% quartz 84% gypsum
SMTC-2-55	1	white compound	у	none detected		12% mica 18% gypsum 70% carbonates
EW-1-56	1	green surfaced white mesh	n	none detected	16% cellulose	4% mica 80% other
EW-1-57	1	white fibrous insulation	У	none detected	12% cellulose 52% mineral wool	2% quartz 34% gypsum
EW-1-58	1	tan and green surfacing	у	none detected	1% cellulose	2% mica 97% other
	2	white fibrous insulation	у	none detected	16% cellulose 48% mineral wool	2% quartz 34% gypsum
PR-1-59	1	white mesh material with foil	n	none detected	71% cellulose	29% other
	2	yellow fibrous insulation	у	none detected	100% fiberglass	

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235 page 9 of 17

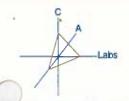
Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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# Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

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phone # 940-397-4827 940-397-4859

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

	Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
	PR-1-60	1	white mesh material with foil	n	none detected	70% cellulose	30% other
		2	yellow fibrous insulation	у	none detected	100% fiberglass	
	PR-1-61	1	white mesh material with foil	n	none detected	74% cellulose	26% other
		2	yellow fibrous insulation	у	none detected	100% fiberglass	
1	MC-2-62	1	black surfaced white caulking	n	none detected	1% cellulose	2% mica 39% carbonates 58% other
Ì	MC-2-63	1	black caulking	у	none detected	5% cellulose	2% mica 8% carbonates 85% other
1	MC-2-64	1	black caulking	У	none detected	4% cellulose	2% mica 6% carbonates 88% other
M	1B1-1-65	1	black tar with brown paper	n	none detected	18% cellulose	1% mica 81% other

NVLAP #200349-0

TDH #30-0235

page 10 of 17

Approved Signatories:

General Manager

Leslie Crisp,

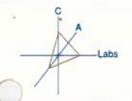
David Bertolacci, Laboratory Director

Analyst(s)

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chaffield analysis of bulk material is recommended in this case.

All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages are susceptible to a coefficient of variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PEM), This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not e reproduced except in full, without written permission by CA Labs.

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CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

# Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

940-397-4859 Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type percent
MB1-1-65	2	pink fibrous insulation	у	none detected	100% fiberglass	
MB1-1-66	1	black tar layer with brown paper	n	none detected	17% cellulose	1% mica 82% other
	2	pink fibrous insulation	у	none detected	100% fiberglass	-
MB1-1-67	1	black tar layer with brown paper	n	none detected	17% cellulose	2% mica 81% other
	2	pink fibrous insulation	у	none detected	100% fiberglass	
MSR-3-68	1	white drywall with brown paper	n	none detected	13% cellulose	2% quartz 85% gypsum
MSR-3-69	1	tan surfacing	у	< 1% chrysotile		3% mica 28% carbonates 69% binder
	2	white drywall with brown paper	n	none detected	16% cellulose	2% quartz 82% binder

NVLAP #200349-0

Approved Signatories:

Analyst(s)

TDH #30-0235

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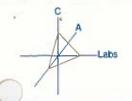
Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

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# Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

Client Information:

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

940-397-4859 Attn: Flint Skaggs

Report Date:

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CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
MSR-3-70	l	tan surfacing	у	< 1% chrysotile		3% mica 30% carbonates 67% binder
	2	white drywall with brown paper	n	none detected	15% cellulose	2% quartz 83% binder
SMTC-3-71	1	white surfacing	у	< 1% chrysotile		2% mica 17% carbonates 81% binder
	2	white drywall with brown paper	n	none detected	12% cellulose	3% quartz 85% gypsum
SMTC-3-72	1	white surfaced white compound	n	< 1% chrysotile		3% mica 17% carbonates 80% binder
	2	white drywall with brown paper	n	none detected	13% cellulose	3% quartz 84% gypsum
SMTC-3-73	1	white surfaced white compound	n	< 1% chrysotile		2% mica 18% carbonates 80% binder
PR-4-74	1	gray fibrous insulation	у	29% chrysotile	43% fiberglass	2% quartz 31% carbonates

NVLAP #200349-0

Approved Signatories:

Analyst(s)

TDH #30-0235

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Leslie Crisp, General Manager

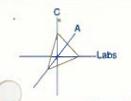
David Bertolacci, Laboratory Director

Notes:

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

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# Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA+600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

Client Information:

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827 940-397-4859

Attn: Flint Skaggs

**Report Date:** 

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type/ percent
PR-4-75	1	red surfaced granular fibrous insulation	n	12% chrysotile	27% cellulose	1% quartz 60% other
PR-4-76	1	red surfaced granular fibrous insulation	n	13% chrysotile	31% cellulose	2% quartz 54% other
EW-4-77	EW-4-77 I red surfaced granular fibrous insulation		n	15% chrysotile	30% cellulose	2% quartz 53% other
EW-4-78	ì	red surfaced granular fibrous insulation	n	16% chrysotile	34% cellulose	2% quartz 48% other
EW-4-79	1	red surfaced gray fibrous insulation	n	13% chrysotile	27% cellulose	2% quartz 58% other
PR-5-80	1	yellow fibrous insulation	у	none detected	99% fiberglass	1% other
	2	black tar paper on metal foil	n	none detected	45% cellulose	55% other
	3	grey surfacing on brown paper	n	none detected	67% cellulose	33% other

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235

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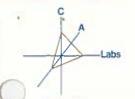
Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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# Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

fax # 940-397-4859 Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

Client project name

and number:

CAL00082544 McGaha

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

	Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
	PR-5-81	1	grey fibrous insulation	У	38% chrysotile		62% carbonates
	PR-5-82	1	grey fibrous insulation	у	33% chrysotile	3% cellulose	64% carbonates
	EW-5-83	1	tan fibrous insulation	У	15% chrysotile	5% cellulose 20% mineral wool	60% gypsum
_	EW-5-84	1	yellow fibrous insulation	у	none detected	98% fiberglass	2% other
		2	tan fibrous surfacing	у	2% chrysotile	20% fiberglass	2% quartz 3% mica 73% other
	EW-5-85	1	grey fibrous insulation	У	18% chrysotile	25% mineral wool	3% quartz 54% gypsum
	TI-1-86	1	white fibrous insulation with orange surfacing	n	44% chrysotile		56% carbonates
	TI-1-87	1	white fibrous insulation with orange surfacing	n	32% chrysotile	5% cellulose	63% carbonates

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235

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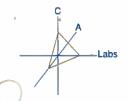
Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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# Polarized Light Microscopy Report

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308-2099

phone # 940-397-4827

940-397-4859 Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

	Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
	TI-1-88	l	white fibrous insulation with orange surfacing	n	35% chrysotile	10% cellulose	55% carbonates
	PR-2-89	1	white styrofoam	у	none detected	< 1% cellulose	100% organics
)		2	black tar paper with blue surfacing	n	none detected	48% cellulose	2% quartz 50% other
	PR-2-90	1	white styrofoam	у	none detected	< 1% cellulose	100% organics
		2	black tar paper with metal foil	n	none detected	39% cellulose	61% other
	PR-2-91	1	white styrofoam with tar	у	none detected	5% cellulose	95% organics
	EW-2-92	1	white styrofoam	у	none detected		< 1% quartz 100% organics
		· 2	tan fibrous surfacing	у	2% chrysotile	25% fiberglass	73% other

NVLAP #200349-0

Approved Signatories:

TDH #30-0235

Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

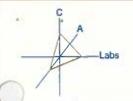
Analyst(s)

page 15 of 17

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# **Polarized Light Microscopy Report**

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116) Analysis Method:

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

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phone # 940-397-4827

940-397-4859 Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

 Sample #   Layer #		Layer # Analysts Physical Description of Subsample		Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent	
EW-2-93	1	off-white fibrous insulation with blue covering	n	16% chrysotile	5% cellulose 25% mineral wool	4% quartz 50% gypsum	
EW-2-94	1	grey fibrous insulation with blue surfacing	у	18% chrysotile	15% mineral wool	2% quartz 65% gypsum	
PR-3-95	1	white fibrous insulation	у	38% chrysotile		62% other	
PR-3-96	1	white fibrous insulation with orange surfacing	n	36% chrysotile	5% cellulose	59% carbonates	
PR-3-97	1	yellow fibrous insulation	у	none detected	98% fiberglass	2% other	
	2	orange fibrous covering with black tar paper	n	none detected	45% cellulose	55% other	
EW-3-98	1	white fibrous insulation with orange covering	n	18% chrysotile	5% cellulose 17% mineral wool	2% biotite 58% gypsum	
 EW-3-99	1	white fibrous insulation with orange covering	n	20% chrysotile	5% cellulose 15% mineral wool	2% biotite 58% gypsum	

NVLAP #200349-0

Approved Signatories:

Keith Malone & David Bertolacci Analyst(s)

TDH #30-0235

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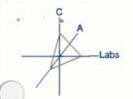
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David Bertolacci, Laboratory Director

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CA Labs L.L.C.

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# Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

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phone # 940-397-4827

940-397-4859

Attn: Flint Skaggs

Report Date:

28 August 2000

CA Labs project no.

CAL00082544

Client project name

McGaha

and number:

AMC-2000-01

Samples received:

8-24-00 8:00am

Turn-around time:

5 days

PO number:

Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type percent
EW-3-100	1	white fibrous insulation with orange covering	n	20% chrysotile	5% cellulose 15% mineral wool	2% biotite 58% gypsum
-						
		A	N	/LAP #200349-0	Approved Sign:	atories:

Keith Malone & David Bertolacci

Analyst(s)

handling fee may be assessed for the return of any samples.

page 17 of 17

TDH #30-0235

Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

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Crisp Analytical Laboratories, LLC. 2081 Hutton Dr. Suite 309 Carrollton, TX 75006 PAGE 1 OF 1

Phone: 972-488-1414 Fax: 972-488-8006

After hours Mobile: 972-977-1958

Signature / Date / Time

# **Chain of Custody**

Client Name:	Midweste	rn State Uni	versi v	bs job #	CAL OO	<u> </u>	1844
Client Address:	_3410_Taf		Billing	Address:	10		
	3410 Tar	Falls, TX 76	308-2066diffe	rent)			
8	WICHLIA .	rails, in 70	300 2097		•		
phone number:	940-397-	4827					
fax number:	940-397-		Send R	eports to:	Environne	ntal	Safety
Project Number			Project	Name:	Building:		GAHA
							erial <u>Ma</u> trix:
Total # Sa	imples Submi	itted:	Total # Sampl	les to be A	maiyzeu:		Air (Bulk)
	01						
sbestos:		please c	all ahead for ava				
TEM	TA Time	PL . PL	M	TA Time	PCI		TA Time
Circle analysis and TA ti	me	Circle analysis a	nd TA time 2 h	our	Circle analysis a	nd TA time	
AHERA	4 hour	Improved	-	our	NIOSH 74	<b>)</b> 0	4 hour
EPA Level II	8 hour	Interim		our			8 hour
Drinking Water	r 16 hour			hour			16 hour
Wipe	24 hour	AHERA		hour			24 hour
Micro-vac	2 days			ays			2 days
NIOSH 7402	3 days	Point Cou		ays			3 days
Chatfield Bulk	5 days	(NESHAP	(5)	ays)			5 days
			10.00				
Lead: ca	rcle analysis and TA time	Paint Chips	Soil	Air	Wi	pes	Wastewater
TA Time:	8 hour	1 day	2 days	3 day	s 5 da	ays	6-10 days
Sample Informati	on:						
Sample Num	ber:	Sample Lo	cation:		Sample	Volu	ne (L):
MC -1-7	Same	CAS SOM	PIP #				
MC-1-3	Signi	200	//				
SMT-1-5							
SMT-1-6							
MSR-1-8				25			
MSR-1-9							
SMTC-1-1	//				···		
SMTC-1-1	2				- v . 755		
Custody Informat Samples relinquis	tion:	D 11-23AU	Samo	les received:	1/2 8	n Nu c	@.n
Samples reundur		14 100 1100	HICS		740	ature / I	Date / Time
0		nature / Date / Ti		les received:	The state of the s		
Samples relinquis	snea:		Samp	TO LOCATAGA			

Signature / Date / Time



Crisp Analytical Laboratories. LLC. 2081 Hutton Dr. Suite 309 Carrollion. TX 13006

Phone: 972-488-1414 PAGE 2 07 2 Fax: 972-488-8006 Mer hours Mobile: 972-977-1958

Client Name:	Midwestern State University	CA Labs job #	CAL
	3410 Taft Blvd.	Billing Address:	
	WICHILA FALLS, IN /0300-2039	(if different)	
phone number:	940-397-4827	C I Descripto dos	
	940-397-4859	Send Reports to:	MIXILIAN JAKOS
Project Number	ACM-2000-01	Project Name:	Building: MC GAHA

Sample Number:		Sar	nple Location:		Sample Volume (L):
MO-1-14	SOMP	Λς	SOMPLE	华	
10-1-15	<u> </u>	-K11-2			
MO-1-15 MFT-1-17					
NFT-1-18		**			
MC7T-1-20					
MCPT-1-21					**
MCT-1-23				and all	
MCT-1-24					
MCT-2-26					
MCT-2-27					
MWB-1-29					
MWB-1-30					
50-1-32					
50-1-33					
50-1-34					
50-1-85					
50-1-36					
50-1-37					
SMT-1-38					
SMT-1-39					
SMT-1-40					
SMT-1-41					
SMT-1-42					
SMTC-1-43					*
SMTC-1-44					
SMTC-1-45					
MSR. 2-46					
MSR 2.47					
MSR.2.49					
SMTC-2.99					
SMTC-2-50		1			
SMTC-2-51					
SMTC-2-52	<u> </u>				

SMICI			
SMTC-1-45			
MSR. 2-46			
45R.2.47			
MSR. 2.49			
SMTC-2.99			
SMTC-2-50			
SMTC-2-51			
SMTC-2-52			
Custody Information: Samples relinquished:	23 AUG 65 100 HRS Signature / Date / Time	Sumples / cccision	Signature / Date / Time
Samples relinquished:		Samples received:	Signature / Date / Time
_	Signature / Date / Time		Signature / Date : Carrie



9

Crisp Analytical Laboratories, LLC. 2081 Flution Dr. Suite 309 Carroliton, TX 75008 Phone: 972-488-1414 Fax: 972-488-8008 After hours Mobile: 972-977-1958

Client Name:	Midwestern State University	CA Labs job #	CAL
	3410 Taft Blvd.	Billing Address:	
	Wichita Falls, TX 76308-2099	(if different)	
phone number:	940-397-4827		
fax number:	940-397-4859	Send Reports to:	Environmental Safety
Project Number		Project Name:	Building MC GAHA

Sample Number:	. Sa	mple Location:	Sample Volume (L):
SMTC-2-53	SAME AS	SAMPLE #	
SMTC-2-54			
SMTC-2-55			
Ew-1-56	8		
Ew-1-57			
cw-1-58			
70-1-59			
PR-1-60			
Pa-1-61			
MC-2-67.			
MC-2-63			
MC-2-64			
MB1-1-65			
MB1-1-66			
MB1-1-67			
MSR-3-68			
MBR-3-69			
MSR-3-70			
SMTC-3-71			
SMTC-3-72			
5476-3-73			
70-4-74			
PR-4-75 PR-4-76			
EW-4-77			
EW-4-77			
FR-5-80			
72-5-81			
PR-5-82			
Ew-5-83			
EW-5-84			
Ew - 5 - 85	1		

w-5-84 w-5-85			
stody Information: amples relinquished:	term ( db 7000AS	Samples received:	Signature / Date / Time
amples relinquished:	Signature / Date / Time	Samples received:	
	Signature / Date / Time		Signature / Date / Time



Crisp Analytical Laboratories, LLC. 2081 Hutton Dr. Suite 309 Carroliton, TX 75008 Phone: 972-488-1414 YN6C 40F 4 Fax: 972-488-8008 After hours Mobile: 972-977-1958

Client Name:	Midwestern State University	CA Labs job #	CAL
Client Address:	3410 Taft Blvd.	Billing Address:	
	WICHILLA FALLS, IN 70306-2055	(if different)	
phone number:	940-397-4827		
fax number:	940-397-4859	Send Reports to:	Environmental Safety
Project Number	*ACM-2000-01	Project Name:	Building: MC CAHA

Sample Number:	San	iple Location:	Sample Volume (L):
	SAME AS	SOMPLE #	
T1-1-86	MICE MIS	3//0/	
T1-1-87			
22-2-89			
20-2-90			
30-7-91			
-2-92			
20-2-93			
w-2-13			
22-3-95			
22-3-96			
27-3-97			
EW-3-98			
EW-3-99			
20-3-100			
<u> </u>			

ate du laformation	1 22 41/4 00		
stody information.	Eu 12 H 23 NUG CO	Samples received:	
amples retinquished.	Signature / Date / Time	Samples received:	Signature / Date / Time

# C A Labs

# Crisp Analytical Laboratories, L.L.C.

2081 Hutton Dr. Suite 309 • Carrollton, TX 75006 • (972) 488-1414 • Fax (972) 488-8006

CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

## POLARIZED LIGHT MICROSCOPY BULK ASBESTOS ANALYSIS LABORATORY ANALYSIS REPORT

Midwestern State University 3410 Taft Blvd. Wichita Falls, TX 76308 reference number: CAL00061989

## LABORATORY ANALYSIS METHOD:

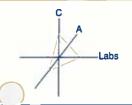
Summary of polarizing light microscopy (PLM / stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR. Part 763 Appendix E to Subpart E (Improved Interim) and EPA/600/R-93/116 (AHERA). All analysts have received the necessary in-house and extramural training (McCrone Research and/or University Degree in Geology, Chemistry, Environmental and Material Science) to perform analysis of bulk samples for the presence or absence of asbestos. Greater than ten percent of all samples are re-examined by a second analyst for intralaboratory quality control. Greater than one percent are re-examined by the same analyst for quality control. All analysts are required to participate in quality control analysis rounds. Microscopic calibrations are performed on a daily, weekly and monthly basis.

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages are susceptible to variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full, without written permission by CA Labs.

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at Crisp Analytical Labs, L.L.C. 2081 Hutton Dr. Suite 309 Carrollton, TX 75006; phone (972)488-1414, fax (972)488-8006, after-hours mobile (972)977-1958 or (214)564-8366.

David Bertolacci, Laboratory Director



2081 Hutton Dr. Suite 309 • Carrollton, TX 75006 • (972) 488-1414 • Fax (972) 488-8006

## CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

# Polarized Light Microscopy Report

Analysis Method: Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

940-397-4859

3410 Taft Blvd.

Wichita Falls, TX 76308

phone # 940-397-4827

fax #
Attn:

Report Date:

30 June 2000

CA Labs project no.

oject no. CAL00061989

Client project name

Bldg. MC GAHA Bldg.

and number:

ACM-2000-01

Samples received:

6/29/00 8:30am

Turn-around time:

24 hour

PO number:

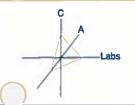
 Sample #	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
1	1	white sealant	у	none detected	< 1% cellulose	2% quartz 56% carbonates 42% organics
2	1	white surfacing	У	< 1% chrysotile		2% quartz 8% mica 90% other
3	1	off-white drywall with brown paper	n	none detected	2% fiberglass 7% cellulose	3% quartz 88% gypsum
	2	tan surfacing	У	< 1% chrysotile		2% quartz 8% mica 90% other
4	1	white drywall with brown paper	n	none detected	2% fiberglass 10% cellulose	2% quartz 88% gypsum
	2	tan surfacing	У	none detected		< 1% quartz 5% mica 95% other
5	1	light brown cove base	У	none detected		1% quartz 22% carbonates 77% organics
	2	brown and white mastic	У	none detected	< 1% cellulose	1% quartz 2% mica 97% other
				/LAP #200349-0 FDH #30-0235	Approved Sig	natories:
	David Bertolacci Analyst(s)			page 1 of 3	Leslie Crisp, General Manager	David Bertolacci, Laboratory Director

Notes.

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis' percentages are susceptible to a coefficient of variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne asbestos fiber analysis (TEM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full, without written permission by CA Labs.

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## CA Labs L.L.C.

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# Polarized Light Microscopy Report

Analysis Method:

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method:

HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

**Client Information:** 

Midwestern State University

3410 Taft Blvd.

Wichita Falls, TX 76308

phone # 940-397-4827 fax # 940-397-4859

Attn:

Report Date:

30 June 2000

CA Labs project no.

CAL00061989

Client project name

Bldg. MC GAHA Bldg.

and number:

ACM-2000-01

Samples received:

6/29/00 8:30am

Turn-around time:

24 hour

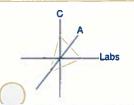
PO number:

S	ample#	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
	6	1	grey floor tile	у	2% chrysotile	3% cellulose	2% quartz 96% carbonates
		2	black mastic	у	2% chrysotile	3% cellulose	2% quartz 93% binder
		3	tan mastic	У	none detected	1% cellulose	2% vermiculite 2% quartz 95% binder
	7	1	tan mastic	у	none detected	2% cellulose 3% synthetic fibers	95% binder
	8	1	grey fibrous ceiling tile	У	none detected	35% cellulose 45% mineral wool	2% quartz 18% perlite
		2	white surfacing	У	none detected		2% quartz 10% carbonates 88% other
	9	1	brown fibrous ceiling tile	у	none detected	< 1% fiberglass 99% cellulose	1% other
		2	white surfacing	У	none detected		< 1% quartz 24% carbonates 76% other
			3		/LAP #200349-0 FDH #30-0235	Approved Sig	natories:
			Bertolacci nalyst(s)		page 2 of 3	Leslie Crisp, General Manager	David Bertolacci, Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case.

All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis percentages are susceptible to a coefficient of variance. All percentages asbestos types. Analysis percentages are susceptible to a coefficient of variance. All percentages asbestos types. Analysis percentages are susceptible to a coefficient of variance. All percentages asbestos fiber analysis (PLM) and airone asbestos fiber analysis (PLM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not e reproduced except in full, without written permission by CA Labs.

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## CA Labs L.L.C.

11800 Industriplex, Suite 5 • Baton Rouge, LA 70809 • (225) 751-5632 • Fax (225) 751-5634

# Polarized Light Microscopy Report

Analysis Method:

Improved Interim (40CFR Part 763 Appendix E to Subpart E) / AHERA (EPA-600 / R - 93 / 116)

Sample Prep Method:

HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil

immersion for identification of asbestos types by dispersion staining / becke line method.

Client Information:

Report Date:

CA Labs project no.

Non-asbestos fiber type /

CAL00061989

Midwestern State University 3410 Taft Blvd.

30 June 2000

Sample # Layer Analysts Physical Description Homo- Asbestos type / calibrated

Client project name and number:

Bldg. MC GAHA Bldg. ACM-2000-01

Wichita Falls, TX 76308

David Bertolacci

Analyst(s)

Samples received:

6/29/00 8:30am

Non-fibrous type /

phone # 940-397-4827 fax #

940-397-4859

Turn-around time:

24 hour

Attn:

PO number:

Sample #	#	of Subsample	geneous (Y/N)	visual estimate percent	percent	percent
10	1	dark brown fibrous material	у	none detected	< 1% fiberglass 98% cellulose	2% other
11	1	tan granular plaster	у	none detected		5% quartz 10% perlite 85% gypsum

NVLAP #200349-0

TDH #30-0235

page 3 of 3

Approved Signatories:

Leslie Crisp, General Manager

David Bertolacci, Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages are susceptible to a coefficient of variance. All percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne asbestos fiber analysis (TEM). This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full, without written permission by CA Labs.

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Crisp Analytical Laboratories, LLC. 2081 Hutton Dr. Suite 309 Carrollton, TX 75006 2A68 1672

Phone: 972-488-1414 Fax: 972-488-8006

After hours Mobile: 972-977-1958

# **Chain of Custody**

lient Name: lient Address:	Midwestern S 3410 Taft B Wichita Fal	State Unive	CA Billi 08-2066d	Labs ng A	job # idress nt)	C.	AL DO	0619	89
ohone number: Tax number: Project Number: Total # Sam	940-397-482 940-397-485 ACM-2000-01 aples Submitte	9	 Sen	d Rep ject N	orts to Iame:	_B		MC G	afety AHA BLDC rial Matrix: ir/Bulk
sbestos:	50-57-31-46-7- <b>8</b> 2-	The second secon		avail	ability	of all i	rush and/o	r after hou	TA Time
TEM	TA Time	PL	( N	T	A Time	- 1	78 80 0 0 0 0 0 0		
Circle analysis and TA time AHERA EPA Level II Drinking Water Wipe Micro-vac NIOSH 7402	4 hour 8 hour 16 hour 24 hour 2 days 3 days	Improved Interim AHERA Point Cour	) <	24 l 2 d 3 d	our our nour nour ays ays		Circle analysis NIOSH 74		4 hour 8 hour 16 hour 24 hour 2 days 3 days 5 days
Chatfield Bulk	5 days	(NESHAPS	<u>S)</u>	5 d	ays 				Wastewater
Lead: cir Matrix:		Paint Chips	Soil		4	Air		vipes	6-10 days
TA Time:	8 hour	1 day	2 day	s	3	days	5	days ————	6-10 days
Sample Information		Sample L	ocation:				Samp	le Volu	ne (L):
1 2	MC- SMT-	1-1							
3	MSK- SMTC	1-17				-			
5	MET: MCP	-1-16 T-1-19				-			
Custody Information Samples relinquities	ished: Sign	Lature / Date / T		-	iples rec		'S	ignature /	29. S. Date / Time



Orisp Analytical Laboratories, LLC. 2081 Hutton Dr. Suite 309 Carrollton, TX 15008 Fax: 972-488-8006 After hours Mobile: 972-977-1958

		Currollion, TX 75008			
		State University	CA Labs job #	CAL	
a Nama	Mi despetarm	State University	Billing Address:		
lient Name:	MITCH SCETT	Rlvd.	(if different)		
lient Address:	3410 Tare	71 TV 76308-2099	(प वसारा राग)		
bant	Wichita Fa	11s, TX 76308-2099	Send Reports to		
hone number:	940-397-48	250	Sena Reporte		ental Safety
ax number:	940-397-48	359	Project Name:	Building	· MGGAHA
Project Numbe	AG <del>M-2000 (</del>	01	- Hon!		Sample Volume (L):
Sample Num	her:	Sample I	ocation.		
	144	CT-2-25			
9	701	WB-1-28			
10	7.1	- 50-1-31		<u> </u>	
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Custod	y Information:	G. BRIL	1500 HKS Same	_	Signature / Date / Time
Custod Sampl	y Information: les relinquished:	Stew Boke		ples received:	Signature / Date / Time

# LAB AND PERSONNEL LICENSES/CERTS

# **CONSULTING AGENCY LICENSE'S**

# TEXAS

# DEPARTMENT OF HEALTH

# **BE IT KNOWN THAT**

ESESIS, INC.

is Licensed and authorized to perform as an

Asbestos Consultant Agency

ranged or revoked and is renewed Civil Statutes, Article 4477-3a, as Board of Health. in the State of Texas within the as amended, so long as this according to the

10-0022

License Number

04/11/2000

Issue Date

04/10/2001 Expiration Date

This certificate is void after expiration date.

