## SPECIAL PROVISION to GDOT Standard Specifications' SECTION 103—AWARD AND EXECUTION OF CONTRACT

#### **103.01 CONSIDERATION OF PROPOSALS:** Retain as written and add the following:

If, prior to the award of a contract, the Department determines that because of errors in the bidding documents an unbalanced bid has been submitted and that such unbalanced bid is the lowest bid of the reliable bids received, the Department, prior to its decision on the award of the contract, may negotiate with the lowest reliable bidder to correct such errors and to correct the unbalanced bid provided that the lowest reliable bidder is not changed. Subject to the negotiations, the Department may award the contract, reject the contract and readvertise, perform the work itself, or abandon the project.

#### **103.02 AWARD OF CONTRACT:** Delete as written and substitute the following:

If a contract is awarded, it will be awarded to the lowest reliable bidder whose proposal shall have met all the prescribed requirements, including any negotiated changes as indicated below. The contract will be awarded, if at all, within 60 <u>calendar days</u> after the opening of the proposals, unless a longer period is specified in the proposal or the successful bidder agrees in writing to a longer period for the award.

Single as well as multiple proposals for a project will be publicly opened and read. If only one proposal is received, the Department may, at its option, exercise one of the following:

- 1. Award the contract as bid.
- 2. If the amount of the proposed bid exceeds the Department's cost estimate for the project, negotiate a price which is fair and reasonable and award the contract as negotiated.
- 3. Reject the proposal and readvertise, perform the work itself, or abandon the project.

Any price resulting from option number 2 shall not be greater than the price bid.

The successful bidder will be notified of award through an award letter. If the successful bidder fails to execute the Contract and file acceptable Bonds within the period set forth in Sub-Section 103.07 thereby causing cancellation of the Award and forfeiture of the Proposal Guaranty, the Department may award the contract to the next lowest reliable bidder, readvertise, abandon the project, or perform the work itself.

#### **103.05 REQUIREMENTS OF CONTRACT BONDS:** Delete as written and substitute the following:

All Contractors shall furnish Performance and Payment Bonds in an amount equal to 100 percent of the total bid price. The aggregate amount of the bonds shall be 200 percent of the total bid price. Contractors are obligated to comply with all local, state, and federal laws. Out-of-state Contractors should pay attention to Sections 48-13-30 through 48-13-38 of the Official Code of Georgia Annotated.

«ProiectName» «FromTo» («ProiectNo»)

## SPECIAL PROVISION: MISCELLANEOUS CONSTRUCTION

Add the following to the GDOT Standard Specifications:

### Section 730 Miscellaneous Construction Item

Section 730.3

Section 730.4

Section 730.1 <u>Description</u>: This item, if included in the contract, is intended for use on miscellaneous construction items not included in the original contract. This item may or may not be required on the project and will be directed or requested by the Engineer. Use of this item will be only as authorized by the Bibb County Engineer.

Every effort will be made to negotiate an acceptable price with the Prime Contractor for installation of the items required. If Bibb County is unable to negotiate an agreeable price with the Prime Contractor, Bibb County reserves the right to negotiate both price and warranties with other contractors for this work. The Prime Contractor will then be required to include the work authorized by utilizing the authorized subcontractor. A maximum allowance of 5% may be included for overhead purposes for the Prime Contractor agreement.

- Section 730.2 <u>Material</u>: All materials shall meet the requirements of the Georgia Department of Transportation's Standard Specifications unless otherwise negotiated.
  - <u>Construction</u>: Construction of this item will be in accordance with the Georgia Department of Transportation's Standard Specifications unless otherwise negotiated.
- <u>Payment</u>: For payment purposes, the negotiated price will be converted to a percentage of Item No. 730. Payment for this item will be only for amounts authorized by the Bibb County Engineer. Final payment may or may not equal 100% of the Lump Sum Price included in the contract. This payment shall be full compensation for furnishing and installing all materials, for all labor, equipment, and incidentals necessary to complete the item.

Payment will be made under:

Item No. 730 Miscellaneous Construction Items ..... Per Lump Sum

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## **SPECIAL PROVISION**

# **2001 Standard Specifications Editorial and Errata Corrections**

Page	Section	Correction
37	107.14.C.7	In Figure 1, Tandem Axle Trucks, change the maximum acceptable
		gross weight from 24,947 kg to 27,679 kg.
313	432.1.02.B	Change GDT 93 to GDT 126.
599	551.5	
938	800.2.01.C	
971	815.2.02.A.1.d	In the table under "Carbonate content (magnesium or calcium)" — Delete "At least 90%" and add "At least 80%."
972	815.2.03.A.3	In the first sentence under Gradation — Delete ", except that the aggregate will be recycled concrete." And add ", except that the minimum required to pass the No. 200 (75 micron) sieve shall be 2%."
990	828.1.02.B	Change the word "pipe" to "pile".
	828.2.A	
1119	883.1.01.B	In the table under the test for "Reactivity" — Delete "ASTM C 227, C 289 and C 586" and add "AASHTO T 303"
1162	919.2.A.2	In the Table, change the description of Type 1 rpm from "One-way, one-color, 4x2 in (100mm x 400mm), reflective" to "Two-way, one-color, 4x2 in (100mm x 400mm), reflective"
1162	919.2.A.2	In the Table, change the description of Type 2 rpm from "Two-way, one-color, 4x2 in (100mm x 400mm), reflective" to "One-way, one-color, 4x2 in (100mm x 400mm), reflective"
950	805.2.02.A.1	Change "Type 1" to "Type A".
950	805.2.02.A.2	Change "Type 2" to "Type B".
950	805.2.02.A.2.h	Change "Type 2" to "Type B".
707	627.5.G	In the payment for Item No. 627 Traffic barrier, V, wall No, change the measurement from "Per cubic yard (meter)" to "Per linear foot (meter)".
1116	881.2.07.A.2	In the Table, change the minimum fabric width (metric value) for Type A from 900 mm to 914 mm
1116	881.2.07.A.2	In the Table, change the minimum fabric width (metric value)
		for Type B from 550 mm to 559 mm.
1116	881.2.07.A.2	In the Table, change the minimum fabric width (metric value) for Type C from 900 mm to 914 mm.

# ASBESTOS ABATEMENT TECHNICAL SPECIFICATIONS

## I. SCOPE OF WORK

The Work contemplated and covered in these specifications consists of the equipment, supervision, and all other services required for the complete removal and proper disposal of asbestos-containing or contaminated materials from the specified parcel(s). The work will be performed under a Contract based upon the Bid prices submitted by the Abatement Contractor.

An AHERA-accredited Asbestos Inspector has surveyed the structures on each parcel and identified asbestos-containing materials (ACM) required for removal to support the proposed demolition. The scope of ACM removal includes all ACM identified in attached <u>Summary Asbestos Inspection Reports</u>.

Following acceptance of the Bid and award of the Contract, the Abatement Contractor will submit a <u>Project Notification Form</u> to the Georgia EPD ten days prior to the commencement of the work. The submitted <u>Project Notification Form</u> shall include a copy of the <u>Summary Asbestos Inspection Reports</u>, including corresponding <u>Summaries</u> <u>of Bulk Sample Analytical Results</u>. The Abatement Contractor shall have a copy of the Project Notification Form and any amendments to the Project Notification Form at the site at all times during the abatement efforts.

### II. QUALITY CRITERIA

- A. Qualifications for Performance of Work
  - 1. Asbestos Abatement Contractor shall:
    - (a) Be a certified and licensed asbestos contractor in accordance with the State of Georgia. Submit documentation confirming current licensure.
    - (b) Utilize workers and supervisors who are trained in accordance with State of Georgia Statutes, and the OSHA Construction Standard (29 CFR 1926.1101) for Class I and II activities. Submit documentation confirming current training.
    - (c) Shall not utilize subcontractors for the Abatement.
- B. Training Requirements for Licensed Asbestos Contractors
  - 1. The following training requirements apply to state-licensed asbestos abatement contractors who remove all categories of asbestos-containing material.
    - (a) Each worker shall complete a state-approved, EPA-accredited, Asbestos Worker course, a minimum of 32 hours in duration, and annual 8-hour refreshers.
    - (b) Each Competent Person shall complete a state-approved, EPAaccredited, Asbestos Supervisor course, a minimum of 40 hours in duration, and annual 8-hour refreshers.

- C. Reference Standards
  - 1. The Asbestos Abatement Contractor shall be aware and familiar with the contents and requirements of the following regulations, codes, and standards, and assumes responsibility for the performance of the Work in strict compliance therewith and, for every instance of failure, to comply therewith.
  - 2. The current issue of each document shall govern. Where conflict among requirements or with the Contract Documents exists, the more stringent requirements shall apply.
    - U.S. Environmental Protection Agency (EPA) Regulations for Asbestos (Code of Federal Regulations Title 40, Part 61, Subparts A and B).
    - U.S. EPA National Emissions Standards for Hazardous Air Pollutants (Code of Federal Regulations Title 40, Part 61, Subpart M).
    - (c) U.S. EPA National Emissions Standards for Hazardous Air Pollutants (Code of Federal Regulations Title 40, Part 61, Appendix A to Subpart M).
    - US EPA Asbestos Hazard Emergency Response Act (AHERA) regulations (Code of Federal Regulations Title 40 Part 763, Subpart E.
    - U.S. Occupational and Safety and Health Administration (OSHA) Asbestos Regulations (Code of Federal Regulations Title 29, Part 1926, Section 1926.1101).
    - U.S. EPA Office of Pesticide and Toxic Substances Guidance Document, "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings", EPA 56015-85-024, June 1985.
    - U.S. Department of Transportation, Hazardous Substances: Final Rule (Code of Federal Regulations Title 49 Parts 171 and 172), Federal Register November 21, 1986, and corrected February 17, 1987.
    - (h) All state, county, and city codes and ordinances as applicable. Make available for review at the site one copy of EPA, OSHA, and applicable State, County, and City Regulations governing the Work.
  - 3. <u>Patent/Copyright Compliance</u>: Comply with all patent and copyright laws involved with processes, equipment, and materials regarding the work of the Contract Documents.
  - 4. Abatement Contractor, his assignees, and successors in interest also agree to comply with Regulations of the Department of Transportation relative to non-discrimination in Federally-assisted programs herein defined:
    - (a) <u>Compliance with Regulations</u>: The Abatement Contractor will comply with the regulations of the Department of Transportation

relative to non-discrimination in Federally-assisted programs of the Department of Transportation (Title 15, Code of Federal Regulations, Part 8, herein referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

- (b) <u>Non-Discrimination</u>: The Contractor, with regard to the work performed after award and prior to completion of the work, will not discriminate on the ground of race, color, or national origin in the selection and retention of Subcontractors, including procurement of materials and leases of equipment. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 8.4 of the Regulations, including employment practices when the contract covers a program set forth in Appendix A-11 of the Regulations.
- (c) <u>Solicitations</u>: In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurement of materials and leases of equipment, the suppliers and lessors shall be notified by the Contractor of the Contract obligations and regulations relative to non-discrimination on the ground of race, color, or national origin.
- (d) <u>Information and Reports</u>: The Contractor will provide all information and reports required by the Regulations, or orders and instruction issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the County, GDOT, or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of the Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the County, GDOT, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
- (e) <u>Sanctions for Noncompliance</u>: In the event of the Contractor's noncompliance with non-discrimination provisions of this Section II (3), the County shall impose such contract sanctions as it, GDOT, or the Federal Highway Administration may determine to be appropriate, including but not limited to, withholding of payments to the Contractor under the contract until the Contractor complies, and/or cancellation, termination, or suspension of the contract, in whole or in part.
- (f) <u>Incorporation of Provisions</u>: The Contractor will include the provisions of Section II (3) in every subcontract, including procurement of materials and leases pursuant thereto. The Contractor will take such action with respect to any subcontract, procurement, or lease as the County, GDOT, or the Federal Highway Administration may direct as a means of enforcing

such provisions including sanctions for noncompliance provided, however, that in the event an Abatement Contractor becomes involved in, or is threatened with litigation with a Subcontractor, Contractor, supplier, or lessor as a result of such direction, the Abatement Contractor may request the State enter into such litigation to protect the interest of the State, and in addition, the Abatement Contractor may request the United States to enter into such litigation to protect the interest of the United States.

### **III. DEFINITIONS**

- A. ACM Asbestos-containing material, any material containing more than one (1) percent asbestos as determined by Polarized Light Microscopy.
- B. Adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates.
- C. Air Monitoring the process of measuring the fiber content of a specific volume of air in a stated period of time.
- D. Amended water water to which a surfactant has been added.
- E. Category I Nonfriable Material As defined by the Environmental Protection Agency (EPA), asbestos-containing packings, gaskets, resilient floor covering, and asphalt roof products (such as asphalt shingles, built-up roofing, and singleply modified bitumen roofing) containing more than one percent asbestos as determined by Polarized Light Microscopy.
- F. Category II Nonfriable Material all remaining types of nonfriable asbestoscontaining materials (ACM) not included in Category I that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure. Nonfriable asbestos cement products, such as Transite<sup>TM</sup>, are an example of Category II material.
- G. Class I Asbestos Work activities involving the removal of asbestos-containing TSI and surfacing ACM and presumed asbestos-containing material (PACM).
- H. Class II Asbestos Work activities involving the removal of ACM flooring, roofing, wallboard, and other materials as defined in the OSHA regulations.
- I. Competent Person As defined by OSHA, one who, in addition to the definition in 29 CFR 1926.32 (f), is capable of identifying existing asbestos hazards and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate them. In addition, the Competent Person for asbestos work must complete specified training.
- J. Encapsulation the sealing of surfaces involving application of a material (encapsulant/sealant).
- K. EPA United States Environmental Protection Agency.
- L. Excursion Limit (EL) The permissible exposure limit to an airborne fiber concentration in excess of 1.0 fibers per cubic centimeter of air (f/cc) as averaged over a sampling period of 30 minutes, as determined by PCM.

- M. Friable asbestos material any material containing more than one (1) percent asbestos as determined by Polarized Light Microscopy, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- N. Glovebag An impervious plastic bag-like enclosure, not more than 60 inches by 60 inches, with glove-like appendages which is sealed air-tight around an asbestos-containing material so that materials and tools may be handled.
- O. HEPA Filter a High Efficiency Particulate Absolute (HEPA) filter capable of trapping and retaining 99.97 percent of asbestos particles 0.3 microns in diameter.
- P. HEPA Vacuum Equipment Vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be 99.97 percent efficient for retaining thermally generated DOP particles 0.3 microns in diameter.
- Q. Intact As defined by OSHA, an ACM that has not been crumbled, pulverized, or otherwise deteriorated so that asbestos is no longer likely to be bound with its matrix.
- R. Negative Exposure Assessment (NEA) A determination in accordance with the OSHA standards that employee exposures are, or that there is a high degree of certainty they will be, below the PEL (both 8 hour TWA and EL).
- S. NIOSH National Institute for Occupational Safety and Health.
- T. OSHA Occupational Safety & Health Administration.
- U. Permissible Exposure Limit (PEL) The maximum exposures to an airborne fiber concentration, as expressed by the thirty-minute excursion limit and eight-hour time weighted average. Sample analysis is performed using Phase Contrast Microscopy (PCM).
- V. Regulated Area An area established where OSHA Class I, II, or III asbestos work is conducted, any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos exceed, or there is reasonable possibility they may exceed the PEL and EL. A regulated area must be demarcated with barriers and signage to allow access only by authorized, trained persons.
- W. Regulated Asbestos Containing Material (RACM):
  - 1. Friable asbestos material
  - 2. Category I nonfriable ACM that has become friable
  - 3. Category I nonfriable ACM that will become friable or has been subjected to sanding, grinding, cutting, or abrading
  - 4. Category II nonfriable ACM that has the high probability or has become crumbled, pulverized, or reduced to powder by forces expected to act on the material in the course of demolition or renovation operations performed under the State's regulations.
- X. Removal The act of taking out or stripping asbestos-containing or contaminated materials from structures or substrates.
- Y. Surfactant A chemical wetting agent added to water to improve its penetrating ability and, thus reducing the quantity of water required to saturate asbestos-containing materials.

- Z. Wet Cleaning The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
- AA. Work Area Area or areas of the Project that undergo "abatement" or are contaminated. See also Regulated Area.
- BB. Waste Shipment Record The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing material. A form similar to that shown as Figure 4 of the Asbestos NESHAP Regulations at 40 CFR part 61, subpart M.; 55 FR 48406; November 20, 1990.

### IV. SCHEDULING AND SEQUENCING

The schedule for abatement of asbestos-containing materials on the subject parcel(s) is critical. Upon award of the bid, the 10-day notification for abatement must be filed with the Georgia Environmental Protection Division (GA EPD) on the "Project Notification of Asbestos Renovation, Encapsulation, or Demolition Project" (Project Notification Form) within 48 hours. The Notice to Proceed will not be issued before all parties have signed the Contract.

In addition to providing the abatement schedule to the Georgia EPD on the <u>Project</u> <u>Notification Form</u> submitted 10 days prior to commencement of the work, the Abatement Contractor shall submit the abatement schedule to the Contracting Officer. Any variation from the submitted schedule shall be reported to the Georgia EPD by submitting amendments to the Project Notification Form. The Contracting Officer shall also be notified of any variation to the work schedule immediately. **The Abatement Contractor should be aware that the Georgia Environmental Protection Division does inspect these projects on a random basis and there can be severe penalties if the abatement schedule is not followed or amendments filed as changes occur.** 

It is the intent of the County to inspect the work to ensure compliance with the Contract Documents. The AHERA-accredited Asbestos Inspector who performed the initial survey of the structure(s) will also perform the inspection of the abatement. Upon completion of the abatement, the Abatement Contractor shall inform the Inspector that the work is ready to be inspected. The Abatement Contractor shall give the Inspector a minimum of 24 hours notice before an inspection or schedule change. If the Inspector deems the work to be improper and/or incomplete, the Abatement Contractor will, upon correcting and completing the work as required, request an additional inspection that will result in a \$250 nonrefundable deduction from the Contact Amount. Additional inspections and \$250 deductions will continue until the work has been completed to the satisfaction of the Inspector. Geotechnical and Environmental Consultants, Inc. (GEC) will perform inspection of work in this Contract. The phone number for GEC is (478) 757-1606.

### V. PRE-JOB SUBMITTALS

No work on this Contract may be performed until the Abatement Contractor has received a Notice to Proceed from the Contracting Officer. A Notice to Proceed shall not be issued until the Abatement Contractor has submitted the following record documents:

- A. A copy of the Asbestos Removal Project Notification Form submitted to the State of Georgia Environmental Protection Division. This notice shall be filed in accordance with the NESHAP standard not less than ten working days before asbestos removal commences on the project.
- B. The work schedule for abatement on the project to identify the days and times that the abatement will take place will be furnished to the County. Any deviation from that schedule will be reported to the Engineer immediately.
- C. A project-specific Work Plan detailing the means and methods to be employed on the project. Include a description of work area containment, location of decontamination units, placement of HEPA fan units (if required), and methods to be utilized to remove and dispose of identified ACM.
- D. Certificate of Worker's Acknowledgment: Submit an original signed copy of the Certificate of Worker's Acknowledgment of Asbestos Hazard, for each worker who is to be at the job site or enter the Work Area(s).
- E. Training Certification: Submit evidence of each supervisor's and worker's training.
- F. Report from Medical Examination: Submit a doctor's written opinion for a medical examination conducted within the last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to enter the Work Area, or wear a negative-pressure respirator.
- H. Notarized Certifications: Submit a notarized certification, signed by an officer of the abatement contracting firm, that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926.1101.
- I. Respiratory Protection Schedule: Submit level of respiratory protection intended for each operation required by the project. Include an OSHA compliant Negative Exposure Assessment if no respiratory protection or different level of respiratory protection is proposed for use on this project.
- J. Respirator Fitting Documentation: Submit documentation indicating successful fit check testing of respirators, if used, for the individuals working on this project in accordance with 29 CFR 1910.134 and 29 CFR 1926.1101.
- K. A contingency plan that details the procedures to be employed in the case of emergency. Include provisions for notification to fire, police, and rescue authorities.
- L. The Successful Bidder must furnish a Performance Bond. The Bond must be equal to the total bid amount for the Project. The Performance Bond must be submitted on the form provided in the Contract.

### VI. ONGOING DOCUMENTATION

Any changes to the documents submitted prior to receiving the Notice to Proceed shall be submitted to the Contracting Officer in the same form as described in the above paragraph. Changes in schedule, personnel, accreditation, licensing, waste hauler, waste disposal site, insurance, and/or bonding are to be submitted to the Contracting Officer.

#### VII. PROJECT CONDITIONS

The Abatement Contractor shall become thoroughly familiar with the requirements of these specifications and with the existing conditions under which the work of this Contract is to be performed. Neither the County nor State assumes any responsibility for the actual condition of items to be abated.

- A. The Abatement Contractor shall maintain a copy of the *Asbestos Inspection Reports and Summaries of Bulk Sample Analytical Results* at the site. The Abatement Contractor is cautioned that destructive access was not utilized to access and identify potentially concealed suspect materials. In the event additional applications of concealed suspect asbestos-containing materials are discovered during the course of abatement, the Abatement Contractor will notify the Contracting Officer.
  - 1. If the quantity of previously concealed suspect material is less than ten (10) square feet, the material is to be assumed ACM and is to be removed.
  - 2. Suspect ACM in quantities larger than 10 SF is to be reported to the Contracting Officer. The Contracting Officer will coordinate appropriate testing of encountered suspect material to verify or refute asbestos content.
  - 3. The Abatement Contractor shall amend the Project Notification Form submitted to the GA EPD as appropriate to address additional quantities of ACM encountered during the course of abatement.
- B. Worker and Visitor Procedures: The Abatement Contractor is hereby advised that asbestos has been determined by the U.S. Government to be a CANCER-CAUSING AGENT and Abatement Contractor shall provide workers and visitors with respirators which as a minimum shall meet the requirements of OSHA 29 CFR 1926.1101, and protective clothing during preparation of system of enclosures, prior to commencing, during actual asbestos removal, and until final clean-up is completed.