Jan 7 Wmy

Todd F. Wingler, P.E. Chief, Asbestos Programs Branch Occupational Safety and Health Division wellen R. alex

William R. Archer III, M.D. Commissioner of Health

VOID IF ALTERED NON-TRANSFERABLE

# TEXAS

# DEPARTMENT OF HEALTH

# BE IT KNOWN THAT

# NORTH AMERICAN ANALYTICAL LABS, INC

is Licensed and authorized to perform as an

Asbestos Consultant Agency

suspended or revoked and is renewed the Texas Board of Health. xas. Civil Statutes, Article 4477-3a, according to the rules adopted as amended, so long as this Licen in the State of Texas within the

10-0102

License Number

06/29/2000

Issue Date

06/28/2001

Expiration Date

This certificate is void after expiration date.

Todd F. Wingler, P.E.

JATEN W

Chief, Asbestos Programs Branch Occupational Safety and Health Division

William R. Archer III, M.D. Commissioner of Health

VOID IF ALTERED NON-TRANSFERABLE

# TEXAS

# DEPARTMENT OF HEALTH

# **BE IT KNOWN THAT**

# NORTH AMERICAN ANALYTICAL LABS, INC.

is Licensed and authorized to perform as an

Asbestos Consultant Agency

med or revoked and is renewed Statutes, Article 4477-3a, Board of Health. as amended, so long as this zin in the State of Texas within the according to the

JAHOW

License Number

10-0102

6661/67/90

Chief, Asbestos Programs Branch Occupational Safety and Health Division Todd F. Wingler, P.E.

William R. Archer III, M.D.

This certificate is void after expiration date.

**Expiration Date** 

06/28/2000 asue Date

Currentssioner of Health

VOID IF ALTERED NON-TRANSFERABLE

# **INDIVIDUAL CONSULTANTS**



€

# GEBCO ASSOCIATES

in cooperation with THE UNIVERSITY OF NORTH TEXAS certifies that

# Denny E. Walker

has successfully completed and passed the exam given on the final day for the Environmental Training Program entitled

# Asbestos Inspector Refresher Course

Conducted at Hurst, Terass on October 27, 1999. This is an EPA fully approved course for purpose of accreditation under Section 206 of TSCA, Title II.

**6** 

Certificate expires October 27, 2000.

Instructor

Date of Laws 10/27/99 re-demod May 4, 2000

CONTO Son Liveral

Continue Hunder, 99214

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all equicable requirements for accreditation. GEBCO is licensed for Ashertos Training under the Tomas Ashestos Health Protection Rules.

GEBCO Associates, Inc. • 669 Airport Freeway, Saire 210 • Harst, TX 76055 • (817) 268-4006

# GEBCO ASSOCIATES

THE UNIVERSITY OF NORTH TEXAS in cooperation with certifies that

# Denny E. Walker

has successfully completed and passed the exam given on the final day for the Environmental Training Program entitled

# Asbestos Management Planner Refresher Course

Conducted at Hurst, Texas on October 27, 1999. This is an EPA fully approved course for purpose of accreditation under Section 206 of TSCA, Title II. It covers topics listed in the NESHAP training requirement of 40 CFR, Part 61, subpart M.

**6** 

Certificate expires October 27, 2000.

histractor

0100 Gallier

Date of Lower 10/27/99 re-control May 4, 2000 Carter Number 99113

GEBCO'S Training Program are provided in cooperation with federal and state regulatory agencies, and fidfill all applicable requirements for accordination. GEBCO is licensed for Asbestos Training under the Tours Asbeston Health Protection Rules.

GEBCO Associates, Inc. • 669 Airport Freeway, Suite 210 • Hurst, TX 76053 • (817) 268-4006

# PHYSICIAN'S WRITTEN STATEMENT MEDICAL SURVEILLANCE FOR ASBESTOS EXPOSURE (Revised July 1996)

APPLICAN	ITS NAME: 12/4	ser l	enry	E				
ADDRESS:	Street As	roeshow	Ab, le	ne TX > Sloce Zip				
SOCIAL SE	ECURITY #: 467-	19-9551	TELEPHONE #: 5	15)691-017				
The above-	named individual was seen on _	810111	in a	accordance with:				
(1)	29 CFR 1926.1101	OR (2)	40 CFR 76	3.121				
INDICATE	WHICH ITEMS WERE PERF	ORMED WITH PHYSI	CIAN'S OR ASSIST	ANT'S INITIALS:				
MN	Completion and review of the directed to the pulmonary, can in 1926.1101.	standardized medical que diovascular, and gastro	estionnaire and work i intestinal systems per	nistory with special emphasis part 1 and 2 of Appendix D				
WN	If employed, the employer provided, and review was made of, the employer's description of this employee's duties as they relate to the employee's exposure, the employee's representative or anticipated exposure level, the personal protective and respiratory equipment to be utilized by the employee, and information from previous medical examinations of the affected employee that is not otherwise available to the physician.							
MN	A physical examination with en	nphasis upon the pulmo	nary, cardiovascular,	and gastrointestinal systems.				
WM	The pulmonary function tests of forced vital capacity (FVC) and forced expiratory volume at one second (FEV I) in accordance with NIOSH and ATS standards.							
WN	Indicate whether or not the physician decided that an x-ray was required:							
W	The employee was informed by the physician of the results of the exam and of any medical conditions that may result from asbestos exposure including the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure.							
employee at	wise noted below, this evaluation an increased risk of material and on the employee concerning	health impairment fro	m exposure to asber	stos, and no limitations are				
Comments or	limitations, if any:			· · · · · · · · · · · · · · · · · · ·				
Micha	u Nito PA	Micuaci	NJOTH	G(7)640-111				
riiysician 52	IN P - OUT I	Print Physician's N	iame	Telephone				
Street Addre	WARON PATI	City Mod-Aled 185 S. Wa	Industrial Health tson Rd. C: 10 108	State Zip				

Texas Department of Health certifies that

# **CHARLES THORN**

License Number 105047
is Licensed as an application of the Consultant Individual Asbestos Consultant

from 12/29/1999 To 12/28/2000

..... k ite

William F. Archer III ALD Control No. 49241

Commissioner of Health



# Charles M. Thorn

has successfully completed and passed the exam given on the final day for the Environmental Training Program entitled

# Asbestos Inspector Refresher Course

Conducted at Hurst, Texas on October 27, 1999. This is an EPA fully approved course for purpose of accreditation under Section 206 of TSCA, Title II.

Certificate expires October 27, 2000.

Certificate Number 99213 Date of later 10/27/99

GLIBCO'S Training Programs are provided in cooperation with federal and state regulatory agentyles, and fulfill all applicable requirements for accreditation. GFBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

(EBCO Associates, Inc. • 669 Airport Freeway, Suite 210 • Hurst, TX 76053 • (817) 268-4006



# Charles M. Thorn

has successfully completed and passed the exam given on the final day for the Environmental Training Program entitled

# Asbestos Management Planner Refresher Course

Conducted at Hurst, Texas on October 27, 1999. This is an EPA fully approved course for purpose of accreditation under Section 206 of TSCA, Title II. It covers topics listed in the NESHAP training requirement of 40 CFR, Part 61, subpart M.

Certificate expires October 27, 2000.

Cenificate Number 99114 Date of Hause 10/27/99

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, Inc. • 669 Airport Freeway, Suite 210 • Hurst, TX 76053 • (817) 268-4006

# PHYSICIAN'S WRITTEN STATEMENT MEDICAL SURVEILLANCE FOR ASBESTOS EXPOSURE (Revised July 1996)

ADDI ICAN	T'S NAME:	Ihorn	'	harles		<i>[[]</i>			
APPLICANT'S NAME: ITORY NAME: MARKS M.I.									
ADDRESS:	65 QI	ueen Anns h	ace Abil	State	1x	19606 Zip			
SOCIAL SECURITY #: 464-56-9009 TELEPHONE #: 915-695-1866									
The above-named individual was seen on									
(1) 29 CFR 1926.1101 OR (2) 40 CFR 763.121									
INDICATE WHICH ITEMS WERE PERFORMED WITH PHYSICIAN'S OR ASSISTANT'S INITIALS									
<u>DE</u>	Completion and directed to the p in 1926.1101.	review of the standar oulmonary, cardiovas	rdized medical questi scular, and gastrointe	onnaire and wor estinal systems p	k history with specer part 1 and 2 of	cial emphasis Appendix D			
PE	If employed, the employer provided, and review was made of, the employer's description of this employee's duties as they relate to the employee's exposure, the employee's representative or anticipated exposure level, the personal protective and respiratory equipment to be utilized by the employee, and information from previous medical examinations of the affected employee that is not otherwise available to the physician.								
be-	A physical exam	ination with emphas	is upon the pulmonar	y, cardiovascula	ir, and gastrointes	tinal systems.			
65	The pulmonary function tests of forced vital capacity (FVC) and forced expiratory volume at one second (FEV 1) in accordance with NIOSH and ATS standards.								
PE	Indicate whether or not the physician decided that an x-ray was required: yes or no, and if an x-ray was performd: yes or no. A chest roentgenogram, posterior-anterior, 14" x 17" or current film on file with interpretation in accordance with 29 CFR 1926.1101, Appendix E. NOTE: According to 29 CFR 1926.1101(M)(2)(ii)(C), the requirement for a chest x-ray is at the physician's discretion.								
29	may result from	vas informed by the p asbestos exposure in ng and asbestos expo	cluding the increased	s of the exam an trisk of lung car	d of any medical oncer attributable to	onditions that the combined			
Unless otherwise noted below, this evaluation indicates that no medical conditions were detected that would place the employee at an increased risk of material health impairment from exposure to asbestos, and no limitations are recommended on the employee concerning the use of personal protective equipment or respirator.									
Comments or limitations, if any: 10 COSTN CT COSTN									
Physician's	Signature PAIL		DGVIOGPA Print Physician's Na	\ C	817-44	j-/// ( Telephone			
NS S. Waston Rd. STE 10/ Astiviston, Texas 76,01, Street Address  City  State  Zip									

# **INSPECTORS**

# Texas Department of Health certifies that:

# STEVEN E ROBB

License Number 602004
is Licensed as an Asbestos Inspector

From 05/05/2000 To 05/04/2001

Control No. 51361

William R Archer III. ALD

Commissioner of Health

# IET

# THE INSTITUTE OF ENVIRONMENTAL TRAINING

CERTIFICATE OF ACHIEVEMENT
AWARDED TO
Steven E. Robb

IN COMPLIANCE WITH REQUISITE TRAINING OF TSCA
TITLE II AND IN RECOGNITION OF THE SUCCESSFUL
CONPLETION OF AN EPA APPROVED AHERA COURSE
AND PASSED AN EXAMINATION IN:

Asbestos Abatement Inspector Training Course Twenty Four (24) Hour Course

Course Date (s) February 14, 2000

Expiration Date February 16, 2000
Expiration Date February 15, 2001
Certificate No. INS 384-58-5250

P.O. Box 6865 Ablene, Texas 79608 (915) 691-0172

### PHYSICIAN'S WRITTEN STATEMENT MEDICAL SURVEILLANCE FOR ASBESTOS EXPOSURE (Revised July 1996)

APPLICAN	TSNAME: ROBB	<u> </u>	STEUEN	$\mathcal{E}_{\mathbb{R}}$
	Last	)0	First	M.I.
ADDRESS:	2710 INDERE	NDENCE (	BICOL TX State	79601 Zin
SOCIAL SE	CURITY #: 384.5	1 1 2 2 5	TELEPHONE 491	5) 6765710
The above-n	amed individual was seen on	1-31-00	, in acc	ordance with:
(1)	29 CFR 1926.1101	OR (2)	40 CFR 763.1	21
INDICATE	WHICH ITEMS WERE PER	FORMED WITH PI	HYSICIAN'S OR ASSISTAN	TS INITIALS:
pr.	Completion and review of the directed to the pulmonary, of in 1926.1101.	e standardized medic ardiovascular, and g	al questionnaire and work his astrointestinal systems per pa	ory with special emphasis rt 1 and 2 of Appendix D
	employee's duties as they rele exposure level, the persona	ate to the employee's protective and resp	iew was made of, the employee's reprinted to be utilized to be utilized the affected employee that	presentative or anticipated
For	A physical examination with	emphasis upon the p	ulmonery, cardiovascular, and	gastrointestinal systems.
<u> </u>	The pulmonary function tests (FEV 1) in accordance with	of forced vital capac NIOSH and ATS sta	ity (FVC) and forced expirated	ory volume at one second
<u></u>	current film on file with in	∠yes orno. A Respiratation in accom	an x-ray was required:  A chest roentgenogram, poster dence with 29 CFR 1926.116 the requirement for a chest of	rior-enterior, 14" x 17" or D1, Appendix E. NOTE:
<u> </u>	The employee was informed may result from asbestos expeffect of smoking and asbest	osure including the in	ne results of the exam and of a ncreased risk of lung cancer at	ny medical conditions that tributable to the combined
employee at	an increased risk of materi	al health impairmen	medical conditions were des at from exposure to asbesto protective equipment or res	s, and no limitations are
Comments or	limitations, if any:			
D	ァ み -	DAMINI	c Nouren	Su 7- / 110
Physician's 8	grature	Print Physici		217-616-111 Telephone
( ઇ\	S. Watson	Inite 108	Arlington, - Th	76010
Street Addres	IS .	City	7.	State Zip

### **LABORATORIES**

### TEXAS

# DEPARTMENT OF HEALTH

### BE IT KNOWN THAT

### **QUEST MICRO ANALYTICS**

is Licensed and authorized to perform as an

Asbestos Laboratory

PLM. TEM

ended\_or revoked and is renewed Statutes, Article 4477-3a, exas. Board of Health. as amended, so long as this rice according to the rules in the State of Texas within

30-0218

License Number

08/05/1999

Issue Dale

08/04/2000

Expiration Date

This certificate is void after expiration date.

Todd F. Wingler, P.E.

Jan 40mm

Occupational Safety and Health Division Chief, Asbestos Programs Branch

William R. Archer III, M.D. Commissioner of Health VOID IF ALTERED NON-TRANSFERABLE

46424

United States Department of Commerce National Institute of Standards and Technology

# SO THINENT OF CO.

ISO/IEC GUIDE 25:1990 ISO 9002:1987

Certificate of Accreditation

QUEST MICROANALYTICS
DALLAS, TX

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

### **BULK ASBESTOS FIBER ANALYSIS**

June 30, 2000

Effective through

9-198

For the National Institute of Standards and Technology

NVLAP Lab Code: 200249-0

### State of Texas

Historically Underutilized Business Certification Program

The General Services Commission hereby certifies that as of August 26, 1998

# **QUEST MICROANALYTICS INC**

has successfully met the requirements as established by the State of Texas as a Minority/Woman Owned Business

Certificate/VID Number: 1752710353900 Expiration Date: August 26, 2000



Robert L. Hall, Program Manager General Services Commission

512-463-5872

(This certificate is VOID upon extension of certification, determination of ineligibility, transfer of ownership, business closure, etc.)



# TEXAS DEPARTMENT OF HEALTH

BE IT KNOWN THAT

CRISP ANALYTICAL LABORATORIES, LLC.

is Licensed and authorized to perform as an

Asbestos Laboratory PLM, TEM, PCM

as amended, so long as this License is not suspended or revoked and is renewed in the State of Texas within the furview of Texas Civil Statutes, Article 4477-3a, according to the rules -- adopted by the Texas Board of Flealth.

Jan 7 Wmy

License Number

30-0235

0661/11/60

Issue Dale

09/16/2000 Expiration Date This certificate is void after expiration date.

Todd E. Wingler, P. E. Chief, Ashestos Programs Branch Occupational Safety and Health Division

William R. Archer III, M.D. Commissioner of Health VOID IF ALTERED NON-TRANSFERABLE 47783

National Institute of Standards and Technology United States Department of Commerce



ISO/IEC GUIDE 25:1990 150 9002:1987

Certificate of Accreditation

### CRISP ANALYTICAL LABORATORY

CARROLLTON, TX

criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for:

### BULK ASBESTOS FIBER ANALYSIS

September 30, 2000

Lifective through

For the National Institute of Standards and Technology

NVLAP Lab Code: 200349-0

### **APPENDICES**

### RESPONSE ACTIONS BASED ON HAZARD RANKING

HAZARD RANK	REMOVAL PRIORITY	AHERA CATEGORIES	RESPONSE ACTIONS REQUIRED BY AHERA
7	1	Significantly Damaged	Evacuate or isolate the area if needed. Remove the ACBM (or enclose or encapsulate if sufficient to contain fibers). Repair of thermal system insulation is allowed if feasible and safe. Operations and maintenance plan required for all friable asbestos containing building materials.
6	2	Damaged plus potential for significant damage	Evacuate or isolate the area if needed. Remove, enclose, encapsulate, or repair to correcte damage. Take steps to reduce potential for disturbance. Operations and maintenance plan required for all friable asbestos containing building materials
5	3	Damaged plus potential for damage	Remove, enclose, encapsulate, or repair to correct damage.  Take steps to reduce potential for disturbance. Operations and maintenance plan required for all friable asbestos containing building materials.
4	4	Damaged	Same as Hazard Rank 5
3	5	Potential for significant damage	Evacuate or isolate the area if needed. Take steps to reduce potential for disturbance. Operations and maintenance plan required for all friable asbestos containing building materials.
2	6	Potential for damage	Operations and maintenance plan required for all friable asbestos containing building materials.
1	7	No problem	Operations and maintenance plan required for all friable asbestos containing building materials, but measures need not be as extensive as above.

NOTE: AHERA does not account for combinations of current and potential damage (i.e. hazard ranks #5 and 6). The response actions shown are combinations of those required for each condition.

### CLASSIFICATIONS FOR HAZARD POTENTIAL (DECISION TREE DISPLAY)

### **ACBM Condition** Significant Damage Good Hazard **Damage** rank #7 Potential for disturbance Potential for disturbance High (Potential High (Potential Moderate Moderate (Potential for for significant for significant (Potential for Low Low damage) damage) damage) damage) Hazard Hazard Hazard Hazard Hazard Hazard Rank #5 Rank #4 Rank #3 Rank #2 Rank #1 Rank #6

### **HOMOGENEOUS AREA CODES**

MATERIAL CATEGORY	MATERIAL TYPE	<u>CODE</u>
Miscellaneous Material	Building Insulation	MBI
Miscellaneous Material	Carpet Mastic	MCPT
Miscellaneous Material	Caulk	MC
Miscellaneous Material	Ceiling Tile	MCT
Miscellaneous Material	Cloth/Rope	MCTH
Miscellaneous Material	Counter/Furniture Surfaces	MCS
Miscellaneous Material	Curtains (fire)	MCU
Miscellaneous Material	Door Insulation	MDI
Miscellaneous Material	Electrical Insulation	MEI
Miscellaneous Material	Flex Connector	MFC
Miscellaneous Material	Floor Tile	MFT
Miscellaneous Material	Grout	MG
Miscellaneous Material	Linoleum	MLN
Miscellaneous Material	Mastic	MM
Miscellaneous Material	Other Miscellaneous	МО
Miscellaneous Material	Roofing Material	MR
Miscellaneous Material	Sheet Rock	MSR
Miscellaneous Material	Substrate	MSS
Miscellaneous Material	Tape	MTP
Miscellaneous Material	Transite	MTRB
Miscellaneous Material	Wall Tile	MWT
Miscellaneous Material	Wallboard	MWB
Miscellaneous Material	Window Glazing	MWG
Surfacing Material	Exterior Coat	SMXC
Surfacing Material	Fireproofing	SMF
Surfacing Material	Other Surfacing	SO
Surfacing Material	Paint	SMP
Surfacing Material	Spray-on Material	SMSM
Surfacing Material	Tape Compound	SMTC
Surfacing Material	Texturizer	SMT
Surfacing Material	Topcoat	SMCT
Thermal System Insulation	Elbow Wrap	EW
Thermal System Insulation	Freezer Insulation	FI
Thermal System Insulation	HVAC Insulation	AC
Thermal System Insulation	Other TSI	ТО
Thermal System Insulation	Pipe "T"	TW
Thermal System Insulation	Pipe Insulation	PR
Thermal System Insulation	Tank Insulation	TI

### **INSPECTOR'S ASSURANCES**

The person who conducted this inspection has successfully completed an EPA approved training course on the inspection of buildings for asbestos containing materials. Current state and federal regulations regarding such inspections were followed by the inspector, as applicable to this particular inspection.

Name of Inspector (Printed): Steven E. Robb

Inspector's Signature: Sture & Kolb

Name of Inspector (Printed): Denny E. Walker

Inspector's Signature:

Certificate/License number: See Personnel and Laboratory Licenses section of this report.

Date of Certification: See Personnel and Laboratory Licenses section of this report.

### ESESIS and NORTH AMERICAN ANALYTICAL LABS Inc. <u>Guide to Reading Report</u>

**Report Number:** 200065017 **Project Number:** ACM-2000-01

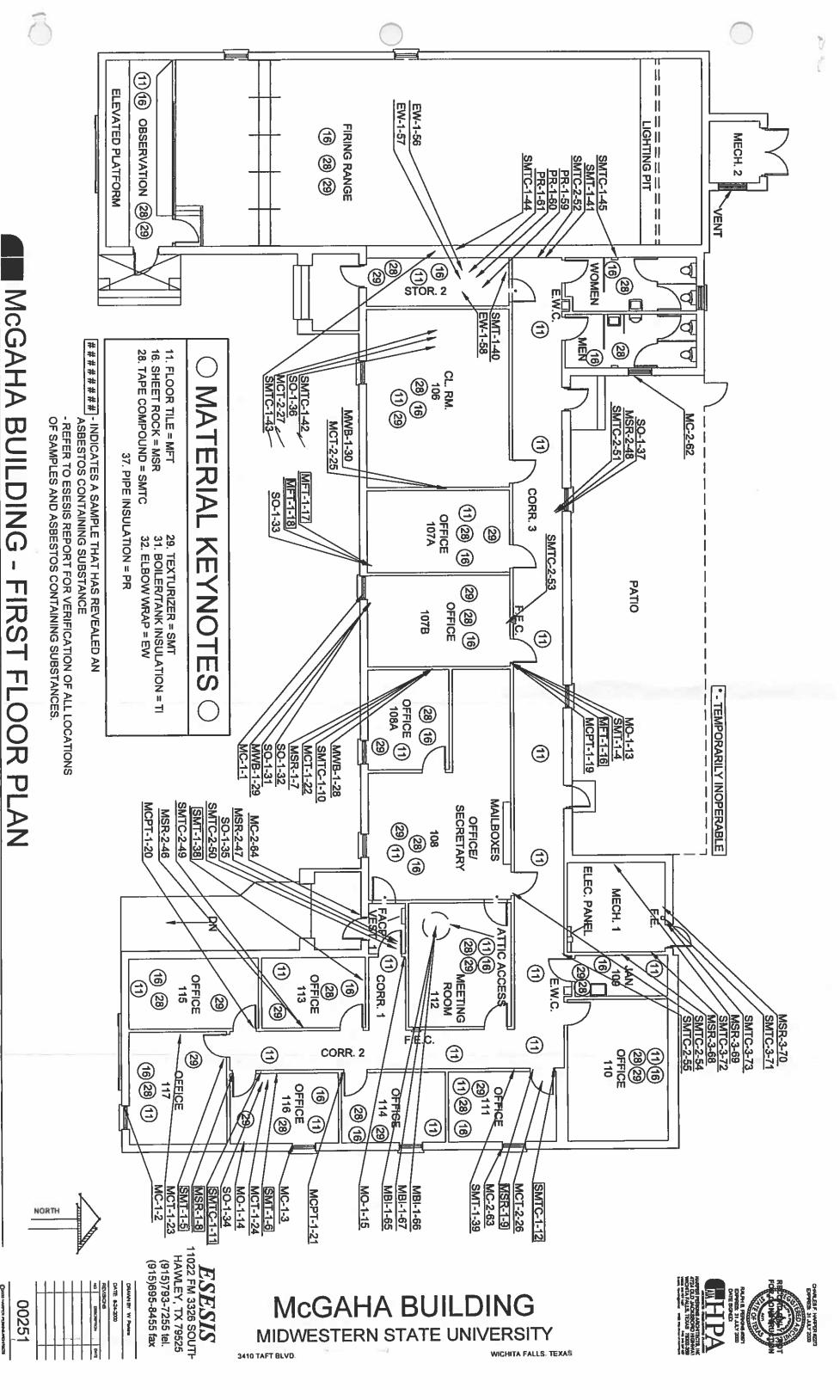
This instruction page is included with each report to explain the structure of the report and to enable clients to interpret our sample numbering system. If you have any questions after reading this report or if anything in it is not clear to you please do not hesitate to call us.

Following this instruction page you will find a written summary which describes and interprets the detailed information found in the rest of the report. It begins with a brief description of the building's construction and a history of any major structural changes in the site (PAST SITE HISTORY / CONSTRUCTION). This is followed by the ASBESTOS CONTAINING MATERIAL SUMMARY section which describes the methods used to inspect the building and analyze samples. This section also contains a detailed description of the nature of any asbestos containing materials (ACM) including their appearance, location, the approximate quantity present, and a hazard rank ranging from 1 (no immediate danger) to 7 (substantial health risk). The next section, CONCLUSIONS AND RECOMMENDATIONS, gives you our professional opinion as to which areas of the building represent the greatest problem and ways in which these problems may be addressed. The final section of the summary, LIMITATIONS AND REPRODUCTIONS, is designed to inform you of the scope of the inspection and any qualifications which should be used in interpreting its results.

The HOMOGENEOUS AREA REPORT provides a detailed description of each sample of material collected during the inspection. The BULK SAMPLE REPORT includes a cover letter, detailed results for each sample analyzed, and a summary which shows which samples contained asbestos and which did not. APPENDICES which follow the report include a description of ESESIS' homogeneous area codes and a detailed explanation of hazard ranks.

The following is an explanation of the numbering system ESESIS uses to label each sample listed in the summary and homogeneous area reports. Each begins with the unique control number assigned by the laboratory to each sample analyzed. Next the code describing the type of homogeneous area from which the sample was taken is given (codes are explained on the homogeneous area code list included in the appendices). This code may be preceded by an "SA" which indicates that this is a salient (isolated) homogeneous area. The code is also followed by a number used to distinguish the area from others of the same type. Next comes the field sample number assigned to the sample by the inspector when it was collected. The entire number is concluded with the project number or designation, if any, which distinguishes this inspection from any others that may be conducted for the same client.