### VIII. UTILITIES

It shall be the responsibility of the Abatement Contractor to verify the status of the various utilities in order to prevent an accident that could result from a utility remaining connected. The Abatement Contractor is responsible for providing electricity and water to each site as needed.

## IX. MATERIALS

In order to perform the work of this Contract in a manner that complies with the laws, regulations, and guidance documents listed above, the Abatement Contractor shall provide materials such as the following:

- A. Amended Water: For wetting prior to and during disturbance of ACM, use amended water, such as a non-sudsing detergent. Provide water to which a surfactant has been added. Use a mixture of surfactant and water that results in wetting of the ACM and retardation of fiber release during disturbance of the ACM.
- B. Removal Encapsulant: For wetting prior to and during disturbance of ACM, use a removal encapsulant. Provide a penetrating type encapsulant designed specifically for removal of ACM. Use a material that results in wetting of the ACM and retardation of fiber release during disturbance of the ACM.
- C. Lock-down Sealant: For sealing surfaces from which ACM has been removed and which have passed visual inspection. Lock-down shall be tinted blue.
- D. Plastic Film Sheeting: Provide a single polyethylene film in the largest sheet size possible to minimize seams, 6-mils thick.
- E. Duct Tape: Provide duct tape in 2-inch or 3-inch widths, with an adhesive that is formulated to stick aggressively to sheet polyethylene and other surfaces.
- F. Spray Adhesive: Provide spray adhesive in aerosol cans that is specifically formulated to stick tenaciously to sheet polyethylene and other surfaces.
- G. Waste Bags: Contain all asbestos waste within two individually sealed layers of 6-mil thick, leak tight polyethylene bags or two layers of sealed polyethylene 6-mil thick sheets labeled with text printed in large, bold letters on a contrasting background to meet the requirements of US EPA, US DOL/OSHA, US DOT, and the Georgia DNR/EPD.
- H. Solvent: Use only solvents that will not contribute to more extensive and burdensome worker protection requirements and will not contribute to more extensive regulatory requirements for waste handling, transportation, and disposal.

## X. EQUIPMENT

In order to perform the work of this Contract in a manner that complies with the laws, regulations, and guidance documents listed above, the Abatement Contractor shall provide equipment such as the following:

- A. Provide suitable tools for asbestos removal.
  - 1. Sprayer Utilize airless or other low-pressure sprayer for amended water application.
  - 2. Scaffolding shall be as required to accomplish the specified work and shall meet all applicable safety regulations.

- B. HEPA-Filtered Vacuum: Provide vacuum collection equipment with a HEPA filter system capable of collecting and retaining 99.97 percent or more of asbestos fibers 0.3 microns or larger in diameter.
- C. Negative Pressure Ventilation System or Negative Air Machine: Provide a local exhaust system utilizing HEPA filtration capable of maintaining a negative pressure inside the work area and a constant air flow from adjacent areas into the work area and exhausting filtered air to the outside of the work area.
- D. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the pressure of the outside atmosphere.
- E. Personal Protective Equipment: Provide negative pressure respirators; disposable protective clothing; head and eye protection; and work gloves.
- F. Transportation: Waste shall be hauled in enclosed trucks as required for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or property.

## XI. PERSONNEL PROTECTION

- A. Prior to commencement of work, all workers shall be instructed by the Asbestos Abatement Contractor and shall be knowledgeable, in the appropriate procedures of personnel protection and asbestos removal.
- B. Asbestos Abatement Contractor acknowledges and agrees that he/she is solely responsible for enforcing worker protection requirements at least equal to those required by federal regulations.
- C. The Asbestos Abatement Contractor is responsible for providing respiratory protection consistent with the requirements of OSHA 29 CFR 1926.1101.
- D. Asbestos Abatement Contractor shall provide workers with personally issued and marked respiratory equipment approved by NIOSH and OSHA and as a minimum suitable for the asbestos exposure level in the work areas.
  - 1. Type of respiratory protection required:
    - (a) Fibers: For purposes of this Section fibers are defined as all fibers regardless of composition as counted using the OSHA Reference Method (ORM) or NIOSH 7400 procedures, or asbestos fibers of any size as counted using a transmission electron microscope.
    - (b) Provide Respiratory Protection as allowed by these specifications. For the work of all sections, the level of respiratory protection that supplies an airborne fiber concentration inside the respirator below 0.01 fibers per cubic centimeters (f/cc) is the minimum level of protection allowed. Regardless of the anticipated fiber concentrations, half-face air purifying respirators shall be the minimum level of respiratory protection for work area preparation, removal, cleaning, and decontamination activities. Determine the

proper level of protection by dividing the expected or actual airborne fiber concentration in the Work Area by the "Protection Factors" given below:

RESPIRATORY PROTECTION FACTOR			
Respirator Type	<b>Protection Factor</b>		
Air purifying:	10		
Negative-pressure respirator, High efficiency			
filter, Half-face piece			
Air purifying:	50		
Negative-pressure respirator,			
High efficiency filter, Full-face piece			
Powered air purifying (PAPR):	100		
Positive-pressure respirator, High efficiency			
filter, Full-face piece			
Type C supplied air:	1000		
Positive-pressure respirator, pressure-demand,			
Full-face piece			
Type C supplied air:	Over 1000		
Positive-pressure respirator, pressure-demand,			
Full-face piece, Equipped with an auxiliary			
positive-pressure Self-contained breathing			
apparatus (SCBA)			

- E. Where respirators with disposable filters are used, provide sufficient filters for replacement as necessary by the workers, or as required by applicable regulations.
- F. Permit no visitors, except for governmental inspectors having jurisdiction, or as authorized by the Engineer, in the work areas after commencement of asbestos disturbance or removal. Provide authorized visitors with suitable respirators in accordance with 29 CFR 1926.1101.
- G. Provide workers with sufficient sets of protective disposable clothing, consisting of full-body coveralls, head covers, gloves, and foot covers; of sizes to properly fit individual workers in accordance with 29 CFR 1926.1101.
- H. Provide authorized visitors with a set of suitable protective disposable clothing, headgear, eye protection, and footwear of sizes to properly fit visitors whenever they are required to enter the work area, to a maximum of six sets per day.

## XII. WORK AREA PREPARATION

Work Area preparation is required to contain and/or isolate the area that asbestos removal will be performed. Varying levels of work area preparation are required to support removal of different categories of ACM. The method of Work Area containment required is related to the type of ACM to be removed and corresponding fiber release potential.

The Abatement Contractor may be required to selectively demolish building components to facilitate removal efforts. The selective demolition will be limited to the areas affected

by the abatement efforts. The Abatement Contractor shall properly dispose of all materials selectively demolished to facilitate the removal of identified asbestos-containing/contaminated materials. The materials that are selectively removed or demolished will not be stored on site. Asbestos-containing/contaminated materials shall be disposed of in accordance with the Technical Specifications. Other materials may be disposed of as ordinary construction debris.

The Abatement Contractor shall not salvage building components for his future use, resale, or redistribution.

Methods of Work-Area Preparation include:

- A. Regulated, Non-contained Work Area
  - 1. Demarcate Work Area using construction barrier tape and "Danger Asbestos" tape. Do not allow any unauthorized personnel inside the barrier tape.
  - 2. Create a buffer zone with a minimum distance of 20 feet surrounding the perimeter of the construction tape.
  - 3. Provide Warning Signs outside barriers surrounding work area, reading as follows:

DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

- 4. Provide remote, 2-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size, and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials. Require all persons and equipment without exception to pass through this decontamination unit for exiting from the work area for any purpose.
- B. Contained Work Area
  - 1. For removal of Resilient Floor Coverings, as well as other Miscellaneous Materials that may become friable during removal, the Abatement Contractor shall provide fully contained Work Area utilizing critical barriers. Primary and secondary barriers are not required unless facility salvage and reuse is planned.
  - 2. Provide Warning Signs outside barriers, reading as follows:

DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING

#### ARE REQUIRED IN THIS AREA

- 3. Construct 2-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size, and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both contaminated and uncontaminated sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials to allow Work Area containment to be maintained. Require all persons and equipment without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Supply sufficient number of lockers, in worker decontamination unit change or "clean" room, for workers' clothing. Reserve one locker for County Representative or Asbestos Inspector.
- C. Contained, Negative Pressure Work Area
  - 1. For removal of TSI, Surfacing ACM, and wallboard and joint compound, the Abatement Contractor shall provide a fully contained HEPA filtered negative pressure containment utilizing critical barriers. Primary and secondary barriers are not required unless facility salvage and reuse is planned.
  - 2. Provide Warning Signs outside barriers, reading as follows:

DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

- 3. Provide diminished air pressure within the Work Area (negative pressure) under utilizing HEPA filtration systems. Allow no air movement system or air-filtering equipment to discharge unfiltered air outside the Work Area. Maintain a diminished air pressure on the work area continuously (24 hours per day) from the start of asbestos removal until the area has been decontaminated and confirmed as such by the required visual inspections and/or air testing.
- 4. Construct 3-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size, and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both contaminated and uncontaminated sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials to allow negative pressure to be maintained in Work Area. Supply sufficient number of lockers, in worker decontamination unit change or

"clean" room, for workers' clothing. Reserve one locker for County Representative or Asbestos Inspector.

- D. Mini-Containment, Negative Pressure Work Area
  - 1. For removal of TSI and Surfacing ACM, the Abatement Contractor may provide a negative pressure mini-containment enclosure in lieu of completely containing the entire Work Area.
  - 2. The enclosure shall consist of two chambers of critical and primary barriers, a work area, and a change room.
    - (a) The Work Area chamber shall be of sufficient size to enclose the material to be abated and accommodate one worker and all the tools required to perform the work.
    - (b) The Work Area shall be separated from the change room by a double curtained polyethylene door.
    - (c) The change room shall be of sufficient size to accommodate one worker with a minimum of nine (9) square feet.
    - (d) The change room shall be separated from the non-work area by a double curtained poly door.
  - 3. A local exhaust system shall be utilized. An obvious and noticeable differential pressure within the work area shall be demonstrated by a smoke test and maintained throughout the abatement work efforts.
  - 4. Provide Warning Signs outside barriers surrounding work area, reading as follows:

DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

5. Provide remote, 3-stage, worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size, and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials. Require all persons and equipment without exception to pass through this decontamination unit for exiting from the work area for any purpose.

The methods of Work Area containment required for removal of indicated ACM Categories and OSHA-designated Classes of ACM removal are specified below.

Method of Work Area Preparation	ACM Category and Class of ACM Removal	АСМ Туре
Regulated, Non-Contained Work Area	Category I and Category II Non-Friable ACM that will remain non-friable during the removal process	Asphalt roof products (such as asphalt shingles, built-up roofing, and single-ply modified bitumen roofing), and asbestos cement products (such as Transite <sup>TM</sup> siding).
Contained Work Area	RACM or Category I and Category II Non-Friable ACM that may become friable during the removal process. [Class II Work as defined by OSHA regulations.]	Resilient floor covering and other Miscellaneous Materials that are currently friable, or may become friable during removal.
Contained, Negative Pressure Work Area	RACM [Class I Work as defined by OSHA Regulations.]	TSI, Surfacing ACM, and Wallboard and Joint Compound
Mini-Containment Work Area	RACM [Class I Work as defined by OSHA Regulations.]	TSI and Surfacing ACM

### XIII. REMOVAL OF ASBESTOS-CONTAINING MATERIALS

- A. Properly remove and dispose of asbestos-containing materials in accordance with the methods and procedures outlined in the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Asbestos Regulation (Code of Federal Regulations Title 29, Part 1926, Section 1926.1101) or as more stringently specified herein.
- B. Ensure that all barriers and critical seals remain effectively sealed and taped for duration of asbestos removal and subsequent cleaning. Repair damaged barriers and remedy defects immediately upon discovery. Visually inspect enclosures at the beginning of each work period. Use smoke methods to test effectiveness of barriers when directed by Asbestos Inspector.
- C. Maintain emergency and fire exits from the Work Areas, or establish alternative exits satisfactory to fire officials.
- D. Provide temporary power, lighting, and heating, utilizing ground fault protection devices as necessary, to maintain a comfortable work environment.
- E. Maintain for the duration of the Project from the first activity requiring disturbance of asbestos-containing material, a sign in/out log in the immediate area of the change room. Log shall be utilized by every person each time upon entering and leaving the Work Area(s). Submit copies of this log to County Representative for permanent file upon completion of Project.

- F. Filter shower wastewater using filters having a pore size of 20-microns and 5-microns installed in-line, and drain shower wastewater into a sanitary sewer.
  Replace contaminated filters when they become clogged but not less than every third day. Dispose of filters as contaminated waste. Abatement Contractor may trap and collect shower wastewater in impermeable containers and dispose of as contaminated material, at his option, rather than filtering and draining into sanitary sewer.
- G. Prepare Work Areas as previously specified based upon the ACM Category and OSHA Class of ACM removal.
  - 1. Spray-applied Fireproofing Material and Architectural Acoustical Finish
    - (a) Remove and properly dispose of all asbestos-containing fireproofing or architectural acoustic finish in accordance with Federal, State, and local regulations, or as more stringently specified herein.
    - (b) Fireproofing or Architectural Finish on Solid Substrate: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water. Allow time for amended water to saturate materials to substrate. Do not over saturate to cause excess dripping. Scrape materials from substrate. Remove materials in manageable quantities and control the descent to staging or floor below; if over 15 feet, use enclosed inclined drop chute to contain material through descent. Spray mist surface continuously during removal process. Remove residue remaining on substrate after scraping using stiff nylon-bristled hand brush. If substrate dries before complete removal of residue, rewet with amended water.
    - (c) Fireproofing or Architectural Finish on Wire Lath: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water. Allow time for amended water to saturate material completely. Do not over-saturate to cause excess dripping. If surface of material has been painted or otherwise coated, cut small holes as required and apply amended water from above. Cut wire lath into 2-ft by 6-ft sections and cut hanger wires. Roll up complete with asbestos-containing material and hand place in disposal containers. Place rolled-up wire lath in corrugated cardboard boxes before placing in disposal bags. After removal of lath and asbestos-containing material, remove any overspray on decking and structure above using stiff nylon bristled brush.
    - (d) After removal of asbestos-containing material, all surfaces shall be wet-cleaned to remove residual accumulated material. Continue wet cleaning until surface is free of visible material.
  - 2. TSI on Mechanical Equipment and Ductwork
    - (a) Remove and properly dispose of all asbestos-containing insulation materials in accordance with Federal, State, and local Regulations, or as more stringently specified herein.

- (b) Thoroughly wet asbestos-containing materials to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water to penetrate material thoroughly. Spray material repeatedly during the work process to maintain a continuously wet condition. Perforate outer covering of any installation which has been painted and/or jacketed in order to allow penetration of amended water or, where necessary, carefully strip away while simultaneously spraying amended water on the insulation to minimize dispersal of asbestos fibers into the air. Mist work area with amended water whenever necessary to reduce airborne fiber levels.
- (c) Remove saturated asbestos-containing material in small sections from all areas. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into disposal bags.
- 3. TSI on Mechanical Piping
  - (a) Remove and properly dispose of all asbestos-containing pipe insulation in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Spray pipe insulation with a mist of amended water. Allow amended water to saturate material to substrate. Cut bands holding preformed pipe insulation, slit jackets at seams, remove, and hand place in a disposal bag. Remove job molded fitting insulation in chunks and hand place in a disposal bag. Do not drop to floor. Remove any residue on pipe or fitting with amended water and stiff nylon bristle hand brush.
  - (c) In locations where pipe-fitting insulation is removed from pipe with straight runs insulated with fibrous glass or other nonasbestos containing fibrous material, remove all fibrous material within 6-inches of the point where it contacts the asbestoscontaining insulation.
  - (d) Wall Penetrations:
    - i. Where asbestos-containing pipe insulation passes through a wall within the workspace, remove all insulation within the wall penetration.
    - ii. Where asbestos-containing pipe insulation passes through a wall (or floor slab) that is a work area boundary, remove all insulation to a minimum depth of one inch into the wall or slab. Seal the penetration with expandable foam fire stop material.
  - (e) After removal of asbestos-containing material, wet-clean all surfaces to remove residual accumulated material. Continue wet-cleaning until surface is free of visible material.

- 4. TSI on Mechanical Piping Utilizing Glovebag Procedures
  - (a) General: In work area(s) where asbestos-containing materials are limited to intact pipe insulation and pipe joint insulation, Contractor may, with County Representative's approval, utilize glovebag procedures as specified herein.
  - (b) Prepare areas as a contained work area and cover floor in vicinity of work area and 6-ft beyond with 6-mil polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall and secure at ceiling with duct tape.
  - (c) Perform glove bag procedures as follows:
    - i. Wrap any damaged areas of pipe insulation in one layer of 6-mil plastic. Seal seams and ends with duct tape.
    - ii. Place one layer of duct tape around pipe insulation at points where glovebag will be attached.
    - iii. Attach and use glovebag in accordance with manufacturer's instructions, unless more stringently specified herein.
    - iv. Insert wand from garden sprayer through water sleeve. Duct tape water sleeve tightly around the wand to prevent leakage.
    - v. Use smoke tube and aspirator bulb to test seal. Gently squeeze glovebag and look for smoke leaks. Seal leaks and retest.
    - vi. Wet the asbestos-containing material within the glovebag with amended water prior to removal. Utilize two asbestos workers per glovebag.
    - vii. Carefully cut and remove asbestos-containing materials within the glove bag. Exercise care while cutting asbestos-containing materials from piping.
    - viii. Thoroughly wet removed material, bag, and piping with amended water. Scrub exposed piping with a bristle or nylon brush. Remove visual accumulations of debris from piping. Allow mist to settle.
    - ix. Seal exposed ends of pipe insulation not removed and exposed piping in glovebag with encapsulant.
    - x. Remove tools, through gloves or tool pouch by inverting, twisting glove, taping at twist to seal, and severing glove at midpoint of tape.
    - xi. Collapse glove bag by inserting HEPA-vacuum. Twist bag several times at the top of bag. Twist and tape to secure.
    - xii. Place appropriately labeled 6-mil bag around glove bag. Score glovebag above taped seal to remove from pipe

and place inside 6-mil bag. Seal 6-mil bag around disassembled glovebag.

- xiii. If more than one adjacent section of pipe insulation is to be removed, Abatement Contractor may elect to advance the glove bag to the next section of insulation. Use the HEPA vacuum to collapse the glovebag, twist the bag to seal the throat, loosen the tape at both ends of the bag, and slide the bag to the new position. Ends of the glovebag must be resealed prior to untwisting the throat of the bag. The glovebag shall be reused on adjacent sections no more than three times
- 5. Abandoned Piping Assemblies with Asbestos-Containing Insulation
  - (a) General: At the Abatement Contractor's option, in lieu of removing asbestos-containing pipe insulation from piping assemblies, entire pipe assembly with intact pipe insulation may be removed and properly disposed of. Remove and properly dispose of complete sections of insulated piping as asbestoscontaining materials in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Prepare areas as a contained work area and cover floor in vicinity of work area and 6-ft beyond with 6-mil polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall and secure at ceiling with duct tape.
  - (c) Determine lengths of insulated piping that can readily be handled by available personnel and equipment during cutting, transportation, and disposal.
  - (d) Using glovebag procedures, remove asbestos-containing pipe insulation, minimum eighteen inches in length, from pipe at locations where pipe will be cut.
  - (e) Wrap insulated sections of pipe with at least two layers of 6-mil plastic sheeting prior to cutting. Seal ends and seams of each layer with duct tape, and then "candy-stripe" the entire assembly with duct tape.
  - (f) Handle and support pipe securely during cutting, transportation, and disposal; do not drop or cause any other impact that might damage the protective plastic wrap.
  - (g) Cut wrapped pipe into sections, attach labels identifying the insulated pipe sections as asbestos-containing waste, and transport the materials to the disposal site in accordance with the requirements of these Technical Specifications.
- 6. Asbestos-Containing Ceiling Tiles
  - (a) Remove and properly dispose of all asbestos-containing acoustical ceiling tiles in accordance with Federal and State Regulations, or as more stringently specified herein.

- (b) Spray sections of ceiling tile from above with a mist of amended water to reduce the release of fibers. Spray the material sufficiently to wet it without causing excessive dripping.
- (c) Do not permit removed asbestos-containing material to fall to the floor. Lift ceiling tiles from the grid and hand tiles down to be placed in a 6-mil disposal bag. Do not break tiles.
- (d) After removal of asbestos-containing material, wet-clean surfaces of ceiling grid and/or other ceiling system components and associated substrates to remove residual material. Continue wet-cleaning until surface is free of visible material.
- 7. Asbestos-Containing Floor Tile and Adhesive
  - (a) Remove and properly dispose of all asbestos-containing resilient floor covering material and/or adhesive in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Prepare areas as a contained work area.
  - (c) Wet floor tiles with amended water to minimize fiber release during its removal. Use amended water sparingly and apply with a sponge or cloth to eliminate standing water and to prevent water from traveling on the floor.
  - (d) Remove individual tiles by wedging a scraper under one edge of the tile and exerting a prying twisting force as it is moved under the tile until the tile releases from the floor. Do not break tiles. If tiles do not release easily, a mallet or hammer may be used to strike the scraper and force it under the tile; hot air blowers may be used to heat a tile and soften the adhesive. Place tiles immediately in disposal bags as they are removed. Place bags in barrels before removing from work area.
  - (e) As small areas of subfloor are cleared of tile, scrape up remaining adhesive and deposit scrapings in disposal bags.
     Clean floor of all adhesive residue by wet mopping with solvent.
  - (f) Wet clean all surfaces in the flooring material removal area and proceed with Work Area Preparation Procedures.
- 8. Asbestos-Containing Resilient Sheet Flooring
  - (a) Remove and properly dispose of all asbestos-containing resilient sheet flooring and adhesive in accordance with Federal, State, and Local Regulations, or as more stringently specified herein.
  - (b) Make a series of parallel cuts, with a knife, four to eight inches apart parallel to the wall, keeping cut lines wet.
  - (c) Start at the end of the room farthest from the entrance door. Pry up the corner of the first strip, separating the backing layer. As the strip is being removed, spray a constant mist of amended water into the delamination nip point to minimize the release of airborne fibers. Felt remaining on the floor and on the back of the strip must be kept thoroughly wet.