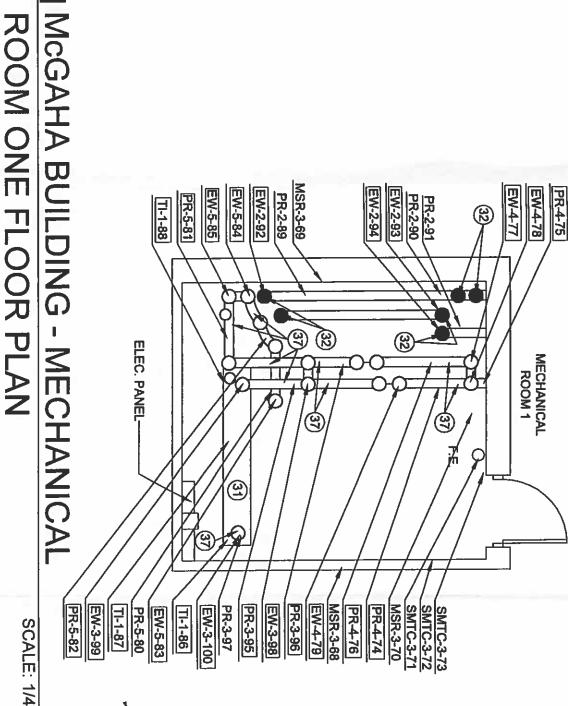
Once again, if you have any trouble interpreting the information you find in this report please do not hestitate to call us. We at ESESIS appreciate your business.



SCALE: 3/32" = 1'-0"

Charles America Actions with Company

McGAHA 101



# O MATERIAL KEYNOTES

11. FLOOR TILE = MFT
16. SHEET ROCK = MSR
28. TAPE COMPOUND = SMTC 37. PIPE INSULATION = PR

29. TEXTURIZER = SMT
31. BOILER/TANK INSULATION = TI
32. ELBOW WRAP = EW

######## - INDICATES A SAMPLE THAT HAS REVEALED AN ASBESTOS CONTAINING SUBSTANCE - REFER TO ESESIS REPORT FOR VERIFICATION OF ALL LOCATIONS OF SAMPLES AND ASBESTOS CONTAINING SUBSTANCES.

SCALE: 1/4" = 1'-0"

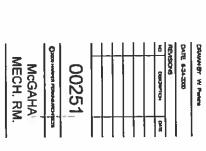
NORTH

11022 FM 3326 SOUTH HAWLEY, TX 79525 (915)793-7255 tel. (915)695-8455 fax

### McGAHA BUILDING MIDWESTERN STATE UNIVERSITY

3410 TAFT BLVD

WICHITA FALLS, TEXAS



### ASBESTOS CONTAINING BUILDING MATERIAL INSPECTION / SURVEY REPORT



2504 & 2510 Hampstead Lane

Wichita Falls, TX

### LAMBERT AND ASSOCIATES, Inc.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354 Project 2006-202

### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

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Attachment B: Photo Log	Pages 21-32
Attachment C: License and Information	Pages 33-37
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### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

### **Limited Asbestos Containing Material Survey**

Midwestern State University 3410 Taft Blvd. Wichita Falls, TX 76308

Building Inspected: 25

2504 and 2510 Hampstead Street

Wichita Falls, Texas

### Introduction:

On September 29, 2006, Mr. L. Flint Skaggs, a licensed asbestos consultant, conducted a survey / inspection of the interior and exterior sections of the building. The inspection was conducted on building materials that might be disturbed during the course of the renovation or demolition of the above referenced building.

This report is limited to materials that are immediately within the bounds of the defined space of this property.

The purpose of the survey was to detect the presence of materials that contain asbestos fibers in concentrations greater than one percent. This survey is for the compliance with current Federal and State regulatory requirements prior to the demolition of the buildings.

### **Scope of Survey And Exclusions:**

The scope of the survey was to determine the presence of asbestos containing materials in the building. All materials showing any trace of asbestos content are reported as an asbestos containing material. Materials containing one percent or less of asbestos are legally non-asbestos containing materials. It is the opinion of this inspector that all materials containing any trace of asbestos should be reported as having asbestos content for the client's awareness of its presence. Any such materials are not regulated at this time.

This survey was limited to only to the named sections and materials that were readily accessible for sampling. Destructive sampling was not conducted to access inaccessible areas of the building sections except where deemed necessary for the identification of building materials and content and permission was granted by the building owner representative.

All fiberglass insulation, foam insulation products, solid metal products, solid wood products, and masonry slabs, blocks, bricks and grout are exempt materials

that do not require sampling at the inspector's discretion. This exemption was utilized for this survey.

All materials detected during demolitions or renovations that are not listed, as being sampled on the Chain of Custody Forms and analytical result sheets should be sampled immediately prior to disturbance. All additional samples and assessments are to be conducted by properly licensed individuals.

There was no investigation into the electrical system of the building. Electrical breaker boxes and cable runs, enclosed chases in walls and floors and other inaccessible areas of the building should receive further investigation prior to the demolition or renovation of this building or any section thereof that might effect these systems.

The survey conducted on the building sections was an investigative survey. However, salient materials may exist in the building, which were not detected in the survey of the building section. Any such material should be sampled and assessed by properly licensed individuals.

This survey report is for the identification of asbestos containing materials in the building area only. This report does not address additional environmental hazards that may be present in this facility.

This document is for the identification of materials that contain asbestos fibers. All determination of asbestos content is based upon the analysis of the laboratory. This inspector and firm are not liable for the accuracy of the analytical data.

This document does not supercede the requirements for the development of a management plan, operation and maintenance program or project specification design for the management, repair or removal of asbestos containing materials.

All measurements and quantities are approximate. Measurements should be verified prior to the implementation of remediation activities.

No additional warrantees are granted or implied.

### Notice Of Requirements For Renovation and New Construction of Public Buildings:

Texas State Law prohibits the installation of asbestos containing materials into a public building. Additional requirements under the Texas Asbestos Health Protection Rules are:

§295.34 (i) A person may not install building materials or replacement parts as stated in subsection (j) of this section, in a public building unless:

- (1) the person obtains a required MSDS showing that the materials or replacement parts contain 1.0% or less of asbestos; or
- (2) the materials or replacement parts, according to the MSDS, contain more than 1.0% asbestos but there is no alternative material or part as demonstrated by the building owner or contractor.

Once a building is constructed or renovated, all Material Safety Data Sheets (MSDS) are to be collected and certified by the Architect or Engineer who had direction over the project, or a licensed asbestos inspector, management planner or individual asbestos consultant that the materials used do not contain asbestos fibers as per the statements on the MSDS information. For all suspect materials, which MSDS is not secured, sampling by properly licensed persons will be required.

### Building Description:

2504 Hampstead

The 2,323 Sq. Ft house was built in 1951. The current general condition of the building is good to fair.

The buildings are wood frame construction with finished walls and floors.

2510 Hampstead

The 2,473 Sq. Ft house was built in 1949. The current general condition of the building is good to fair.

The buildings are wood frame construction with finished walls and floors.

### Sample Collection Procedure:

Samples were collected from all suspect homogenous materials found in the facility within the limited scope of the inspection. Samples were collected in a random manner as determined by the inspector to limit the cosmetic destruction of exposed building materials. No spray applied materials were detected during the inspection / survey process. All collected samples were submitted to the laboratory for analysis.

### **Homogenous Materials Sampled**

The materials listed on the Sample Chain of Custody Form in "Attachment A" have a list of all sampled suspect materials. The samples are list in homogeneous groups.

### **Assessment of Asbestos Containing Materials:**

At the time of the inspection and sampling, suspect materials were assessed in general conformance with the AHERA Rule and Industry Standards. The materials assessments considered the location and the amount of material both in total quantity and as a percentage of the functional space. The condition of the material was evaluated considering the type of the damage, severity of the damage, extent or spread of the damage, accessibility, and potential for disturbance, exposure to air streams, vibration, vandalism and exposure to water. In consideration of the above conditions and following laboratory analyses, those suspect materials proving to be Asbestos-Containing Building Materials (ACBM) were classified into one of the following categories:

- 1. Damaged ACBM thermal system insulation.
- 2. Significantly damaged ACBM thermal system insulation.
- 3. Damaged friable surfacing ACBM.
- 4. Significantly damaged friable surfacing ACBM.
- 5. Damaged friable miscellaneous ACBM.
- 6. Significantly damaged friable miscellaneous ACBM.
- 7. ACBM with potential for damage.
- 8. ACBM with potential for significant damage.
- 9. Remaining ACBM not fitting into categories above.

### **AVAILABLE RESPONSE ACTIONS**

The following four (4) basic response actions are available for each type of material:

- 1. Operations and Maintenance requires maintenance of the material in an undamaged condition. This includes the repair or removal of damaged materials, record keeping, worker training, re-inspection, prevalent level air monitoring and documentation in a comprehensive Asbestos Operations and Maintenance Program (O & M) specific to the building.
- Encapsulation requires sealing of the exposed surface of the ACM with
  a bridging-type encapsulant or conversion from a friable to non-friable
  status with penetrating type encapsulant. Encapsulation work must be
  conducted under conditions, which control the release of asbestos fibers
  into the building areas.
- 3. <u>Enclosure</u> requires isolation of the ACM behind or within airtight barriers of gypsum wallboard, plyboard, etc. Enclosure activities work must be conducted under conditions which control the release of asbestos fibers into the building areas.
- 4. <u>Removal</u> requires removal and disposal of the asbestos-containing material (ACM) under full asbestos abatement conditions by licensed asbestos abatement contractors.

### GENERAL MINIMUM RESPONSE SELECTION CRITERIA

For each ACBM located in the survey, the most appropriate minimum response action was determined based on the specific hazard assessment for that material. Specific minimum response actions are listed in the following description of the identified materials.

Debris receives a minimum response of "Removal". Duct vibration isolators receive a minimum response of "Removal" due to their potential to release asbestos fibers into duct distribution systems. Other materials generally receive a minimum response of "Operations and Maintenance" which includes repair of damaged areas or removal of minor areas of damaged material where repair is not feasible. Thermal system insulation should be maintained in an intact condition with undamaged jacketing. Materials exhibiting a significantly damaged condition, which is deemed not repairable, receive a minimum response of "Removal". Response actions of "Encapsulation" and "Enclosure" are generally not recommended as minimum responses.

The response actions recommended in this report are minimum responses, and the option of pursuing a more stringent response is available at any time.

### Description and Assessment of Asbestos Containing Building Materials (ACBM) 2405 Hampstead Lane:

### 1. Gypsum Wallboard: Assessment Ranking: 7 / Response Action: 1

The joint compound / texture on the gypsum board of the finished walls contain asbestos fibers.

This miscellaneous material is non-friable and damaged. The Regulated Asbestos Containing Material has potential for significant damage if improperly handled.

Recommendation: Manage the material in place until renovation or demolition dictate removal. There is a damaged section in the living room that will need to be removed or repaired by an asbestos abatement contractor due to the area exceeding the limits of the response capabilities of the University's asbestos O&M contractor license.

Remove the material prior to demolition of the building.

If this material is removed in part or in whole, all work must be done by a licensed asbestos abatement contractor with monitoring by a consultant.

All work involving this material must be performed by properly trained and licensed personnel as specified in State & Federal regulations.

Amount: Approximately 2,000 Sq. Ft.

### 2. Asbestos Sheet Flooring: Assessment Ranking: 7 / Response Action: 1

The yellow sheet flooring in the kitchen floor contains asbestos fibers.

This miscellaneous, non-friable Category I material is not damaged with potential for damage due to age making it brittle. The materials have the potential to become more damaged if improperly disturbed.

**Recommendation**: Manage the material in place until renovation or demolition dictate removal.

**Removal:** If this material is removed in part or in whole, all work must be done by a licensed asbestos abatement contractor with monitoring by a consultant.

The Resilient Floor Covering Institute (RFCI) removal method may be utilized for the removal of this material.

All work involving this material must be performed by properly trained and licensed personnel as specified in State & Federal regulations.

Amount: Approximately 500 Sq. Ft. of material.

### 3. Window Glaze: Assessment Ranking: 9 / Response Action: 1

The glazings around the windows panes of windows in the house contain asbestos fibers.

This miscellaneous material is non-friable and not damaged. The Category I material has potential for damage if improperly handled.

Recommendation: Manage the material in place. Educate personnel and maintenance contractors of the presence of the material and that the material is not to be disturbed.

If this material is removed in part or in whole, all work must be done by a licensed asbestos abatement contractor with monitoring by a consultant.

All work involving this material must be performed by properly trained and licensed personnel as specified in State & Federal regulations.

The most economical method for removal would be utilizing trained University personnel to remove windows as complete components from the exterior of the building.

### Amount:

Approximately 23 windows.

### 4. HVAC Paper Tape on Ducts: Assessment Ranking: 7 / Response Action: 1

The grey paper applied to the supply ducts of the HVAC unit contains asbestos fibers.

This miscellaneous, non-friable Category II material is not damaged. The materials have the potential to become damaged if disturbed.

If this material is removed in part or in whole, all work must be done by a licensed asbestos abatement contractor with monitoring by a consultant.

All work involving this material must be performed by properly trained and licensed personnel as specified in State & Federal regulations.

Amount: Approximately 25 Lin. Ft. of this material

(Note: This material is supporting mold growth)

### 5. HVAC Vibration Damper Boot: Assessment Ranking: 7 / Response Action: 1 The grey cloth boot applied to the supply ducts of the HVAC unit contains asbestos fibers.

This miscellaneous, non-friable Category II material is not damaged. The materials have the potential to become damaged if disturbed.

If this material is removed in part or in whole, all work must be done by a licensed asbestos abatement contractor with monitoring by a consultant.

All work involving this material must be performed by properly trained and licensed personnel as specified in State & Federal regulations.

**Amount:** Approximately 12 Lin. Ft. of this material

(Note: This material is supporting mold growth)

### 2410 Hampstead Lane:

1. Gypsum Wallboard: Assessment Ranking: 7 / Response Action: 1

The joint compound / texture on the gypsum board of the finished walls and ceilings contain asbestos fibers.

This miscellaneous material is non-friable and damaged. The Regulated Asbestos Containing Material has potential for significant damage if improperly handled. **Recommendation**: Manage the material in place until renovation or demolition

dictate removal.

Remove the material prior to demolition of the building.

If this material is removed in part or in whole, all work must be done by a licensed asbestos abatement contractor with monitoring by a consultant.

All work involving this material must be performed by properly trained and licensed personnel as specified in State & Federal regulations.

Amount: Approximately 4,200 Sq. Ft.

### **Cost Estimates:**

### Cost Estimates For Immediate Repair or Removal:

\$2,600.00 No items need immediate attention

### Cost Estimates For The Removal of All Known Asbestos Containing Materials:

[This is an estimate for  $\underline{total\ removal}$  of asbestos containing materials. The removal of all materials required as part of the demolition of the structures.

Cost estimates are based upon current market prices. Partial removal of materials may be higher due to mobilization and set-up fees. Additional requirements and economic conditions may cause the actual price to vary  $\pm$  5-10%. Cost estimates are for the removal of asbestos containing materials only. Replacement cost estimates is not included. All numbers are to be used for budgetary purposes only.]

[PLEASE CALL LAMBERT & ASSOCIATES, INC. PRIOR TO INITIATING ANY REMOVAL OR DEMOLITION PROJECT. ACCURATE ESTIMATES BASED UPON ACTUAL SCOPE OF WORK CAN BE DEVELOPED FOR YOU AT NO ADDITIONAL CHARGE.]

### 2504 Hampstead Ln.

Material	Amount	Units	Cost
Gypsum Board with Joint Compound and Texture <sup>1</sup>	2000	Sq. Ft.	\$7,000.00
Sheet Flooring <sup>1</sup>	500	Sq. Ft.	\$1,750.00
Window Glaze <sup>1</sup>	23	Windows	\$3,450.00
HVAC Tape <sup>1</sup>	25	Ft.	\$ 750.00
HVAC Boot <sup>1</sup>	12	Ft.	\$750.00
State Notification fees <sup>2</sup>	16	ARU	\$ 480.00
Project Design By Asbestos Consultant <sup>3</sup>	1	Plan	\$850.00
Air Monitoring and Project Management During Removal <sup>3</sup>	5	Days	\$2,250.00

ESTIMATED TOTAL

\$17,280.00

FOOTNOTES:

<sup>&</sup>lt;sup>1</sup> Work of the Asbestos Removal Contractor – Paid Separately by the Owner

<sup>&</sup>lt;sup>2</sup> The Texas Department of State Health Services will invoice the Owner for the project notification fee – Paid Separately by the Owner

<sup>&</sup>lt;sup>3</sup> Work of the Asbestos Abatement Consultant – Paid Separately by the Owner

### 2510 Hampstead Ln.

Material	Amount	Units	Cost
Gypsum Board with Joint Compound and Texture <sup>1</sup>	4,200	Sq. Ft.	\$14,700.00
State Notification fees <sup>2</sup>	26	ARU	\$ 780.00
Project Design By Asbestos Consultant <sup>3</sup>	1	Plan	\$1,250.00
Air Monitoring and Project Management During Removal <sup>3</sup>	7	Days	\$3,150.00

ESTIMATED TOTAL

\$19,880.00

FOOTNOTES:

### **Inspector Statement**

The content of this report represents the results of the survey conducted on this building. The results are presented as correct to the best of my knowledge. All conditions and statements are applicable. No additional warranties or guarantees are indicated or implied. Any party locating additional materials that are not listed in this report text or on the sample collection sheets should contact the Asbestos Containing Materials Manager for the Owner immediately.

October 4, 2006

L. F. Skaggs DSHS IAC# 10-5110



<sup>&</sup>lt;sup>1</sup> Work of the Asbestos Removal Contractor – Paid Separately by the Owner

<sup>&</sup>lt;sup>2</sup> The Texas Department of State Health Services will invoice the Owner for the project notification fee – Paid Separately by the Owner

<sup>&</sup>lt;sup>3</sup> Work of the Asbestos Abatement Consultant – Paid Separately by the Owner

### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

### Attachment A

Bulk Material Sample Chain of Custody Documents

Bulk Material Sample Analysis Reports

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 569-4876 Fax (817) 439-3633 Fax (940) 569-4876



Samples Relinquished.

Crisp Analytical Laboratories, LLC 2081 Hutton Dr. Suite 301 Carroliton, TX 75006

Phone 972-488-1414 Fax: 972-488-8006

After hours Mobile: metro 469-233-5282

### **Chain of Custody**

Client Name:	Lambert & Associates, Inc.			CA Labs job # CAL					
Client Address:	2013 Fairway Bend Drive			-		<del>, -</del>			
	Haslet, TX 76052-	2805		_					
phone number:	(817) 430-1131			P.O. #:		Midwes	tem State Univers	ity	
fax number:	(817) 439-3633			Project	Name:	2504 &	2510 Hampstead	Dr	
Send Reports to:	Sherri Gilchrist			Project	Number:	2006-2	02		
Total # of	Samples Submitte	od:	To	tal # Samples to	be Analyz	ed:	Mater	ial Matrix:	
	30		- +	30	460		Air/ Bulk/ X	/ Water	11
Asbestos				please o	all ahead .	for availa	ability of all rush an	nd / or after	hours sample
TEM	TA	Time		PLM	TA	Time	Optical	IAQ	TA Time
Circle enelysis end TA lime AHERA EPA Level II Drinking Water Wipe Micro-vac NIOSH 7402 Chatfield Bulk	4 / 8 / 16 24 2 0 3 0	nour nour hour hour days days	Improved Interim AHERA Point Co (NESHA	uni-	4 th 8 th 16. 24 th 2 do	nour nour hour hour lays days	Allergen Particl tape/ bulk/ swab Cyclex-d cassett Air-o-cell casset Anderson culture Bulk / swab culture Bacteria Culture PCM: NIOSH 74	tes les es ures	2 hour 4 hour 8 hour 16 hour 24 hour 2 days 3 days 5-10 days
			Please ind	licate appropriate					
Lead: Matrix:	Circle analysis and TA time Paint Chips		Soil	Air	W	pes	Wastewater	1	TCLP
TA Time:	8 hour	1	day	2 days	3 a	lays	5 days	6	-10 days
Sample Information	n:								
Sample Number:	Sample	Location	1			Sample	Date/Time:	Sample	Volume (L)
1				eet Flooring			2504	Ha	ampstead
2				eet Flooring			2504	Ha	ampstead
3		Kit	chen Sh	eet Flooring			2504	_ Ha	mpstead
4			Cork F	looring			2504	Ha	ampstead
5			Cork F	looring			2504	Ha	mpstead
6			Cork F	looring			2504	Ha	ampstead
7		Med	ch Rm Si	heet Flooring			2504	Ha	ampstead
8		Med	ch Rm Si	heet Flooring			2504		mpstead
9				heet Flooring			2504	_	ampstead
10				w Glaze			2504		mpstead
11				ouct Tape			2504		mpstead
12		HV		ition Damper			2504		ampstead
13				Fireplace			2504		mpstead
14				Fireplace			2504		ampstead
15	0.1			Fireplace			2504		ampstead
16	Gva			ture / Joint Com	nound		2504		
17						_	2504		mpstead_
17	ј Сур	Sum Doa	aru / Tex	ture / Joint Com	pouna		2504	į = 178	ampstead
Custody information Samples Relinqui		eroy Skar	ggs Pature/ Date/	9/29/2006	Samples -	Received		ature/ Date/	Time

Samples Received:

Signature/ Date/ Time

Signature/ Date/ Time



Crisp Analytical Laboratories, LLC 2081 Hutton Dr. Suite 301 Carroliton, TX 75006

Phone 972-488-1414 Fax: 972-488-8006 After hours Mobile: metro 469-233-5282

### **Chain of Custody**

Client Name:	Lambert & Associates, Inc.	CA Labs job # CAL		
Client Address:	2013 Fairway Bend Drive			
	Haslet, TX 76052-2805			
phone number:	(817) 430-1131	P.O. #:	Midwestern State University	
fax number:	(817) 439-3633	Project Name:	2504 & 2510 Hampstead Dr	
Send Reports to:	Sherri Gilchrist	Project Number:	2006-202	

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L)
18	Gypsum Board / Texture / Joint Compound	2504	Hampstead
19	Ceiling Texture	2510	Hampstead
20	Ceiling Texture	2510	Hampstead
21	Ceiling Texture	2510	Hampstead
22	12" Ceiling Tile	2510	Hampstead
23	12" Ceiling Tile	2510	Hampstead
24	12" Ceiling Tile	2510	Hampstead
25	Gypsum Board / Texture / Joint Compound	2510	Hampstead
26	Gypsum Board / Texture / Joint Compound	2510	Hampstead
27	Gypsum Board / Texture / Joint Compound	2510	Hampstead
28	Sheet Flooring - Laundry	2510	Hampstead
29	Sheet Flooring - Laundry	2510	Hampstead
30	Sheet Flooring - Laundry	2510	Hampstead
31			
32		The state of the s	
33			
34			
35			
36			
37			
38	V=0 T XX81/54 B 1816		
39			
40	T BW L L L		
41		0.00	
42	- 1 HA		
43			
44			
45	The state of the s		
46			
47		4 6117	
48		TERRO -	
49			
50			
51			30
52			

ustody information: Samples Relinquished:	Leroy Skaggs 9/29/2006	Samples Received:	
	Signature/ Date/ Time		Signature/ Date/ Time
Samples Relinquished		Samples Received:	
	Signature/ Date/ Time	_	Signature/ Date/ Time

### Polarized Light Microscopy Bulk Asbestos Analysis Laboratory Analysis Report

Lambert & Associates, Inc. 2013 Fairway Bend Drive Haslet, TX 76052-2805 reference number: CAL06105410

### LABORATORY ANALYSIS METHOD:

Summary of polarizing light microscopy (PLM / stereomicroscopy bulk asbestos analysis)using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim) and EPA /600/R-93/116 (Improved). All analysts have received the necessary in-house and extramural training McCrone Research and/or University Degree in Geology, Biology, Environmental and Material Science) to perform analysis of bulk samples for the presence or absence of asbestos. Greater than on percent are re-examined by a second analyst for intralaboratory quality control. Greater than one percent are re-examined by the same analyst for quality control. All analysts are required to participate in quality control analysis rounds. Microscopic calibrations are performed on a daily, weekly and monthly basis. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured.

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. All asbestos qualification is traceable to NIST standards for regulated asbestos types. Analysts' calibrated visual estimated percentages are susceptible to variance. All quantifications fall within a range of acceptable percentages, depending on the actual concentration of asbestos:

% Area Asbestos	Acceptable Variance	% Area Asbestos	Acceptable Variance
<1 - 1%	+/- 1%	7-10%	+/- 5%
2 – 3%	+/- 2%	11 - 19%	+/- 8%
4 – 6%	+/- 4%	20 - 100%	+/- 10%

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at Crisp Analytical Labs, L.L.C. 2081 Hutton Dr. Suite 301 Carrollton, TX 75006. We can be reached after hours by cellular at (214) 564-8366.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Client Information:

Client Project:

Lambert & Associates, Inc. 2013 Fairway Bend Drive

Haslet, TX 76052-2805

2504 & 2510 Hampstead Dr

2006-202

Date: 10/2/06

CAL06105410

CA Labs Project #:

Phone: 817-430-1131

Fax: 817-439-3633

Turnaround Time: 24 Hours

Attn: Sherri Gilchrist

Samples Received: 10/2/06 9:00 a.m. Purchase Order #:

Sample# Layer# Analysts Physical Description Homo-Asbestos type / calibrated Non-asbestos fiber type / Non-fibrous type / visual estimate percent of Subsample geneous percent percent (Y/N) (none detected = absent / asb.and visual% = present) Tan linoleum N 23% Chrysotile 77% matrix N 2 Tan linoleum 25% Chrysotile 75% matrix 3 Tan linoleum 75% matrix N 25% Chrysotile 4 Brown cork covering None detected 100% matrix 2 Black felt N None detected 60% cellulose 40%matrix 5 Brown cork covering None detected 100% matrix 2 Black felt None detected 65% cellulose 35% matrix Brown cork covering 100% matrix 6 None detected

	NVLAP # 200349-0	Approved Signa	atories:
Eric Harper	TDH # 30-0235	Leslie Crisp	Eric Harper
Analyst	Page 1 of 6	General Manager	Laboratory Directo

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AIHA for fungi. This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

**Client Information:** 

Lambert & Associates, Inc. 2013 Fairway Bend Drive

**Client Project:** 

2504 & 2510 Hampstead Dr

2006-202

Date: 10/2/06

Phone: 817-430-1131

Haslet, TX 76052-2805

**Turnaround Time: 24 Hours** 

Samples Received: 10/2/06 9:00 a.m.