- (d) Roll the strip tightly as it is removed. Tie or tape the roll securely and place in a disposal bag or closed impermeable container for disposal. Scrape wet felt backing material from the floor and place immediately, while wet, into disposal bags.
- (e) As small areas of subfloor are cleared of sheet flooring, scrape up remaining adhesive and deposit scrapings in disposal bags. Clean floor of all adhesive residue by wet mopping with solvent.
- 9. Asbestos-Containing Drywall Joint Compound and Contaminated Gypsum Wallboard
  - (a) Remove and properly dispose of all asbestos-containing drywall joint compound in accordance with Federal, state, and local laws and regulations, or as more stringently specified herein.
  - (b) Prepare areas as contained, negative pressure work areas.
  - (c) Wet walls with amended water to minimize fiber release during removal. Use an airless sprayer to apply amended water.
  - (d) Cut the gypsum wallboard with a utility or carpet knife and remove in sections as large as possible. Do not allow material to accumulate on the floor, but bag or wrap it as it is removed. Wrap large pieces of wallboard in two layers of six-mil plastic and seal with duct tape.
  - (e) As areas of studs or furring are revealed by removal of the wallboard, remove remnants of wallboard attached to fasteners or otherwise lodged in the framing assembly. Nail heads or fasteners must be removed or cleaned of any wallboard debris or residual coating of drywall joint compound.
  - (f) Dispose of gypsum wallboard and joint compound material as asbestos-contaminated waste. If framing members are indicated to be removed, they may be disposed of as non-asbestos waste after they are thoroughly cleaned in the decontamination facility.
- 10. Asbestos-Containing Ceiling Texture Finish and Plaster
  - (a) Remove and properly dispose of all asbestos-containing plaster finish materials on ceilings and walls in accordance with Federal, state, and local laws and regulations, or as more stringently specified herein.
  - (b) Prepare areas as contained, negative pressure work areas.
  - (c) Mist surface of ceiling or walls with amended water to minimize fiber release during removal. Where surface of material has been painted or otherwise coated, cut small holes as required and apply amended water from above/behind.
  - (d) Where plaster is found applied to gypsum wallboard:
    - i. Wet substrates with amended water to minimize fiber release during removal. Use an airless sprayer to apply amended water.

- ii. Cut the gypsum wallboard with a utility or carpet knife and remove in sections as large as possible. Do not allow material to accumulate on the floor, but bag or wrap it as it is removed. Wrap large pieces of wallboard in two layers of six-mil plastic and seal with duct tape.
- (e) Where the plaster is found in a suspended ceiling, cut wire lath into manageable sections and cut hanger wires. Roll up lath complete with asbestos-containing material and hand place in disposal containers. Place rolled-up wire lath in corrugated cardboard boxes before placing in disposal bags. After removal of lath and asbestos-containing material, remove any overspray on decking and structure above using stiff nylon bristled brush.
- (f) Where the plaster is found on a framed partition, remove lath and plaster in sections as large as possible. Do not allow material to accumulate on the floor, but bag or wrap it as it is removed. Wrap large pieces of lath and plaster in two layers of six-mil plastic and seal with duct tape.
- (g) As areas of studs or furring are revealed by removal of the lath and plaster, remove remnants of lath and plaster attached to fasteners or otherwise lodged in the framing assembly.
- (h) Dispose of lath and plaster as asbestos-contaminated waste.
- 11. Asbestos-Containing Roofing and Flashing Materials
  - (a) Remove and properly dispose of any asbestos-containing roof flashing materials and built-up roofing materials in accordance with Federal, State, and local Regulations or as more stringently specified herein.
  - (b) Provide a Regulated, non-Contained Work Area.
  - (c) Provide appropriate worker footwear to assure firm footing while walking on the roof. Asbestos-containing surfaces will be wetted with amended water and may be slippery. Use extreme caution during work on roof surfaces.
  - (d) Spray large areas of asbestos material with amended water using spray equipment recommended by surfactant manufacturer capable of providing a "mist" application to reduce the release of fibers. Saturate the material sufficiently to wet it without causing excessive dripping or ponding. Spray the asbestos material repeatedly during the work process to maintain wet condition but do not use excessive amounts of water.
  - (e) Remove the saturated asbestos-containing materials in small sections, using knives, cutting spuds, or other non-abrasive techniques for cutting roofing and flashing materials.
  - (f) As it is removed, place wet materials into double plastic disposal bags of minimum of 6-mil thickness and seal with tape.
    Wet-clean outside of bag just prior to transporting the bag from the roof work area.

- (g) Transport material from roof work area to ground using an enclosed chute or lower bagged material by hand or mechanically into a closeable, lockable dumpster or similar container double-lined with two layers of 6-mil thick plastic. Do not allow bags to fall or break.
- (h) Cleaning and Clearance Sequence (roofing material work areas)
  - i. Clean work area of all visible debris continually during work. Do not allow debris to accumulate. After removal of visible debris, clean surface with vacuum equipped with HEPA filter and damp-mop. Do not perform dry dusting or dry sweeping. Continue this cleaning until there are no visible bulk accumulations of debris from removed materials on any surfaces.
  - ii. Clean all equipment (excluding that which will be needed for further cleaning in the work area) and remove from work area.
  - iii. After the work area is found to be visually clean, apply one coat of approved sealant to all dried, exposed surfaces from which asbestos-containing materials have been removed.
- (i) In place of building decontamination units on the roof, workers may don two disposable protective clothing suits during asbestos removal of roofing and flashing materials. Follow the procedures below for personnel decontamination when using the two-suit method:
  - i. Prior to leaving the roof work area, HEPA vacuum outer suit completely and remove, turning it inside out while doing so. Place suit in a disposal bag.
  - ii. Proceed directly to centralized decontamination unit (units from other work areas may be used following the acceptance of final air test from the work area).
  - iii. Remove second suit in the equipment room section of the decontamination unit and proceed to shower with respirator still on.
  - iv. Following proper showering techniques proceed to the clean room to change back into street clothes.
- 12. Cement-Asbestos Board and Transite<sup>™</sup> Siding
  - (a) Carry out removal of cement asbestos board in a manner that will minimize pulverizing, breaking or abrading of involved materials.
  - (b) Prepare areas as Regulated, Non-Contained Work Areas.
  - (c) Cover ground in vicinity of work area and 6-ft beyond with 6-mil polyethylene drop sheet.
  - (d) Wet area of fasteners with amended water or removal encapsulant and back out fasteners. Use caution to prevent breakage of cement

asbestos board. Hold cement asbestos board in place until all fasteners are removed.

- (e) Take down cement-asbestos board and wrap in two layers of 6-mil sheet plastic or a double disposal bag. Dispose of as Asbestos-Containing Waste Material.
- (f) Any backing material, such as building felt, located between the cement asbestos board and the sheathing or structure shall be considered as asbestos-contaminated and removed and disposed of as asbestos-containing material.

## XIV. PROJECT CLEAN UP AND CLEARANCE

In order to certify the Contract is completed in a manner that complies with the laws, regulations, and guidance documents listed above and completes the work scope of this Contract, the Abatement Contractor shall complete, sign, date, post, and distribute the <u>Completion Notification Form for Removal or Encapsulation of Asbestos</u> required by the GA EPD Asbestos Program.

One copy is to be attached to the inside of the front door (or in close proximity), one copy sent to the Georgia EPD Asbestos Program, and one copy faxed to the County's Contracting Officer.

The County will perform a post-abatement visual clearance inspection or final inspection on all projects using a qualified Asbestos Inspector. Additionally, the County reserves the right to perform on-site inspections at any time during the abatement process using a representative or Asbestos Inspector. For projects that fail the visual inspection, the Abatement Contractor will correct any deficiencies, complete an amendment to the <u>Project Completion Form</u>, and redistribute as described above. For parcels that fail the visual clearance inspection, the Abatement Contractor will be responsible for the additional abatement costs and for the visual clearance re-inspection expenses.

- A. Provide general clean up of Work Areas concurrently with the removal of asbestos-containing materials. Do not permit accumulation of removed materials on floor or ground.
- B. The Abatement Contractor shall properly dispose of all materials selectively demolished to facilitate the removal of identified asbestos-containing/ contaminated materials. Asbestos-containing/contaminated materials shall be disposed of in accordance with the Technical Specifications. Other materials may be disposed of as ordinary construction debris.
- C. The Asbestos Abatement Work Area is cleared when the work area is visually clean. In the event that release criteria are not met, Contractor shall bear all costs associated with retesting and re-cleaning.
- D. Cleanup Sequence:
  - 1. Remove all visible accumulations of asbestos material and debris.
  - 2. Wet clean all surfaces in the Work Area(s).
  - 3. Clean all sealed impermeable containers and all equipment (excluding that which will be needed for further cleaning) used in the Work Area(s)

and remove from Work Area(s) via the equipment decontamination enclosure system.

- 4. Work Area cleaning will be deemed to be complete when a visual inspection in accordance with ASTM Standard E1368-98 does not reveal the presence of visible dust, debris, residue, or other suspect matter.
- 5. Following the cleaning sequence and prior to removing plastic sheeting, all surfaces from which asbestos-containing materials were removed shall receive one coat of sealant to seal existing surfaces. The sealant will be tinted blue or other approved color. Misting, spraying and pumping equipment, as recommended by the encapsulate material's manufacturer, shall be used. The Abatement Contractor will notify the Asbestos Inspector of the schedule and progress of the abatement efforts. The Abatement Contractor shall contact the Asbestos Inspector to schedule final inspections. **Do not apply sealant before contacting the Asbestos Inspector or before abatement area is visually clean.**
- 6. Mist and seal all exposed surfaces of the plastic sheeting and carefully remove plastic sheeting from walls and floor, folding inward to trap debris. Doors, windows, vents, and other openings shall remain sealed.
- 7. Asbestos Abatement Contractor shall not use sealant sprayed into the air as a means of reducing fiber levels after plastic sheeting is removed.
- 8. Dismantle and remove sturdy barriers and plastic seals on all openings and wet clean immediate areas.
- 9. Dismantle decontamination enclosure systems and thoroughly wet clean immediate areas.
- 10. Dispose of debris, used cleaning materials, unsalvageable materials used for sturdy barriers, and any other remaining materials. Consider the materials as contaminated and dispose of accordingly.

## XV. DISPOSAL OF CONTAMINATED WASTE

- A. Remove sealed and labeled containers of asbestos-containing material and wastes and dispose of in an approved sanitary landfill. The Georgia Rules for Solid Waste Management, Chapter 391-4-3.04(8) provides for the disposal of asbestos containing waste into permitted landfills. Disposal site shall be approved by the Environmental Protection Division of the Georgia Department of Natural Resources, and shall be acceptable to the County. Treat all waste materials, regardless of friability, as regulated asbestos-containing materials (RACM).
- B. Notify the County's Contracting Officer or Asbestos Consultant, if designated, not less than 24 hours prior to the proposed time of removing and delivering contaminated waste to the landfill. The Asbestos Consultant and/or Owner's Representative may elect to observe this operation.
- C. Seal asbestos waste in leak-proof impermeable containers labeled in accordance with Title 29, Code of Federal Regulations, Section 1926.1101, and Title 49, Code of Federal Regulations, Sections 171 and 172.

- D. Transport double-bagged contaminated waste from work area to truck in fiber or steel drums if waste bags rip or tear during moves from work area to dumpster.
- E. Use only enclosed or covered trucks to haul impermeable containers to prevent loss or damage to containers in route to sanitary landfill.
- F. Pre-clean truck using HEPA vacuum equipment and wet-cleaning methods and place one layer of six mil plastic sheeting on walls and floor of truck prior to transport of contaminated waste.
- G. Allow only sealed plastic bags or impermeable containers to be deposited in landfill. Leave damaged, broken, or leaking plastic bags in the impermeable container and deposit entire container in landfill.
- H. Ensure that there are no volatile or visible emissions to the outside air from site where materials and waste are deposited as a result of materials from this project.
- I. Submit landfill receipts after completion of the Work
- J. Following the last trip to dispose of contaminated waste, all plastic sheeting shall be removed from the walls and floor of the truck and also be disposed of as contaminated waste.

## XVI. FIELD QUALITY CONTROL

- A. A final visual observation will be performed by the Asbestos Inspector after final clean up to inspect for visible trash, dust, dirt, debris, and areas of damage.
- B. The Abatement Contractor shall perform additional cleaning of area(s) if, in the opinion of the Inspector based upon the final visual observation, previous clean-up operations were determined to be inadequate.

## XVII. WASTE DISPOSAL

The Contractor agrees to indemnify and hold harmless the County, the GDOT, their employees, representatives, and Asbestos Inspectors from any and all claims in connection with the removal of hazardous material related to the performance of the Work in the Contract. The Contractor shall submit waste manifests to the Contracting Officer upon job completion.

(General Requirements continued)

## **GENERAL REQUIREMENTS**

The Contractor shall remove structures from the parcels specified in the bid documents. However, the parcels will not be used for storage or as salvage yards. All rubbish, refuse, dumps, debris, junk, old automobiles, etc. are to be removed from the parcel, right of way, and easement areas. No guarantee is made as to the quality or condition of the materials. Macon-Bibb County and MAAI are not liable for theft or vandalism of equipment. The Contractor will not be permitted to collect rentals on the parcels or their structures. The Contractor will remove the structures and regrass within the specified time limit and will begin within ten days after a notice to proceed is issued.

An AHERA-accredited Asbestos Inspector will have surveyed the structure(s) on a parcel and identified asbestos-containing materials (ACM) therein prior to commencement of work on that parcel. If asbestos is present, the pre-approved asbestos abatement contractor shall perform all abatement before any other demolition on the parcel can begin. The "Asbestos Abatement Technical Specifications" of this Proposal provide details of the abatement that is required. The asbestos abatement is included in the lump sum bid price for the parcel. The Contractor shall submit the proper forms to EPD, and a copy to MAAI, along with applicable submission fees.

The Contractor is responsible for finding and properly removing all hazardous materials as required by applicable laws. The disposal of lead-based paint, for example, must comply with the Georgia Comprehensive Solid Waste Management Act. The Contractor agrees to indemnify and hold harmless Macon-Bibb County and MAAI from any and all claims in connection with removal of hazardous materials. The Contractor shall furnish an executed "Certificate of Compliance" to the Contracting Officer when the work is complete. Contract payments will not be processed before the Certificate of Compliance has been furnished. The removal of all hazardous materials, including asbestos, is included in the bid price for the parcel.

The Contractor is responsible for having all utilities disconnected prior to removal or demolition of structures. The Contractor should be aware that on-site burning of structures will not be permitted on the parcel, within the right of way, or on adjacent property under any circumstances and that the destruction of trees and shrubs will not be permitted without first receiving permission from the Engineer.

The Contractor will comply with all federal, state, and local laws applicable to the work during the performance of the Contract. The Contractor is responsible for obtaining any permits or licenses relative to the work. The Contractor will not receive any additional payment for costs incurred to comply with laws and contractual requirements. The bid prices in the Contract Schedule include the costs of all tests and permits.

All work on a parcel, including grassing and erosion control, is included in the lump sum bid for that parcel. Not entering a price for an item in the Contract Schedule does not relieve the bidder of his responsibility to clear the parcel of all structures and other encumbrances completely down to ground line. Giving no price for an item is equivalent to giving a price of zero for the item.

Materials (e.g., landscaping materials or fill materials) that require inspection prior to shipment to the Project shall have a proper inspection seal, stamp, or report as required by the Department of Transportation. If the Contractor fails to meet this requirement, the material shall be rejected and will not be allowed in the work.

The Demolition Technical Specifications and the Asbestos Abatement Technical Specifications contained in this Proposal more fully describe the requirements of the proposed work.

The Contract Time shall be on a Calendar Day basis. **The Contractor shall have 90 calendar days to complete the work in the Contract.** Contract time charges will begin when the work commences, which shall be no later than ten days after the date of the Notice to Proceed. If the Contractor does not complete the work within the time allotted, Macon-Bibb County shall charge the Contractor liquidated damages at the applicable rate listed in section 108.08 of the GDOT Standard Specifications for each day that the work remains incomplete. Contract time will stop when all work has been completed to the satisfaction of the Engineer.

«ProjectName» «FromTo» («ProjectNo»)

## **GENERAL NOTES**

- 1 All Work shall be done in accordance with the Standard Specifications, 2001 edition, and current Supplemental Specifications of the Georgia Department of Transportation, except as modified by this Bid Proposal and the Contract or where the specifications herein specify otherwise.
- 2 The definitions in Section 101 of the Standard Specifications are modified as follows:

101.14 Commissioner	MACON-BIBB COUNTY BOARD OF COMMISSIONERS
101.22 Department	Same as 101.14
101.24 Engineer	The MACON-BIBB COUNTY ENGINEER acting directly or through his duly authorized representative.
101.62 State Highway Engineer	Same as 101.24
101.63 State: The State of Georgia	MACON-BIBB COUNTY
101.81 Treasurer	Same as 101.24

3. The Contractor is permitted to submit an irrevocable letter of credit with the executed Contract in lieu of the performance bond otherwise required. (A payment bond is still required.) The letter must be from a bank acceptable to the County and be addressed to the Bibb County Board of Commissioners. The amount of the credit must be equal to the amount bid. The credit extended by the irrevocable letter must remain in effect until one year after completion of the work.


Project 5240-06 Parcel 5 1300 Jeffersonville Road



# FRONT



REAR

Project 5240-06 Parcel 5 1300 Jeffersonville Road



**REQUIRED RIGHT OF WAY** 













FRONT



REAR



**DEMOLITION EASEMENT** 



**REQUIRED RIGHT OF WAY** 



BARN



BARN



YARBROUGH & COMPANY

.



Project 5240-54A Parcel 6 1762 Jeffersonville Road



FRONT





Project 5240-54A Parcel 14 1853 Jeffersonville Road



BUILDING

#### **IMPROVEMENT SKETCH**





## Subject Photographs

Front/Side View of Subject

Project 5240-54A Parcel 17A 1895 Jeffersonville Road



Side View From Millerfield Road



Project 5240-54A Parcel 17A 1895 Jeffersonville Road





### East and north wall and main entrance

Project 5240-54A Parcel 21 1975 Jeffersonville Road



### **Sketch of Improvements**

Project 5240-54A Parcel 21 1975 Jeffersonville Road





Project 5240-54A Parcel 45 2220 Jeffersonville Road

25' x 41'



**STORE** 



Project 5240-06 Jeffersonville Road Parcel 13



REAR



ROAD FRONTAGE JEFFERSONVILLE ROAD

### **IMPROVEMENT SKETCH**







Proj. No. 5240-06 Parcel No. 15 1394 Jeffersonville Road

FRONT



REAR



STORE FRONT

### **BUILDING SKETCH**

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Project No. 5240-06 Parce 1 No. 15







Proj. No. 5240-06 Parcel No. 21 750 Sunnydale Drive

FRONT



REAR



INTERIOR






1548 Jeffersonville Road Project No. 5240-06 Parcel 32A 1548 Jeffersonville Road Project No. 5240-06 Parcel 32A









FRONT



REAR



EXTERIOR

# **BUILDING SKETCH**

Project No. 5240-06 Parcel 37 Jeffersonville Road



**YARBROUGH & COMPANY** 



Project No. 5240-06 Parcel 38 1648 Jeffersonville Road



REAR

# **BUILDING SKETCH**

Project No. 5240-06 Parcel 38 1648 Jeffersonville Road



**YARBROUGH & COMPANY** 

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Proj. No. 5240-54A Parcel No. 47 2260 Jeffersonville Road



EASEMENT



EASEMENT RIGHT OF WAY

YARBROUGH & COMPANY



# ASBESTOS ABATEMENT TECHNICAL SPECIFICATIONS

## I. SCOPE OF WORK

The Work contemplated and covered in these specifications consist of the equipment, supervision, and all other services required for the complete removal and proper disposal of asbestos-containing or contaminated materials from improvements, structures, or other encumbrances on the right of way or easement areas as identified in specific project areas. The work will be performed under a Contract based upon the Bid prices submitted by the Contractor.

As right of way properties are acquired for a specific project, an AHERA-accredited Asbestos Inspector has surveyed the structures on each parcel and identified asbestos-containing materials (ACM) required for removal to support the planned demolition. The scope of ACM removal includes all ACM identified in attached *Summary Inspection Reports*.

Following acceptance of the Bid and the execution of the Contract, the Abatement Contractor will submit a *Project Notification Form* to the Georgia EPD 10-days prior to the commencement of the work. The submitted *Project Notification Form* shall include a copy of the *Summary Inspection Report* (including corresponding *Attachment 1 – Bulk Sample Summary*). The Abatement Contractor shall have a copy of the Project Notification Form and any amendments to the Project Notification Form at the site at all times during the abatement efforts. The Abatement Contractor will be issued a Notice to Proceed. Work will commence immediately after the 10-day notification period ends and will be performed in the time frame established on the submitted notification form.