CA Labs Project #:

CAL06105410

Fax: 817-439-3633

Attn: Sherri Gilchrist

Purchase Order #:

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
6	2	Black felt	N	None detected	63% cellulose	37% matrix
7	1	Brown linoleum	N	None detected	30% cellulose	70% matrix
8	1	Brown linoleum	N	None detected	35% cellulose	65% matrix
9	1	Brown linoleum	N	None detected	33% cellulose	67% matrix
10	1	Gray hardened caulking with brown surfacing	N	2% Chrysotile		4% gypsum 94% carbonates
11	1	Gray fibrous insulation	Y	65% Chrysotile		35% carbonates
12	1	Gray woven wrap	Y	30% Chrysotile	50% cellulose	20% carbonates
13	1	Tan plaster	Y	None detected		28% quartz 72% carbonates

NVLAP # 200349-0 Approved Signatories: TDH # 30-0235

Eric Harper Page 2 of 6 Analyst

Leslie Crisp General Manager Eric Harper Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AlliA for fungi.

This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Client Information:

Client Project:

Lambert & Associates, Inc. 2013 Fairway Bend Drive

2504 & 2510 Hampstead Dr

Haslet, TX 76052-2805

2006-202

CA Labs Project #: CAL06105410

Date: 10/2/06

Phone: 817-430-1131

Fax: 817-439-3633

**Turnaround Time: 24 Hours** 

Attn: Sherri Gilchrist

Samples Received: 10/2/06 9:00 a.m. Purchase Order #:

Sample# Analysts Physical Description Asbestos type / calibrated Non-asbestos fiber type / Non-fibrous type / geneous of Subsample visual estimate percent percent percent (Y/N) (none detected = absent / asb.and visual% = present) 14 Tan plaster None detected 30% quartz 70% carbonates

15 Tan plaster None detected 27% quartz 73% carbonates 16 Tan textured surfacing 2% Chrysotile 5% quartz 93% binder 2 Brown drywall with paper N None detected 16% cellulose 4% quartz 80% gypsum 17 2% Chrysotile Gray textured surfacing 8% quartz 90% binder 18 <1% Chrysotile 1 Gray textured surfacing 6% quartz 94% binder 2 White drywall with paper 16% cellulose None detected 5% quartz 79% gypsum 19 White textured surfacing None detected 5% quartz 95% binder

NVLAP # 200349-0

Approved Signatories:

Eric Harper Analyst

TDH # 30-0235 Page 3 of 6

Leslie Crisp General Manager Eric Harper Laboratory Director

Notes:

Notes:

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AlHA for fungi. This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AlHA accreditation

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Client Information:

**Client Project:** 

Lambert & Associates, Inc. 2013 Fairway Bend Drive

Haslet, TX 76052-2805

2504 & 2510 Hampstead Dr

2006-202

CA Labs Project #: CAL06105410

Date: 10/2/06

Phone: 817-430-1131

**Turnaround Time: 24 Hours** 

Samples Received: 10/2/06 9:00 a.m.

Fax: 817-439-3633

Attn: Sherri Gilchrist

Purchase Order #:

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
20	1	White textured surfacing	Y	None detected		4% quartz 96% binder
21	1	White textured surfacing	Y	None detected		5% quartz 95% binder
22	1	Brown fibrous ceiling tile	Y	None detected	100% cellulose	
	2	White surfacing	Y	None detected		3% quartz 97% binder
23	1	Brown fibrous ceiling tile	Y	None detected	100% cellulose	
	2	White surfacing	Y	None detected		4% quartz 96%binder
24	1	Brown fibrous ceiling tile	Υ	None detected	100% cellulose	
25	1	Tan compound with white surfacing	N	2% Chrysotile		5% quartz 42% binder 51% carbonates

NVLAP # 200349-0 Approved Signatories: TDH # 30-0235

Eric Harper Analyst

Page 4 of 6

Leslie Crisp General Manager Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis percentages fall within a range of acceptable percentages, depending on the actual concentration of as accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AlPLAP for fungi.

This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116) Preparation Method, HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Client Information;

Client Project:

Lambert & Associates, Inc.

2504 & 2510 Hampstead Dr

2013 Fairway Bend Drive Haslet, TX 76052-2805

2006-202

CAL06105410 Date: 10/2/06

CA Labs Project #:

Phone: 817-430-1131

**Turnaround Time: 24 Hours** 

Samples Received: 10/2/06 9:00 a.m. Purchase Order #:

Fax: 817-439-3633

Attn: Sherri Gilchrist

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
26	1	Gray textured surfacing	Y	None detected		5% quartz

3.6			3.0	1 22 2 2 2		CO.
26	-	Gray textured surfacing	Y	None detected		5% quartz 95% binder
	2	White drywall with paper	N	16% Chrysotile		4% quartz 80% gypsum
27	1	Beige textured surfacing	Y	<1% Chrysotile	-	5% quartz 95% binder
	2	White drywall with paper	N	None detected	18% cellulose	4% quartz 78% gypsum
28	1	Tan patterned linoleum	N	None detected	20% cellulose	80% matrix
	2	Black and brown mastic	N	None detected		4% gypsum 96% binder
29	1	Tan patterned linoleum	N	None detected	23% cellulose	77% matrix
	2	Black and brown mastic	N	None detected		4% gypsum 96% binder

NVLAP # 200349-0	Approved Signatories:
TDH # 30-0235	

Eric Harper Analyst

Page 5 of 6

Leslie Crisp General Manager Eric Harper Laboratory Director

Notes:

Notes:

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AIIA for fungi. This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIIA accreditation

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Client Information: Lambert & Associates, Inc. **Client Project:** 

2504 & 2510 Hampstead Dr

2013 Fairway Bend Drive Haslet, TX 76052-2805 <u>2006-202</u>

CAL06105410

Date: 10/2/06

CA Labs Project #:

Phone: 817-430-1131

**Turnaround Time: 24 Hours** 

Samples Received: 10/2/06 9:00 a.m.

Fax: 817-439-3633

Attn: Sherri Gilchrist

Purchase Order #:

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
30	1	Tan patterned linoleum	N	None detected	20% cellulose	80% matrix
	2	Black and brown mastic	N	None detected		4% gypsum 96% binder

NVLAP # 200349-0	Approved Signatories:		
TDH # 30-0235	Leslie Crisp	Frie Harner	

General Manager

Laboratory Director

Notes:

Eric Harper Analyst

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AIHA for fungi. This test report relates only to the items tested. Neither NVLAP nor EPA accreditation implies endorsement by any US Government agency. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation.

Page 6 of 6

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### LAMBERT AND ASSOCIATES, INC. 2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

Attachment B

PHOTO LOG

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 569-4876 Fax (817) 439-3633 Fax (940) 569-4876



2504 - Asbestos HVAC Tape & Vibration Boot - Note mold growth and water damage from condensation



2504 - Mold Growth around HVAC unit



2504 - Mold & Mildew growth on floor joist at hatch



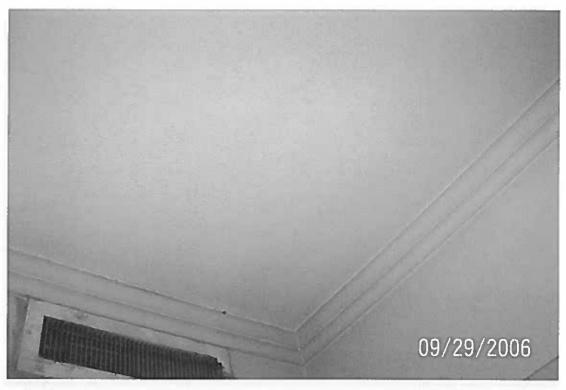
2504 - View under floor



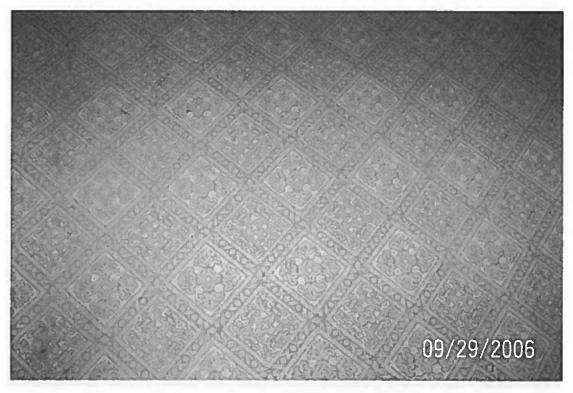
2504 - Cork Flooring



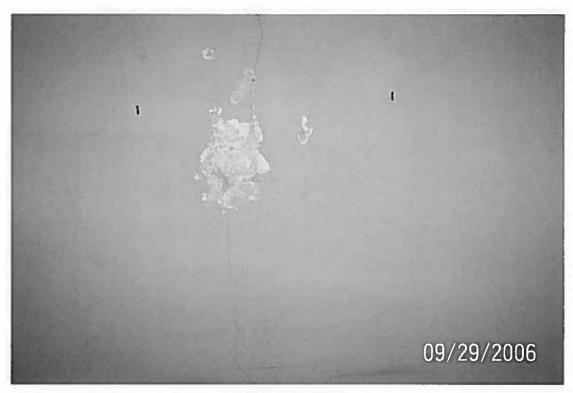
2504 - 12" cork flooring in entrance



2504 - Finished drywall on walls and ceiling with asbestos containing texture and joint compound



2504 - Asbestos containing sheet flooring in kitchen



2504 - termite damage in living room that will require repair - removal must be done by asbestos abatement contractor.



2504 - Plaster and mortar in fireplace



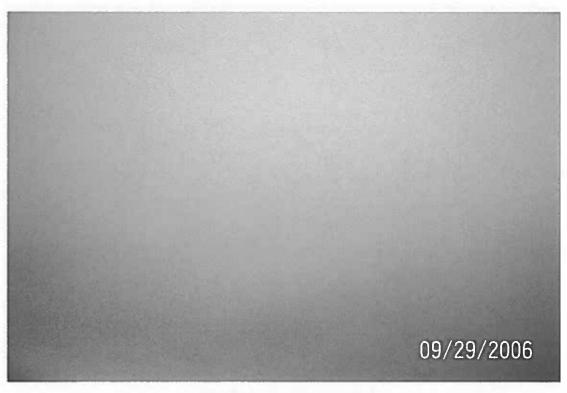
2504 - Front of House



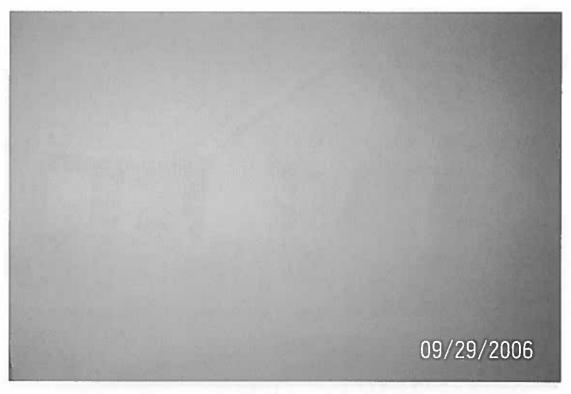
2504 - Window glaze around window panes



2510 - Front of House



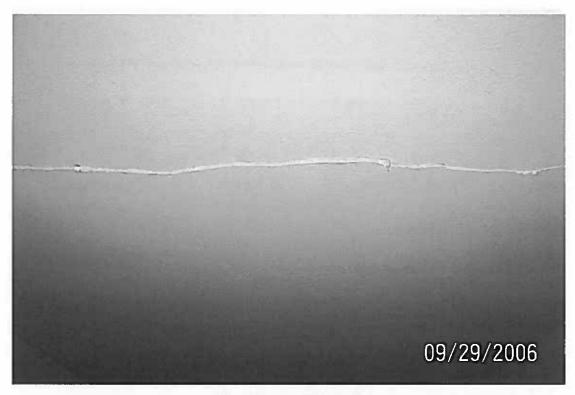
2510 - Acoustical texture on ceilings - Non-ACBM / Joint compound assumed homogenous with walls.



2510 - finished drywall on ceilings and walls with asbestos texture and joint compound



2510 - drywall cracks on 2nd floor



2510 - Drywall cracks on 2nd floor - can be repaired by O&M team with monitoring.



2510 - Views under the floor



2510 - Views under the floor



2510 - Views under the floor



2510 - Views under the floor - note mold growth on debris under the floor

### LAMBERT AND ASSOCIATES, INC. 2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

Attachment C

License and Information

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 569-4876

Fax (817) 439-3633 Fax (940) 569-4876

# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

## GARY LAMBERT & ASSOCIATES, LTD. DBA LAMBERT & ASSOCIATES, INC.

is certified to perform as a

### Asbestos Consultant Agency

so long as this license is not suspended or revoked and is renewed according to the in the State of Texas within the purview of Texas Occupations Code, chapter 1954, rules adopted by the Texas Board of Health.

20 SALLY MO

Eduardo J. Sanchez, M.D., M.P.H Commissioner of Health

License Number, 100071

Effective Date: 3/16/2006

Expiration Date: 3/15/2008

(Void After Expiration Date)

# DEPARTMENT OF STATE HEALTH SERVICES

### BE IT KNOWN THAT

### CRISP ANALYTICAL LAB LLC

is licensed and authorized to perform as an

## Asbestos Laboratory PLM, TEM, PCM

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

300235

License Number

11/3/2005

Issue Date

11/2/2007

l'apiration Date l'Inis certificate is void after expiration date

JAHOWY C

Todd F. Wingler, P. F.

Chief, Asbestos Programs Branch Toxic Substances Control Division

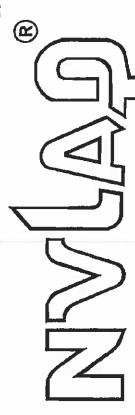
SASNERJANS

Eduardo J. Sanchez, M.D., M.P. II.

Commissioner of Health

VOID IF ALTERED NON-TRANSFERABLE 89824

United States Department of Commerce National Institute of Standards and Technology



# Certificate of Accreditation to ISO/IEC 17025:1999

NVLAP LAB CODE: 200349-0

### Crisp Analytical Laboratory

Carrollton, TX

is recognized by the National Voluntary Laboratory Accreditation Program for conformance with criteria set forth in Accreditation is granted for specific services, listed on the Scope of Accreditation, for: NIST Handbook 150:2001 and all requirements of ISO/IEC Guide 17025:1999.

## BULK ASBESTOS FIBER ANALYSIS

2005-10-01 through 2006-09-30

Effective dates



For the National Institute of Standards and Technology



Control No: 92559

Department of State Health Services certifies that:

LEROY F SKAGGS is Licensed as an:

Individual Asbestos Consultant

License Number: 105110 From: 05/10/2006 To: 05/09/2008



### LAMBERT AND ASSOCIATES, Inc.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

### Attachment D

**GLOSSARY OF TERMS** 

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 569-4876

Fax (817) 439-3633 Fax (940) 569-4876

### **GLOSSARY OF TERMS**

### **Definitions and Acronyms**

### **ASBESTOS**

Naturally occurring fibrous minerals composed of hydrated silicates, crystalline in structure, occurring as parallel bundles. Two categories - Serpentine (Chrysotile) and Amphibole (Amosite, Anthophylite, Tremolite, Crocidolite, Actinolite).

### **ACM**

**Asbestos-Containing Material** 

### **ACBM**

Asbestos-Containing Building Material - Materials containing greater than 1% asbestos, by weight.

### **AECP**

Asbestos Exposure Control program also referred to as O & M (Operations and Maintenance)

Program.

### **ACTION LEVEL**

An OSHA standard for air borne concentration of asbestos above which the employer must institute certain provisions. The Action Level is 0.1 fibers per cubic centimeter of air as an 8 hour time-weighted average (measured by PCM).

### **AHERA**

Asbestos Hazard Emergency Response Act.

### **ASHAA**

Asbestos School Hazard Abatement Act of 1984.

### BUILDING

Any enclosed structure occupied by people, including canopies, and open air structures.

### CMU

Concrete Masonry Unit - light weight block.

### **DEMOLITION**

Wrecking or removing any load-supporting member.

### **EPA**

United States Environmental Protection Agency.

### **FRIABLE**

Materials which, when dry, can easily be pulverized, crushed, or reduced to powder by hand pressure.

### GYPSUM BOARD

A pre-manufactured wall surfacing substrate applied over a wood or metal framing system. This material is referred to as sheetrock as well.

### **HAZARD**

A circumstance, mechanism, or event which has the potential to create injury.

### HAZARD ASSESSMENT

Analysis and evaluation of physical and exposure factors to determine the need for corrective action.

### **HOMOGENEOUS AREA**

An area exhibiting consistent construction materials and techniques for that area.

### INSPECTION

The process of locating and quantifying the ACM, assessing it's condition and reporting the results.

### LEA

Local Education Agency (generally the School Board).

### **NBS**

National Bureau of Standards.

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. Federal regulation that addresses the requirement for inspection and control methods for asbestos containing materials. §40 CFR 61, SUBPART M

### **NIOSH**

National Institute for Occupational Safety and Health.

### **NON-FRIABLE**

Materials which, at present, can not be crushed and/or pulverized by hand pressure. With appropriate handling techniques, non-friable material will not become friable.

### OSHA

Occupational Safety and Health Administration.

### PEI

Permissible Exposure Limit - level of exposure to air borne asbestos fibers which no employee shall be exposed. The PEL is 0.2 fibers per cubic centimeter as an 8 hour time-weighted average (measured by PCM).

### Attachment D

### **PCM**

Phase Contrast Microscopy - analysis of air samples. NIOSH 7400 method - an optical microscopy fiber counting technique which does not allow for differentiation between asbestos fibers and other types of fibers.

### **PLM**

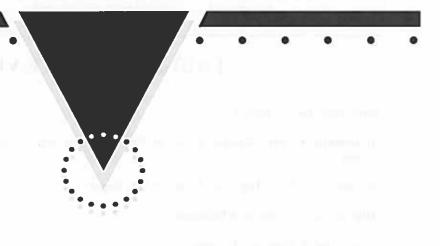
Polarized Light Microscopy - analysis of bulk material samples.

### RENOVATION

Altering in any way one or more facility components (except demolition).

### **TEM**

Transmission Electron Microscopy - analysis of air samples. AHERA Methodology - a high resolution electron microscopy which does allow for positive identification and classification of asbestos fibers. The counting technique includes only asbestos fibers.



### ASBESTOS CONTAINING BUILDING MATERIAL SURVEY REPORT

2508 Hampstead Wichita Falls, Texas

June, 2008

### LAMBERT AND ASSOCIATES, Inc.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354 Project 2008-113

### LAMBERT AND ASSOCIATES, INC. 2013 Fairway Bend Drive, Haslet, TX 76052-2805

P.O. Box 235, Burkburnett, TX 76354

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Attachment B: Photo Log – Not Used For This Report	Pages 21
Attachment C: License and Information	Pages 22-26
Attachment D: Glossary of Terms	Pages 27-30

### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

### **Asbestos Containing Building Material Survey**

Midwestern State University 3410 Taft Blvd. Wichita Falls, TX 76308

Areas Inspected: 2508 Hampstead Street, Wichita Falls, TX

### Introduction:

On June 23, 2008, Mr. L. Flint Skaggs, a licensed asbestos consultant, conducted a survey / inspection of the interior and exterior sections of said building that was identified for inspection for asbestos containing building materials (ACBM). The inspection was conducted on building materials that might be disturbed during the course of renovation of the above referenced building. The roof was not addressed due to the potential to compromise the roof by making penetrations for sampling and coring.

This report is limited to materials that are immediately within the bounds of the defined space of this property and survey limits.

The purpose of the survey was to detect the presence of materials that contain asbestos fibers in concentrations greater than one percent. This survey is for the compliance with current Federal and State regulatory requirements prior to the renovation or demolition of facilities.

### Summary of Detected Asbestos Containing Building Materials Detected

Please refer to the **Description and Assessment of Asbestos Containing Building Materials (ACBM)** section of the report for more detail on the detected building materials with asbestos content. The following materials are found throughout other parts of the building and should be assumed to be asbestos containing. However, this report only covers the inspected and assessed areas and all quantities and recommendations are for those specific areas only.

- Joint Compound and Texture on drywall Non-friable Regulated Asbestos Containing Material (RACM)
  - a. Found on interior walls of the original house: Approximately 2,691 Sq.
     Ft. of material
  - b. Repair damaged material in living room and adjacent closet and clean area. Possible cleanup of joints for wall repair in couple of other areas. Manage materials intact with periodic surveillance.
  - c. Remove and dispose of the materials that might be effected by renovation or demolition of the building.

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 File: 2008-113 MSU 2508 Hampstead ACM Insp Fax (817) 439-3633 Fax (940) 569-4876

- 2. Cement Asbestos Board Non-friable Category II asbestos containing material
  - a. Found on the exterior wall under the vinyl siding and may be under brick on both original house and addition: Approximately 2,678 Sq. Ft. of material
  - b. Manage materials intact with periodic surveillance.
  - c. Remove and dispose of the materials that might be effected by renovation or demolition of the building.

### **Scope of Survey And Exclusions:**

The scope of the survey was to determine the presence of asbestos containing materials in the inspected area. All materials showing any trace of asbestos content are reported as an asbestos containing material. Materials containing one percent or less of asbestos are legally non-asbestos containing materials. It is the opinion of this inspector that all materials containing any trace of asbestos should be reported as having asbestos content for the client's awareness of its presence. Any such materials are not regulated at this time.

This survey was limited to only to the named sections and materials that were readily accessible for sampling. Destructive sampling was not conducted to access inaccessible areas of the building sections except where deemed necessary for the identification of building materials and content and permission was granted by the building owner representative.

All fiberglass insulation, foam insulation products, solid metal products, solid wood products, and masonry slabs, blocks, bricks and grout are exempt materials that do not require sampling at the inspector's discretion. This exemption was utilized for this survey.

All materials detected during demolitions or renovations that are not listed, as being sampled on the Chain of Custody Forms and analytical result sheets should be sampled immediately prior to disturbance. All additional samples and assessments are to be conducted by properly licensed individuals.

There was no investigation into the electrical system of the building. Electrical breaker boxes and cable runs, enclosed chases in walls and floors and other inaccessible areas of the building should receive further investigation prior to the demolition or renovation of this building or any section thereof that might affect these systems.

The survey conducted on the building sections was an investigative survey. However, salient materials may exist in the building, which were not detected in the survey of the building section. Any such material should be sampled and assessed by properly licensed individuals.

This survey report is for the identification of asbestos containing materials in the building area only. This report does not address additional environmental hazards that may be present in this facility.

This document is for the identification of materials that contain asbestos fibers. All determination of asbestos content is based upon the analysis of the laboratory. This inspector and firm are not liable for the accuracy of the analytical data.

This document does not supersede the requirements for the development of a management plan, operation and maintenance program or project specification design for the management, repair or removal of asbestos containing materials.

All measurements and quantities are approximate. Measurements should be verified prior to the implementation of remediation activities.

No additional warrantees are granted or implied.

### Notice Of Requirements For Renovation and New Construction of Public Buildings:

Texas State Law prohibits the installation of asbestos containing materials into a public building. Additional requirements under the Texas Asbestos Health Protection Rules are:

§295.34 (i) A person may not install building materials or replacement parts as stated in subsection (j) of this section, in a public building unless:

- (1) the person obtains a required MSDS showing that the materials or replacement parts contain 1.0% or less of asbestos; or
- (2) the materials or replacement parts, according to the MSDS, contain more than 1.0% asbestos but there is no alternative material or part as demonstrated by the building owner or contractor.

Once a building is constructed or renovated, all Material Safety Data Sheets (MSDS) are to be collected and certified by the Architect or Engineer who had direction over the project, or a licensed asbestos inspector, management planner or individual asbestos consultant that the materials used do not contain asbestos fibers as per the statements on the MSDS information. For all suspect materials, which MSDS is not secured, sampling by properly licensed persons will be required.

### **Building Description:**

The construction date of the single story structure was in 1953 with an addition to the back of the house some years later in late 60' early 70's.

The construction type of the building is a wood framed structure with wood framed interior walls. The roof is of wood frame under a composite shingle roofing system.

The interior walls of the inspected areas are finished drywall.

The floors are wood in the original section and concrete in the addition. The floors are bare, covered with ceramic tile and vinyl tile.

Ceiling finishes are finished drywall and nail on ceiling tiles.

### Sample Collection Procedure:

Samples were collected from all suspect homogenous materials found in the facility within the limited scope of the inspection. Samples were collected in a random manner as determined by the inspector to limit the cosmetic destruction of exposed building materials. Spray applied materials were detected during the inspection / survey process. However a random grid was not developed or used. All collected samples were submitted to the laboratory for analysis.

### **Homogenous Materials Sampled**

The materials listed on the Sample Chain of Custody Form in "Attachment A" have a list of all sampled suspect materials. The samples are list in homogeneous groups.

### **Assessment of Asbestos Containing Materials:**

At the time of the inspection and sampling, suspect materials were assessed in general conformance with the AHERA Rule and Industry Standards. The materials assessments considered the location and the amount of material both in total quantity and as a percentage of the functional space. The condition of the material was evaluated considering the type of the damage, severity of the damage, extent or spread of the damage, accessibility, and potential for disturbance, exposure to air streams, vibration, vandalism and exposure to water. In consideration of the above conditions and following laboratory analyses, those suspect materials proving to be Asbestos-Containing Building Materials (ACBM) were classified into one of the following categories:

- 1. Damaged ACBM thermal system insulation.
- 2. Significantly damaged ACBM thermal system insulation.
- 3. Damaged friable surfacing ACBM.
- 4. Significantly damaged friable surfacing ACBM.
- Damaged friable miscellaneous ACBM.
- 6. Significantly damaged friable miscellaneous ACBM.
- 7. **ACBM** with potential for damage.
- 8. ACBM with potential for significant damage.
- 9. Remaining ACBM not fitting into categories above.

### **AVAILABLE RESPONSE ACTIONS**

The following four (4) basic response actions are available for each type of material:

- 1. Operations and Maintenance requires maintenance of the material in an undamaged condition. This includes the repair or removal of damaged materials, record keeping, worker training, re-inspection, prevalent level air monitoring and documentation in a comprehensive Asbestos Operations and Maintenance Program (O & M) specific to the building.
- 2. <u>Encapsulation</u> requires sealing of the exposed surface of the ACM with a bridging-type encapsulant or conversion from a friable to non-friable status with penetrating type encapsulant. Encapsulation work must be

conducted under conditions, which control the release of asbestos fibers into the building areas.

- 3. <u>Enclosure</u> requires isolation of the ACM behind or within airtight barriers of gypsum wallboard, plyboard, etc. Enclosure activities work must be conducted under conditions which control the release of asbestos fibers into the building areas.
- 4. <u>Removal</u> requires removal and disposal of the asbestos-containing material (ACM) under full asbestos abatement conditions by licensed asbestos abatement contractors.