## II. QUALITY CRITERIA

- A. Qualifications for Performance of Work
  - 1. Asbestos Abatement Contractor shall:
    - (a) Be a certified and licensed asbestos contractor in accordance with State of Georgia. Submit documentation confirming current licensure.
    - (b) Utilize workers and supervisors who are trained in accordance with State of Georgia Statutes, and the OSHA Construction Standard (29 CFR 1926.1101) for Class I and II activities. Submit documentation confirming current training.
    - (c) Shall not utilize subcontractors for the performance of the Work.
- B. Training Requirements for Licensed Asbestos Contractors
  - 1. The following training requirements apply to state licensed asbestos abatement contractors who remove all categories of asbestos containing material.
    - (a) Each worker shall complete a state approved, EPA accredited, Asbestos Worker course, a minimum of 32-hours in duration, and annual 8-hour refreshers.
    - (b) Each Competent Person shall complete a state approved, EPA accredited, Asbestos Supervisor course, a minimum of 40-hours in duration, and annual 8-hour refreshers.
- C. Reference Standards
  - 1. The Asbestos Abatement Contractor acknowledges by the executing of the Contract, awareness and familiarity with the contents and requirements of the following regulations, codes, and standards, and assumes responsibility for the performance of the Work in strict compliance therewith and, for every instance of failure, to comply therewith.

- 2. The current issue of each document shall govern. Where conflict among requirements or with the Contract Documents exists, the more stringent requirements shall apply.
  - (a) U.S. Environmental Protection Agency (EPA) Regulations for Asbestos (Code of Federal Regulations Title 40, Part 61, Subparts A and B).
  - (b) U.S. EPA National Emissions Standards for Hazardous Air Pollutants (Code of Federal Regulations Title 40, Part 61, Subpart M).
  - (c) U.S. EPA National Emissions Standards for Hazardous Air Pollutants (Code of Federal Regulations Title 40, Part 61, Appendix A to Subpart M).
  - (d) US EPA Asbestos Hazard Emergency Response Act (AHERA) regulations (Code of Federal Regulations Title 40 Part 763, Subpart E.
  - (e) U.S. Occupational and Safety and Health Administration (OSHA) Asbestos Regulations (Code of Federal Regulations Title 29, Part 1926, Section 1926.1101).
  - (f) U.S. EPA Office of Pesticide and Toxic Substances Guidance Document, "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings", EPA 56015-85-024, June 1985.
  - (g) U.S. Department of Transportation, Hazardous Substances: Final Rule (Code of Federal Regulations Title 49 Parts 171 and 172), Federal Register November 21, 1986 and corrected February 17, 1987.
  - (h) All state, county, and city codes and ordinances as applicable. Make available for review at the site one copy of EPA, OSHA, and applicable State, County, and City Regulations governing the Work.
- 3. <u>Patent/Copyright Compliance</u>: Comply with all patent and copyright laws involved with processes, equipment, and materials regarding the work of the Contract Documents.
- 4. Abatement Contractor, his assignees, and successors in interest also agrees to comply with Regulations of the Department of Transportation relative to non-discrimination in Federally-assisted programs herein defined:
  - (a) <u>Compliance with Regulations</u>: The Abatement Contractor will comply with the regulations of the Department of Transportation relative to non-discrimination in Federally-assisted programs of the Department of Transportation (Title 15, Code of Federal Regulations, Part 8, herein referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
  - (b) <u>Non-Discrimination</u>: The Abatement Contractor, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the ground of race, color, or national origin in the selection and retention of Subcontractor Contractors, including procurement of materials and leases of equipment. The Abatement Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 8.4 of the Regulations, including employment practices when the contract covers a program set forth in Appendix A-11 of the Regulations.
  - (c) <u>Solicitations</u>: In all solicitations either by competitive bidding or negotiation made by the Abatement Contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, supplier, or lessor, shall be notified by the Abatement Contractor of the Abatement Contractor's obligations under this contract and the Regulations relative to non-discrimination on the ground of race, color, or national origin.
  - (d) Information and Reports: The Abatement Contractor will provide all information and reports

required by the Regulations, or orders and instruction issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by Macon-Bibb County, the Georgia Department of Transportation (hereinafter referred to as the Department), or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of an Abatement Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Abatement Contractor shall so certify to Macon-Bibb County, the Department, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

- (e) Sanctions for Noncompliance: In the event of the Abatement Contractor's noncompliance with non-discrimination provisions of this Section II (3), Macon-Bibb County shall impose such contract sanctions as it, the Department, or the Federal Highway Administration may determine to be appropriate, including but not limited to, Withholding of payments to the Abatement Contractor under the contract until the Abatement Contractor complies, and/or Cancellation, termination or suspension of the contract, in whole or in part.
- (f) Incorporation of Provisions: The Abatement Contractor will include the provisions of Section II (3) in every subcontract, including procurement of materials and leases pursuant thereto. The Abatement Contractor will take such action with respect to any subcontract, procurement, or lease as Macon-Bibb County, the Department, or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event an Abatement Contractor becomes involved in, or is threatened with litigation with a Subcontractor, Contractor, supplier, or lessor as a result of such direction, the Abatement Contractor may request the State enter into such litigation to protect the interest of the State, and in addition, the Abatement Contractor may request the United States.

#### **III. DEFINITIONS**

- A. ACM Asbestos-containing material, any material containing more than one (1) percent asbestos as determined by Polarized Light Microscopy.
- B. Adequately wet means sufficiently mix or penetrate with liquid to prevent the release of particulates.
- C. Air Monitoring the process of measuring the fiber content of a specific volume of air in a stated period of time.
- D. Amended water water to which a surfactant has been added.
- E. Category I Nonfriable Material As defined by the Environmental Protection Agency (EPA), asbestos-containing packings, gaskets, resilient floor covering, and asphalt roof products (such as asphalt shingles, built-up roofing, and single-ply modified bitumen roofing) containing more than one percent asbestos as determined by Polarized Light Microscopy.
- F. Category II Nonfriable Material all remaining types of nonfriable asbestos-containing materials (ACM) not included in Category I that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure. Nonfriable asbestos cement products, such as Transite<sup>™</sup>, are an example of Category II material.
- G. Class I Asbestos Work activities involving the removal of asbestos-containing TSI and surfacing ACM and presumed asbestos-containing material (PACM).
- H. Class II Asbestos Work activities involving the removal of ACM flooring, roofing, wallboard, and other materials as defined in the OSHA regulations.

- I. Competent Person As defined by OSHA, one who, in addition to the definition in 29 CFR 1926.32 (f), is capable of identifying existing asbestos hazards and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate them. In addition, the Competent Person for asbestos work must complete specified training.
- J. Encapsulation the sealing of surfaces involving application of a material (encapsulant/sealant).
- K. EPA United States Environmental Protection Agency.
- L. Excursion Limit (EL) The permissible exposure limit to an airborne fiber concentration in excess of 1.0 fiber per cubic centimeter of air (f/cc) as averaged over a sampling period of 30 minutes, as determined by PCM.
- M. M. Friable asbestos material any material containing more than one (1) percent asbestos as determined by Polarized Light Microscopy, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- N. Glovebag An impervious plastic bag-like enclosure, not more than 60 inches by 60 inches, with glove-like appendages which is sealed air-tight around an asbestos-containing material so that materials and tools may be handled.
- O. HEPA Filter a High Efficiency Particulate Absolute (HEPA) filter capable of trapping and retaining 99.97 percent of asbestos particles 0.3 microns in diameter.
- P. HEPA Vacuum Equipment Vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be 99.97 percent efficient for retaining thermally generated DOP particles 0.3 microns in diameter.
- Q. Intact As defined by OSHA, an ACM that has not been crumbled, pulverized, or otherwise deteriorated so that asbestos is no longer likely to be bound with its matrix.
- R. Negative Exposure Assessment (NEA) A determination in accordance with the OSHA standards that employee exposures are, or that there is a high degree of certainty they will be, below the PEL (both 8 hour TWA and EL).
- S. NIOSH National Institute for Occupational Safety and Health.
- T. OSHA Occupational Safety & Health Administration.
- U. Permissible Exposure Limit (PEL) The maximum exposures to an airborne fiber concentration, as expressed by the thirty-minute excursion limit and eight-hour time weighted average. Sample analysis is performed using Phase Contrast Microscopy (PCM).
- V. Regulated Area An area established where OSHA Class I, II, or III asbestos work is conducted, any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos exceed, or there is reasonable possibility they may exceed the PEL and EL. A regulated area must be demarcated with barriers and signage to allow access only by authorized, trained persons.
- W. Regulated Asbestos Containing Material (RACM):
  - 1. Friable asbestos material
  - 2. Category I nonfriable ACM that has become friable
  - 3. Category I nonfriable ACM that will become friable or has been subjected to sanding, grinding, cutting, or abrading
  - 4. Category II nonfriable ACM that has the high probability or has become crumbled, pulverized, or reduced to powder by forces expected to act on the material in the course of demolition or

renovation operations performed under the State's regulations.

- X. Removal The act of taking out or stripping asbestos-containing or contaminated materials from structures or substrates.
- Y. Surfactant A chemical wetting agent added to water to improve its penetrating ability and, thus reducing the quantity of water required to saturate asbestos-containing materials.
- Z. Wet Cleaning The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
- AA. Work Area Area or areas of the Project that undergo "abatement" or are contaminated. See also Regulated Area.
- BB. Waste Shipment Record The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing material. A form similar to that shown as Figure 4 of the Asbestos NESHAP Regulations at 40 CFR part 61, subpart M.; 55 FR 48406; November 20, 1990.

#### **IV. SCHEDULING AND SEQUENCING**

The schedule for abatement of asbestos-containing materials in the improvements for the subject parcel is critical. The time limit for the completed abatement and proper disposal of asbestos-containing materials of this project is specified in the Bid Documents. Liquidated damages will be assessed for each day beyond the specified time limit. Upon award of the bid, the 10-day notification for abatement must be filed with the Georgia Environmental Protection Division (GA EPD) on the "Project Notification of Asbestos Renovation, Encapsulation or Demolition Project" (Project Notification Form) within 48 hours.

In addition to providing the abatement schedule to the Georgia EPD on the *Project Notification Form* submitted 10 days prior to commencement of the work, the Abatement Contractor shall submit the abatement schedule to the Contracting Officer. Work will commence immediately after the 10-day notification period ends and will be performed in the time frame established. Any variation from the submitted schedule shall be reported to the Georgia EPD by submitting amendments to the Project Notification Form. The Contracting Officer shall also be notified of any variation to the work schedule immediately. *The Abatement Contractor should be aware that the Georgia Environmental Protection Division does inspect these projects on a random basis and there can be severe penalties if the abatement schedule is not followed or amendments filed as changes occur.* 

The Notice to Proceed will be issued generally within 10 working days after the Bid is awarded. After the Notice to Proceed is issued, the Abatement Contractor will completely remove asbestos-containing materials and properly dispose of the asbestos-containing materials each of the parcels of this project within the specified time limit. Failure to meet the time constraints specified herein will result in liquidated damages, termination of the Contract, and/or removal from the pre-qualified Abatement Contractors' List.

If an underground storage tank (UST) located at any parcel within the project has not been removed prior to the abatement efforts, the Contacting Officer shall co-ordinate the sequencing of the tank removal, asbestos abatement, and demolition. The Contracting Officer will provide to the Abatement Contractor notice of any variation that the tank removal may cause to the abatement schedule.

It is the intent of Macon-Bibb County that the Contracting Officer, or their designated third-party representative, inspects the abatement work periodically to verify substantial compliance with the Contract Documents. Re-inspection necessitated by unreported schedule changes will be paid for by Macon-Bibb County from monies deducted from the Abatement Contractor's contract amount. A minimum 24-hour notice will be provided for abatement schedule changes. The minimum charge to be borne by the Abatement Contractor for non-timely or unreported schedule change necessitating re-inspection is \$250 per

visit per parcel.

#### V. PRE-JOB SUBMITTALS

No work on this Contract may be performed until the Abatement Contractor has received a Notice to Proceed from the Contracting Officer. A Notice to Proceed shall not be issued until the Abatement Contractor has submitted the following record documents:

- A. A copy of the Asbestos Removal Project Notification Form submitted to the State of Georgia Environmental Protection Division. This notice shall be filed in accordance with the NESHAP standard not less than ten working days before asbestos removal commences on the project.
- B. The work schedule for abatement on the project to identify the days and times that the abatement will take place will be furnished to Macon-Bibb County. Any deviation from that schedule will be reported to the Contracting Officer immediately.
- C. A project-specific Work Plan detailing the means and methods to be employed on the project. Include a description of work area containment, location of decontamination units, placement of HEPA fan units (if required), and methods to be utilized to remove and dispose of identified ACM.
- D. Certificate of Worker's Acknowledgment: Submit an original signed copy of the Certificate of Worker's Acknowledgment of Asbestos Hazard, for each worker who is to be at the job site or enter the Work Area(s).
- E. Training Certification: Submit evidence of each supervisor's and worker's training.
- F. Report from Medical Examination: Submit a doctor's written opinion for a medical examination conducted within the last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to enter the Work Area, or wear a negative-pressure respirator.
- G. Notarized Certifications: Submit a notarized certification, signed by an officer of the abatement contracting firm, that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926.1101.
- H. Respiratory Protection Schedule: Submit level of respiratory protection intended for each operation required by the project. Include an OSHA compliant Negative Exposure Assessment if no respiratory protection or different level of respiratory protection is proposed for use on this project.
- I. Respirator Fitting Documentation: Submit documentation indicating successful fit check testing of respirators, if used, for the individuals working on this project in accordance with 29 CFR 1910.134 and 29 CFR 1926.1101.
- J. A contingency plan that details the procedures to be employed in the case of emergency. Include provisions for notification to fire, police, and rescue authorities.
- K. The Successful Bidder must furnish a Performance Bond. The Performance Bond shall be equal to the total bid amount for the Project. The Performance Bond must be submitted on *AIA Form G312*.

#### VI. ONGOING DOCUMENTATION

Any changes to the documents submitted prior to receiving the Notice to Proceed shall be submitted to the Contracting Officer in the same form as described in the above paragraph. Changes in schedule, personnel, accreditation, licensing, waste hauler, waste disposal site, insurance, and/or bonding are to be submitted to the Contracting Officer.

#### VII. PROJECT CONDITIONS

The Abatement Contractor shall become thoroughly familiar with the requirements of these specifications and with the existing conditions under which the work of this Contract is to be performed. Macon-Bibb County and the Department assume no responsibility for the actual condition of items to be abated.

- A. The Abatement Contractor shall maintain a copy of the *Asbestos Inspection Report and Attachment 1 Bulk Sample Summary* at the site. The Abatement Contractor is cautioned that destructive access was not utilized to access and identify potentially concealed suspect materials. In the event additional applications of concealed suspect asbestos-containing materials are discovered during the course of abatement, the Abatement Contractor will notify the Contracting Officer.
  - 1. If the quantity of previously concealed suspect material is less than ten (10) square feet, the material is to be assumed ACM and is to be removed.
  - 2. Suspect ACM in quantities larger than 10 SF are to be reported to the Contracting Officer. The Contracting Officer will coordinate appropriate testing of encountered suspect material to verify, or refute asbestos content.
  - 3. The Abatement Contractor shall amend the Project Notification Form submitted to the GA EPD as appropriate to address additional quantities of ACM encountered during the course of abatement.
- B. Worker and Visitor Procedures: The Abatement Contractor is hereby advised that asbestos has been determined by the U.S. Government to be a CANCER-CAUSING AGENT and Abatement Contractor shall provide workers and visitors with respirators which as a minimum shall meet the requirements of OSHA 29 CFR 1926.1101, and protective clothing during preparation of system of enclosures, prior to commencing, during actual asbestos removal, and until final clean-up is completed.

## VIII. UTILITIES

It shall be the responsibility of the Abatement Contractor to verify the status of the various utilities in order to prevent an accident that could result from a utility remaining connected. The Abatement Contractor is responsible for providing electricity and water to each site.

#### **IX. MATERIALS**

In order to perform the work of this Contract in a manner that complies with the laws, regulations, and guidance documents listed above, the Abatement Contractor shall provide materials such as the following:

- A. Amended Water: For wetting prior to and during disturbance of ACM, use amended water, such as a non-sudsing detergent. Provide water to which a surfactant has been added. Use a mixture of surfactant and water that results in wetting of the ACM and retardation of fiber release during disturbance of the ACM.
- B. Removal Encapsulant: For wetting prior to and during disturbance of ACM, use a removal encapsulant. Provide a penetrating type encapsulant designed specifically for removal of ACM. Use a material that results in wetting of the ACM and retardation of fiber release during disturbance of the ACM.
- C. Lock-down Sealant: For sealing surfaces from which ACM has been removed and which have passed visual inspection. Lock-down shall be tinted blue.
- D. Plastic Film Sheeting: Provide a single polyethylene film in the largest sheet size possible to minimize seams, 6-mils thick.
- E. Duct Tape: Provide duct tape in 2-inch or 3-inch widths, with an adhesive that is formulated to stick

aggressively to sheet polyethylene and other surfaces.

- F. Spray Adhesive: Provide spray adhesive in aerosol cans that is specifically formulated to stick tenaciously to sheet polyethylene and other surfaces.
- G. Waste Bags: Contain all asbestos waste within two individually sealed layers of 6-mil thick, leak tight polyethylene bags or two layers of sealed polyethylene 6-mil thick sheets labeled with text printed in large, bold letters on a contrasting background to meet the requirements of US EPA, US DOL/OSHA, US DOT, and the Georgia DNR/EPD.
- H. Solvent: Use only solvents that will not contribute to more extensive and burdensome worker protection requirements and will not contribute to more extensive regulatory requirements for waste handling, transportation, and disposal.

## X. EQUIPMENT

In order to perform the work of this Contract in a manner that complies with the laws, regulations, and guidance documents listed above, the Abatement Contractor shall provide equipment such as the following:

- A. Provide suitable tools for asbestos removal.
  - 1. Sprayer Utilize airless or other low-pressure sprayer for amended water application.
  - 2. Scaffolding Shall be as required to accomplish the specified work and shall meet all applicable safety regulations.
- B. HEPA-Filtered Vacuum: Provide vacuum collection equipment with a HEPA filter system capable of collecting and retaining 99.97 percent or more of asbestos fibers 0.3 microns or larger in diameter.
- C. Negative Pressure Ventilation System or Negative Air Machine: Provide a local exhaust system utilizing HEPA filtration capable of maintaining a negative pressure inside the work area and a constant air flow from adjacent areas into the work area and exhausting filtered air to the outside of the work area.
- D. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the pressure of the outside atmosphere.
- E. Personal Protective Equipment: Provide negative pressure respirators; disposable protective clothing; head and eye protection; and work gloves.
- F. Transportation Waste shall be hauled in enclosed trucks as required for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or property.

## **XI. PERSONNEL PROTECTION**

- A. Prior to commencement of work, all workers shall be instructed by the Asbestos Abatement Contractor and shall be knowledgeable, in the appropriate procedures of personnel protection and asbestos removal.
- B. Asbestos Abatement Contractor acknowledges and agrees that he is solely responsible for enforcing worker protection requirements at least equal to those required by federal regulations.
- C. The Asbestos Abatement Contractor is responsible for providing respiratory protection consistent with the requirements of OSHA 29 CFR 1926.1101.
- D. Asbestos Abatement Contractor shall provide workers with personally issued and marked respiratory equipment approved by NIOSH and OSHA and as a minimum suitable for the asbestos exposure level

- 1. Type of respiratory protection required:
  - (a) Fibers: For purposes of this Section, fibers are defined as all fibers regardless of composition as counted using the OSHA Reference Method (ORM) or NIOSH 7400 procedures, or asbestos fibers of any size as counted using a transmission electron microscope.
  - (b) Provide Respiratory Protection as allowed by these specifications. For the work of all sections, the level of respiratory protection that supplies an airborne fiber concentration inside the respirator below 0.01 fibers per cubic centimeters (f/cc) is the minimum level of protection allowed. Regardless of the anticipated fiber concentrations, half-face air purifying respirators shall be the minimum level of respiratory protection for work area preparation, removal, cleaning, and decontamination activities. Determine the proper level of protection by dividing the expected or actual airborne fiber concentration in the Work Area by the "Protection Factors" given below:

RESPIRATORY PROTECTION FACTOR		
Respirator Type	<b>Protection Factor</b>	
Air purifying:	10	
Negative-pressure respirator, High efficiency filter, Half-face piece		
Air purifying:	50	
Negative-pressure respirator,		
High efficiency filter, Full-face piece		
Powered air purifying (PAPR):	100	
Positive-pressure respirator, High efficiency filter, Full-face		
piece		
Type C supplied air:	1000	
Positive-pressure respirator, pressure-demand,		
Full-face piece		
Type C supplied air:	Over 1000	
Positive-pressure respirator, pressure-demand,		
Full-face piece, Equipped with an auxiliary		
positive-pressure Self-contained breathing apparatus		
(SCBA)		

- E. Where respirators with disposable filters are used, provide sufficient filters for replacement as necessary by the workers, or as required by applicable regulations.
- F. Permit no visitors, except for governmental inspectors having jurisdiction, or as authorized by Owner, in the work areas after commencement of asbestos disturbance or removal. Provide authorized visitors with suitable respirators in accordance with 29 CFR 1926.1101.
- G. Provide workers with sufficient sets of protective disposable clothing, consisting of full-body coveralls, head covers, gloves, and foot covers; of sizes to properly fit individual workers in accordance with 29 CFR 1926.1101.
- H. Provide authorized visitors with a set of suitable protective disposable clothing, headgear, eye protection, and footwear of sizes to properly fit visitors whenever they are required to enter the work

area, to a maximum of six sets per day.