### GENERAL MINIMUM RESPONSE SELECTION CRITERIA

For each ACBM located in the survey, the most appropriate minimum response action was determined based on the specific hazard assessment for that material. Specific minimum response actions are listed in the following description of the identified materials.

Debris receives a minimum response of "Removal". Duct vibration isolators receive a minimum response of "Removal" due to their potential to release asbestos fibers into duct distribution systems. Other materials generally receive a minimum response of "Operations and Maintenance" which includes repair of damaged areas or removal of minor areas of damaged material where repair is not feasible. Thermal system insulation should be maintained in an intact condition with undamaged jacketing. Materials exhibiting a significantly damaged condition, which is deemed not repairable, receive a minimum response of "Removal". Response actions of "Encapsulation" and "Enclosure" are generally not recommended as minimum responses.

The response actions recommended in this report are minimum responses, and the option of pursuing a more stringent response is available at any time.

### Description and Assessment of Asbestos Containing Building Materials (ACBM)

1. Texture / Joint Compound on drywall: Assessment 7 / Response Action: 1
The texture and joint compound applied to the drywall of the ceilings and walls of the original section of the house contains asbestos fibers greater than one percent.
The non-friable surfacing, Regulated Asbestos Containing Material is damaged with potential for damage due to age of material.

### Recommendation:

- Repair and Management: The material in the living room and adjacent closet where some drywall has been caved in needs to be properly contained and disposed of as required by law. Once this has been done, this material can be managed in place during the course of normal operation. Management controls will need to be implemented to assure that the materials are not disturbed during renovation or during routine maintenance. Periodic visual monitoring of this material should be conducted to check for damage.
  - State and Federal law prohibits the drilling, cutting, abrading or other actions that might release fibers from the matrix of the material.
- 2. <u>Removal:</u> The removal of these materials in part or in whole, must be done by a licensed asbestos abatement contractor with project design and monitoring by a licensed asbestos consultant.
  - All work involving this material must be performed by properly trained personnel with specific work practices as specified in State & Federal regulations.

Amount: Approximately 2,691 Sq. Ft. of material

### 2. Cement Asbestos Containing Board: Assessment 7 / Response Action: 1

The exterior cement asbestos siding found under the vinyl siding and possibly under the brick of the entire house contains asbestos fibers greater than one percent.

The non-friable miscellaneous, Category II material is not damaged with potential for damage due to age of material.

### Recommendation:

- Management: This material can be managed in place during the course of normal operation. Management controls will need to be implemented to assure that the materials are not disturbed during renovation or during routine maintenance. Periodic visual monitoring of this material should be conducted to check for damage.
  - State and Federal law prohibits the drilling, cutting, abrading or other actions that might release fibers from the matrix of the material.
- 2. <u>Removal:</u> The removal of these materials in part or in whole, must be done by a licensed asbestos abatement contractor with project design and monitoring by a licensed asbestos consultant.

All work involving this material must be performed by properly trained personnel with specific work practices as specified in State & Federal regulations.

Amount: Approximately 2,678 sq. ft. of material

### Cost Estimates For The Total Removal of Asbestos Containing Materials:

[This is an estimate for <u>total removal of all known</u> asbestos containing materials at the building. The removal of all materials that will become friable is required as part of the renovation or demolition of the structures. Removal is also a management tool to be utilized for operations and management programs. This estimate does not include RFCI removal cost.

Complete removal of asbestos containing building materials is not required by law. It is required that the Owner mange the material intact. When this is no longer possible or desired, then the material is to be removed, encapsulated or enclosed.

Cost estimates are based upon current market prices. Partial removal of materials may be higher due to mobilization and set-up fees. Additional requirements and economic conditions may cause the actual price to vary  $\pm$  5-10%. Cost estimates are for the removal of asbestos containing materials only. Replacement cost estimates is not included. All numbers are to be used for budgetary purposes only.]

[PLEASE CALL LAMBERT & ASSOCIATES, INC. PRIOR TO INITIATING ANY REMOVAL OR DEMOLITION PROJECT. ACCURATE ESTIMATES BASED UPON ACTUAL SCOPE OF WORK CAN BE DEVELOPED FOR YOU AT NO ADDITIONAL CHARGE.]

Material	Amount	Units	Cost
Drywall Joint Compound and Texture	2,691	Sq. Ft.	\$6,727.50
Cement Asbestos Siding	2,678	Sq. Ft.	\$9,373.00
State Notification fees <sup>2</sup>	33	ARU	\$990.00
Project Design and Bid Services By Consultant for Asbestos Removal <sup>3</sup>	1	Plan	\$1,450.00
Air Monitoring and Project Management During Removal <sup>3</sup>	10	Days	\$4,900.00

### **ESTIMATED TOTAL**

\$23,440.50

### FOOTNOTES:

For Asbestos abatement projects the Owner will need to provide potable water connection and standard electrical service or generators for contractor use.

<sup>1</sup> Work of the Asbestos Removal Contractor - Paid Separately by the Owner

<sup>&</sup>lt;sup>2</sup> The Texas Department of State Health Services will invoice the Owner for the project notification fee – Paid Separately by the Owner

<sup>&</sup>lt;sup>3</sup> Work of the Asbestos Abatement Consultant – Paid Separately by the Owner

### **Inspector Statement**

The content of this report represents the results of the survey conducted on this building. The results are presented as correct to the best of my knowledge. All conditions and statements are applicable. No additional warranties or guarantees are indicated or implied. Any party locating additional materials that are not listed in this report text or on the sample collection sheets should contact the Asbestos Containing Materials Manager for the Owner immediately.

July 29, 2008

L. F. Skaggs, DSHS IAC# 10-5110

2008-113 MSU 2508 Hampstead ACM Insp

### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

### Attachment A

### Bulk Material Sample Chain of Custody Documents

Bulk Material Sample Analysis Reports

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 Fax (817) 439-3633 Fax (940) 569-4876

Lobs

2081 Hutton Dr., Suite 301 Carrollton, TX 75006 PH: (972) 488-1414 Fax: (972) 488-8006 CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 PH: (225) 751-5632

Fax: (225) 751-5634

### Polarized Light Microscopy Bulk Asbestos Analysis Laboratory Analysis Report

Lambert & Associates, Inc 2013 Fairway Bend Dr Haslet, TX 76052

reference number: CAL08064495

### LABORATORY ANALYSIS METHOD:

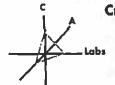
Summary of polarizing light microscopy (PLM / stereomicroscopy bulk asbestos analysis)using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim) and EPA /600/R-93/116 (Improved). All analysts have received the necessary in-house and extramural training McCrone Research and/or University Degree in Geology, Biology, Environmental and Material Science) to perform analysis of bulk samples for the presence or absence of asbestos. Greater than one percent are re-examined by a second analyst for intralaboratory quality control. Greater than one percent are re-examined by the same analyst for quality control. All analysts are required to participate in quality control analysis rounds. Microscopic calibrations are performed on a daily, weekly and monthly basis. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured.

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. All asbestos qualification is traceable to NIST standards for regulated asbestos types. Analysts' calibrated visual estimated percentages are susceptible to variance. All quantifications fall within a range of acceptable percentages, depending on the actual concentration of asbestos:

% Area Asbestos	Acceptable Mean Results	% Area Asbestos	Acceptable Mean Result
1%	> 0-3%	50%	40-60%
5%	> 1-9%	60%	50-70%
10%	5-15%	70%	60-80%
20%	10-30%	80%	70-90%
30%	20-40%	90%	80-100%
40%	30-50%	100%	90-100%

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at Crisp Analytical Labs, LLC. 2081 Hutton Dr. Suite 301 Carrollton, TX 75006. We can be reached after hours by cellular at (214) 564-8366.



2081 Hutton Dr., Suite 301

Carrollton, TX 75006 PH: (972) 488-1414

Fax: (972) 488-8006

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809

> PH: (225) 751-5632 Fax: (225) 751-5634

### Polarized Light Microscopy Report

Analysis Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method

Customer Information: Lambert & Associates, Inc. Customer Project:

2013 Fairway Bend Dr Haslet, TX 76052

2508 Hampstead

2008-113

CA Labs Project #: CAL08064495

Date: 6/24/08 EK

Phone: 817-430-1131

Turnaround Time: 24 Hour

Samples Received: 6/24/08 9am

Purchase Order #:

Fax: 817-439-3633

Attn: Barbara DeMott

Sample#	Layer #	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / pcrcent
1 1	1	White surfaced white compound	N	2% Chrysotile		3% mica 20% binder 75% carbonates
	2	White drywall with paper	N	None Detected	10% cellulose	2% quartz 88% gypsum
2	1	White surfaced white compound	N	2% Chrysotile		3% mica 20% binder 75% carbonates
	2	White drywall with paper	N	None Detected	10% cellulose	2% quartz 88% gypsum
3	1	White surfaced white compound	N	2% Chrysotile		3% mica 20% binder 75% carbonates
	2	White drywall with paper	N	None Detected	10% cellulose	2% quartz 88% gypsum

None Detected

None Detected

Christopher Williams Analyst

2

NVLAP Lab Code: 200349-0

Leslie Crisp General Manager

Approved Signatories:

Chad Lytle Laboratory Director

4% quartz 96% carbonates

> 2% quartz 98% binder

Page 1 of 7

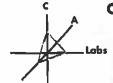
White floor tile

Tan mastic

Notes
Some samples (floor tiles, surfacing, etc.) may contain fibers 100 small 100 be detectable by PLIM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percenages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis "percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected estimatehold for bulk asbestos fiber analysis (PLM) and authorite fiber analysis (TEM). CA Labs is accredited by AHHA for fungi, his lest report relates only to the sams issted. This report must not be used by the customer to claim product certification, approval or rendotement by NVLAP, NIST or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AHHA secreditation.

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Page 11 of 30 Page 11 of 30



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Fax: (972) 488-8006

### CA Labs, L.L.C.

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Fax: (225) 751-5634

### Polarized Light Microscopy Report

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestce types by dispersion attaining / becke line method

Customer Information:

Customer Project:

Lambert & Associates, Inc.

2508 Hampstead

CA Labs Project #: CAL08064495

2013 Fairway Bend Dr Haslet, TX 76052

2008-113

Date: 6/24/08 EK

Phone: 817-430-1131

Turnaround Time: 24 Hour

Samples Received:

6/24/08 9am Purchase Order #:

Fax: 817-439-3633

Attn: Barbara DeMon

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
5	1	White floor tile	Y	None Detected	767 = =- =	4% quartz 96% carbonates
	2	Tan mastic	Y	None Detected		2% quartz 98% binder
6	-1	White floor tile	Y	None Detected		4% quartz 96% carbonates
	2	Tan mastic	Y	None Detected	N T T	2% quartz 98% binder
7	1	Gray self-adhesive floor tile	Y	None Detected		3% quartz 97% carbonates

None Detected

None Detected

None Detected

The Will

2

2

8

Notes

Clear adhesive

Tan mastic

Gray self-adhesive floor

NVLAP Lab Code: 200349-0

Y

Y

Approved Signatories:

General Manager

Chad Lytle Laboratory Director

2% quartz 98% binder

3% quartz 97% binder

2% quartz 2% gypsum 96% binder

Christopher Williams Aualyst

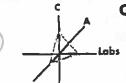
Page 2 of 7

Notes
Some samples (floor tites, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates transable to NIST standards for regulated asbestos types. Analysis percentages fell within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Volumary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborner fiber analysis (TEM). CA Lats is accredited by AHA for fungithis tempor relates only to the attempt setted. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report must not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AHA accreditation.

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Page 12 of 30

Analysis performed at Crasp Analytical Labs, LLC 2081 Huston Dr. Suite 301 Carrollton, TX 73006; phone (972) 488-1414, fax (972) 488-8006



2081 Hutton Dr., Suite 301 Carrollton, TX 75006 PH: (972) 488-1414

Fax: (972) 488-8006

### CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809

> PH: (225) 751-5632 Fax: (225) 751-5634

### **Polarized Light Microscopy Report**

Analysis Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/) 16)

Preparation Method HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / bocks (sine method

Customer Information: Lambert & Associates, Inc. Customer Project: 2508 Hampstead 2008-113

CA Labs Project #: CAL08064495

2013 Fairway Bend Dr Haslet, TX 76052

20.110

Date: 6/24/08 EK

Phone: 817-430-1131

Turnaround Time: 24 Hour

Samples Received: 6/24/08 9am Purchase Order #:

Fax: 817-439-3633

Attn: Barbara DeMott

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- gencous (Y/N)	Asbestos type / ealibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
9	1	Gray self-adhesive floor tile	Y	None Detected	_	3% quartz 97% binder
	2	Tan mastic	Y	None Detected		2% quartz 2% gypsum 96% binder
10	1	Tan linoleum	Y	None Detected	15% fiberglass 20% cellulose	4% quartz 61% matrix

None Detected

None Detected

			I -		
1	Tan linoleum	Y	None Detected	15% fiberglass 20% cellulose	3% quartz 62% matrix
1	Tan mastic	Y	None Detected		2% quartz 98% binder
2 1	Brown floor tile	Y	None Detected	3% cellulose	3% quartz 94% carbonates
	1	1 Tan mastic	1 Tan mastic Y	1 Tan mastic Y None Detected	20% cellulose  1 Tan mastic Y None Detected

NVLAP Lab Code: 200349-0

Christopher Williams
Analysi

Tan mastic

Tan linoleum

Page 3 of 7

Approved Signatories

Leslie Crisp General Manager

15% fiberglass

Chad Lytle Laboratory Director

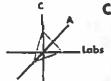
2% gypsum 98% binder

3% quartz

Notes

Some samples (floor tiles, surfacing, etc.) may comain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NiST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the Nistoral Voluntary Laboratory Accreditation Program (NVLAP) for rejected test methods for bulk asbestos fiber analysis (PLM) and surborns fiber analysis (TEM). CA Labs is accredited by AIHA for fungion in the fiber analysis (TEM). This report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation.

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Fax: (972) 488-8006

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809

PH: (225) 751-5632 Fax: (225) 751-5634

### Polarized Light Microscopy Report

Analysis Method. Interm (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-91/116)
Preparation Method. HCL acid washing for carbonate based samples, chemical reduction for organically be identification of au

Customer Information:

Lambert & Associates, Inc. 2013 Fairway Bend Dr

Customer Project: 2508 Hampstead

2008-113

CA Labs Project #: CAL08064495

Date: 6/24/08 EK

Phone: 817-430-1131

Turnaround Time: 24 Hour

Samples Received: 6/24/08 9am Purchase Order #:

Fax: 817-439-3633

Haslet, TX 76052

Attn: Barbara DeMott

Sample# **Analysis Physical Description** Asbestos type / calibrated Non-asbestos fiber type / Non-fibrous type / Layer# Homogeneous of Subsample visual estimate percent percent percent (Y/N) (none detected = absent /

13	3	Tan mastic	Y	None Detected	=1.57	2% quartz 98% binder
14	1	Brown floor tile	Y	None Detected	3% cellulose	3% quartz 94% carbonates
	2	Tan mastic	Y	None Detected		2% quartz 98% binder
15	1	Tan mastic	Y	None Detected	W/ =	2% quartz 98% binder
<del> </del>	2	Brown floor tile	Y	None Detected	2% cellulose	3% quartz 95% carbonates
	3	Tan mastic	Y	None Detected	<u> </u>	2% quartz 98% binder
16	1	Off-white wrap	Y	None Detected	5% cellulose	3% quartz 10% matrix 20% earbonates 62% binder
17	1	Tan wrap	Y	None Detected	10% cellulose	3% quartz 10% matrix 20% earbonates 57% binder

Christopher Williams

Analyst

NVLAP Lab Code: 200349-0

Page 4 of 7

Leslie Crisp General Manager

Approved Signatories:

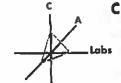
Chad Lytle Laboratory Director

Notes

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All sibestos percentages are based on calibrated visual estimates exceedite to NIST standards for regulated subertos types. Analysis' percentages fall within a range of acceptable percentages, depending on the actual concentration of subertos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) files selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AIHA for fungi. Thus test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. Thus report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AHA accreditation

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Analysis performed at Crisp Analysical Lahs, LLC 2081 Huston Dr. Suite 301 Carrollton, TX 75006, phone (972) 488-1414, fax (972) 488-8006



### Crisp Analytical Laboratories, L.L.C.

2081 Hutton Dr., Suite 301 Carrollton, TX 75006

PH: [972] 488-1414 Fax: (972) 488-8006

### CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809

PH: (225) 751-5632 Fax: (225) 751-5634

### Polarized Light Microscopy Report

Asbestos type / calibrated

Analysis Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Customer Information: Lambert & Associates, Inc 2013 Fairway Bend Dr

**Customer Project:** 2508 Hampstead 2008-113

CA Labs Project #: CAL08064495

Layer # Analysts Physical Description Homo-

Date: 6/24/08 EK

Phone: 817-430-1131

Turneround Time: 24 Hour

Samples Received: 6/24/08 9am Purchase Order #:

Fax: 817-439-3633

Haslet, TX 76052

Attn: Barbara DeMott

Non-asbestos fiber type / Non-fibrous type /

	of Subsample	geneous (Y/N)	visual estimate percent (none detected = absent / asb.and visual% = present)	percent	percent
1	Tan wrap	Y	None Detected	10% cellulose	3% quartz 10% matrix 20% carbonates 57% binder
2	Yellow fibrous insulation	Y	None Detected	100% fiberglass	
1	White surfacing	Y	None Detected		5% carbonates 95% binder
2	Brown ceiling tile	Y	None Detected	100% cellulose	
1	White surfacing	Y	None Detected		100% binder
2	Brown ceiling tile	Y	None Detected	100% cellulose	
1	White surfacing	Y	None Detected		100% binder
2	Brown ceiling tile	Y	None Detected	100% cellulose	
	1 2 1 2 1	1 Tan wrap  2 Yellow fibrous insulation  1 White surfacing  2 Brown ceiling tile  1 White surfacing  2 Brown ceiling tile  1 White surfacing	1 Tan wrap  2 Yellow fibrous insulation Y  1 White surfacing Y  2 Brown ceiling tile Y  2 Brown ceiling tile Y  1 White surfacing Y  1 White surfacing Y	(Y/N) (none detected = absent / asb and visual% = present)  1	1   Tan wrap   Y   None Detected   10% cellulose     2   Yellow fibrous insulation   Y   None Detected   100% fiberglass     1   White surfacing   Y   None Detected   100% fiberglass     2   Brown ceiling tile   Y   None Detected   100% cellulose     3   1   White surfacing   Y   None Detected   100% cellulose     1   White surfacing   Y   None Detected   100% cellulose     2   Brown ceiling tile   Y   None Detected   100% cellulose     1   White surfacing   Y   None Detected   100% cellulose     1   White surfacing   Y   None Detected   100% cellulose

NVLAP Lab Code: 200349-0

Approved Signatories

Leslie Crisp General Manager

Chad Lytle Laboratory Director

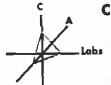
Christopher Williams Analyst

Page 5 of 7

Some samples (floor tiles, surfacing, sic.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated risual estimates unceable to NIST standards for regulated asbestos types. Analysis' percentages fall within a range of acceptable percentages, depending on the retual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber snallysis (PLM) and airborne fiber snallysis (TEM). CA Labs is accredited by AIHA for funging fiber on the step on the step of t

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Analysis performed at Crisp Analytical Labs, LLC 2081 Humon Dr. Suste 301. Carrollton, TX. 75006, phone (972) 488-1414, fax (972) 488-1006



### Crisp Analytical Laboratories, L.L.C.

2081 Hutton Dr., Suite 301 Carrollton, TX 75006 PH: (972) 488-1414

Fax: (972) 488-8006

### CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809 PH: (225) 751-5632

Fax: (225) 751-5634

### Polarized Light Microscopy Report

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R. 93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for sidentification of asbestos types by dispersion attaining / becke June method

Customer Information: Lambert & Associates, Inc

Customer Project: 2508 Hampstead

2008-113

CA Labs Project #: CAL08064495

2013 Fairway Bend Dr Haslet, TX 76052

Layer # Analysts Physical Description Homo-

Date: 6/24/08 EK

Phone: 817-430-1131

Turnaround Time: 24 Hour

Samples Received: 6/24/08 9am Purchase Order #:

Fax: 817-439-3633

Sample#

Attn: Barbara DeMott

Non-asbestos fiber type / Non-fibrous type / Asbestos type / calibrated

Janipien		of Subsample	geneous (Y/N)	visual estimate percent (none detected = absent / asb.and visual% = present)	percent	percent
22		Blue surfacing	Y	None Detected		3% quartz 10% carbonates 87% binder
	2	White drywall with paper	N	None Detected	10% cellulose	2% quartz 88% gypsum
23	1	Blue surfacing	Y	None Detected		2% quartz 10% carbonates 88% binder
	2	White drywall with paper	N	None Detected	10% cellulose	3% quartz 87% gypsum
24	1	Tan surfacing	Y	None Detected	- 1	5% carbonates 95% binder
	2	White drywall with paper	N	None Detected	10% cellulose	2% quartz 88% gypsum
25	1	White surfaced tan sealant	N	None Detected	T une	4% quartz 40% carbonates 56% binder
26	1	White surfaced tan sealant	N	None Detected	7 H	4% quartz 40% carbonates 56% binder

NVLAP Lab Code: 200349-0

Christopher Williams

Page 6 of 7

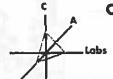
Approved Signatories:

Chad Lytle Laboratory Director

Notes
Some samples (floor tikes, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysis "percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos floor analysis (PLM) and authoria fiber analysis (TEM). CA Labs is accredited by AIHA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approved or analysis (NVLAP, NIST or any agency of the federal government. This report must not be used by the customer to claim product certification.

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Page 16 of 30



Crisp Analytical Laboratories, L.L.C.

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Fax: (972) 488-8006

CA Labs, L.L.C.

12232 Industriplex, Suite 32 Baton Rouge, LA 70809

PH: (225) 751-5632 Fax: (225) 751-5634

### Polarized Light Microscopy Report

Analysis Method. Intestin (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based sampler, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method

Customer Information: Lambert & Associates, Inc

Lambert & Associates, Inc 2013 Fairway Bend Dr Haslet, TX 76052 Customer Project: 2508 Hampstead 2008-113

Turnaround Time: 24 Hour

Fax: 817-439-3633

Phone: 817-430-1131

Attn: Barbara DeMott

CA Lubs Project #: CAL08064495

Date: 6/24/08 EK

Samples Received: 6/24/08 9am Purchase Order #:

Sample# Analysts Physical Description Layer # Asbestos type / calibrated Non-asbestos fiber type / Non-fibrous type geneous visual estimate percent of Subsample percent percent (Y/N) (none detected = absent / asb and visual% = present) 27 1 Gray transite 26% Chrysotile 12% quartz 62% carbonates

Christopher Williams

Analyst

NVLAP Lab Code: 200349-0

Page 7 of 7

Approved Signatories:

General Manager Labor

Chad Lytle Laboratory Director

Notes
Some samples (floor likes, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chalfield analysis of bulk material is recommended in this case. All astestos percentages are based on calibrated plant estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AIHA for fungiIffs test report relates only to the (terms tested This report next not be used by the custemer to claim product certification, approved or endorsament by NVLAP, NIST or any agency of the federal government. This report next may not be reproduced except an full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation.

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## CRISP ANALYTICAL LABORATORIES

### CHAIN OF CUSTODY

2081 HUTTON DR. -- SUITE 301 CARROLLTON, TX 75006 B72-488-1414 / 972-488-8006 FAX

BATON ROUGE, LA 225-751-5632 / 225-751-5634 FAX 12232 INDUSTRIALPLEX - SUITE 32

WWW.CRISPLABS.COM

COURTS, INC. ADDRESS: 2013 Fairway Bond Drive, Haslet, TX 76052-2805	-113 2508 Hamysted PHONE/FAX: (817) 430-1131 , (817) 439-3633		ismbert21@neonlenc.com
COMPANY NAME: Lambert and Associates, Inc.	PROJECT NAME/NUMBER: 2008-113	CONTACT PERSON: Barbara DeMott	(ACC Transposed aut vonc)

(CHECK THE AP	PRO	PROPRIATE BOX)		EMAIL:	lambert 21 (apeopiepe.com	objebc.com
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CONTACT PERSON Lambert and Associates, Inc. - Barbara DeMott

t PROJECT NAME/NUMBER: 2008-113 2508 Hawashad

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PROJECT NAME/NUMBER: 2008-113 2508 Hawystedd CONTACT PERSON Lambert and Associates, Inc. - Barbara DeMott

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### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

Attachment B

**PHOTO LOG** 

Not Used

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 Fax (817) 439-3633 Fax (940) 569-4876

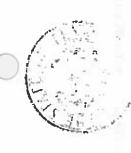
### LAMBERT AND ASSOCIATES, INC. 2013 Fairway Bend Drive, Haslet, TX 76052-2805

P.O. Box 235, Burkburnett, TX 76354

### Attachment C

License and Information

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 Fax (817) 439-3633 Fax (940) 569-4876



# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

### GARY LAMBERT & ASSOCIATES, LTD LAMBERT & ASSOCIATES, INC

is certified to perform as a

## Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

mid think

COMMISSIONER OF HEALTH DAVID LAKEY, M.D.

License Number: 100071

Control Number: 96101

VOID IF ALTERED NON-TRANSFERABLE

(Void After Expiration Date)

Expiration Date: 3/15/2010



# TEXAS DEPARTMENT OF STATE HEALTH SERVIC

## CRISP ANALYTICAL LAB LLC

is certified to perform as a

### Asbestos Laboratory PCM, PLM, TEM

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

COMMISSIONER OF HEALTH DAVID LAKEY, M.D.

License Number: 300235

Control Number: 95449

Expiration Date: 11/2/2009

(Void After Expiration Date)

NON-TRANSFERABLE VOID IF ALTERED

Rege 24 0600090/21 9224888866

CKIZB FYB2



Control No: 92559

Department of State Health Services certifies that:

**LEROY F SKAGGS** 

is Licensed as an:

Individual Asbestos Consultant

License Number: 105110 From: 05/10/20

05/10/2006 To: 1 6 10 05/09/2008 6 7 7 6 6 8





### TEXAS DEPARTMENT OF STATE HEALTH SERVICES

DAVID L. LAKEY, M.D. COMMISSIONER

1100 West 49th Street • Austin, Texas 78756
P.O. Box 149347 • Austin, Texas 78714-9347
1-888-963-7111 • www.dshs.statc.tx.us
TTY: 1-800-735-2989

MAY 15, 2008

LEROY SKAGGS 715 1/2 B E COLLEGE BURKBURNETT, TX 76354

This is to verify that the individual shown below holds a valid credential to practice as an ASBESTOS INDIVIDUAL CONSULTANT in the State of Texas.

NAME: LEROY SKAGGS

LICENSE TYPE: ASBESTOS INDIVIDUAL CONSULTANT

LICENSE NUMBER: 105110 CONTROL NUMBER: 95611 EXPIRATION DATE: 5/9/2010

If you have any questions, please contact us by phone at 512-834-6600, by fax at 512/834-6614. We encourage you to visit our website at http://www.dshs.state.tv.us for frequently updated information, including rules, laws, publications and forms. You may also verify a credential through this website.

Environmental & Sanitation Licensing Group

### LAMBERT AND ASSOCIATES, Inc.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

### Attachment D

### **GLOSSARY OF TERMS**

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 569-4876 Fax (817) 439-3633 Fax (940) 569-4876

### **GLOSSARY OF TERMS**

### **Definitions and Acronyms**

### ASBESTOS

Naturally occurring fibrous minerals composed of hydrated silicates, crystalline in structure, occurring as parallel bundles. Two categories - Serpentine (Chrysotile) and Amphibole (Amosite, Anthophylite, Tremolite, Crocidolite, Actinolite).

### **ACM**

**Asbestos-Containing Material** 

### **ACBM**

Asbestos-Containing Building Material - Materials containing greater than 1% asbestos, by weight.

### **AECP**

Asbestos Exposure Control program also referred to as O & M (Operations and Maintenance)

Program.

### **ACTION LEVEL**

An OSHA standard for air borne concentration of asbestos above which the employer must institute certain provisions. The Action Level is 0.1 fibers per cubic centimeter of air as an 8 hour time-weighted average (measured by PCM).

### **AHERA**

Asbestos Hazard Emergency Response Act.

### **ASHAA**

Asbestos School Hazard Abatement Act of 1984.

### BUILDING

Any enclosed structure occupied by people, including canopies, and open air structures.

### CMI

Concrete Masonry Unit - light weight block.

### **DEMOLITION**

Wrecking or removing any load-supporting member.

### **EPA**

United States Environmental Protection Agency.

### **FRIABLE**

Materials which, when dry, can easily be pulverized, crushed, or reduced to powder by hand pressure.

### GYPSUM BOARD

A pre-manufactured wall surfacing substrate applied over a wood or metal framing system. This material is referred to as sheetrock as well.

### HAZARD

A circumstance, mechanism, or event which has the potential to create injury.

### HAZARD ASSESSMENT

Analysis and evaluation of physical and exposure factors to determine the need for corrective action.

### HOMOGENEOUS AREA

An area exhibiting consistent construction materials and techniques for that area.

### INSPECTION

The process of locating and quantifying the ACM, assessing it's condition and reporting the results.

### **LEA**

Local Education Agency (generally the School Board).

### **NBS**

National Bureau of Standards.

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. Federal regulation that addresses the requirement for inspection and control methods for asbestos containing materials. §40 CFR 61, SUBPART M

### **NIOSH**

National Institute for Occupational Safety and Health.

### **NON-FRIABLE**

Materials which, at present, can not be crushed and/or pulverized by hand pressure. With appropriate handling techniques, non-friable material will not become friable.

### OCHA

Occupational Safety and Health Administration.

### PEL

Permissible Exposure Limit - level of exposure to air borne asbestos fibers which no employee shall be exposed. The PEL is 0.2 fibers per cubic centimeter as an 8 hour time-weighted average (measured by PCM).

### Attachment D

### **PCM**

Phase Contrast Microscopy - analysis of air samples. NIOSH 7400 method - an optical microscopy fiber counting technique which does not allow for differentiation between asbestos fibers and other types of fibers.

### PLM

Polarized Light Microscopy - analysis of bulk material samples.

### RENOVATION

Altering in any way one or more facility components (except demolition).

### **TEM**

Transmission Electron Microscopy - analysis of air samples. AHERA Methodology - a high resolution electron microscopy which does allow for positive identification and classification of asbestos fibers. The counting technique includes only asbestos fibers.



2512 Hampstead Dr. Wichita Falls, TX 76308

**OCTOBER, 2007** 

### LAMBERT AND ASSOCIATES, Inc.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354 Project 2007-215

### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

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### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

### **Asbestos Containing Building Material Survey**

Midwestern State University Student Housing 3410 Taft Blvd Wichita Falls, TX 76308-2099

Building Areas Inspected: 2512 Hampstead Dr., Wichita Falls, TX

### Introduction:

On October 29, 2007, Mr. L. Flint Skaggs, a licensed asbestos consultant, conducted a survey / inspection of the exterior and interior sections of the building identified for inspection for asbestos containing building materials (ACBM) by the facility manager. The inspection was conducted on building materials that might be disturbed during the course of the proposed renovation of the above referenced building.

This report is limited to materials that are immediately within the bounds of the defined space of this property and survey limits.

The purpose of the survey was to detect the presence of materials that contain asbestos fibers in concentrations greater than one percent. This survey is for the compliance with current Federal and State regulatory requirements prior to the renovation or demolition of facilities.

### Summary of Detected Asbestos Containing Building Materials Detected

Please refer to the **Description and Assessment of Asbestos Containing Building Materials (ACBM)** section of the report for more detail on the detected building materials with asbestos content. The following materials are found throughout other parts of the building and should be assumed to be asbestos containing. However, this report only covers the inspected and assessed areas and all quantities and recommendations are for those specific areas only.

- 1. Cement Asbestos Flue Pipes Non-friable, Category II asbestos containing material with no damage.
  - a. Found in Attic: Approximately 30 Ft. of material
  - **b.** Manage in place and add to ACM O&M program.

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 File: 2007-215 MSU 2512 Hampstead ACM Insp Fax (817) 439-3633 Fax (940) 569-4876

### **Scope of Survey And Exclusions:**

The scope of the survey was to determine the presence of asbestos containing materials in the inspected area. All materials showing any trace of asbestos content are reported as an asbestos containing material. Materials containing one percent or less of asbestos are legally non-asbestos containing materials. It is the opinion of this inspector that all materials containing any trace of asbestos should be reported as having asbestos content for the client's awareness of its presence. Any such materials are not regulated at this time.

This survey was limited to only to the named sections and materials that were readily accessible for sampling. Destructive sampling was not conducted to access inaccessible areas of the building sections except where deemed necessary for the identification of building materials and content and permission was granted by the building owner representative.

All fiberglass insulation, foam insulation products, solid metal products, solid wood products, and masonry slabs, blocks, bricks and grout are exempt materials that do not require sampling at the inspector's discretion. This exemption was utilized for this survey.

All materials detected during demolitions or renovations that are not listed, as being sampled on the Chain of Custody Forms and analytical result sheets should be sampled immediately prior to disturbance. All additional samples and assessments are to be conducted by properly licensed individuals.

There was no investigation into the electrical system of the building. Electrical breaker boxes and cable runs, enclosed chases in walls and floors and other inaccessible areas of the building should receive further investigation prior to the demolition or renovation of this building or any section thereof that might effect these systems.

The survey conducted on the building sections was an investigative survey. However, salient materials may exist in the building, which were not detected in the survey of the building section. Any such material should be sampled and assessed by properly licensed individuals.

This survey report is for the identification of asbestos containing materials in the building area only. This report does not address additional environmental hazards that may be present in this facility.

This document is for the identification of materials that contain asbestos fibers. All determination of asbestos content is based upon the analysis of the laboratory. This inspector and firm are not liable for the accuracy of the analytical data.

This document does not supersede the requirements for the development of a management plan, operation and maintenance program or project specification design for the management, repair or removal of asbestos containing materials.

All measurements and quantities are approximate. Measurements should be verified prior to the implementation of remediation activities.

No additional warrantees are granted or implied.

### Notice Of Requirements For Renovation and New Construction of Public Buildings:

Texas State Law prohibits the installation of asbestos containing materials into a public building. Additional requirements under the Texas Asbestos Health Protection Rules are:

§295.34 (i) A person may not install building materials or replacement parts as stated in subsection (j) of this section, in a public building unless:

- (1) the person obtains a required MSDS showing that the materials or replacement parts contain 1.0% or less of asbestos; or
- (2) the materials or replacement parts, according to the MSDS, contain more than 1.0% asbestos but there is no alternative material or part as demonstrated by the building owner or contractor.

Once a building is constructed or renovated, all Material Safety Data Sheets (MSDS) are to be collected and certified by the Architect or Engineer who had direction over the project, or a licensed asbestos inspector, management planner or individual asbestos consultant that the materials used do not contain asbestos fibers as per the statements on the MSDS information. For all suspect materials, which MSDS is not secured, sampling by properly licensed persons will be required.

### **Building Descriptions:**

The building is a single story structure that has been utilized as a single family dwelling. The construction type of the building is a wood framed structure with vinyl siding and brick veneer with wooden truss system and a composite built-up roof system.

The interior walls of the inspected areas are finished drywall systems.

The floors are wood that are bare, covered with carpet, 12" floor tiles and sheet flooring.

Ceilings are drywall systems that have been textured.

Pipes are mostly bare of insulation. The insulated pipes are covered with rubber or fiberglass insulation.

### **Sample Collection Procedure:**

Samples were collected from all suspect homogenous materials found in the facility within the limited scope of the inspection. Samples were collected in a random manner as determined by the inspector to limit the cosmetic destruction of exposed building materials. Spray applied materials were detected during the inspection / survey process. However a random grid was not developed or used. All collected samples were submitted to the laboratory for analysis.

### **Homogenous Materials Sampled**

The materials listed on the Sample Chain of Custody Form in "Attachment A" have a list of all sampled suspect materials. The samples are list in homogeneous groups.

### Assessment of Asbestos Containing Materials:

At the time of the inspection and sampling, suspect materials were assessed in general conformance with the AHERA Rule and Industry Standards. The materials assessments considered the location and the amount of material both in total quantity and as a percentage of the functional space. The condition of the material was evaluated considering the type of the damage, severity of the damage, extent or spread of the damage, accessibility, and potential for disturbance, exposure to air streams, vibration, vandalism and exposure to water. In consideration of the above conditions and following laboratory analyses, those suspect materials proving to be Asbestos-Containing Building Materials (ACBM) were classified into one of the following categories:

- 1. Damaged ACBM thermal system insulation.
- 2. Significantly damaged **ACBM** thermal system insulation.
- 3. Damaged friable surfacing ACBM.
- 4. Significantly damaged friable surfacing ACBM.
- 5. Damaged friable miscellaneous ACBM.
- Significantly damaged friable miscellaneous ACBM.
- 7. ACBM with potential for damage.
- 8. ACBM with potential for significant damage.
- 9. Remaining ACBM not fitting into categories above.

### **AVAILABLE RESPONSE ACTIONS**

The following four (4) basic response actions are available for each type of material:

- 1. Operations and Maintenance requires maintenance of the material in an undamaged condition. This includes the repair or removal of damaged materials, record keeping, worker training, re-inspection, prevalent level air monitoring and documentation in a comprehensive Asbestos Operations and Maintenance Program (O & M) specific to the building.
- Encapsulation requires sealing of the exposed surface of the ACM with a bridging-type encapsulant or conversion from a friable to non-friable status with penetrating type encapsulant. Encapsulation work must be conducted under conditions, which control the release of asbestos fibers into the building areas.
- 3. **Enclosure** requires isolation of the **ACM** behind or within airtight barriers of gypsum wallboard, plyboard, etc. Enclosure activities work must be conducted under conditions which control the release of asbestos fibers into the building areas.
- 4. <u>Removal</u> requires removal and disposal of the asbestos-containing material (ACM) under full asbestos abatement conditions by licensed asbestos abatement contractors.

### GENERAL MINIMUM RESPONSE SELECTION CRITERIA

For each ACBM located in the survey, the most appropriate minimum response action was determined based on the specific hazard assessment for that material. Specific minimum response actions are listed in the following description of the identified materials.

Debris receives a minimum response of "Removal". Duct vibration isolators receive a minimum response of "Removal" due to their potential to release asbestos fibers into duct distribution systems. Other materials generally receive a minimum response of "Operations and Maintenance" which includes repair of damaged areas or removal of minor areas of damaged material where repair is not feasible. Thermal system insulation should be maintained in an intact condition with undamaged jacketing. Materials exhibiting a significantly damaged condition, which is deemed not repairable, receive a minimum response of "Removal". Response actions of "Encapsulation" and "Enclosure" are generally not recommended as minimum responses.

The response actions recommended in this report are minimum responses, and the option of pursuing a more stringent response is available at any time.

### Description and Assessment of Asbestos Containing Building Materials (ACBM)

1. Cement Flue Pipes: Assessment 7 / Response Action: 1

The cement flue pipes located in the attic above the wall between the bedrooms and the wall between the Living Room and the adjoining bathroom are <u>assumed</u> to contain asbestos fibers greater than one percent.

The non-friable, Category II Asbestos Containing Material is not damaged with low potential for damage due to location and material properties. The 2 flue pipes are not in service anymore. One pipe is round in shape and the other is a elliptical in shape.

### Recommendation:

- 1. Manage in Place: This material can remain in place as long as it is not disturbed and managed intact.
  - 2. Removal: The Owner should consider removing this material during the course of renovations if the material is to be disturbed. If the building is demolished there are two options. The options are to leave the material in place and dispose of the effected associated building materials in a regulated landfill or have the material removed prior to demolition.

Removal: The removal of these materials in part or in whole, must be done by an asbestos abatement contractor with project design and monitoring by a licensed consultant.

All work involving this material must be performed by properly trained personnel with specific work practices as specified in State & Federal regulations.

Amount: Approximately 30 ft. of material

### **Cost Estimates:**

### Cost Estimates For The Removal of Asbestos Containing Materials:

[This is an estimate for <u>removal</u> of asbestos containing materials that are damaged. The removal of all materials that will become friable is required as part of the renovation or demolition of the structures. Removal is also a management tool to be utilized for operations and management programs.

Complete removal of asbestos containing building materials is not required by law. It is required that the Owner mange the material intact. When this is no longer possible or desired, then the material is to be removed, encapsulated or enclosed.

Cost estimates are based upon current market prices. Partial removal of materials may be higher due to mobilization and set-up fees. Additional requirements and economic conditions may cause the actual price to vary  $\pm$  5-10%. Cost estimates are for the removal of asbestos containing materials only. Replacement cost estimates is not included. All numbers are to be used for budgetary purposes only.]

[PLEASE CALL LAMBERT & ASSOCIATES, INC. PRIOR TO INITIATING ANY REMOVAL OR DEMOLITION PROJECT. ACCURATE ESTIMATES BASED UPON ACTUAL SCOPE OF WORK CAN BE DEVELOPED FOR YOU AT NO ADDITIONAL CHARGE.]

Material	Amount	Units	Cost
Cement Flue Pipes	30	Lin. Ft.	\$ 540.00
State Notification fees <sup>2</sup>	2	ARU	\$60.00
Air Monitoring and Project Management During Removal <sup>3</sup>	1	Days	\$ 550.00

### ESTIMATED TOTAL FOOTNOTES:

\$1150.00

For Asbestos abatement projects the Owner will need to provide potable water connection and standard electrical service for contractor use.

<sup>1</sup> Work of the Asbestos Removal Contractor - Paid Separately by the Owner

<sup>&</sup>lt;sup>2</sup> The Texas Department of State Health Services will invoice the Owner for the project notification fee – Paid Separately by the Owner

<sup>&</sup>lt;sup>3</sup> Work of the Asbestos Abatement Consultant – Paid Separately by the Owner

### **Inspector Statement**

The content of this report represents the results of the survey conducted on this building. The results are presented as correct to the best of my knowledge. All conditions and statements are applicable. No additional warranties or guarantees are indicated or implied. Any party locating additional materials that are not listed in this report text or on the sample collection sheets should contact the Asbestos Containing Materials Manager for the Owner immediately.

November 14, 2007

L. F. Skaggs DSHS IAC# 10-5110



### LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

### Attachment A

### Bulk Material Sample Chain of Custody Documents

Bulk Material Sample Analysis Reports

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 Fax (817) 439-3633 Fax (940) 569-4876

### Polarized Light Microscopy Bulk Asbestos Analysis Laboratory Analysis Report

Lambert & Associates, Inc 2013 Fairway Bend Dr Haslet, TX 76052 reference number: CAL07106763

### LABORATORY ANALYSIS METHOD:

Summary of polarizing light microscopy (PLM / stereomicroscopy bulk asbestos analysis)using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim) and EPA /600/R-93/116 (Improved). All analysts have received the necessary in-house and extramural training McCrone Research and/or University Degree in Geology, Biology, Environmental and Material Science) to perform analysis of bulk samples for the presence or absence of asbestos. Greater than one percent are re-examined by a second analyst for intralaboratory quality control. Greater than one percent are re-examined by the same analyst for quality control. All analysts are required to participate in quality control analysis rounds. Microscopic calibrations are performed on a daily, weekly and monthly basis. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured.

Some samples (floor tiles, surfacing, etc.) may contain fibers too small to be detectable by PLM. All asbestos qualification is traceable to NIST standards for regulated asbestos types. Analysts' calibrated visual estimated percentages are susceptible to variance. All quantifications fall within a range of acceptable percentages, depending on the actual concentration of asbestos:

% Area Asbestos	Acceptable Mean Results	% Area Asbestos	Acceptable Mean Result
1%	> 0-3%	50%	40-60%
5%	> 1-9%	60%	50-70%
10%	5-15%	70%	60-80%
20%	10-30%	80%	70-90%
30%	20-40%	90%	80-100%
40%	30-50%	100%	90-100%

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis performed at Crisp Analytical Labs, LLC. 2081 Hutton Dr. Suite 301 Carrollton, TX 75006. We can be reached after hours by cellular at (214) 564-8366.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Customer Information: Lambert & Associates, Inc **Customer Project:** 

Midwestern State University - Housing

2013 Fairway Bend Dr Haslet, TX 76052

2512 Hampstead

CA Labs Project #: CAL07106763

2007-215

Date: 10/30/07 MP

Phone: 817-430-1131

Turnaround Time: 8 Hour

Samples Received:

10/30/07 8:30am Purchase Order #:

Fax: 817-439-3633

Attn: Sherri Gilchrist

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent
1	1_	Black felt	Y	None detected	40% cellulose	60% binder
2	1	Black felt	Y	None detected	45% cellulose	55% binder
	+		=11			

Black felt 3 Y None detected 42% cellulose 58% binder 4 Brown fibrous insulation Y None detected 100% fiberglass 5 Brown fibrous insulation Y None detected 100% fiberglass 6 Brown fibrous insulation None detected 100% fiberglass 7 Gray floor tile None detected 11% quartz 89% carbonates Y 8 Gray floor tile 12% quartz None detected 88% carbonates

	NVLAP Lab Code: 200349-0	Approved Signatories:		
Jose Ortiz	Page 1 of 7	Leslie Crisp	Chad Lytle	
Analyst		General Manager	Laboratory Directo	

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AlHA for fungithis test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AlHA accreditation

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Customer Information: Lambert & Associates, Inc. **Customer Project:** 

Midwestern State University – Housing

CALOZIOGZO

2013 Fairway Bend Dr Haslet, TX 76052

2512 Hampstead 2007-215 CAL07106763

Phone: 817-430-1131

Fax: 817-439-3633

2

Tan floor tile

Turnaround Time: 8 Hour

Date: 10/30/07 MP

Attn: Sherri Gilchrist

Samples Received: 10/30/07 8:30am Purchase Order #:

28% cellulose

Non-asbestos fiber type / Sample# **Analysts Physical Description** Asbestos type / calibrated Homo-Non-fibrous type / of Subsample geneous visual estimate percent percent (Y/N) (none detected absent / asb.and visual% = present) Gray floor tile None detected 12% quartz 88% carbonates 10 Brown linoleum Y 10% cellulose None detected 84% matrix 6% fiberglass 11 Brown linoleum Y 1 None detected 11% cellulose 86% matrix

3% fiberglass 12 Brown linoleum None detected 10% cellulose 87% matrix 3% fiberglass 13 1 Tan floor tile Y None detected 30% cellulose 70% matrix 2 Black felt backing None detected 69% cellulose 31% binder 14 3% mica White compound None detected 97% carbonates

Y

	NVLAP Lab Code: 200349-0	Approved Si	gnatories:
Jose Ortiz Analyst	Page 2 of 7	Leslie Crisp General Manager	Chad Lytle Laboratory Director

None detected

Notes:

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AlHA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee may be assessed for the return of any samples.

72% matrix

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Customer Information: Lambert & Associates, Inc **Customer Project:** 

Midwestern State University - Housing

2512 Hampstead 2007-215 CA Labs Project #: CAL07106763

Date: 10/30/07 MP

Phone: 817-430-1131

2013 Fairway Bend Dr

Haslet, TX 76052

**Turnaround Time: 8 Hour** 

Samples Received: 10/30/07 8:30am

Fax: 817-439-3633 Attn: Sherri Gilchrist

Purchase Order #:

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent	
14	3	Black felt backing	Y	None detected	68^ cellulose	32% binder	
15	1	Tan floor tile	Y	None detected	29% cellulose	71% matrix	
	2	Black felt backing	Y	None detected	60% cellulose	40% binder	
16	1	White surfaced white compound	N	None detected		6% mica 25% binder 69% carbonates	
	2	White drywall with paper	N	None detected	22% cellulose	78% gypsum	
17	1	White surfaced white compound	N	None detected		5% mica 20% binder 75% carbonates	
	2	White drywall with paper	N	None detected	24% cellulose	76% gypsum	
18	1	White surfaced white compound	N	None detected		4% mica 21% binder 75% carbonates	

	NVLAP Lab Code: 200349-0	Approved Si	Approved Signatories:			
Jose Ortiz		Leslie Crisp	Chad Lytle			
Analyst	Page 3 of 7	General Manager	Laboratory Director			

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbeston percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AIHA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation.

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Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116) Preparation Method. IICL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

**Customer Information:** 

**Customer Project:** Midwestern State University - Housing

CA Labs Project #: CAL07106763

Lambert & Associates, Inc 2013 Fairway Bend Dr Haslet, TX 76052

2512 Hampstead 2<u>007-215</u>

Date: 10/30/07 MP

Phone: 817-430-1131

Turnaround Time: 8 Hour

Samples Received: 10/30/07 8:30am

Fax: 817-439-3633

Attn: Sherri Gilchrist

Purchase Order #:

Sample# Layer:		Layer # Analysts Physical Description of Subsample		Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent	
18	2	White drywall with paper	Ň	None detected	24% cellulose	76% gypsum	
19	1	White linoleum	N	None detected	10% cellulose 3% fiberglass	87% matrix	
20	20 I White linoleum		Y	None detected	8% cellulose 6% fiberglass	86% matrix	
21	1	White linoleum	Y	None detected	10% cellulose 3% fiberglass	87% matrix	
22	1	White surfaced white compound	N	None detected		5% mica 20% binder 75% carbonates	
23		White surfaced white compound	N	None detected		4% mica 30% binder 66% carbonates	
24	1	White surfaced white compound	N	None detected		4% mica 19% binder 77% carbonates	
25	1	White compound	Y	None detected		3% mica 97% carbonates	

NVLAP Lab Code: 200349-0

Approved Signatories:

Jose Ortiz Analyst

Page 4 of 7

Leslie Crisp General Manager Chad Lytle Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual entimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airone fiber analysis (TEM). CA Labs is accredited by AIHA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AIHA accreditation

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Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

Customer Information: Lambert & Associates, Inc **Customer Project:** 

Midwestern State University - Housing

2013 Fairway Bend Dr <u>2512 Hampstead</u> Haslet, TX 76052 <u>2007-215</u> CA Labs Project #: CAL07106763

Date: 10/30/07 MP

Phone: 817-430-1131

**Turnaround Time: 8 Hour** 

Samples Received: 10/30/07 8:30am

Fax: 817-439-3633 Attn: Sherri Gilchrist

Purchase Order #:

Sample#	Layer#	Analysts Physical Description of Subsample	Homo- geneous (Y/N)	Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent	
25	2	White drywall with paper	N	None detected	27% cellulose	73% gypsum	
26	1	White compound	Y	None detected		4% mica 96% carbonates	
	2	White drywall with paper	N	None detected	20% cellulose	80% gypsum	
27	1	White compound	Y	None detected		4% mica 96% carbonates	
	2	White drywall with paper	N	None detected	22% celtulose	78% gypsum	
28	1	Gray linoleum	Y	None detected	32% cellulose	68% matrix	
	2	Tan mastic	Y	None detected		3% gypsum 97% binder	
29	1	Gray linoleum	Y	None detected	36% cellulose	64% matrix	

NVLAP Lab Code: 200349-0	Approved Signatories:				
	Leslie Crisp	Chad Lytle			

General Manager

Some samples (floor tites, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AllfA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report must not be reproduced except in full without written permission from CA Labs. This method is not covered by the scope of AllfA accreditation

Page 5 of 7

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Jose Ortiz

Analyst

Notes:

Laboratory Director

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)

Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

**Customer Information:** 

**Customer Project:** 

CA Labs Project #:

Lambert & Associates, Inc 2013 Fairway Bend Dr

Midwestern State University - Housing

CAL07106763

Haslet, TX 76052

2512 Hampstead 2007-215

Date: 10/30/07 MP

Phone: 817-430-1131

Turnaround Time: 8 Hour

Samples Received:

Fax: 817-439-3633 Attn: Sherri Gilchrist 10/30/07 8:30am Purchase Order #:

Sample# Layer		Layer # Analysts Physical Description of Subsample		Asbestos type / calibrated visual estimate percent (none detected = absent / asb.and visual% = present)	Non-asbestos fiber type / percent	Non-fibrous type / percent	
29	2	Tan mastic	Y	None detected		3% gypsum 97% binder	
30	1	Gray linoleum	Y	None detected	36% cellulose	64% matrix	
	2	Tan mastic	Y	None detected	=	3% gypsum 97% binder	
31	1	Black sealant	Y	None detected	3% fiberglass	3% quartz 94% binder	
32	1	Black sealant	Y	None detected	6% fiberglass	3% quartz 91% binder	
33	1	Black sealant	Y	None detected	6% fiberglass	3% quartz 91% binder	
34	1	White and tan glazing	N	< 1% Chrysotile		3% quartz 30% matrix 67% carbonates	
35	1 =	White and tan glazing	N	< 1% Chrysotile		3% quartz 25% matrix 72% carbonates	

NVLAP Lab Code: 200349-0

Approved Signatories:

Jose Ortiz Analyst

Page 6 of 7

Leslie Crisp General Manager Chad Lytle Laboratory Director

Notes:

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (PLM) and airborne fiber analysis (TEM). CA Labs is accredited by AHHA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report must not be reproduced except in full without written permission from CA Labs. This method is not covered by the accept of AHHA accreditation

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Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for
identification of achartes tomas by discouning assuining / backs line marked

**Customer Information:** Lambert & Associates, Inc.

2013 Fairway Bend Dr

2512 Hampstead

Haslet, TX 76052

Phone: 817-430-1131 Fax: 817-439-3633

**Customer Project:** 

Midwestern State University - Housing

2007-215

Turnaround Time: 8 Hour

Attn: Sherri Gilchrist

CA Labs Project #: CAL07106763

Date: 10/30/07 MP

Samples Received: 10/30/07 8:30am Purchase Order #:

Sample# Analysts Physical Description Asbestos type / calibrated Non-asbestos fiber type / Homo-Non-fibrous type / visual estimate percent of Subsample geneous percent percent (none detected = absent / (Y/N) asb.and visual% = present) 36 White glazing Y None detected 5% quartz 20% matrix 75% carbonates

NVLAP Lab Code: 200349-0

Approved Signatories:

Jose Ortiz Analyst

Page 7 of 7

Leslie Crisp General Manager Chad Lytle Laboratory Director

Some samples (floor tiles, surfacing, etc.) may contain fibers too small too be detectable by PLM. TEM Chatfield analysis of bulk material is recommended in this case. All asbestos percentages are based on calibrated visual estimates traceable to NIST standards for regulated asbestos types. Analysts' percentages fall within a range of acceptable percentages, depending on the actual concentration of asbestos. CA Labs is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos fiber analysis (FEM), and airborne fiber analysis (TEM). CA Labs is accredited by AlHA for fungi. This test report relates only to the items tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. This report must not be used by the customer of the scope of AlHA accreditation.