#### XII. WORK AREA PREPARATION

Work Area preparation is required to contain and/or isolate the area that asbestos removal will be performed. Varying levels of work area preparation are required to support removal of different categories of ACM. The method of Work Area containment required is related to the type of ACM to be removed and corresponding fiber release potential.

The Abatement Contractor may be required to selectively demolish building components to facilitate removal efforts. The selective demolition will be limited to the areas affected by the abatement efforts. The Abatement Contractor shall properly dispose of all materials selectively demolished to facilitate the removal of identified asbestos-containing/contaminated materials. The materials that are selectively removed or demolished will not be stored on site. Asbestos-containing/contaminated materials shall be disposed of in accordance with Section XV of the Technical Specifications. Other materials may be disposed of as ordinary construction debris.

The Abatement Contractor shall not salvage building components for his future use, resale, or redistribution.

Methods of Work Area Preparation include:

- A. Regulated, Non-contained Work Area
  - 1. Demarcate Work Area using construction barrier tape and "Danger Asbestos" tape. Do not allow any unauthorized personnel inside the barrier tape.
  - 2. Create a buffer zone with a minimum distance of 20 feet surrounding the perimeter of the construction tape.
  - 3. Provide Warning Signs outside barriers surrounding work area, reading as follows:

#### DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

- 4. Provide remote, 2-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials. Require all persons and equipment without exception to pass through this decontamination unit for exiting from the work area for any purpose.
- B. Contained Work Area
  - 1. For removal of Resilient Floor Coverings, as well as other Miscellaneous Materials that may become friable during removal, the Abatement Contractor shall provide fully contained Work Area utilizing critical barriers. Primary and secondary barriers are not required unless facility salvage and reuse is planned.
  - 2. Provide Warning Signs outside barriers, reading as follows:

#### DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

- 3. Construct 2-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both contaminated and uncontaminated sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials to allow Work Area containment to be maintained. Require all persons and equipment without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Supply sufficient number of lockers, in worker decontamination unit change or "clean" room, for workers' clothing. Reserve one locker for Department Representative or Asbestos Inspector.
- C. Contained, Negative Pressure Work Area
  - 1. For removal of TSI, Surfacing ACM and wallboard and joint compound, the Abatement Contractor shall provide a fully contained HEPA filtered negative pressure containment utilizing critical barriers. Primary and secondary barriers are not required unless facility salvage and reuse is planned.
  - 2. Provide Warning Signs outside barriers, reading as follows:

#### DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

- 3. Provide diminished air pressure within the Work Area (negative pressure) under utilizing HEPA filtration systems. Allow no air movement system or air-filtering equipment to discharge unfiltered air outside the Work Area. Maintain a diminished air pressure on the work area continuously (24 hours per day) from the start of asbestos removal and until the area has been decontaminated and confirmed as such by the required visual inspections and/or air testing.
- 4. Construct 3-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both contaminated and uncontaminated sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials to allow negative pressure to be maintained in Work Area. Supply sufficient number of lockers, in worker decontamination unit change or "clean" room, for workers' clothing. Reserve one locker for Department Representative or Asbestos Inspector.
- D. Mini-Containment, Negative Pressure Work Area
  - 1. For removal of TSI and Surfacing ACM, the Abatement Contractor may provide a negative pressure mini-containment enclosure in lieu of completely containing the entire Work Area.
  - 2. The enclosure shall consist of two chambers of critical and primary barriers, a work area and a change room.
    - (a) The Work Area chamber shall be of sufficient size to enclose the material to be abated and

accommodate one worker and all the tools required to perform the work.

- (b) The Work Area shall be separated from the change room by a double curtained polyethylene door.
- (c) The change room shall be of sufficient size to accommodate one worker with a minimum of nine (9) square feet.
- (d) The change room shall be separated from the non-work area by a double curtained poly door.
- 3. A local exhaust system shall be utilized. An obvious and noticeable differential pressure within the work area shall be demonstrated by a smoke test and maintained throughout the abatement work efforts.
- 4. Provide Warning Signs outside barriers surrounding work area, reading as follows:

#### DANGER ASBESTOS CANCER AND LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

5. Provide a remote, 3-stage worker and waste/equipment decontamination units in compliance with EPA guidelines and OSHA regulations concerning number, size, and placement of airlocks, etc. Shower in worker decontamination unit shall open on two sides and open into airlock on both sides. Construct decontamination units of appropriate materials including polyethylene sheeting (to provide airtight barriers) and plywood or other suitable rigid materials. Require all persons and equipment without exception to pass through this decontamination unit for exiting from the work area for any purpose.

Method of Work Area Preparation	ACM Category and Class of ACM Removal	АСМ Туре
Regulated,	Category I and Category II	Asphalt roof products (such as asphalt shingles built up roofing and single plu
Work Area	non-friable during the removal process	modified bitumen roofing), and asbestos cement products (such as Transite <sup>™</sup> siding).
Contained Work Area	RACM or Category I and Category II Non-Friable ACM that may become friable during the removal process. [Class II Work as defined by OSHA regulations.]	Resilient floor covering and other Miscellaneous Materials that are currently friable, or may become friable during removal.
Contained, Negative Pressure Work Area	RACM [Class I Work as defined by OSHA Regulations.]	TSI, Surfacing ACM, and Wallboard and Joint Compound
Mini-Containment Work Area	RACM [Class I Work as defined by OSHA Regulations.]	TSI and Surfacing ACM

The methods of Work Area containment required for removal of indicated ACM Categories and OSHA-designated Classes of ACM removal are specified below.

## XIII. REMOVAL OF ASBESTOS CONTAINING MATERIALS

- A. Properly remove and dispose of asbestos-containing materials indicated to be removed as described in the Contract Documents in accordance with the methods and procedures outlined in the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Asbestos Regulation (Code of Federal Regulations Title 29, Part 1926, Section 1926.1101) or as more stringently specified herein.
- B. Ensure that all barriers and critical seals remain effectively sealed and taped for duration of asbestos removal and subsequent cleaning. Repair damaged barriers and remedy defects immediately upon discovery. Visually inspect enclosures at the beginning of each work period. Use smoke methods to test effectiveness of barriers when directed by Asbestos Inspector.
- C. Maintain emergency and fire exits from the Work Areas, or establish alternative exits satisfactory to fire officials.
- D. Provide temporary power, lighting and heating, utilizing ground fault protection devices as necessary, to maintain a comfortable work environment.
- E. Maintain for the duration of the Project from the first activity requiring disturbance of asbestos-containing material, a sign in/out log in the immediate area of the change room. Log shall be utilized by every person each time upon entering and leaving the Work Area(s). Submit copies of this log to Department Representative for permanent file upon completion of Project.
- F. Filter shower wastewater using filters having a pore size of 20-microns and 5-microns installed in-line, and drain shower wastewater into a sanitary sewer. Replace contaminated filters when they become clogged but not less than every third day. Dispose of filters as contaminated waste. Abatement Contractor may trap and collect shower wastewater in impermeable containers and dispose of as contaminated material, at his option, rather than filtering and draining into sanitary sewer.
- G. Prepare Work Areas as previously specified based upon the ACM Category and OSHA Class of ACM removal.
  - 1. Spray-applied Fireproofing Material and Architectural Acoustical Finish
    - (a) Remove and properly dispose of all asbestos-containing fireproofing or architectural acoustic finish in accordance with Federal, State and local regulations, or as more stringently specified herein.
    - (b) Fireproofing or Architectural Finish on Solid Substrate: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water. Allow time for amended water to saturate materials to substrate. Do not over saturate to cause excess dripping. Scrape materials from substrate. Remove materials in manageable quantities and control the descent to staging or floor below; if over 15 feet, use enclosed inclined drop chute to contain material through descent. Spray mist surface continuously during removal process. Remove residue remaining on substrate after scraping using stiff nylon-bristled hand brush. If substrate dries before complete removal of residue, rewet with amended water.
    - (c) Fireproofing or Architectural Finish on Wire Lath: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water. Allow time for amended water to completely saturate material. Do not over saturate to cause excess dripping. If surface of material has been painted or otherwise coated, cut small holes as required and apply amended water from above. Cut wire lath into 2-ft by 6-ft sections and cut hanger wires. Roll up complete with asbestos-containing material and hand place in disposal containers. Place rolled-up wire lath in corrugated cardboard boxes before placing in disposal bags. After

removal of lath and asbestos-containing material, remove any overspray on decking and structure above using stiff nylon bristled brush.

- (d) After removal of asbestos-containing material, all surfaces shall be wet-cleaned to remove residual accumulated material. Continue wet cleaning until surface is free of visible material.
- 2. TSI on Mechanical Equipment and Ductwork
  - (a) Remove and properly dispose of all asbestos-containing insulation materials in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Thoroughly wet asbestos-containing materials to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water to penetrate material thoroughly. Spray material repeatedly during the work process to maintain a continuously wet condition. Perforate outer covering of any installation which has been painted and/or jacketed in order to allow penetration of amended water or, where necessary, carefully strip away while simultaneously spraying amended water on the insulation to minimize dispersal of asbestos fibers into the air. Mist work area with amended water whenever necessary to reduce airborne fiber levels.
  - (c) Remove saturated asbestos-containing material in small sections from all areas. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into disposal bags.
- 3. TSI on Mechanical Piping
  - (a) Remove and properly dispose of all asbestos-containing pipe insulation in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Spray pipe insulation with a mist of amended water. Allow amended water to saturate material to substrate. Cut bands holding preformed pipe insulation, slit jackets at seams, remove, and hand place in a disposal bag. Remove job molded fitting insulation in chunks and hand place in a disposal bag. Do not drop to floor. Remove any residue on pipe or fitting with amended water and stiff nylon bristle hand brush.
  - (c) In locations where pipe-fitting insulation is removed from pipe with straight runs insulated with fibrous glass or other non-asbestos containing fibrous material, remove all fibrous material within 6-inches of the point where it contacts the asbestos-containing insulation.
  - (d) Wall Penetrations:
    - i. Where asbestos-containing pipe insulation passes through a wall within the workspace, remove all insulation within the wall penetration.
    - ii. Where asbestos-containing pipe insulation passes through a wall (or floor slab) that is a work area boundary, remove all insulation to a minimum depth of one inch into the wall or slab. Seal the penetration with expandable foam fire stop material.
  - (e) After removal of asbestos-containing material, wet clean all surfaces to remove residual accumulated material. Continue wet-cleaning until surface is free of visible material.
- 4. TSI on Mechanical Piping Utilizing Glovebag Procedures
  - (a) General: In work area(s) where asbestos-containing materials are limited to intact pipe insulation and pipe joint insulation, Contractor may, with Department Representative's approval, utilize glovebag procedures as specified herein.
  - (b) Prepare areas as a contained work area and cover floor in vicinity of work area and 6-ft beyond

with 6-mil polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall and secure at ceiling with duct tape.

- (c) Perform glove bag procedures as follows:
  - i. Wrap any damaged areas of pipe insulation in one layer of 6-mil plastic. Seal seams and ends with duct tape.
  - ii. Place one layer of duct tape around pipe insulation at points where glovebag will be attached.
  - iii. Attach and use glovebag in accordance with manufacturer's instructions, unless more stringently specified herein.
  - iv. Insert wand from garden sprayer through water sleeve. Duct tape water sleeve tightly around the wand to prevent leakage.
  - v. Use smoke tube and aspirator bulb to test seal. Gently squeeze glovebag and look for smoke leaks. Seal leaks and retest.
  - vi. Wet the asbestos-containing material within the glovebag with amended water prior to removal. Utilize two asbestos workers per glovebag.
  - vii. Carefully cut and remove asbestos-containing materials within the glove bag. Exercise care while cutting asbestos-containing materials from piping.
  - viii. Thoroughly wet removed material, bag and piping with amended water. Scrub exposed piping with a bristle or nylon brush. Remove visual accumulations of debris from piping. Allow mist to settle.
  - ix. Seal exposed ends of pipe insulation not removed and exposed piping in glovebag with encapsulant.
  - x. Remove tools, through gloves or tool pouch by inverting, twisting glove, taping at twist to seal, and severing glove at midpoint of tape.
  - xi. Collapse glove bag by inserting HEPA-vacuum. Twist bag several times at the top of bag. Twist and tape to secure.
  - xii. Place appropriately labeled 6-mil bag around glove bag. Score glovebag above taped seal to remove from pipe and place inside 6-mil bag. Seal 6-mil bag around disassembled glovebag.
  - xiii. If more than one adjacent section of pipe insulation is to be removed, Abatement Contractor may elect to advance the glove bag to the next section of insulation. Use the HEPA vacuum to collapse the glovebag, twist the bag to seal the throat, loosen the tape at both ends of the bag and slide the bag to the new position. Ends of the glovebag must be re-sealed prior to untwisting the throat of the bag. The glovebag shall be reused on adjacent sections no more than three times.
- 5. Abandoned Piping Assemblies with Asbestos-Containing Insulation
  - (a) General: At the Abatement Contractor's option, in lieu of removing asbestos-containing pipe insulation from piping assemblies, entire pipe assembly with intact pipe insulation may be removed and properly disposed of. Remove and properly dispose of complete sections of insulated piping as asbestos-containing materials in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Prepare areas as a contained work area and cover floor in vicinity of work area and 6 ft. beyond with 6-mil polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall

and secure at ceiling with duct tape.

- (c) Determine lengths of insulated piping that can readily be handled by available personnel and equipment during cutting, transportation, and disposal.
- (d) Using glovebag procedures, remove asbestos-containing pipe insulation, minimum eighteen inches in length, from pipe at locations where pipe will be cut.
- (e) Wrap insulated sections of pipe with at least two layers of 6-mil plastic sheeting prior to cutting. Seal ends and seams of each layer with duct tape, and then "candy-stripe" the entire assembly with duct tape.
- (f) Handle and support pipe securely during cutting, transportation, and disposal; do not drop or cause any other impact that might damage the protective plastic wrap.
- (g) Cut wrapped pipe into sections, attach labels identifying the insulated pipe sections as asbestos-containing waste, and transport the materials to the disposal site in accordance with the requirements of these Technical Specifications.
- 6. Asbestos-Containing Ceiling Tiles
  - (a) Remove and properly dispose of all asbestos-containing acoustical ceiling tiles in accordance with Federal and State Regulations, or as more stringently specified herein.
  - (b) Spray sections of ceiling tile from above with a mist of amended water to reduce the release of fibers. Spray the material sufficiently to wet it without causing excessive dripping.
  - (c) Do not permit removed asbestos-containing material to fall to the floor. Lift ceiling tiles from the grid and hand tiles down to be placed in a 6-mil disposal bag. Do not break tiles.
  - (d) After removal of asbestos-containing material, wet-clean surfaces of ceiling grid and/or other ceiling system components and associated substrates to remove residual material. Continue wet-cleaning until surface is free of visible material.
- 7. Asbestos-Containing Floor Tile and Adhesive
  - (a) Remove and properly dispose of all asbestos-containing resilient floor covering material and/or adhesive in accordance with Federal, State, and local Regulations, or as more stringently specified herein.
  - (b) Prepare areas as a contained work area.
  - (c) Wet floor tiles with amended water to minimize fiber release during its removal. Use amended water sparingly and apply with a sponge or cloth to eliminate standing water and to prevent water from traveling on the floor.
  - (d) Remove individual tiles by wedging a scraper under one edge of the tile and exerting a prying twisting force as it is moved under the tile until the tile releases from the floor. Do not break tiles. If tiles do not release easily, a mallet or hammer may be used to strike the scraper and force it under the tile; hot air blowers may be used to heat a tile and soften the adhesive. Place tiles immediately in disposal bags as they are removed. Place bags in barrels before removing from work area.
  - (e) As small areas of subfloor are cleared of tile, scrape up remaining adhesive and deposit scrapings in disposal bags. Clean floor of all adhesive residue by wet mopping with solvent.
  - (f) Wet clean all surfaces in the flooring material removal area and proceed with Work Area Preparation Procedures.
- 8. Asbestos-Containing Resilient Sheet Flooring

- (a) Remove and properly dispose of all asbestos-containing resilient sheet flooring and adhesive in accordance with Federal, State, and Local Regulations, or as more stringently specified herein.
- (b) Make a series of parallel cuts, with a knife, four to eight inches apart parallel to the wall, keeping cut lines wet.
- (c) Start at the end of the room farthest from the entrance door. Pry up the corner of the first strip, separating the backing layer. As the strip is being removed, spray a constant mist of amended water into the delamination nip point to minimize the release of airborne fibers. Felt remaining on the floor and on the back of the strip must be kept thoroughly wet.
- (d) Roll the strip tightly as it is removed. Tie or tape the roll securely and place in a disposal bag or closed impermeable container for disposal. Scrape wet felt backing material from the floor and place immediately, while wet, into disposal bags.
- (e) As small areas of subfloor are cleared of sheet flooring, scrape up remaining adhesive and deposit scrapings in disposal bags. Clean floor of all adhesive residue by wet mopping with solvent.
- 9. Asbestos-Containing Drywall Joint Compound and Contaminated Gypsum Wallboard
  - (a) Remove and properly dispose of all asbestos-containing drywall joint compound in accordance with Federal, state, and local laws and regulations, or as more stringently specified herein.
  - (b) Prepare areas as contained, negative pressure work areas.
  - (c) Wet walls with amended water to minimize fiber release during removal. Use an airless sprayer to apply amended water.
  - (d) Cut the gypsum wallboard with a utility or carpet knife and remove in sections as large as possible. Do not allow material to accumulate on the floor, but bag or wrap it as it is removed. Wrap large pieces of wallboard in two layers of six-mil plastic and seal with duct tape.
  - (e) As areas of studs or furring are revealed by removal of the wallboard, remove remnants of wallboard attached to fasteners or otherwise lodged in the framing assembly. Nail heads or fasteners must be removed or cleaned of any wallboard debris or residual coating of drywall joint compound.
  - (f) Dispose of gypsum wallboard and joint compound material as asbestos-contaminated waste. If framing members are indicated to be removed, they may be disposed of as non-asbestos waste after they are thoroughly cleaned in the decontamination facility.
- 10. Asbestos-Containing Ceiling Texture Finish and Plaster
  - (a) Remove and properly dispose of all asbestos-containing plaster finish materials on ceilings and walls in accordance with Federal, state, and local laws and regulations, or as more stringently specified herein.
  - (b) Prepare areas as contained, negative pressure work areas.
  - (c) Mist surface of ceiling or walls with amended water to minimize fiber release during removal. Where surface of material has been painted or otherwise coated, cut small holes as required and apply amended water from above/behind.
  - (d) Where plaster is found applied to gypsum wallboard:
    - i. Wet substrates with amended water to minimize fiber release during removal. Use an airless sprayer to apply amended water.
    - ii. Cut the gypsum wallboard with a utility or carpet knife and remove in sections as large as

possible. Do not allow material to accumulate on the floor, but bag or wrap it as it is removed. Wrap large pieces of wallboard in two layers of six-mil plastic and seal with duct tape.

- (e) Where the plaster is found in a suspended ceiling, cut wire lath into manageable sections and cut hanger wires. Roll up lath complete with asbestos-containing material and hand place in disposal containers. Place rolled-up wire lath in corrugated cardboard boxes before placing in disposal bags. After removal of lath and asbestos-containing material, remove any overspray on decking and structure above using stiff nylon bristled brush.
- (f) Where the plaster is found on a framed partition, remove lath and plaster in sections as large as possible. Do not allow material to accumulate on the floor, but bag or wrap it as it is removed. Wrap large pieces of lath and plaster in two layers of six-mil plastic and seal with duct tape.
- (g) As areas of studs or furring are revealed by removal of the lath and plaster, remove remnants of lath and plaster attached to fasteners or otherwise lodged in the framing assembly.
- (h) Dispose of lath and plaster as asbestos-contaminated waste.
- 11. Asbestos-Containing Roofing and Flashing Materials
  - (a) Remove and properly dispose of any asbestos-containing roof flashing materials and built-up roofing materials in accordance with Federal, State, and local Regulations or as more stringently specified herein.
  - (b) Provide a Regulated, non-Contained Work Area.
  - (c) Provide appropriate worker footwear to assure firm footing while walking on the roof. Asbestos-containing surfaces will be wetted with amended water and may be slippery. Use extreme caution during work on roof surfaces.
  - (d) Spray large areas of asbestos material with amended water using spray equipment recommended by surfactant manufacturer capable of providing a "mist" application to reduce the release of fibers. Saturate the material sufficiently to wet it without causing excessive dripping or ponding. Spray the asbestos material repeatedly during the work process to maintain wet condition but do not use excessive amounts of water.
  - (e) Remove the saturated asbestos-containing materials in small sections, using knives, cutting spuds, or other non-abrasive techniques for cutting roofing and flashing materials.
  - (f) As it is removed, place wet materials into double plastic disposal bags of minimum of 6-mil thickness and seal with tape. Wet clean outside of bag just prior to transporting the bag from the roof work area.
  - (g) Transport material from roof work area to ground using an enclosed chute or lower bagged material by hand or mechanically into a closeable, lockable dumpster or similar container double-lined with two layers of 6-mil thick plastic. Do not allow bags to fall or break.
  - (h) Cleaning and Clearance Sequence (roofing material work areas)
    - i. Clean work area of all visible debris continually during work. Do not allow debris to accumulate. After removal of visible debris, clean surface with vacuum equipped with HEPA filter and damp-mop. Do not perform dry dusting or dry sweeping. Continue this cleaning until there are no visible bulk accumulations of debris from removed materials on any surfaces.
    - ii. Clean all equipment (excluding that which will be needed for further cleaning in the work area) and remove from work area.