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### **CA Labs**

Crisp Analytical Laboratories, LLC 2081 Hutton Dr. Suite 301 Carroliton, TX 75006

Phone 972-488-1414 Fax: 972-488-8006

After hours Mobile: metro 469-233-5282

### **Chain of Custody**

Client Name:	Lambert	& Associa		CAI	abs jo	h# (				
Client Address:	2013 Fair	way Ben	d Drive			<u> </u>	<u> </u>		·	
	Haslet, T.	X 76052-	2805		_					
phone number:	(817) 430	)-1131	di.		P.O. #:		Midwes	stem State Universit	y - Housin	g
fax number:	(817) 439	9-3633	- V		Project I	Vame:	2512 H	ampstead	- 11	
Send Reports to:	Barbara (	DeMott			Project l	Vumber:	2007-2	15		
Total # of	Samples :	Submitte	d:	l To	tal # Samples to I	oe Analya	zed:	Materia	al Matrix:	
73	36				36			Air/ Bulk/	) Water	
Asbestos					please c	all ahead	for avail	ability of all rush and	/ or after	hours samples.
TEM		TA 1	ime	-	PLM		Time	Optical /		TA Time
Circle analysis and TA time 2 hour			is and TA time		nour	Allergen Particle	:	2 hour		
AHERA EPA Level II		4 h		Improved	1		HOUL	tape/ bulk/ swab		4 hour
Drinking Water		8 h		Interim			hour	Cyclex-d cassette Air-o-cell cassette		8 hour 16 hour
Wipe		24 h		AHERA	)		hour	Anderson cultures		24 hour
Micro-vac		2 d		التت			lays	Bulk / swab cultur		2 days
NIOSH 7402		3 da	-	Point Co	unt-		lays	Bacteria Cultures		3 days
Chatfield Bulk				(NESHA			days	PCM: NIOSH 740	00	5-10 days
			P	lease ind	icate appropriate	turn arou	ınd time			
Lead:	Circle analysis	and TA time								
Matrix:	Paint (			oil	Air Wipes			Wastewater		TCLP
TA Time: 8 hour 1 da		fay	2 days	3 days 5 days		6-10 days				
Sample Informatio	in:									
Sample Number:		Sample l	ocation:				Sample	Date/Time:	Sample	Volume (L)
1				Floor U	Inderlay				1	
2					Inderlay		1			
3				Floor Underlay						
4				Attic Insulation						
5				Attic Insulation			[	·		
6				Attic In	sulation				1	
7	[		12" i	Floor Tile	e & Adhesive					-
8			12" i	Floor Tile	e & Adhesive					
9			12"		e & Adhesive					
10					-looring			Type 1		
11					Flooring			Type 1		
12					Flooring			Type 1		
13					Flooring			2nd Type		
14					-looring		_	2nd Type		
15	<u> </u>			Sheet F	looring			2nd Type		
16	1			Gypsum	Drywall			Closet		
17				Gypsum	Drywall			Closet	1	
Custody information	on:									
Samples Relinqu	ished:	Le	roy Skag	gs	10/29/2007	Samples	Received			
				ture/ Date/	Time	•		Signat	ure/ Date/ 1	ïme
Samples Relinqu	ished:					Samples	Received			

Signature/ Date/ Time

Signature/ Date/ Time

# **CA Labs**

Crisp Analytical Laboratories, LLC 2081 Hutton Dr. Suite 301 Carroliton, TX 75006

Phone 972-488-1414 Fax: 972-488-8006 After hours Mobile: metro 469-233-5282

### **Chain of Custody**

Client Name:	Lambert & Associates, Inc.	CA Labs jo	b# CAL
Client Address:	2013 Fairway Bend Drive	1-1-1-1-1-1	
	Haslet, TX 76052-2805		
phone number:	(817) 430-1131	P.O. #:	Midwestern State University - Housing
fax number:	(817) 439-3633	Project Name:	2512 Hampstead
Send Reports to:	Barbara DeMott	Project Number:	2007-215

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L)
18	Gypsum Drywall	Closet	
19	Sheet Flooring	3rd Type	
20	Sheet Flooring	3rd Type	
21	Sheet Flooring	3rd Type	
22	Drywall Joint Compound & Texture	Existing	
23	Drywall Joint Compound & Texture	Existing	
24	Drywall Joint Compound & Texture	Existing	
25	Gypsum Board		
26	Gypsum Board		
27	Gypsum Board		
28	Sheet Flooring	4th Type	
29	Sheet Flooring	4th Type	
30	Sheet Flooring	4th Type	
31	HVAC Pipe Wrap		
32	HVAC Pipe Wrap		
33	HVAC Pipe Wrap		
34	Window Glaze		
35	Window Glaze		
36	Window Glaze		
37			
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50			
51			
52			

Custody information:				
Samples Relinquished.	Leroy Skaggs	10/29/2007	Samples Received:	
,	Signature/ Date	/ Time	-	Signature/ Date/ Time
Samples Relinquished:		<u>.</u>	Samples Received:	
	Signature/ Date	/ Time		Signature/ Date/ Time

# LAMBERT AND ASSOCIATES, INC. 2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

Attachment B

PHOTO LOG

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096

Fax (817) 439-3633 Fax (940) 569-4876

# LAMBERT AND ASSOCIATES, INC. 2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354







Asbestos Flue Pipe In Attic

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096

Fax (817) 439-3633 Fax (940) 569-4876

# LAMBERT AND ASSOCIATES, INC.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 P.O. Box 235, Burkburnett, TX 76354

### Attachment C

License and Information

Haslet: Telephone (817) 430-1131 Burkburnett: Telephone (940) 631-3096 Fax (817) 439-3633 Fax (940) 569-4876



# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

# GARY LAMBERT & ASSOCIATES, LTD. DBA LAMBERT & ASSOCIATES, INC.

is certified to perform as a

# Asbestos Consultant Agency

so long as this license is not suspended or revoked and is renewed according to the in the State of Texas within the purview of Texas Occupations Code, chapter 1954, rules adopted by the Texas Board of Health.

SCHOOL MO

Eduardo J. Sanchez, M.D., M.P.H Commissioner of Health

License Number. 100071

Effective Date: 3/16/2006

Page 23 of 29

Expiration Date: 3/15/2008

(Void After Expiration Date)

# DEPARTMENT OF STATE HEALTH SERVICES

# BE IT KNOWN THAT

# CRISP ANALYTICAL LAB LLC

is licensed and authorized to perform as an

# Asbestos Laboratory PLM, TEM, PCM

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

300235

License Number

11/3/2005 Issue Date

11/2/2007

This certificate is void after expiration date Expiration Date

JAB450

Todd F. Wingler, P.F.

Toxic Substances Control Division Chief, Asbestos Programs Branch SASNERAMI

Eduardo J. Sanchez, M.D., M.P.II.

Commissioner of Health

VOID IF ALTERED NON-TRANSFERABLE

Page 24 of 29



Control No: 92559

Department of State Health Services certifies that:

LEROY F SKAGGS

is Licensed as an:

Individual Ashestos Consultant

License Number: 105110 From: 05/10/2006 To: 05/09/2008

## LAMBERT AND ASSOCIATES, Inc.

2013 Fairway Bend Drive, Haslet, TX 76052-2805 715 1/2B East College, Burkburnett, TX 76354

### Attachment D

### **GLOSSARY OF TERMS**

Haslet: Telephone (817) 430-1131

Burkburnett: Telephone (940) 569-4876

Fax (817) 439-3633 Fax (940) 569-4876

Page 26 of 29

### **GLOSSARY OF TERMS**

### **Definitions and Acronyms**

### **ASBESTOS**

Naturally occurring fibrous minerals composed of hydrated silicates, crystalline in structure, occurring as parallel bundles. Two categories - Serpentine (Chrysotile) and Amphibole (Amosite, Anthophylite, Tremolite, Crocidolite, Actinolite).

### **ACM**

**Asbestos-Containing Material** 

### **ACBM**

Asbestos-Containing Building Material - Materials containing greater than 1% asbestos, by weight.

### **AECP**

Asbestos Exposure Control program also referred to as O & M (Operations and Maintenance)

Program.

### ACTION LEVEL

An OSHA standard for air borne concentration of asbestos above which the employer must institute certain provisions. The Action Level is 0.1 fibers per cubic centimeter of air as an 8 hour time-weighted average (measured by PCM).

### **AHERA**

Asbestos Hazard Emergency Response Act.

### **ASHAA**

Asbestos School Hazard Abatement Act of 1984.

### BUILDING

Any enclosed structure occupied by people, including canopies, and open air structures.

### CMII

Concrete Masonry Unit - light weight block.

### **DEMOLITION**

Wrecking or removing any load-supporting member.

### **EPA**

United States Environmental Protection Agency.

### **FRIABLE**

Materials which, when dry, can easily be pulverized, crushed, or reduced to powder by hand pressure.

### **GYPSUM BOARD**

A pre-manufactured wall surfacing substrate applied over a wood or metal framing system. This material is referred to as sheetrock as well.

### HAZARD

A circumstance, mechanism, or event which has the potential to create injury.

### HAZARD ASSESSMENT

Analysis and evaluation of physical and exposure factors to determine the need for corrective action.

### **HOMOGENEOUS AREA**

An area exhibiting consistent construction materials and techniques for that area.

### **INSPECTION**

The process of locating and quantifying the ACM, assessing it's condition and reporting the results.

### LEA

Local Education Agency (generally the School Board).

### NBS

National Bureau of Standards.

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. Federal regulation that addresses the requirement for inspection and control methods for asbestos containing materials. §40 CFR 61, SUBPART M

### **NIOSH**

National Institute for Occupational Safety and Health.

### NON-FRIABLE

Materials which, at present, can not be crushed and/or pulverized by hand pressure. With appropriate handling techniques, non-friable material will not become friable.

### **OSHA**

Occupational Safety and Health Administration.

### PEL

Permissible Exposure Limit - level of exposure to air borne asbestos fibers which no employee shall be exposed. The PEL is 0.2 fibers per cubic centimeter as an 8 hour time-weighted average (measured by PCM).

### Attachment D

### **PCM**

Phase Contrast Microscopy - analysis of air samples. NIOSH 7400 method - an optical microscopy fiber counting technique which does not allow for differentiation between asbestos fibers and other types of fibers.

### **PLM**

Polarized Light Microscopy - analysis of bulk material samples.

### RENOVATION

Altering in any way one or more facility components (except demolition).

### **TEM**

Transmission Electron Microscopy - analysis of air samples. AHERA Methodology - a high resolution electron microscopy which does allow for positive identification and classification of asbestos fibers. The counting technique includes only asbestos fibers.

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# Asbestos Inspection Report



Midwestern State University Residential Property 2525 Hampstead Lane Wichita Falls, Texas

Services provided on August 4, 2016

Flint Inspection Consulting Services, Inc. P.O. Box 235 Burkburnett, TX 76354 (940) 569-4876 Fax (866) 469-0378



### FLINT INSPECTION CONSULTING SERVICES, INC.

P.O. Box 235, Burkburnett, TX 76354

### **Asbestos Containing Building Material Survey**

**Inspected Building:** Residential Building

2525 Hampstead Lane

Wichita Falls, TX

### **Introduction:**

On August 4, 2016, Mr. L. Flint Skaggs, a licensed asbestos individual consultant, conducted a survey / inspection of the building sections named above on the property that was identified for inspection for asbestos containing building materials (ACBM). The inspection was conducted on building materials within the space that were suspect for asbestos fiber content and might be disturbed during the course of renovation.

This report is limited to the finishes and materials of walls to be demolished or renovated that are immediately within the bounds of the defined space of this inspection limits. The mechanical systems were not included in the scope of this inspection.

The purpose of the survey was to detect the presence of materials that contain asbestos fibers in concentrations greater than one percent. This survey is for the compliance with current Federal and State regulatory requirements prior to the renovation or demolition of facilities.

Please refer to the Description and Assessment of Asbestos Containing Building Materials (ACBM) section of the report for more detail on the detected building materials with asbestos content. The following materials are found within the building and have been identified to be asbestos containing. This report only covers the inspected and assessed areas and all quantities and recommendations are for those specific areas only.

# ASBESTOS FIBERS WERE DETECTED IN THE SAMPLED SUSPECT MATERIALS

Asbestos fibers were detected in trace amounts in the joint compound on the finished drywall in the house and garage. The final analysis of all samples indicate that there is less than 1% asbestos content. This result de-regulates this material by definition in current USEPA and State regulation that regulate the disturbance, disposal and other activities for asbestos containing materials.

Telephone (940) 569-4876

http://www.ficsinc.com

Fax (866) 469-0378

File: 2525 Hampstead WF ACM Insp

8/25/2016 Page 1 of 37

Worker safety is still regulated by current OSHA standards and USEPA worker protection rules. All employers are to educate personnel, control exposure and monitor worker exposure. Reporting and record keeping requirements may apply as well.

### **Scope of Asbestos Survey And Exclusions:**

The scope of the survey was to determine the presence of asbestos containing materials in the inspected area. All materials showing any trace of asbestos content are reported as an asbestos containing material. Materials containing one percent or less of asbestos are legally non-asbestos containing materials. It is the opinion of this inspector that all materials containing any trace of asbestos should be reported as having asbestos content for the client's awareness of its presence. Any such materials are not regulated at this time except for worker exposure in regards to worker safety.

This survey was limited to only to the named sections and materials that were readily accessible for sampling. Destructive sampling was not conducted to access inaccessible areas of the building sections except where deemed necessary for the identification of building materials and content and permission was granted by the building owner representative.

All fiberglass insulation, foam insulation products, solid metal products, solid wood products, and masonry slabs, blocks, bricks and grout are exempt materials that do not require sampling at the inspector's discretion. This exemption was utilized for this survey.

There was no investigation into the electrical system of the building. Electrical breaker boxes and cable runs, enclosed chases in walls and floors and other inaccessible areas of the building should receive further investigation prior to the demolition or renovation of this building or any section thereof that might affect these systems.

There was no investigations into the roofing system. Roofing systems should only be assessed when the integrity of the building envelop is not an issue or when there is a qualified roofing professional available to patch all roof penetrations. The roofing systems should be assessed prior to renovation or demolition activities.

The survey conducted on the building sections was an investigative survey. However, salient materials may exist in the building, which were not detected in the survey of the building section. Any such material should be sampled and assessed by properly licensed individuals.

All materials detected during demolitions or renovations that are not listed, as being sampled on the Chain of Custody Forms and analytical result sheets should be sampled immediately prior to disturbance. All additional samples and assessments are to be conducted by properly licensed individuals.

2525 Hampstead WF ACM Insp

8/25/2016 Page 2 of 37

This survey report is for the identification of asbestos containing materials in the building area only. This report does not address additional environmental hazards that may be present in this facility except for those specifically reported.

This document is for the identification of materials that contain asbestos fibers. All determination of asbestos content is based upon the analysis of the laboratory. This inspector and firm are not liable for the accuracy of the analytical data.

This document does not supersede the requirements for the development of a management plan, operation and maintenance program or project specification design for the management, repair or removal of asbestos containing materials.

All measurements and quantities are approximate. Measurements should be verified prior to the implementation of remediation activities.

No additional warrantees are granted or implied.

# Notice Of Requirements For Renovation and New Construction of Public Buildings:

Texas State Law prohibits the installation of asbestos containing materials into a public building. Additional requirements under the Texas Asbestos Health Protection Rules are:

**§295.34** (i) A person may not install building materials or replacement parts as stated in subsection (j) of this section, in a public building unless:

- (1) the person obtains a required MSDS showing that the materials or replacement parts contain 1.0% or less of asbestos; or
- (2) the materials or replacement parts, according to the MSDS, contain more than 1.0% asbestos but there is no alternative material or part as demonstrated by the building owner or contractor.

Once a building is constructed or renovated, all Safety Data Sheets (SDS) are to be collected and certified by the Architect or Engineer who had direction over the project, or a licensed asbestos inspector, management planner or individual asbestos consultant that the materials used do not contain asbestos fibers as per the statements on the SDS information. For all suspect materials, which SDS is not secured, sampling by properly licensed persons will be required.

### **Sample Collection Procedure:**

Samples were collected from all suspect homogenous materials found in the facility within the limited scope of the inspection. Samples were collected in a random manner as determined by the inspector to limit the cosmetic destruction of exposed building materials. Spray applied materials were detected during the inspection / survey process. However, a random grid was not developed or used. All collected samples were submitted to the laboratory for analysis.

2525 Hampstead WF ACM Insp

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### **Homogenous Materials Sampled**

The materials listed on the Sample Chain of Custody Form in "Attachment A" have a list of all sampled suspect materials. The samples are list in homogeneous groups.

### **Assessment of Asbestos Containing Materials:**

At the time of the inspection and sampling, suspect materials were assessed in general conformance with the AHERA Rule and Industry Standards. The materials assessments considered the location and the amount of material both in total quantity and as a percentage of the functional space. The condition of the material was evaluated considering the type of the damage, severity of the damage, extent or spread of the damage, accessibility, and potential for disturbance, exposure to air streams, vibration, vandalism and exposure to water.

In consideration of the above conditions and following laboratory analyses, those suspect materials proving to be Asbestos-Containing Building Materials (ACBM) were classified into one of the following categories:

- 1. Damaged ACBM thermal system insulation.
- 2. Significantly damaged **ACBM** thermal system insulation.
- 3. Damaged friable surfacing ACBM.
- 4. Significantly damaged friable surfacing **ACBM**.
- 5. Damaged friable miscellaneous ACBM.
- 6. Significantly damaged friable miscellaneous ACBM.
- 7. **ACBM** with potential for damage.
- 8. **ACBM** with potential for significant damage.
- 9. Remaining **ACBM** not fitting into categories above.

### **AVAILABLE RESPONSE ACTIONS**

The following four (4) basic response actions are available for each type of material:

- 1. Operations and Maintenance requires maintenance of the material in an undamaged condition. This includes the repair or removal of damaged materials, record keeping, worker training, re-inspection, prevalent level air monitoring and documentation in a comprehensive Asbestos Operations and Maintenance Program (O & M) specific to the building.
- 2. Encapsulation requires sealing of the exposed surface of the ACM with a bridging-type encapsulant or conversion from a friable to non-friable status with penetrating type encapsulant. Encapsulation work must be conducted under conditions, which control the release of asbestos fibers into the building areas.
- 3. **Enclosure** requires isolation of the **ACM** behind or within airtight barriers of gypsum wallboard, plyboard, etc. Enclosure activities work must be conducted under conditions which control the release of asbestos fibers into the building areas.

Page 4 of 37

8/25/2016

2525 Hampstead WF ACM Insp

4. <u>Removal</u> - requires removal and disposal of the asbestos-containing material (ACM) under full asbestos abatement conditions by licensed asbestos abatement contractors.

### GENERAL MINIMUM RESPONSE SELECTION CRITERIA

For each ACBM located in the survey, the most appropriate minimum response action was determined based on the specific hazard assessment for that material. Specific minimum response actions are listed in the following description of the identified materials.

Debris receives a minimum response of "Removal". Duct vibration isolators receive a minimum response of "Removal" due to their potential to release asbestos fibers into duct distribution systems. Other materials generally receive a minimum response of "Operations and Maintenance" which includes repair of damaged areas or removal of minor areas of damaged material where repair is not feasible. Thermal system insulation should be maintained in an intact condition with undamaged jacketing. Materials exhibiting a significantly damaged condition, which is deemed not repairable, receive a minimum response of "Removal". Response actions of "Encapsulation" and "Enclosure" are generally not recommended as minimum responses.

The response actions recommended in this report are minimum responses, and the option of pursuing a more stringent response is available at any time.

# Description and Assessment of Asbestos Containing Building Materials (ACBM) ASBESTOS FIBERS WERE DETECTED IN THE SAMPLED SUSPECT MATERIALS

Asbestos fibers were detected in trace amounts in the joint compound on the finished drywall in the house and garage. The final analysis of all samples indicate that there is less than 1% asbestos content. This result de-regulates this material by definition in current USEPA and State regulation that regulate the disturbance, disposal and other activities for asbestos containing materials.

Worker safety is still regulated by current OSHA standards and USEPA worker protection rules. All employers are to educate personnel, control exposure and monitor worker exposure. Reporting and record keeping requirements may apply as well.

2525 Hampstead WF ACM Insp

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### **Inspector Statement**

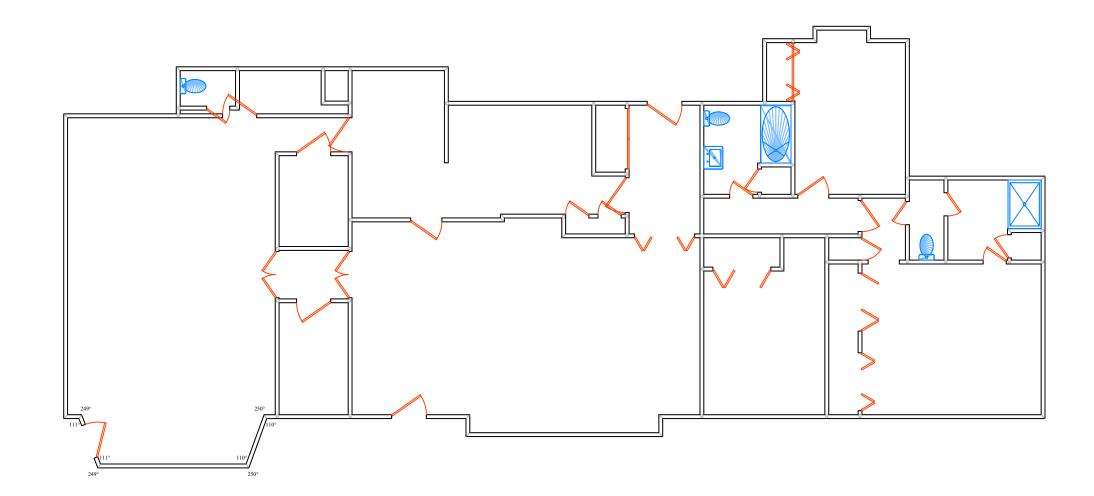
The content of this report represents the results of the survey conducted on this building. The results are presented as correct to the best of my knowledge. All conditions and statements are applicable. No additional warranties or guarantees are indicated or implied. Any party locating additional materials that are not listed in this report text or on the sample collection sheets should contact the Asbestos Containing Materials Manager for the Owner immediately.

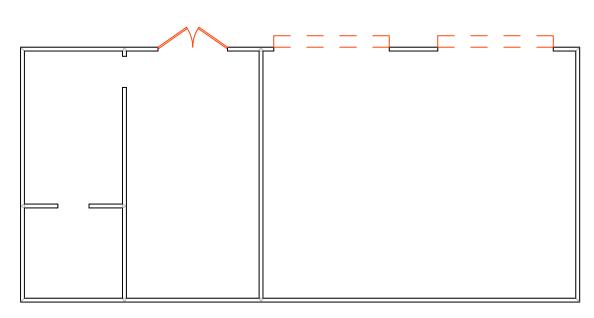
August 24, 2016

L. F. Skaggs, DSHS AIC# 10-5110

Project Consultant

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DRN BY FS

CKO BY KS

DATE 08/25/2016

JOB NO.

Flint Inspection Consulting Serv., Inc.
Environmental Solution Consultants
P.O. Box 235
Burkburnett, TX 76354
Tel (940) 569-4876
Fax (866) 469-0378
email: flintskaggs@gmail.com

ASBESTOS CONTAINING MATERIALS INSPECTION

Residential Building

2525 Hampstead Lane, Wichita Falls, Texas



8/25/2016



## FLINT INSPECTION CONSULTING SERVICES, INC.

P.O. Box 235, Burkburnett, TX 76354

### Attachment A

Bulk Material Sample Chain of Custody Documents

Bulk Material Sample Analysis Reports



An Independent Laboratory Providing Reliable Analysis with Professionalism and Honesty

### ASBESTOS BULK ANALYSIS REPORT

Date: August 9, 2016

Flint Inspection Consulting Services, Inc.

Report: 6316-2602

2525 Hampstead St., Wichita Falls, TX

This document shall be considered a duly signed original report of the results obtained from the analyses performed. All analyses are done within government guidelines and regulations.