- iii. After the work area is found to be visually clean, apply one coat of approved sealant to all dried, exposed surfaces from which asbestos-containing materials have been removed.
- (i) In place of building decontamination units on the roof, workers may don two disposable protective clothing suits during asbestos removal of roofing and flashing materials. Follow the procedures below for personnel decontamination when using the two-suit method:
  - i. Prior to leaving the roof work area, HEPA vacuum outer suit completely and remove, turning it inside out while doing so. Place suit in a disposal bag.
  - ii. Proceed directly to centralized decontamination unit (units from other work areas may be used following the acceptance of final air test from the work area).
  - iii. Remove second suit in the equipment room section of the decontamination unit and proceed to shower with respirator still on.
  - iv. Following proper showering techniques proceed to the clean room to change back into street clothes.
- 12. Cement-Asbestos Board and Transite<sup>™</sup> Siding
  - (a) Carry out removal of cement asbestos board in a manner that will minimize pulverizing, breaking or abrading of involved materials.
  - (b) Prepare areas as Regulated, Non-Contained Work Areas.
  - (c) Cover ground in vicinity of work area and 6-ft beyond with 6-mil polyethylene drop sheet.
  - (d) Wet area of fasteners with amended water or removal encapsulant and back out fasteners. Use caution to prevent breakage of cement asbestos board. Hold cement asbestos board in place until all fasteners are removed.
  - (e) Take down cement-asbestos board and wrap in two layers of 6-mil sheet plastic or a double disposal bag. Dispose of as Asbestos-Containing Waste Material.
  - (f) Any backing material, such as building felt, located between the cement asbestos board and the sheathing or structure shall be considered as asbestos-contaminated and removed and disposed of as asbestos-containing material.

#### XIV. PROJECT CLEAN UP AND CLEARANCE

In order to certify the Contract is completed in a manner that complies with the laws, regulations, and guidance documents listed above and completes the work scope of this Contract, the Abatement Contractor shall complete, sign, date, post, and distribute the *Completion Notification Form for Removal or Encapsulation of Asbestos* required by the GA EPD Asbestos Program.

One copy is to be attached to the inside of the front door (or in close proximity), one copy will go to the Georgia EPD Asbestos Program, and one copy will go to the Contracting Officer.

Macon-Bibb County will perform a post abatement visual clearance inspection or final inspection on all projects using a qualified Asbestos Inspector. Additionally, Macon-Bibb County reserves the right to perform on-site inspections at any time during the abatement process using qualified Department representative or Asbestos Inspector. For projects that fail the visual inspection, the Abatement Contractor will correct any deficiencies, complete an amendment to the *Project Completion Form*, and redistribute as described above. For parcels that fail the visual clearance inspection, the Abatement Contractor will be responsible for the additional abatement costs and for the visual clearance re-inspection expenses.

A. Provide general clean-up of Work Areas concurrently with the removal of asbestos-containing

materials. Do not permit accumulation of removed materials on floor or ground.

- B. The Abatement Contractor shall properly dispose of all materials selectively demolished to facilitate the removal of identified asbestos-containing/contaminated materials. Asbestos-containing/contaminated materials shall be disposed of in accordance with Section XV of the Technical Specifications. Other materials may be disposed of as ordinary construction debris.
- C. The Asbestos Abatement Work Area is cleared when the work area is visually clean. In the event that release criteria are not met, Contractor shall bear all costs associated with retesting and re-cleaning.
- D. Cleanup Sequence:
  - 1. Remove all visible accumulations of asbestos material and debris.
  - 2. Wet clean all surfaces in the Work Area(s).
  - 3. Clean all sealed impermeable containers and all equipment (excluding that which will be needed for further cleaning) used in the Work Area(s) and remove from Work Area(s) via the equipment decontamination enclosure system.
  - 4. Work Area cleaning will be deemed to be complete when a visual inspection in accordance with ASTM Standard E1368-98 does not reveal the presence of visible dust, debris, residue, or other suspect matter.
  - 5. Following the cleaning sequence and prior to removing plastic sheeting; all surfaces from which asbestos-containing materials were removed shall receive one coat of sealant to seal existing surfaces. The sealant will be tinted blue or other approved color. Misting, spraying and pumping equipment, as recommended by the encapsulate material's manufacturer, shall be used. The Abatement Contractor will notify the Asbestos Inspector of the schedule and progress of the abatement efforts. The Abatement Contractor shall contact the Asbestos Inspector to schedule final inspections. **Do not apply sealant before contacting the Asbestos Inspector or before abatement area is visually clean.**
  - 6. Mist and seal all exposed surfaces of the plastic sheeting and carefully remove plastic sheeting from walls and floor, folding inward to trap debris. Doors, windows, vents and other openings shall remain sealed.
  - 7. Asbestos Abatement Contractor shall not use sealant sprayed into the air as a means of reducing fiber levels after plastic sheeting is removed.
  - 8. Dismantle and remove sturdy barriers and plastic seals on all openings and wet clean immediate areas.
  - 9. Dismantle decontamination enclosure systems and thoroughly wet clean immediate areas.
  - 10. Dispose of debris, used cleaning materials, unsalvageable materials used for sturdy barriers, and any other remaining materials. Consider the materials as contaminated and dispose of accordingly.

#### XV. DISPOSAL OF CONTAMINATED WASTE

A. Remove sealed and labeled containers of asbestos-containing material and wastes and dispose of in an approved sanitary landfill. The Georgia Rules for Solid Waste Management, Chapter 391-4-3.04(8) provides for the disposal of asbestos containing waste into permitted landfills. Disposal site shall be approved by the Environmental Protection Division of the Georgia Department of Natural Resources, and shall be acceptable to Macon-Bibb County. Treat all waste materials, regardless of friability, as regulated asbestos-containing materials (RACM).

- B. Notify the Contracting Officer or Consultant, if designated, not less than 24 hours prior to the proposed time of removing and delivery of contaminated waste to the landfill. The Consultant and/or Owner's Representative may elect to observe this operation.
- C. Seal asbestos waste in leak-proof impermeable containers labeled in accordance with Title 29, Code of Federal Regulations, Section 1926.1101, and Title 49, Code of Federal Regulations, Sections 171 and 172.
- D. Transport double-bagged contaminated waste from work area to truck in fiber or steel drums if waste bags rip or tear during moves from work area to dumpster.
- E. Use only enclosed or covered trucks to haul impermeable containers to prevent loss or damage to containers in route to sanitary landfill.
- F. Pre-clean truck using HEPA vacuum equipment and wet-cleaning methods and place one layer of six mil plastic sheeting on walls and floor of truck prior to transport of contaminated waste.
- G. Allow only sealed plastic bags or impermeable containers to be deposited in landfill. Leave damaged, broken, or leaking plastic bags in the impermeable container and deposit entire container in landfill.
- H. Ensure that there are no volatile or visible emissions to the outside air from site where materials and waste are deposited as a result of materials from this project.
- I. Submit landfill receipts after completion of the Work
- J. Following the last trip to dispose of contaminated waste, all plastic sheeting shall be removed from the walls and floor of the truck and also be disposed of as contaminated waste.

#### **XVI. FIELD QUALITY CONTROL**

- A. A final visual observation will be performed by the Macon-Bibb County Engineer after final clean up to inspect for visible trash, dust, dirt, debris, and areas of damage.
- B. Asbestos Abatement Contractor shall perform additional cleaning of area(s) if, in the opinion of the Macon-Bibb County Engineer based upon the final visual observation, previous clean-up operations were determined to be inadequate.

#### XVII. WASTE DISPOSAL

Abatement Contractor agrees to indemnify and hold harmless the Department and Macon-Bibb County, its employees, representatives, and Inspectors from any and all claims in connection with the removal of hazardous material related to the performance of the Work of the Contract. Waste manifests shall be prepared for job completion submittals.

#### **XVIII. JOB COMPLETION/REQUEST FOR PAYMENT**

Upon completion of project clearance, Abatement Contractor must submit payment request, waste manifests, Lien Waiver, and bond release request in writing to the Macon-Bibb County Engineer, c/o MAAI, 125C, First Street, Macon, Georgia 31201. Request for Payment and Lien Waiver should be completed on AIA Forms G702 - *Application and Certification for Payment* and G706A *Contractors Affidavit Release (Waiver) Of Liens Form, 1994.* Payment and bond release payments will be made within forty-five (45) days after project clearance.

#### XIX. PENALTIES

As the construction schedule is critical for these projects, the Abatement Contractor must begin work as soon as is practical after the Notice to Proceed. If the work on a specific project has not commenced within 10 days of the Notice to Proceed and the Contracting Officer deems that the work remaining cannot be completed by the completion date as established for that project, Macon-Bibb County may terminate the Contract.

Any Abatement Contractor who is found to have non-responsive or disqualified bids will be removed from the pre-qualified Abatement Contractors' List for a period of one year from the date of the second infraction.

Any citation given to the Abatement Contractor by the GA EPD shall be forwarded to the Contracting Officer. Macon-Bibb County may terminate the contract for the Abatement Contractor based on the severity or frequency of citations or non-performance and may remove the Abatement Contractor removed from the pre-qualified Abatement Contractors' List for a period of one year from the date of the second infraction.

Macon-Bibb County may cancel, terminate, or suspend the Contract in whole or in part wherein it is determined by Macon-Bibb County that the Abatement Contractor is in violation of this instrument. Additionally, the Abatement Contractor may also be removed from the pre-qualified Abatement Contractor's List if the Abatement Contractor is determined to be in violation of this Contract.

# **DEMOLITION TECHNICAL SPECIFICATIONS**

#### I. SCOPE OF WORK

All improvements must be completely demolished and removed from their present site. All demolition debris must be removed and disposed of properly in an appropriate landfill or recycled in accordance with the provisions of the Georgia Comprehensive Solid Waste Management Act of 1990 and the Georgia Rules for Solid Waste Management Chapter 391-3-4.

Summary Inspection Reports, included in the Bid Documents, describe the parcels that will be demolished. The Successful Bidder, hereinafter referred to as the Contractor or Demolition Contractor, will also receive Bulk Sample Summary Reports and Project Notification for Asbestos Renovation, Encapsulation or Demolition Project (Project Notification Form). The Demolition Contractor will submit the Project Notification Form to the GA EPD as directed in article II. Scheduling. Work will commence immediately after the Notice to Proceed is issued and will be performed in the time frame established on the submitted Project Notification Form.

In the event that the demolition follows an asbestos abatement on a parcel or parcels within the project, the Demolition Contractor must work with the Contracting Officer to coordinate work efforts.

## II. SCHEDULING

The schedule for demolition or the removal of the improvements for the subject parcel(s) is critical. The specified time limit for the completed demolition or removal, disposal, and site restoration of this project is specified in the Bid Documents. Liquidated damages will be assessed for each day beyond the specified time limit.

To meet this schedule, the 10-day notification for demolition must be filed with the Georgia Environmental Protection Division (GA EPD) on the "Project Notification of Asbestos Renovation, Encapsulation or Demolition Project" (Project Notification Form) within 2 working days after the Bid Opening. After the Demolition Contractor has received the Notice to Proceed, the Demolition Contractor shall make appropriate amendments to the Project Notification Form for the dates and times he is scheduled to be on site and commence the demolition immediately. Receipts from a postal service or e-mail confirmations confirming the date of submittal of forms to the GA EPD shall be kept as part of the project records. The Demolition Contractor shall have a copy of the Project Notification Form and any amendments to the Project Notification Form at the site at all times during the demolition efforts. *The Demolition Contractor should be aware that the Georgia Environmental Protection Division does inspect these projects on a random basis and there can be severe penalties if the demolition schedule is not followed or amendments filed as changes occur.* 

A Notice to Proceed will be issued at the time that the parcels are ready for demolition. If asbestos abatement is required prior to demolition, the Notice to Proceed after asbestos abatement efforts are completed and clearance inspections are completed. Parcels may be released in groups or individually. Upon receipt of the Notice to Proceed, the Demolition Contractor will completely demolish the improvements and properly dispose of the demolition debris for each of the parcels of this project within the specified time limit. Failure to meet the time constraints specified herein will result in liquidated damages, termination of the Contract, and/or removal from the pre-qualified Demolition Contractors' List.

In no case will the Demolition Contractor be permitted to collect rentals on right of way property or improvements released for demolition.

#### **III. CODES AND REGULATIONS**

The Demolition Contractor will comply with all Federal, State, or local laws or ordinances applicable to this Work during the performance of this Contract.

The Contractor, his assignees, and successors in interest (hereinafter referred to as the "Demolition Contractor") also agree to comply with Regulations of the U.S. Department of Transportation (USDOT) relative to non-discrimination in Federally-assisted programs of the Georgia Department of Transportation herein defined:

- A. Compliance with Regulations: The Demolition Contractor will comply with the regulations of the U.S. Department of Transportation (Title 15, Code of Federal Regulations, Part 8, herein referred to as the "Regulations") relative to non-discrimination in Federally-assisted programs of the Georgia Department of Transportation. The USDOT Regulations referenced above are herein incorporated by reference and made a part of this Contract.
- B. Non-Discrimination: The Demolition Contractor, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the ground of race, color, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Demolition Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 8.4 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix A-11 of the Regulations.
- C. Solicitations: In all solicitations either by competitive bidding or negotiation made by the Demolition Contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor, supplier, or lessor, shall be notified by the Demolition Contractor of the Demolition Contractor's obligations under this Contract and the Regulations relative to non-discrimination on the grounds of race, color, or national origin.
- D. Information and Reports: The Demolition Contractor will provide all information and reports required by the Regulations, or orders and instruction issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by Macon-Bibb County, the Georgia Department of Transportation (hereinafter referred to as the Department), or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Demolition Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Demolition Contractor shall so certify to Macon-Bibb County, the Department, or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.
- E. Sanctions for Noncompliance: In the event of the Demolition Contractor's noncompliance with non-discrimination provisions of the USDOT Regulations. Macon-Bibb County shall impose such contract sanctions as it, the Department, or the Federal Highway Administration may determine to be appropriate, including but not limited to:
  - 1. withholding of payments to the Demolition Contractor under the Contract until the Demolition Contractor complies, and/or
  - 2. cancellation, termination, or suspension of the Contract, in whole or in part.
- F. Incorporation of Provisions: The Demolition Contractor will include the provisions this contract in every subcontract, including procurement of materials and leases pursuant thereto. The Demolition Contractor will take such action with respect to any subcontract, procurement, or lease as Macon-Bibb County, the Department, or the Federal Highway Administration may direct as means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a Demolition Contractor becomes involved in, or is threatened with litigation with a subcontractor, supplier, or lessor as a result of such direction, the Demolition Contractor may request the State enter into such litigation

to protect the interest of the State, and in addition, the Demolition Contractor may request the United States to enter into such litigation to protect the interest of the United States.

#### **IV. SITE CONDITIONS**

The Demolition Contractor shall become thoroughly familiar with the requirements of these specifications and with the existing conditions under which the work of this Contract is to be performed. Changes in building conditions and at the site may occur. Neither Macon-Bibb County nor the Department assumes any responsibility for the actual condition of the improvements to be demolished. Assumed salvage materials or salvage value at the time of the bid is not guaranteed.

Macon-Bibb County and the Department will not be responsible for the condition of improvements, vandalism and damaged or missing equipment and fixtures. No guarantee, expressed or implied, is made as to the quality or condition of the improvements, materials in the buildings, or other improvements.

It shall be the responsibility of the Demolition Contractor to verify the status of the various utilities in order to prevent an accident that could result from a utility remaining connected. Isolate, lock-out and tag-out electrical systems, and establish temporary power serving the work through ground-fault circuit interrupt sub-panels or temporary supply panels. The Demolition Contractor is responsible for providing electricity and water to each site.

## V. PRE-JOB SUBMITTALS

Prior to issuing of Notice to Proceed, the Demolition Contractor must furnish to Macon-Bibb County's Contracting Officer:

#### A. Certificate of Insurance

Bonding and insurance certificates must be furnished within ten days after award of the Contract. In the event that a Demolition Contractor is not able to furnish the required bonding and/or insurance on demand, all deposits will become the property of Macon-Bibb County. Failure to present the required bonding within the 10 day specified time limit will be considered a violation for which two violations will result in removal from the pre-qualified Demolition Contractors' List for a period of one year from the date of the second infraction. Bid bonds will be released by Macon-Bibb County upon acceptance of the site conditions on all parcels contracted for by the Demolition Contractor.

#### B. Performance Bond

The Successful Bidder must furnish a Performance Bond. The Performance must be equal to the total bid amount for the Project. The Performance Bond must be submitted on *AIA Form G312*.

#### C. Copies of Notification Forms or Permits

Copies of any notification forms or permits as required by any entity prior to the commencement of the demolition shall be submitted prior to issuance of the Notice to Proceed.

## VI. ASBESTOS-CONTAINING MATERIALS

Prior to the release of the bid package, an AHERA accredited inspector has inspected the structures on each parcel for asbestos-containing materials. Asbestos-containing materials have been identified and abated from the structures on each parcel of the project. The Asbestos Survey is included in this document to provide the Demolition Contractor information regarding the asbestos-containing materials previously identified in the structures. The Successful Bidder will also be provided with a copy of *Summary of Bulk Samples* that documents all materials sampled and analyzed for asbestos content. The Demolition Contractor shall have a copy of the Asbestos Inspection Report and Bulk Sample Summary at the site at all times during the demolition efforts.
Materials identified as asbestos-containing materials shall be removed by a licensed Abatement Contractor prior to the commencement of the demolition. The Abatement Contractor may be required to selectively demolish building components to facilitate removal efforts. Depending upon the abatement efforts necessary, these items that may be selectively demolished or removed include, but are not limited to, furnishings, appliances, plumbing fixtures, cabinetry, lighting fixtures, doors, windows, and decorative molding and trims as well as any paneling or covering that may conceal an asbestos-containing material. The selective demolition will be limited to the areas affected by the abatement efforts. The areas that will be affected by removal are included on the *Asbestos Inspection Report*. The Abatement Contractor shall properly dispose of all materials selectively demolished to facilitate the removal of identified asbestos-containing/contaminated materials. The materials that are selectively removed or demolished shall not be stored on site.

At the time of the asbestos survey and subsequent reporting efforts, it is not known if the subject structures will be relocated for reuse or demolished. Therefore, given the possible relocation/reuse of structures, the damage to existing building components and finishes was minimized and destructive access was not utilized to access potentially concealed suspect materials. In the event the structures are demolished rather than relocated, suspect materials (such as Transite<sup>TM</sup> panels, cement-asbestos flues, pipe insulation, flooring concealed under an existing floor system, etc.) previously concealed may be exposed by the demolition efforts. At the time of discovery, these materials should be assumed to contain asbestos until properly sampled by an AHERA-accredited Asbestos Inspector to verify otherwise.

In the event suspect asbestos-containing materials are discovered, the Demolition Contractor will notify the Project Manager specified in the Bid Proposal Package. The Demolition Contractor will stop all demolition efforts that will further disturb this material until the material is determined to be non-asbestos containing or abated by a Georgia Licensed Abatement Contractor. Provide, as necessary, appropriate notifications or amendments to prior GA EPD notification regarding the increase in asbestos-containing material.

Asbestos requires special handling and is regulated by the Georgia Asbestos Safety Act and the respective promulgated Rules. *The Demolition Contractor should be aware that the Georgia Environmental Protection Division does inspect these projects on a random basis and there can be severe penalties if violations are discovered.* 

## **VII. DEMOLITION REQUIREMENTS**

The Demolition Contractor is required to remove the structure(s) in its (their) entirety from the subject parcel(s). Unless specified otherwise, the structures shall be completely demolished. No portion of a structure shall remain in any location of the parcel or remainder of the parcel. If the structure was abated prior to the demolition efforts, those components of the structures that were not removed prior to abatement may not be used for salvage.

To locate each improvement, the Demolition Contractor shall correctly identify each improvement prior to proceeding with demolition. If no specific street address is available for the improvement, the Demolition Contractor shall use the description listed along with the plats to determine location and have the site physically located by the Contracting Officer.

All rubbish, refuse, dumped material, debris, junk, old automobiles, etc., shall be completely removed from the right of way or easement areas. The right of way shall be left clear of existing trash or debris as well as any debris generated by demolition efforts.

Depressions created by the removal of basements or retaining walls shall be filled to match the surrounding grade or graded and sloped to match existing terrain. Basements must be graded, filled, and sloped in such manner that the site does not retain water and is acceptable to Macon-Bibb County and the Department.

All concrete slabs within the structure or adjacent to the structure such as garage slabs, carport slabs, porches, and patios at grade level or below grade level (basement or crawl space), concrete foundation walls, and footings must be completely removed prior to filling. Fill material, if required, shall be clean soil to a 95% compaction. All paved areas or ground slabs within the right of way such as driveways and parking areas are required to be removed except as noted in bid package.

All concrete pool decks, pools, bottom slabs, steel retaining walls, liners, and other in ground pool components shall be completely removed prior to filling. Swimming pools, if any, must be filled to the ground line or graded, filled and sloped in such manner that the site does not retain water and is acceptable to Macon-Bibb County and the Department. Fill material, if required, shall be clean soil to a 95% compaction.

All sewer connections must be covered with wire mesh and filled with cement completely sealing off all sewers. Refer to section *VIII. Septic Tanks* for specific requirements for the removal of septic tanks.

Improvements shall not be used for storage purposes or cleared lots used as salvage yards or storage areas.