> Gary R. Simmons Laboratory Manager

Lab Comments on Project: N/A



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### PLM (Bulk) - Asbestos Analysis Report - Visual ID (EPA Method 600/R-93-116 Visual Area Estimation)

Flint Inspection Consulting Services, Inc. **Report Number:** 6316-2602

715 B E. College St. **Report Date:** August 9, 2016 Burkburnett, TX 76354 Samples Collected: August 4, 2016 940-631-3096 **Date Received:** August 8, 2016

**Contact: Flint Skaggs** Turn-around time: 24 Hours

Job ID / Site: 2525 Hampstead St., Wichita Falls, TX

ob ib / Oite: 2020 Hampstead Ot., Wielita I alia, 17					
Client Sample Number	Lab Sample Number (by layer)	Color / Description / Fibrous / NonFibrous / Homogeneity	Asbestos Content Type & %	Non-Asbestos Fibrous Type & %	<b>Matrix</b> Binder
1	6316-2602-01A	Off White / Compound / Fibrous / Homogeneous	Chrysotile 2%	None Detected	
	6316-2602-01B	Brown,White / Drywall / Fibrous / Homogeneous	None Detected	Cellulose 10%	Binder
2	6316-2602-02A	White / Texture, Joint Compound / Fibrous / Homogeneous	Chrysotile <1%	None Detected	Binder
	6316-2602-02B	Off White / Joint Tape / Fibrous / Homogeneous	None Detected	Cellulose 95%	Binder
	6316-2602-02C	Brown,Off White / Drywall / Fibrous / Homogeneous	None Detected	Cellulose 10%	Binder
3	6316-2602-03A	Beige,White / Paint,Texture / Fibrous / Homogeneous	Chrysotile <1%	None Detected	Binder
	6316-2602-03B	Brown,White / Drywall / Fibrous / Homogeneous	None Detected	Cellulose 10%	Binder
4	6316-2602-04A	Beige,White / Paint,Texture / NonFibrous / Homogeneous	None Detected	None Detected	Binder
	6316-2602-04B	Brown,White / Drywall / Fibrous / Homogeneous	None Detected	Cellulose 10%	Binder
5	6316-2602-05A	White / Paint,Texture / NonFibrous / Homogeneous	None Detected	None Detected	Binder

Analytical results and reports are generated by Apex Precision Analytical Services at the request of and for the exclusive use of the person or entity (client) named on such report. Result, reports or copies of same will not be released by Apex Precision Analytical Services to any third party without the written request from client. These results only repesent the materials submitted. Supporting laboratory documentation is available upon request. This report cannot be used to represent conditions at any other location, date or time and does not imply that this space is free from these or any other contaminants. No responsibility or liability is assumed for the manner in which these results are used or interpreted. This must not be used to claim product endorsement by NVLAP or any government agency of the United States. Apex Precision Analytical Services reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

NVLAP Lab Code: 200633-0 PLM TDSHS Asbestos License#: 30-0312 PLM/PCM



An Independent Laboratory Providing Reliable Analysis with Professionalism and Honesty

### PLM (Bulk) - Asbestos Analysis Report - Visual ID (EPA Method 600/R-93-116 Visual Area Estimation)

Flint Inspection Consulting Services, Inc. **Report Number:** 6316-2602

715 B E. College St. **Report Date:** August 9, 2016 Burkburnett, TX 76354 Samples Collected: August 4, 2016 940-631-3096 **Date Received:** August 8, 2016

**Contact: Flint Skaggs** Turn-around time: 24 Hours

Job ID / Site: 2525 Hampstead St., Wichita Falls, TX

ob 10 / Oite: 2020 Hampstead Ot., Wienita I alio, 17					
Client Sample Number	Lab Sample Number (by layer)	Color / Description / Fibrous / NonFibrous / Homogeneity	Asbestos Content Type & %	Non-Asbestos Fibrous Type & %	Matrix
5	6316-2602-05B	Brown,Off White / Drywall / Fibrous / Homogeneous	None Detected	Cellulose 10% Fibrous Glass 2%	Binder
6	6316-2602-06	Brown / Flooring / NonFibrous / Homogeneous	None Detected	None Detected	Binder
7	6316-2602-07	Brown / Flooring / NonFibrous / Homogeneous	None Detected	None Detected	Binder
8	6316-2602-08	Brown / Flooring / NonFibrous / Homogeneous	None Detected	None Detected	Binder
9	6316-2602-09	White / Caulking / NonFibrous / Homogeneous	None Detected	None Detected	Binder
10	6316-2602-10	Beige / Window Glazing / NonFibrous / Homogeneous	None Detected	None Detected	Binder
11	6316-2602-11	Grey,Black / Roofing Material / Fibrous / Homogeneous	None Detected	Fibrous Glass 5%	Binder
12	6316-2602-12	Off White / Fiberboard / Fibrous / Homogeneous	None Detected	Cellulose 20%	Binder
13	6316-2602-13	White / Grout / NonFibrous / Homogeneous	None Detected	None Detected	Binder
14	6316-2602-14	White / Grout / NonFibrous / Homogeneous	None Detected	None Detected	Binder

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NVLAP Lab Code: 200633-0 PLM TDSHS Asbestos License#: 30-0312 PLM/PCM Page 3 of 4



An Independent Laboratory Providing Reliable Analysis with Professionalism and Honesty

# PLM (Bulk) - Asbestos Analysis Report - Visual ID (EPA Method 600/R-93-116 Visual Area Estimation)

Flint Inspection Consulting Services, Inc. Report Number: 6316-2602

715 B E. College St.

Burkburnett, TX 76354

940-631-3096

Report Date: August 9, 2016

Samples Collected: August 4, 2016

Date Received: August 8, 2016

Contact: Flint Skaggs Turn-around time: 24 Hours

Job ID / Site: 2525 Hampstead St., Wichita Falls, TX

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Client Sample Number	Lab Sample Number (by layer)	Color / Description / Fibrous / NonFibrous / Homogeneity	Asbestos Content Type & %	Non-Asbestos Fibrous Type & %	Matrix	
15	6316-2602-15	White / Grout / NonFibrous / Homogeneous	None Detected	None Detected	Binder	
16	6316-2602-16	Beige / Thin Set / NonFibrous / Homogeneous	None Detected	None Detected	Binder	

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NVLAP Lab Code: 200633-0 PLM TDSHS Asbestos License#: 30-0312 PLM/PCM Page 4 of 4



# APEX PRECISION ANALYTICAL SERVICES, INC.

AN INDEPENDENT LABORATORY PROVIDING CONVENTIONAL AND ON-SITE ANALYSIS

Chain of C	Custody	APASI#: 4316-24	602			
Date Collected:	8/4/16	Date Sent: 8/4/16				
Contact: Flint	Skaggs	Special Instructions:				
Company: Flint	Inspection Consulting Svcs., Inc.					
Address: P.O.	Box 235	P.O. #:				
715 B E. College S	St., Burkburnett, TX 76354	E-Mail: flintskaggs@gmail.com	·			
Phone: 940-569-	4876 Cell 940-631-3096	Fax: 866-469-0378				
Turn Around Time (Circle One)	Urgent/ASAP 24 Ho	ours 48Hours 72 Hours 5	Days			
Client Job Numb スちみら	per/Name: Hampstead St. Wi	chita Falls, Tx				
BioCell, or oth	re count by Air-O-Cell, Cyclex (d), ner spore trap cassette/device	Mycology(Mold) Bulk ID Samples Fungal/Mold Identification – bulk sample, tape lift, s	wab			
Fiber Concentrat	ccopy(PCM)-Air Samples cion by NIOSH Method 7400 Issue 2	Polarized Light Microscopy(PLM)-Bulk Samples  Asbestos Identification (Visual Estimation)  by EPA 600/R-93/116 Method				
(Visual Estima  Total Nuisance D	r & Bulk Samples  ry Ceramic Fiber (Bulk) Identification  ation) by Polarized Light Microscopy  Pust (Air) by NIOSH Method 0500  Dust (Air) by NIOSH Method 0600	Asbestos Identification (Point Count) by EPA 600/M4-82-020 Method Asbestos Identification (Soil/Prep) by Gravimetric Reduction				
Sample #:	, Location/D	escription: Volu	me			
	Drywa 11					
ユ						
3	( ( (					
4	10 11					
5	11 11					
6	flooring					
/	( ( ( )					
9	() ()	2				
7		or Caulk				
10	Window Glaze					
	Roofing					
52	Fiber pane					
Relinquished by:	KF Shages	Received by: January	nyk			
Date: 8/4/16	Time:	Date: 8/8/16 Time: 0	800			



# APEX PRECISION ANALYTICAL SERVICES, INC.

AN INDEPENDENT LABORATORY PROVIDING CONVENTIONAL AND ON-SITE ANALYSIS

Location/Description:	Volume
Grout	Volume
Grout	
Growt	
Thinset	
	Location/Description: Growt Growt Thinset



An Independent Laboratory Providing Reliable Analysis with Professionalism and Honesty

# Point Count ASBESTOS BULK REPORT

Date: August 10, 2016

Flint Inspection Consulting Services, Inc.

Report: 6316-2602PC

2525 Hampstead St., Wichita Falls, TX

This document shall be considered a duly signed original report of the results obtained from the analyses performed. All analyses are done within government guidelines and regulations.

Gary R. Simmons Laboratory Manager

Lab Comments on Project: N/A



August 9, 2016

An Independent Laboratory Providing Reliable Analysis with Professionalism and Honesty

### PLM (Bulk) - Asbestos Analysis Report - Point Count EPA Method 600/R-93/116 (400 Point Count 0.25% LOD)

**Date Requested:** 

Flint Inspection Consulting Services, Inc.

Report Number: 6316-2602PC

715 B E. College St.

Report Date: August 10, 2016

Burkburnett, TX 76354

Samples Collected: August 4, 2016

Contact: Flint Skaggs Turn-around time: 24 Hours

Job ID / Site: 2525 Hampstead St., Wichita Falls, TX

940-631-3096

Client Sample Number	Lab Sample Number (by layer)	Color / Description / Fibrous / NonFibrous / Homogeneity	Asbestos Content Type & %	Non-Asbestos Fibrous Type & %	Matrix
1	6316-2602-01A	Off White / Compound / Fibrous / Homogeneous	Chrysotile 0.75%	None Detected	Binder

Analytical results and reports are generated by Apex Precision Analytical Services at the request of and for the exclusive use of the person or entity (client) named on such report. Result, reports or copies of same will not be released by Apex Precision Analytical Services to any third party without the written request from client. These results only repesent the materials submitted. Supporting laboratory documentation is available upon request. This report cannot be used to represent conditions at any other location, date or time and does not imply that this space is free from these or any other contaminants. No responsibility or liability is assumed for the manner in which these results are used or interpreted. This must not be used to claim product endorsement by NVLAP or any government agency of the United States. Apex Precision Analytical Services reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

NVLAP Lab Code: 200633-0 PLM TDSHS Asbestos License#: 30-0312 PLM/PCM

Page 2 of 2



# FLINT INSPECTION CONSULTING SERVICES, INC. P.O. Box 235, Burkburnett, TX 76354

Attachment B

PHOTO LOG





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### FLINT INSPECTION CONSULTING SERVICES, INC. P.O. Box 235, Burkburnett, TX 76354

### Attachment C

License and Information



### Texas Department of State Health Services

Asbestos Individual Consultant

**LEROY F SKAGGS** 

License No. 105110 Control No. 97027

Expiration Date: 5/9/2018



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# TEXAS DEPARTMENT OF STATE HEALTH SERVICES

## FLINT INSPECTION CONSULTING SERVICES INC

is certified to perform as a

### Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

Third Thing?

DAVID LAKEY, M.D. COMMISSIONER OF HEALTH

License Number: 100474

Control Number: 96812

(Void After Expiration Date)

Expiration Date: <u>6/30/2017</u>

VOID IF ALTERED NON-TRANSFERABLE



## TEXAS DEPARTMENT OF STATE HEALTH SERVICES

## APEX PRECISION ANALYTICAL SERVICES INC

is certified to perform as a

### Asbestos Laboratory PCM, PLM

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

COMMISSIONER OF HEALTH JOHN HELLERSTEDT, M.D.

License Number: 300312

Control Number: 96111

(Void After Expiration Date)

Expiration Date: 3/29/2018

NON-TRANSFERABLE VOID IF ALTERED

### United States Department of Commerce National Institute of Standards and Technology



# Certificate of Accreditation to ISO/IEC 17025:2005

**NVLAP LAB CODE: 200633-0** 

### Apex Precision Analytical Services, Inc.

Friendswood, TX

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

### **Asbestos Fiber Analysis**

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

2016-04-01 through 2017-03-31

Effective Date



For the National Voluntax Laboratox Accreditation Program





### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Apex Precision Analytical Services, Inc.

306 W. Edgewood Ste D

Friendswood, TX 77546-5003

Mr. Gary Simmons

Phone: 281-648-9918 Fax: 281-648-9595

Email: gary@apasi.net http://www.apasi.net

### ASBESTOS FIBER ANALYSIS

**NVLAP LAB CODE 200633-0** 

### **Bulk Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

### Attachment D GLOSSARY OF TERMS

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### **GLOSSARY OF TERMS**

### **Definitions and Acronyms**

### **ASBESTOS**

Naturally occurring fibrous minerals composed of hydrated silicates, crystalline in structure, occurring as parallel bundles. Two categories - Serpentine (Chrysotile) and Amphibole (Amosite, Anthophylite, Tremolite, Crocidolite, Actinolite).

### **ACM**

Asbestos-Containing Material

### **ACBM**

Asbestos-Containing Building Material - Materials containing greater than 1% asbestos, by weight.

### **AECP**

Asbestos Exposure Control program also referred to as O & M (Operations and Maintenance)
Program.

### **ACTION LEVEL**

An OSHA standard for air borne concentration of asbestos above which the employer must institute certain provisions. The Action Level is 0.1 fibers per cubic centimeter of air as an 8 hour time-weighted average (measured by PCM).

### **AHERA**

Asbestos Hazard Emergency Response Act.

### **ASHAA**

Asbestos School Hazard Abatement Act of 1984.

### BUILDING

Any enclosed structure occupied by people, including canopies, and open air structures.

### C.M.U.

Concrete Masonry Unit - light weight block.

### **DEMOLITION**

Wrecking or removing any load-supporting member.

### **EPA**

United States Environmental Protection Agency.

### **FRIABLE**

Materials which, when dry, can easily be pulverized, crushed, or reduced to powder by hand pressure.

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### **GYPSUM BOARD**

A pre-manufactured wall surfacing substrate applied over a wood or metal framing system. This material is referred to as sheetrock as well.

### HAZARD

A circumstance, mechanism, or event which has the potential to create injury.

### HAZARD ASSESSMENT

Analysis and evaluation of physical and exposure factors to determine the need for corrective action.

### **HOMOGENEOUS AREA**

An area exhibiting consistent construction materials and techniques for that area.

### INSPECTION

The process of locating and quantifying the ACM, assessing it's condition and reporting the results.

### LEA

Local Education Agency (generally the School Board).

### **NBS**

National Bureau of Standards.

### **NESHAPS**

National Emission Standards for Hazardous Air Pollutants. Federal regulation that addresses the requirement for inspection and control methods for asbestos containing materials. §40 CFR 61, SUBPART M

### **NIOSH**

National Institute for Occupational Safety and Health.

### **NON-FRIABLE**

Materials which, at present, can not be crushed and/or pulverized by hand pressure. With appropriate handling techniques, non-friable material will not become friable.

### **OSHA**

Occupational Safety and Health Administration.

### **PEL**

Permissible Exposure Limit - level of exposure to air borne asbestos fibers which no employee shall be exposed. The PEL is 0.2 fibers per cubic centimeter as an 8 hour time-weighted average (measured by PCM).

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### **PCM**

Phase Contrast Microscopy - analysis of air samples. NIOSH 7400 method - an optical microscopy fiber counting technique which does not allow for differentiation between asbestos fibers and other types of fibers.

### **PLM**

Polarized Light Microscopy - analysis of bulk material samples.

### RENOVATION

Altering in any way one or more facility components (except demolition).

### **RFCI**

Resilient Floor Covering Institute method for the removal of asbestos containing floor tile and coverings. This method is used for the removal of asbestos containing flooring materials by a specific method that does not require containment of the work area or air monitoring during the removal process. Most companies that preform this service are not licensed with the State and do not carry environmental pollution insurance. Caution and consideration should be used when selecting this method.

### **TEM**

Transmission Electron Microscopy - analysis of air samples. AHERA Methodology - a high resolution electron microscopy which does allow for positive identification and classification of asbestos fibers. The counting technique includes only asbestos fibers.

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### **VENDOR REFERENCES**

Please list three (3) references of current customers who can verify the quality of service your company provides. The University prefers customers of similar size and scope of work to this proposal. *THIS FORM MUST BE RETURNED WITH YOUR PROPOSAL*.

REFERENCE ONE			
Government/CompanyName:			
Address:		The second secon	
ContactPersonandTitle:			
Phone:	Fax:		
Contract Period:	ScopeofWork:		
	REFERENCE TWO		
Government/CompanyName:			
Address:			
ContactPersonandTitle:			
Phone:	Fax:		
Contract Period:	ScopeofWork:		
	REFERENCE THREE		
Address:			
ContactPersonandTitle:			
Phone:	Fax:		
Contract Period:	ScopeofWork:		

### **AFFIDAVIT**

The undersigned certifies that the bid prices contained in this proposal have been carefully checked and are submitted as correct and final and if bid is accepted (within 90 days unless otherwise noted by vendor), agrees to furnish any and/or all items upon which prices are offered, at the price(s) and upon the conditions contained in the Specifications.

STATE OF TEXAS	
COUNTY OF WICHITA	
BEFORE ME, the undersigned authority,	a Notary Public in and for the State of
Texas, on this day personally appeared	
Washington and the state of the	
who, after having first been duly sworn, upon oath	did depose and say;
That the foregoing proposal submitted by _	
1 ' 0 11 1 1175:11 11 ' d 1 1 1 d .	
_ hereinafter called "Bidder" is the duly authoriz person signing said proposal has been duly aut	
affirms that they are duly authorized to exec	
corporation, firm, partnership or individual has no	
other Bidder, and that the contents of this bid as to	
have not been communicated by the undersigned	
other person engaged in this type of business prior	to the official opening of this bid.
Name and Address of Bidder:	
Telephone number	
	Signature
Email	Name:
	Title:
SWORN TO AND SUBSCRIBED BEFOR	E ME THIS day of
,	-
20	
Notary Public in a	and for the
State of Texas.	and for the

### AGREEMENT BETWEEN MIDWESTERN STATE UNIVERSITY AND

### CONTRACT NO.

This Agreement made the day of in the year 20 , by and between , hereinafter called the Contractor, and the Board of Regents of
Midwestern State University, hereinafter called the Owner,
WITNESSETH, that the Contractor and the Owner for the consideration hereinafter name agree as follows:
ARTICLE 1. SCOPE OF WORK: The Contractor shall furnish all of the
materials and perform all of the work shown on the drawings and described in the specifications for
the project entitled . These drawings and specifications prepared for Midwestern Stat
University by , acting as and in these Contract Documents entitled the Project Architect. Th
Contractor shall do everything required by this Agreement, the General and Supplementa
Conditions of the Contract, the Special Conditions, the Addenda, the Specifications, the Drawings
the Historically Underutilized Business (HUB) Subcontracting Plan, and the Proposal attached a
Exhibit 1 (including any unit prices stated therein).
The Specifications and Drawings are enumerated as follows:
SPECIFICATIONS: See attached as Exhibit 2.
DRAWINGS: See attached as <b>Exhibit 2</b> .
Dict wilves. See attached as Exhibit 2.
ADDENDA: See attached as Exhibit 2.
ALTERNATES: The following Alternate Proposals, fully described in the Specifications, ar
included as a part of this Contract:
ARTICLE 2. TIME OF COMPLETION: The Owner shall provide a Notic
to Proceed in which a date for commencement of the work shall be stated; such commencement
date shall be 10 or more days after the date of the notice. The Contractor shall achieve substantia
completion of the work within ( ) calendar days after such commencement date, a
such completion date may be extended by approved Change Orders. The time set forth for
completion of the work is an essential element of the Contract.
ARTICLE 3. THE CONTRACT SUM: The Owner shall pay the Contractor
for performance of the Contract, subject to additions and deductions provided therein, the sum of
(\$ ), and make payment on account as hereinafter provided.

ARTICLE 4. HUB SUBCONTRACTING PLAN: The Owner has adopted Exhibit H, Policy on Utilization of Historically Underutilized Business ("Policy"), which is incorporated herein by reference. Contractor, as a provision of the Agreement must comply with the requirements of the Policy and adhere to the HUB Subcontracting Plan submitted with Contractor's Proposal and attached as **Exhibit 3**. No changes to the HUB Subcontracting Plan can be made by the Contractor without the prior written approval of the Owner in accordance with the Policy.

ARTICLE 5. LIQUIDATED DAMAGES: For each consecutive calendar day after the substantial completion period set forth in Article 2 above that any work, including the correction of deficiencies found during the final testing and inspection, is not completed, the amount of (\$ ) will be deducted from the money due or becomes due the Contractor, not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages which the Owner will sustain for late completion.

### ARTICLE 6. CERTIFICATION OF NO ASBESTOS CONTAINING MATERIALS OR WORK:

The Contractor shall provide a certification statement, included with each materials submittal, stating that no asbestos containing materials or work is included within the scope of the proposed submittal.

The Contractor shall insure that Texas Department of Health licensed individuals, consultants or companies are used for any required asbestos work including asbestos inspection, asbestos abatement plans/specifications, asbestos abatement, asbestos project management and third-party asbestos monitoring.

The Contractor shall provide at Substantial Completion, a notarized affidavit to the Owner and the Architect stating that no asbestos containing materials or work was provided, installed, furnished or added to the Project.

The Contractor shall take whatever measures he deems necessary to insure that all employees, suppliers, fabricators, materialmen, subcontractors, or their assigns, comply with this requirement.

All materials used on this\_Project shall be certified as non Asbestos Containing Building Materials (ACBM). The Contractor shall insure compliance with the following acts from all of his subcontractors and assigns:

Asbestos Hazard Emergency Response Act (AHERA—40 CFR 763-99 (7));

National Emission Standards for Hazardous Air Pollutants (NESHAP—EPA 40 CFR 61, National Emission Standard for Asbestos;

Texas Asbestos Health Protection Rules (TAHRP—Tex. Admin. Code Title 25, Part 1, Ch. 295C, Asbestos Health Protection

Every subcontractor shall provide a notarized statement that no ACBM has been used, provided, or left on this Project.

The Contractor shall provide, in hard copy and electronic form, all necessary material safety data sheets (MSDS) of all products used in the construction of the Project to the Texas Department of Health licensed inspector or Project Architect or Engineer who will compile the information from the MSDS and, finding no asbestos in any of the product, make a certification statement.

At Final Completion the Contractor shall provide a notarized certification statement per TAC Title 25 Part 1, Ch. 295.34, par. c.1 that no ACBM was used during construction of the Project.

ARTICLE 7. ACCEPTANCE OF BID OR AWARD OF CONTRACT: By signing this Agreement, the undersigned certifies as follows:

Assignment. This Agreement is a personal service contract for the services of Construction, and Contractor's interest in this Agreement, duties hereunder and/or fees due hereunder may not be assigned or delegated to a third party.

Records of expenses pertaining to Additional Services and services performed on the basis of a Worker Wage Rate or Monthly Salary Rate shall be kept on the basis of generally accepted accounting principles and in accordance with cost accounting standards promulgated by the Federal Office of Management and Budget Cost Accounting Standards Board and shall be available for audit by the Owner or the Owner's authorized representative on reasonable notice.

Family Code Child Support Certification. Pursuant to Section 231.006, Texas Family Code, Service Provider certifies that it is not ineligible to receive the award of or payments under this Agreement and acknowledges that this Agreement may be terminated and payment may be withheld if this certification is inaccurate.

Eligibility Certification. Pursuant to Section 2155.004, Texas Government Code, Service Provider certifies that the individual or business entity named in this Agreement is not ineligible to receive the award of or payments under this Agreement and acknowledges that this Agreement may be terminated and payment withheld if this certification is inaccurate.

Franchise Tax Certification. A corporate or limited liability company Contractor certifies that it is not currently delinquent in the payment of any Franchise Taxes due under Chapter 171 of the Texas Tax Code, or that the corporation or limited liability company is exempt from the payment of such taxes, or that the corporation or limited liability company is an out-of-state corporation or limited liability company that is not subject to the Texas Franchise Tax, whichever is applicable.

Payment of Debt or Delinquency to the State. Pursuant to Sections 2107.008 and 2252.903, Texas Government Code, Contractor agrees that any payments owing to Contractor under this Agreement may be applied directly toward any debt or delinquency that Contractor owes the State of Texas or any agency of the State of Texas regardless of when it arises, until such debt or delinquency is paid in full.

Entire Agreement; Modifications. This Agreement supersedes all prior agreements, written or oral, between Contractor and Owner and shall constitute the entire Agreement and understanding between the parties with respect to the Project. This Agreement and each of its provisions shall be binding upon the parties and may not be waived, modified, amended or altered except by a writing signed by Contractor and Owner.

Captions. The captions of paragraphs in this Agreement are for convenience only and shall not be considered or referred to in resolving questions of interpretation or construction.

Governing Law and Venue. This Agreement and all of the rights and obligations of the parties and all of the terms and conditions shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas without reference to its conflicts of law provisions. The county where the Project is located shall be the sole place of venue for any legal action arising from or related to this Agreement or the Project in which the Owner is a party.

Waivers. No delay or omission by either party in exercising any right or power arising from non compliance or failure of performance by the other party with any of the provisions of this Agreement shall impair or constitute a waiver of any such right or power. A waiver by either party of any covenant or condition of this Agreement shall not be construed as a waiver of any subsequent breach of that or of any other covenant or condition of the Agreement.

Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.

Appointment. Owner hereby expressly reserves the right from time to time to designate by notice to Contractor a representative(s) to act partially or wholly for Owner in connection with the performance of Owner's obligations. Contractor shall act only upon instructions from the designated representative(s) unless otherwise specifically notified to the contrary.

Records. Records of Contractor's costs, reimbursable expenses pertaining to the Project and payments shall be available to Owner or its authorized representative during business hours and shall be retained for four (4) years after final Payment or abandonment of the Project, unless Owner otherwise instructs Contractor in writing.

Notices. All notices, consents, approvals, demands, requests or other communications relied on by the parties shall be in writing. Written notice shall be deemed to have been given when delivered in person to the designated representative of the Contractor or Owner for whom it is intended; or sent by U. S. Mail to the last known business address of the designated representative; or transmitted by fax machine to the last know business fax number of the designated representative.

Mail notices are deemed effective upon receipt or on the third business day after the date of mailing, whichever is sooner. Fax notices are deemed effective the next business day after faxing.

Severability. Should any term or provision of this Agreement be held invalid or unenforceable in any respect, the remaining terms and provisions shall not be affected and this Agreement shall be construed as if the invalid or unenforceable term or provision had never been included.

Illegal Dumping. The Contractor shall ensure that it and all of its Subcontractors and assigns prevent illegal dumping of litter in accordance with Title 5, Texas Health and Safety Code, Chapter 365.

Ethics Matters/No Financial Interest. Contractor and its employees, agents, representatives and subcontractors have read and understand University's Conflicts of Interest Policy, University's Standards of Conduct Guide and applicable state ethics laws and rules. Neither Contractor nor its employees, agents, representatives or subcontractors will assist or cause University employees to violate University's Conflicts of Interest Policy, provisions described by University's Standards of Conduct Guide, or applicable state ethics laws or rules. Contractor represents and warrants that no member of the Board has a direct or indirect financial interest in the transaction that is the subject of this Agreement.

By signature hereon, Contractor certifies that no member of the Board of Regents of Midwestern State University, or Executive Officers, including component institutions, has a financial interest, directly or indirectly, in the transaction that is the subject of this contract.



BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement as of the day and year first above written.

### MIDWESTERN STATE UNIVERSITY