The site of the demolition shall be graded and filled, if necessary, such that ponding shall not occur in the areas of the demolition after the demolition is completed and site is restored. The right of way property shall remain in a manner that is similar in appearance to the adjacent properties. As the entire area acquired for the right of way may not be disturbed during road improvement projects and may remain as frontage to other properties, it is imperative that the demolition site remain in a finished manner after the demolition efforts are complete. The site from which all structures are moved must be LANDSCAPED and GRASSED in a workmanlike manner. The contractor shall fill and final grade the site to eliminate any depressions and/or holes on the property. Fill material, if needed, shall be clean soil to a 95% compaction and compacted in 6" lifts. The final grade shall be prepared for landscaping by smoothing or raking the surface to remove all debris from the surface.

The Demolition Contractor will provide adequate landscaping, including the placement of straw bales, or other erosion control measures. The above noted LANDSCAPING and GRASSING also applies to any area of the site that is disturbed by demolition activities, including but not limited to mobilization of equipment onto the site, waste containers, or any other site disturbance to facilitate demolition. The Demolition Contractor must comply with the following minimum requirements for grassing: Per 1/4 acre: Kentucky 31 Fescue, 8 pounds, 200 pound 6-12-12 fertilizer and a minimum of 2" of straw covering all grassed areas. Alternative grassing standards may be submitted for review and approval by Macon-Bibb County and the Department.

The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land disturbing activities. The Demolition Contractor is required to follow all erosion, runoff, and sediment control practices, including erecting of silt fencing or other measures as necessary, as required by local, state, and federal regulations. Further, adjacent property will be protected from any damage that potentially could result from the demolition efforts including runoff or erosion from the site. Erosion control measures will be maintained at all times. Any disturbed area left exposed for a period greater than 14 days shall be stabilized with temporary seeding and mulch. All erosions control measures shall comply with *TITLE 12. Conservation and Natural Resources Chapter 7. Control of Soil Erosion and Sedimentation O.C.G.A. § 12-7-1 (2009).* 

The Demolition Contractor is responsible for finding and properly removing all hazardous material, following the removal of all asbestos-containing materials by the Abatement Contractor, as required by applicable laws. The removal of these materials, if applicable, will be included in the bid price for the demolition of the structure. The Demolition Contractor shall submit an executed "*Certificate of Compliance*". Contract payments and bond releases will not be processed before the "Certificate of Compliance" has been furnished.

The Demolition Contractor agrees to assume all liability, both personal and property damages, in the

removal of the above improvements and Macon-Bibb County and its authorized agents or consultants are not liable in any way in connection with the removal of these improvements, etc., from their present location. The Demolition Contractor agrees to indemnify and hold harmless Macon-Bibb County and its authorized agents or consultants in the Administration of this Contract from any and all claims in connection with construction of this road project due to the failure of the Demolition Contractor to perform in accordance with this contract. It is the Demolition Contractor's responsibility to have all utilities disconnected prior to demolition. It is understood and agreed that no utility connections shall be made or allowed to relocate structures across or from a limited access right of way.

The Demolition Contractor agrees to indemnify and hold harmless Macon-Bibb County and its authorized agents or consultants from any and all claims in connection with removal of hazardous material contained with the improvements to be removed and furnish an executed "Certificate of Compliance" (to be furnished to the successful bidder by Macon-Bibb County) with the payment invoice. Contract payments and bond releases will not be processed until the "Certificate of Compliance" has been received. Failure to properly inspect and test materials will not constitute grounds for adjustments to this Contract.

# The Demolition Contractor agrees that a person with training previously described as Advanced Asbestos Awareness Training shall be on site at all times during the performance of work under this Contract.

It is further understood and agreed that Macon-Bibb County and the Department will not be liable in any way for utility reconnections adjacent to rights of way acquired or to be acquired on this project or any subsequent location of improvements.

## VIII. SEPTIC TANKS

The Demolition Contractor shall be required to remove or close septic tanks following the following procedures:

- A. The septic tank must be pumped and the contents disposed of in accordance with all federal, state, and local regulations. Provide to Macon-Bibb County a receipt documenting the pumping and disposal of the contents of the septic tank.
- B. Add two 50# bags of lime to the emptied septic tank.
- C. The septic tank must be cracked or punctured sufficiently to allow drainage through the remaining tank materials after the septic tank is closed and filled.
- D. The lid for the septic tank must be cracked or broken and dropped inside of the remaining tank.
- E. The septic tank will be completely filled with  $1\frac{1}{2}$  inch gravel.
- F. The gravel will be covered with a water permeable mat allowing water to flow through the gravel and tank walls, keeping the soil outside of the remaining tank.
- G. The pit will be backfilled. Fill material, shall be clean soil to a 95% compaction.
- H. The excavated area will be landscaped and grassed in accordance with the Technical Specifications, Section VII.

## IX. PLUGGING/SEALING ABANDONED WATER WELLS

All open wells located within the required right of way of the awarded parcel will be temporarily closed in accordance with The State of Georgia Water Well Standards Act of 1985, (OCGA 12-5-120 -- 12-5-137). All open wells located within the required right of way of the awarded parcel must be covered with a reinforced four-inch thick concrete slab as required for a temporary closure. Holes shall not be filled.

## X. MOVING OF STRUCTURES

For this specific project, houses or other permanent structures may not be removed from this site in their entirety. The Demolition Contractor may not move any structure from the site intact for the purpose of relocation and re-inhabiting the structure, nor may the Demolition Contractor sell the structure to a third party with the intent to relocate and re-use the structure.

## XI. MOBILE HOMES

No mobile home titles will be furnished to the Demolition Contractor. The Demolition Contractor shall notify anyone that they sell or give away a mobile home to that there are no titles available. Additionally, the Demolition Contractor will instruct this person(s) not to contact Macon-Bibb County or the Department with regard to obtaining a title for a mobile home acquired from the Demolition Contractor.

#### XII. WASTE DISPOSAL

Waste disposal or recycling from the demolition projects shall comply with the provisions of the Georgia Comprehensive Solid Waste Management Act of 1990 and the Georgia Rules for Solid Waste Management Chapter 391-3-4. The Demolition Contractor is required to maintain disposal receipts or recycling manifests for at least one year after the project is completed to document "proof of proper disposal or recycling." Additionally, the Demolition Contractor is to complete "Certificate of Compliance" submitted at the completion of the job.

The demolition may occur immediately following an asbestos abatement project. If the abatement project and demolition project are bid concurrently, the abatement contractor and demolition contractor, if not the same company, shall co-ordinate disposal of any non-asbestos containing selectively demolished building components.

The Demolition Contractor should be aware that on-site burning of structures will not be permitted within the right of way or adjacent property under any circumstances and the destruction of trees will not be permitted without first receiving permission from a representative of Macon-Bibb County Engineer. The Demolition Contractor agrees to indemnify and hold harmless Macon-Bibb County and the Department from any and all claims in connection with removal and/or disposal of hazardous material contained within the improvement to be removed.

## XIII. JOB COMPLETION/REQUEST FOR PAYMENT

Upon completion of site clearance, Demolition Contractor must submit payment request, waste manifests and/or affidavit, and bond release request in writing to the Contracting Officer. Request for Payment should be completed on "Certificate of Compliance." Macon-Bibb County will inspect the site within fifteen (15) days after notice of completion. Payment and bond release payments will be made within forty-five (45) days after approval of the site.

## XIV. LIQUIDATED DAMAGES

It is the intent of Macon-Bibb County that the time schedule for demolition of all improvements shall be enforced. At the discretion of Macon-Bibb County, violations of the time schedule will result in either the removal of the Demolition Contractor from the project and termination of the contract or assessment of liquidated damages.

In the event the Demolition Contractor fails to remove the improvements from their present site and clear the right of way of all debris, refuse, or rubbish within the specified time, Macon-Bibb County has the option to remove the Demolition Contractor from the project and terminate the contract or impose liquidated damages for each day beyond the time limit. Liquidated damages will be assessed for 10 days past the time limit. After the 10 days of liquidated damages, Macon-Bibb County will retake possession of improvements as well as all deposits, payments, and bonds and terminate the Contract.

Also, upon notice of default, any and all monies on deposit with Macon-Bibb County, either as bond or as deposit on purchases, shall by virtue of Demolition Contractor's unsatisfactory performance be subject to claim by Macon-Bibb County. Further, such unsatisfactory performance shall vest title to all remaining improvements and/or materials in Macon-Bibb County unless bonding company assumes responsibility for completing the Contract.

## **XV. PENALTIES**

As the construction schedule is critical for these projects, the Demolition Contractor must begin work as soon as is practical after the Notice to Proceed. If the work on a specific project has not commenced within ten days of the Notice to Proceed and the Contracting Officer deems that the work remaining cannot be completed by the completion date as established for that project, Macon-Bibb County may terminate the Contract.

If the Demolition Contractor fails to meet the time constraints and has been assessed liquidated damages penalties for two instances, the Demolition Contractor will be removed from the pre-qualified Demolition Contractors' List for a period of one year from the date of the second infraction.

Any Demolition Contractor who is found to have non-responsive or disqualified bids will be removed from the pre-qualified Demolition Contractors' List for a period of one year from the date of the second infraction.

Any citation given to the Demolition Contractor by the GA EPD shall be forwarded to the Contracting Officer. Macon-Bibb County may terminate the contract for the Demolition Contractor based on the severity or frequency of citations or non-performance and may remove the Demolition Contractor removed from the pre-qualified Demolition Contractors' List for a period of one year from the date of the second infraction.

Macon-Bibb County may cancel, terminate, or suspend the Contract in whole or in part wherein it is determined by Macon-Bibb County that the Demolition Contractor is in violation of this instrument. Additionally, the Demolition Contractor may also be removed from the pre-qualified Demolition Contractor's List if the Demolition Contractor is determined to be in violation of this Contract.

# ASBESTOS INSPECTION REPORTS WITH BULK SAMPLE ANALYTICAL RESULTS AND EPD PROJECT NOTIFICATION FORM

ASBESTOS SURVEY RESULTS 1378 JEFFERSONVILLE ROAD MACON, GEORGIA GEC JOB # 150329.244

#### **PREPARED FOR**

## MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

#### **PREPARED BY**

## GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

ISSUE DATE: December 15, 2015





December 15, 2015

Via email: DFortson@maconbibb.us

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201

## SUBJECT: Asbestos Survey Results 1378 Jeffersonville Road Macon, Georgia GEC JOB # 150329.244

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. Jayro Lucas, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, both floor tiles with linoleum samples tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

**ESTIMATED QUANTITIES -** There are approximately 70 square feet of **gray floor tile ACM** with linoleum **TO BE ABATED**. Due to poor roof condition, *GEC personnel observed* **15 linear** *feet of caulk around chimney presumed to be ACM and will need to be abated*.

The suspect materials observed and sampled in this survey included: popcorn ceiling coat; 18" x 36" ceiling tile; remnant flooring; wallboard mud (joint compound); wallboard (sheetrock); plaster wall; **floor tile with linoleum**; exterior window glaze; roof shingles with felt; rear shed roof shingles; and rear shed flashing tar.

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.

Along with the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

## Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

angen Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

JL/RTH/hm Attachments

Robert F. Herlde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944



## APPENDIX



ANALYTICAL ENVIRONMENTAL SERVICES, INC.	
3080 Presidential Drive, Atlanta, GA 30340-3704	
(770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188	$\sim$
CHAIN OF CUSTODY	K17677
BULK ASBESTOS ANALYSIS	1010017

	Client Name: <u>GEC</u>		_Pho	one:		(478757-1606	
	Address: <u>514 Hil</u>	Icrest Industrial Blud	Fax	::		(478)757-160	B
	City, State, Zip: Mac	m, GA 31204	– Pro	ject Na	ame:	378 Jeffersonvi	- ille Road
	Contact: Jarro L	vcas, Bob Hadden, D. Price	Pro	ject Nu	umber:	150 329. 2000	2424 2424
	Sampler's Name:	layro Lucas	San	npling	Date:	12-4-15	_ /
	Sample ID	Sample Location/Description	An Rec	alysis uested	Turnaround Time	Comments	For AES Use Only
1	1378- IA	Poplorn ceiling - Back Room	PL	m	STD		<u>_</u>
2	1378 - IB	Popcom cailing - Bath 1		1	1		
3	1378-2A	18"x36" ceiling tile- Diving from					
4	1378-2B	- Bath I					
5	1378 - 3A	Remnant flooring - Kitchen					
6	1378 - 38	~ ~ - Kitchen					
7	1378 - YA	JC- BAT 2					
8	1378 - YB	JC- Bath 2					
9	1378 - 5A	Prywall - Bath 2					
10	1378- 58	Prywall - Both 2					
11	1378 - 6A	Phyter wall - Dining Room					
12	1378-6B	Plaster wall - Kitchen					
13	1378-60	Plaster wall - Living Room					
14	1378-60	Plaster wall - Back from		1			
15	1378-6E	Plaster wall - Bedroom					
16	1378-7A	FT w/ lindeum - Back form					
17	1378 - 7B	~ ~ ~ ~ ~					
18	1378- BA	Exterior window glaze					
19	1378- 86	~ <u>~</u> ~					
20	1378 - 9A + 9B	Roof shireles with felt					
	Relinquished by:	Date/Time:	12	- 4 - 1	5 41	em	-
	Relinquished by:	Date/Time: Date/Time:					-
		EOR LABUSE O				Λ	
	Lab Recipient		M کر	ethod of	Shipment:	Fedex	
	15 LF ca	vik around chimney, p.	resu	ne	Acm.		
	1378- 10A +10B	Root Shingles - Shed		~	7 SF		
	1378-11A +11B	Flashing far - shed				Page 1 of	9

L

## Analytical Environmental Services, Inc

Client:GeoTechnical & Env. ConsultantsProject:1378 JEFFERSONVILLE ROADLab ID:1512677

**Case Narrative** 

Samples 1378-7A and 1378-7B had two types of flooring each. Client will be charged for 2 extra samples.



## **Bulk Sample Summary Report**



Lab Code 102082-0

14-Dec-15

Client Name: C	AES Job Number: 1512677										
Project Name: 1378 JEFFERSONVILLE ROAD					Project Number: 150329.244						
Client ID	AES ID	Location	Asbestos Mineral Percentage CH AM CR AN TR AC						Comments		
1378-1A	1512677- 001A	Popcorn Ceiling - Back Room	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1378-1B	1512677- 002A	Popcorn Ceiling - Bath 1	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1378-2A	1512677- 003A	18"x36" Ceiling Tile - Dining Room	ND	ND	ND	ND	ND	ND	Paint included as binder		
Laver: 1											
1378-2B	1512677- 004A	18"x36" Ceiling Tile - Bath 1	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1378-3A	1512677- 005A	Remnant Flooring - Kitchen	ND	ND	ND	ND	ND	ND			
Layer: 1											
1378-3B	1512677- 006A	Remnant Flooring - Kitchen	ND	ND	ND	ND	ND	ND			
Layer: 1											

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

NVLAP

Lab Code 102082-0

14-Dec-15

Client Name:		AES Job Number: 1512677											
Project Name: 1	ject Name: 1378 JEFFERSONVILLE ROAD						Project Number: 150329.244						
Client ID	AES ID	Location	A	sbesto	s Mineral Percentage				Comments				
			СН	AM	CR	AN	TR	AC					
1378-4A	1512677- 007A	JC - Bath 2	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1													
1378-4B	1512677- 008A	JC - Bath 2	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1													
1378-5A	1512677- 009A	Drywall - Bath 2	ND	ND	ND	ND	ND	ND					
Layer: 1													
1378-5A	1512677- 009A	Drywall - Bath 2	ND	ND	ND	ND	ND	ND					
Layer: 2													
1378-5B	1512677- 010A	Drywall - Bath 2	ND	ND	ND	ND	ND	ND					
Layer: 1													
1378-5B	1512677- 010A	Drywall - Bath 2	ND	ND	ND	ND	ND	ND					
Layer: 2													

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

NVLAD

Lab Code 102082-0

14-Dec-15

Client Name:	Client Name: GeoTechnical & Env. Consultants						AES Job Number: 1512677						
Project Name:	roject Name: 1378 JEFFERSONVILLE ROAD					Project Number: 150329.244							
Client ID	AES ID	Location	Asbestos Mineral Percentage CH AM CR AN TR AC						Comments				
1378-6A	1512677- 011A	Plaster wall - Dining Room	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1 1378-6A	1512677- 011A	Plaster wall - Dining Room	ND	ND	ND	ND	ND	ND					
1378-6B	1512677- 012A	Plaster wall - Kitchen	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1 1378-6B	1512677- 012A	Plaster wall - Kitchen	ND	ND	ND	ND	ND	ND					
1378-6C	1512677- 013A	Plaster wall - Living Room	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1 1378-6C Layer: 2	1512677- 013A	Plaster wall - Living Room	ND	ND	ND	ND	ND	ND					

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

NVLAD

Lab Code 102082-0

14-Dec-15

Client Name: C	Client Name: GeoTechnical & Env. Consultants						AES Job Number: 1512677						
Project Name: 1	Project Name: 1378 JEFFERSONVILLE ROAD					Project Number: 150329.244							
Client ID	Client ID AES ID Location					ral Pe AN	ge AC	Comments					
1378-6D	1512677- 014A	Plaster wall - Back room	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1													
1378-6D	1512677- 014A	Plaster wall - Back room	ND	ND	ND	ND	ND	ND					
Layer: 2													
1378-6E	1512677- 015A	Plaster wall - Bedroom 1	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1													
1378-6E	1512677- 015A	Plaster wall - Bedroom 1	ND	ND	ND	ND	ND	ND					
Layer: 2													
1378-7A	1512677- 016A	FT w / Linoleum - Back Room	ND	ND	ND	ND	ND	ND	Tan vinyl				
Layer: 1													
1378-7A	1512677- 016A	FT w / Linoleum - Back Room	ND	ND	ND	ND	ND	ND	Backing with glue				
Layer: 2													

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

14-Dec-15

Client Name: GeoT	AES Job Number: 1512677											
Project Name: 1378	Project Name: 1378 JEFFERSONVILLE ROAD					Project Number: 150329.244						
Client ID	AES ID	Location	A CH	sbestos AM	S Mine CR	ral Pe AN	rcenta TR	ge AC	Comments			
1378-7A	1512677- 016B	FT w / Linoleum - Back Room	5	ND	ND	ND	ND	ND	Gray floor tile			
1378-7A Layer: 2	1512677- 016B	FT w / Linoleum - Back Room	ND	ND	ND	ND	ND	ND	Black Mastic			
1378-7B Layer: 1	1512677- 017A	FT w / Linoleum - Back Room	ND	ND	ND	ND	ND	ND	Tan vinyl			
1378-7B Layer: 2	1512677- 017A	FT w / Linoleum - Back Room	ND	ND	ND	ND	ND	ND	Backing with glue			
1378-7B Layer: 1	1512677- 017B	FT w / Linoleum - Back Room	5	ND	ND	ND	ND	ND	Gray floor tile			
1378-7B Layer: 2	1512677- 017B	FT w / Linoleum - Back Room	ND	ND	ND	ND	ND	ND	Black Mastic			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

NVLAP

Lab Code 102082-0

14-Dec-15

Client Name: Geo	AES Job Number: 1512677											
Project Name: 137	Project Name: 1378 JEFFERSONVILLE ROAD					Project Number: 150329.244						
Client ID	AES ID	Location	Asbestos Mineral Percentage   CH AM CR AN TR AC						Comments			
1378-8A	1512677- 018A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder			
1378-8B	1512677- 019A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder			
1378-9A	1512677- 020A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND	Paint included as binder			
1378-9A	1512677- 020A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND				
1378-9B	1512677- 021A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND	Paint included as binder			
Layer: 1 1378-9B	1512677- 021A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND				
			1	1		I						

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

14-Dec-15

Client Name: GeoT	AES Job Number: 1512677								
Project Name: 1378	JEFFERSON	WILLE ROAD	Project Number: 150329.244						50329.244
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	r <u>centa</u> TR	ge AC	Comments
1378-10A	1512677- 022A	Roof Shingles - shed	ND	ND	ND	ND	ND	ND	
Layer: 1									
1378-10B	1512677- 023A	Roof Shingles - shed	ND	ND	ND	ND	ND	ND	
Layer: 1									
1378-11A	1512677- 024A	Flashing Tar - Shed	ND	ND	ND	ND	ND	ND	
Layer: 1									
1378-11B	1512677- 025A	Flashing Tar - Shed	ND	ND	ND	ND	ND	ND	
Layer: 1									

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina

The Environmen	tal Institute
Taturo Ta	
Social Security Number - XX	<u>ICUS</u>
Geotechncial & Environmental Consultants - 514 Hillcre	est Industrial Blvd Macon, Georgia 31204
Has completed coursework and	satisfactorily passed
an examination that meets all	criteria required for
EPA/AHERA/ASHARA (TSCA Title II)	Approved Accreditation
v 509	
Asbestos in Buildings: Inspec	ction and Assessment
February 2-4, 2015 Course Date	2331 Certificate Number
February 4, 2015	
Examination Date	
<u>February 3, 2016</u>	INVIRONMENTAL INSTITUTE
Expiration Late	
David W. Hogue - Principal Instructor / Training Manager	
- TOMWIF	A A A A A A A A A A A A A A A A A A A
Rachel G. McCain - Exam Administrator	
(Approved by the APILI Contification Maintenance Com	mittee for 2 CM paints - Approval (144 500)
(Florida Provider Registration Number FL49-0	001342 - Course #FL49-0004700)
TEI - 1041 West Oak Fairway, Suite F - Mariella, Georg	1a 30002 - (110) 421-3000 - WWW.lei-ali.com

## SAMPLING METHODOLOGY

The limited survey (limited in that the survey may not have penetrated beyond solid wood or other apparent substrates to ceilings, walls, and more typically flooring) for the area focused primarily on identifying suspect ACMs in the specified areas. Quantities of confirmed ACM that are to be abated/remediated should be corroborated by the prospective abatement contractor. Samples were analyzed by a laboratory accredited in accordance with Georgia law.

The intent of this survey was to identify suspect ACM and to collect and submit bulk samples of such materials for laboratory analysis to identify the presence/absence and percent asbestos content in the suspect materials.

During a walk-through of the survey area, the inspector visually checked for the presence of suspect ACM. The inspection of the subject location included the following activities:

- Suspect materials were examined for variations in color, texture, thickness and other visually apparent characteristics useful in determining the uniformity of the material.
- Each suspect material that appeared to be uniform was assumed to be a Homogeneous Material (HM) and was assigned a number.
- For each HM, descriptions and general locations of suspect ACM were noted, and are presented in the Detected Asbestos Sample Summary Table, the chain of custody, and in the laboratory reports.
- The physical condition of each HM and the presence of visible debris were also noted.
- Since visual survey is inadequate to determine whether a material contains asbestos, each suspect material is presumed to be ACM until a sufficient number of samples of each material are analyzed for asbestos content. The minimum number of samples that must be collected and analyzed for asbestos content in order to establish a suspect material as non-ACM is dependent upon material type and quantity. For each miscellaneous suspect material that appeared to be homogeneous, a minimum of two samples was collected.
- The inspector performed bulk sampling in accordance with U.S. EPA guidelines to minimize release of asbestos fibers during sample collection. Each bulk sample was thoroughly wetted with amended water and collected by removing a small piece or core of the suspect material and placing the sample in a clean, sealable container. An attempt was made to include each layer of suspect material present.
- Each sample was assigned a unique number, which was included on the sample container and on the chain-of-custody.
- Sampling locations were selected based on the goal of representing the area and homogeneity of the materials surveyed. Samples were not located in any way so as to influence the analytical results or findings of this report. Destructive sampling was performed. Sample location descriptions are presented in the Detected Asbestos Sample Summary Table, and are also entered on the Chain-of-Custody forms included with the Laboratory Report included in the Appendix.
- Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for PLM analysis of bulk samples for asbestos content.



## LABORATORY PROCEDURES

All suspect ACM samples were analyzed for asbestos content by polarized light microscopy (PLM) using dispersion staining (Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116). This analytical method, which the U.S. EPA currently recommends for the determination of asbestos in bulk samples, is used for the qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite. The fibrous composition of the bulk sample is reported in visually estimated percentages of asbestos and non-asbestos materials (i.e. cellulose, fibrous glass, synthetic).

The analytical results indicate the percent asbestos content in the sampled material. The amount of asbestos identified in a sample of ACM may vary in a homogeneous material depending on the sample location. Such variation in content may be due to incomplete mixing of material components during manufacturing processes, or it may indicate that materials with a visually similar appearance are actually of different composition.

#### Important Note To Our Clients

The PLM method for analysis of bulk samples for asbestos content requires that the microscopist make a visual estimation of the percentage of asbestos in a given sample. By definition, any material with greater than 1% asbestos is considered regulated asbestos-containing material. The extent of regulatory requirements under EPA and OSHA asbestos regulations depends upon the category and condition of the material.

If asbestos is identified in a sample of friable material by PLM analysis, with results between a trace and 10% asbestos, the owner must either assume that the content is greater than 1%, and treat the material as regulated, or the owner may confirm the regulatory status by having samples of these materials reanalyzed by the point counting method. Some of these materials may be confirmed as less than or equal to 1% when the more quantitative point counting technique is used. Samples are not initially analyzed by point counting because the regulations require analysis by PLM. Also, point counting is a more expensive method. Point Counting results supersede the initial results obtained by PLM using the visual estimation of area.

Some resinously bound materials such as mastics and roofing materials, and materials with very small fibers such as floor tiles and joint compounds, may yield false negative PLM results. Resins, bitumen, and similar sticky matrices may obscure the visual identification of asbestos minerals. Fiber sizes may be beneath the visual limit of the light microscope. The presence or absence of asbestos in such samples may be confirmed using the Transmission Electron Microscope (TEM) with the Modified Chatfield (quantitative), or Drop-Mount (qualitative) methods.



## LABORATORY ACCREDITATION

#### **Asbestos Laboratory Accreditation**

AES of Atlanta, Georgia, has received accreditation for PLM and TEM analysis under the National Voluntary Lab Accreditation Program (NVLAP) of the National Institute of Standards and Technology. To ensure quality, AES has developed an internal quality control program with the following features:

- Sample collection, preservation, storage, analysis and disposal methods comply with approved EPA and NIOSH methods;
- Analysts participate quarterly in proficiency rounds administered by AES and conducted with two other laboratories.
- Chain-of-Custody Records (COCR) are maintained on all samples both during the collection phase of the work and during the in-house analysis;
- Statistical parameters or control charts are used to monitor accuracy of analysis and overall laboratory effectiveness;
- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
- A collection of reference samples is used to ensure analysts' accuracy;
- Each sample is analyzed by two separate analysts;
- Sample certificates of analysis, reagent certificates, and sample container certificate files are maintained; and
- Hard copy QA/QC files are maintained for customer examination.



# <u>Macon/Bibb County</u> Board of 7ax Assessors

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Field Defini	tions	Return to Main Se	earch Page	Bibb Home		
Owner and Parcel Information									
Owner Name	PITTS	5 JOYCI NE		Today's	Date	November 2	5, 2015		
Mailing Address	1378	JEFFERSONVIL	LE RD	Parcel I	Number	S072-0124			
	MACO	ON, GA 31217-4	369	Tax Dis	trict	11 (District	11)		
Location Address	1378	1378 JEFFERSONVILLE RD			illage Rate	11			
Legal Description	WOO	LFOLK		Acres		0.34			
Property Class(NOTE: Not Zoning Info	o) R3-R0	esidential		Neighb	orhood	7240			
Zoning	C-4		Homestead Exemption		Yes (S1)				
Landlot/District	51/N	/IR		Parcel I	Мар	Show Parce	Мар		

2015 Tax Year Value Information											
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value							
\$ 2,898	\$ 12,264	\$ O	\$ 15,162	\$ 15,162							

Land Information							
Туре	Description	Calculation Method	Frontage	Depth	Acres	Photo	
RES	7240 -FF / 80 FF	Front Feet	60	245	0.34	NA	

Improvement Information								
Style	Heated Sq Ft	Interior Walls	Exterior Walls	Attic Area Sq Ft	Basement Area Sq Ft	Year Built	ar Photo	
One Family	958	Plaster	Wood/Shingle-Frame	0	0 1900		Building Images	
Roof Type	Flooring Type	Heating Type	Rooms Bedrooms/Bathrooms/Extra Plumbing	Value	Cond	Number Fire Pl	Sketch	
Asphalt Shingles	Softwood	Flr/Wall Furn	0/2/1.0/0	\$ 12,264 Average		2	Sketch Building 1	

Accessory Information							
Description	Year Built	Dimensions/Units	Value				
No accessory information associated with this parcel.							

Sale Information											
Sale Date	Deed Book / Page	e Plat Book / F	Page Sale	Price	Reason		Grantor	(	Grantee		
05/25/2004	0621400135			\$ 10	Un-qualified		Un-qualified			PITT	S JOYCINE
04/06/2004	0616500202		\$ 4	1,122	Un-qualified						
04/06/2004	0616500198		\$ 4	1,122	Un-qualified						
02/01/2002	0521000167		\$ 5!	5,000	Fair Market - Improved						
12/21/2001	0517500200		\$ 1	9,000	Fair Market - Improved						
11/27/2000	0481000142		\$ 4	7,000	Fair Market - Improved						
Recent Sales in Neighborhood		Previous Parcel	Next Parcel	Next Parcel Field Definition		tions Return to Main Search Page		age	Bibb Home		

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assesment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. Website Updated: November 6, 2015

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The Bibb County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER BIBB COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---- Date printed: 11/25/15 : 11:18:17



## **Bibb County Tax Assessor's Office**

Close Window

Color	Color Area Type Description			
	1 STORY	958		
	Open Brick Porch	175		
	Open Frame Porch	36		

# <u>Macon/Bibb County</u> Board of 7ax Assessors

Building Photo 1



<u>Close Window</u> © 2004 by the Bibb County Assessor's Office | Website design by <u>gpublic.net</u>

## ASBESTOS SURVEY RESULTS 1394 JEFFERSONVILLE ROAD With SECOND STRUCTURE - BRICK MACON, GEORGIA GEC JOB # 150329.243

## **PREPARED FOR**

## MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

## **PREPARED BY**

## GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

**ISSUE DATE:** January 4, 2016





December 28, 2015

Via email: <u>DFortson@maconbibb.us</u>

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201

## SUBJECT: Asbestos Survey Results 1394 Jeffersonville Road Macon, Georgia GEC JOB # 150329.243

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. Jayro Lucas, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, several of the materials sampled tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

**ESTIMATED QUANTITIES** - There are approximately 10 square feet of black flashing tar around the chimney, and 3,700 square feet of wallboard mud (joint compound) **ACM TO BE ABATED**.

The suspect materials observed and sampled in this survey included: exterior window glaze; wallboard (sheetrock); 2' x 4' wormhole ceiling tile; wallboard mud (joint compound); black flashing tar; and roof shingles.

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.

Along with the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

## Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

angen Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

JL/RTH/hm Attachments

Robert F. Hedde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944





January 4, 2016

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201 Via email: DFortson@maconbibb.us

## SUBJECT: Asbestos Survey Results ADDENDUM 1394 Jeffersonville Road With 2<sup>nd</sup> Structure – Brick (see italicized print) Macon, Georgia GEC JOB # 150329.243

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property. *This Addendum to the original report includes additional sampling of the mixed debris that was in the Brick Structure located immediately to the west of the 1394 address and was posted as address 1386. The Brick structure was not entered by GEC but samples of the mixed debris consisting of roofing shingles and tar were collected through the window.* 

The debris amounted to an estimated 6 cubic yards of material. The tar was found to contain asbestos, so the entire collection of debris should be disposed of as Asbestos containing material (ACM). Additionally there is approximately 40 SF of black tar ACM still adhered to the brick 'parapet' wall above the roof level on the portion of walls that remain standing. The analytical report for the additional sampling is attached. See the following text for the ACM results for the house actually at 1394 Jeffersonville Road.

Mr. Jayro Lucas, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, several of the materials sampled tested positive as

Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

**ESTIMATED QUANTITIES** - There are approximately 10 square feet of black flashing tar around the chimney, and 3,700 square feet of wallboard mud (joint compound) **ACM TO BE ABATED**.

The suspect materials observed and sampled in this survey included: exterior window glaze; wallboard (sheetrock); 2' x 4' wormhole ceiling tile; wallboard mud (joint compound); black flashing tar; and roof shingles.

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.

Along with the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

# Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

Jougn Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

JL/RTH/tg Attachments

Robert F. Helde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944



## SAMPLING METHODOLOGY

The limited survey (limited in that the survey may not have penetrated beyond solid wood or other apparent substrates to ceilings, walls, and more typically flooring) for the area focused primarily on identifying suspect ACMs in the specified areas. Quantities of confirmed ACM that are to be abated/remediated should be corroborated by the prospective abatement contractor. Samples were analyzed by a laboratory accredited in accordance with Georgia law.

The intent of this survey was to identify suspect ACM and to collect and submit bulk samples of such materials for laboratory analysis to identify the presence/absence and percent asbestos content in the suspect materials.

During a walk-through of the survey area, the inspector visually checked for the presence of suspect ACM. The inspection of the subject location included the following activities:

- Suspect materials were examined for variations in color, texture, thickness and other visually apparent characteristics useful in determining the uniformity of the material.
- Each suspect material that appeared to be uniform was assumed to be a Homogeneous Material (HM) and was assigned a number.
- For each HM, descriptions and general locations of suspect ACM were noted, and are presented in the Detected Asbestos Sample Summary Table, the chain of custody, and in the laboratory reports.
- The physical condition of each HM and the presence of visible debris were also noted.
- Since visual survey is inadequate to determine whether a material contains asbestos, each suspect material is presumed to be ACM until a sufficient number of samples of each material are analyzed for asbestos content. The minimum number of samples that must be collected and analyzed for asbestos content in order to establish a suspect material as non-ACM is dependent upon material type and quantity. For each miscellaneous suspect material that appeared to be homogeneous, a minimum of two samples was collected.
- The inspector performed bulk sampling in accordance with U.S. EPA guidelines to minimize release of asbestos fibers during sample collection. Each bulk sample was thoroughly wetted with amended water and collected by removing a small piece or core of the suspect material and placing the sample in a clean, sealable container. An attempt was made to include each layer of suspect material present.
- Each sample was assigned a unique number, which was included on the sample container and on the chain-of-custody.
- Sampling locations were selected based on the goal of representing the area and homogeneity of the materials surveyed. Samples were not located in any way so as to influence the analytical results or findings of this report. Destructive sampling was performed. Sample location descriptions are presented in the Detected Asbestos Sample Summary Table, and are also entered on the Chain-of-Custody forms included with the Laboratory Report included in the Appendix.
- Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for PLM analysis of bulk samples for asbestos content.



## LABORATORY PROCEDURES

All suspect ACM samples were analyzed for asbestos content by polarized light microscopy (PLM) using dispersion staining (Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116). This analytical method, which the U.S. EPA currently recommends for the determination of asbestos in bulk samples, is used for the qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite. The fibrous composition of the bulk sample is reported in visually estimated percentages of asbestos and non-asbestos materials (i.e. cellulose, fibrous glass, synthetic).

The analytical results indicate the percent asbestos content in the sampled material. The amount of asbestos identified in a sample of ACM may vary in a homogeneous material depending on the sample location. Such variation in content may be due to incomplete mixing of material components during manufacturing processes, or it may indicate that materials with a visually similar appearance are actually of different composition.

#### Important Note To Our Clients

The PLM method for analysis of bulk samples for asbestos content requires that the microscopist make a visual estimation of the percentage of asbestos in a given sample. By definition, any material with greater than 1% asbestos is considered regulated asbestos-containing material. The extent of regulatory requirements under EPA and OSHA asbestos regulations depends upon the category and condition of the material.

If asbestos is identified in a sample of friable material by PLM analysis, with results between a trace and 10% asbestos, the owner must either assume that the content is greater than 1%, and treat the material as regulated, or the owner may confirm the regulatory status by having samples of these materials reanalyzed by the point counting method. Some of these materials may be confirmed as less than or equal to 1% when the more quantitative point counting technique is used. Samples are not initially analyzed by point counting because the regulations require analysis by PLM. Also, point counting is a more expensive method. Point Counting results supersede the initial results obtained by PLM using the visual estimation of area.

Some resinously bound materials such as mastics and roofing materials, and materials with very small fibers such as floor tiles and joint compounds, may yield false negative PLM results. Resins, bitumen, and similar sticky matrices may obscure the visual identification of asbestos minerals. Fiber sizes may be beneath the visual limit of the light microscope. The presence or absence of asbestos in such samples may be confirmed using the Transmission Electron Microscope (TEM) with the Modified Chatfield (quantitative), or Drop-Mount (qualitative) methods.



## LABORATORY ACCREDITATION

#### **Asbestos Laboratory Accreditation**

AES of Atlanta, Georgia, has received accreditation for PLM and TEM analysis under the National Voluntary Lab Accreditation Program (NVLAP) of the National Institute of Standards and Technology. To ensure quality, AES has developed an internal quality control program with the following features:

- Sample collection, preservation, storage, analysis and disposal methods comply with approved EPA and NIOSH methods;
- Analysts participate quarterly in proficiency rounds administered by AES and conducted with two other laboratories.
- Chain-of-Custody Records (COCR) are maintained on all samples both during the collection phase of the work and during the in-house analysis;
- Statistical parameters or control charts are used to monitor accuracy of analysis and overall laboratory effectiveness;
- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
- A collection of reference samples is used to ensure analysts' accuracy;
- Each sample is analyzed by two separate analysts;
- Sample certificates of analysis, reagent certificates, and sample container certificate files are maintained; and
- Hard copy QA/QC files are maintained for customer examination.



## APPENDIX


	ANALYTICAL ENVIRONMENTAL S 3080 Presidential Drive, Atlanta, GA	SERVICES	S, INC.	1512091	
	(770) 457-8177 / Toll Free (800) 972-4889 / F	ax (770) 457-8	3188		
				K Die (12	c. 👗
	BULK ASBESTOS ANA	LYSIS	Bric	<u>F Blog 13</u>	87)
Client Name: <u>GEC</u>		Phone:		()	-
Address: <u>514 Hi</u>	Knest Industrial Blud	Fax:		( )	-
City, State, Zip: Mac	on, 6A 31204	Project Na	ame: 1394	t leffersonville,	foad
Contact : Joyn	Lucas, Bob Hadden	Project N	umber:	150 329.243	
Sampler's Name:	Bob Haddon	Sampling	Date:	12-30-2015	
Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1 1394-1A	Exterior caulk around frame	PLM	24-hr	anound window	ر
2 1394-1B	<u>`~</u>	(			
3 1394 - ZA	Flashing tar			(20 × 15)	
4 1394- 2B	~~	1	V	<b>`</b>	_
5					
6					
7					
8					
9					
10					
11					
12					
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14					
15					
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17					
18					
19					
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Relinquished by: Received by: Relinquished by: Received by:	Date/Time: Date/Time: Date/Time: Date/Time: Date/Time:	1205/1 228/	12-30 m 12-30 m 12-3	9-15 9-15 30-15	
Lab Recipient Nady	FOR LAB USE OF           Date/Time:         12-30-15	NLY Method of	Shipment:	chie t	

2:28 pM



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

31-Dec-15

Client Name: GeoTechnical & Env. Consultants				AES Job Number: 1512091							
Project Name: 1394	e: 1394 JEFFERSONVILLE ROAD				Project Number: 150 329.243						
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments		
1394-1A	1512O91 -001A	Exterior Caulk Around Frame	ND	ND	ND	ND	ND	ND	Talc included as binder		
1394-1B Layer: 1	1512O91 -002A	Exterior Caulk Around Frame	ND	ND	ND	ND	ND	ND	Talc included as binder		
1394-2A	1512O91 -003A	Flashing Tar	10	ND	ND	ND	ND	ND			
1394-2A	1512O91 -003A	Flashing Tar	ND	ND	ND	ND	ND	ND			
1394-2B	1512O91 -004A	Flashing Tar	10	ND	ND	ND	ND	ND			
Layer: 2	1512O91 -004A	Flashing Tar	ND	ND	ND	ND	ND	ND			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

This report must not be reproduced except in full without written approval of Analytical Environmental Services, Inc.

**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina

ANALYTICAL ENVIRON	IMENTAL SI	ERVICES,	INC.
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3080 Presidential Drive, Atlanta, GA 30340-3704 (770) 457-8177 / Toli Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

# BULK ASBESTOS ANALYSIS

N.11	$\gamma/-$	$\neg$
161	16	$\wedge$
101	20	$1 \mathcal{I}$

	Client Name: <u>GEC</u>		Phone:		(478) 257-1606	
	Address: 514 H	Ilcrest Jul Blud	Fax:		(478)757-1608	
	City, State, Zip: Macon	1 GA 31204	- Project Na	ime:	1394 Jeffersonvi	11- R.
	Contact : BobHel	len Taxo Lucas David Price	- Project Nu	ımber:	150329,243	
	Sampler's Name: Jay o	Lucas	Sampling	Date:	12/4/15	
			Analysis	Turnaround		For AES
	Sample ID	Sample Location/Description	Requested	Time	Comments	Use Only
	1394 - 1A	Exterior window glaze	PLM	STD		
$\frac{1}{2}$	1394 - 1B_	~ ^ ^				
13	1-2A	Ory wall - 3				
∕[₄	- 20	Dry wall - 4				
15	5 - 3A	a'xy' ubrabale CT -				
6	- 3B	<u>~ ~ ~ ~</u>				
17	· · · · · · · · · · · · · · · · · · ·	JC - 3				
18	- 4B	JC - Y				
∕ [9	-46	JC - 8				
10	-412	Jc - 1				
11	1 - 4E	JC- 6				
12	2 - 4F	JC - 9				
1:	3 - 46	30.2				
14	4 ~ SA	Black Flaghing far - chimney			ID SF	
1:	5 - 5B					
10	6 - 6A	Roof shing les				
17	7 4 - 68	~~~~	-			
18	B 7A	Rost debris - shed next to be	xe		-	
14	- 76	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-		
20	0					
	Relinquished by: MAV	Date/Time:	12/4/15	3.3	18	
	Received by:	Date/Time:				
	Relinquished by:	Date/Time:				
_	Received by:	Date/Time:				
Γ	Licelia	FOR LAB USE O		Ohinmanti	Foler	
	Lab Recipient		Method of	Snipment:	<u> </u>	



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

14-Dec-15

Client Name:	nt Name: GeoTechnical & Env. Consultants				AES Job Number: 1512675						
Project Name:	1394 JEFFERSONVILLE RD				Project Number: <b>150329.243</b>						
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments		
1394-1A	1512675- 001A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1394-1B	1512675- 002A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1394-2A	1512675- 003A	Drywall - 3	ND	ND	ND	ND	ND	ND			
Layer: 1											
1394-2B	1512675- 004A	Drywall - 4	ND	ND	ND	ND	ND	ND			
Layer: 1											
1394-3A	1512675- 005A	2'x4' Wormhole CT-	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1394-3B	1512675- 006A	2'x4' Wormhole CT-	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

feel Elena Ivanova

Yelena Khanina



#### **Bulk Sample Summary Report**

RVLAD

Lab Code 102082-0

14-Dec-15

Client Name: Geo'	Client Name:         GeoTechnical & Env. Consultants         AES Job Number:         1							r: 1 <b>:</b>	512675	
Project Name: 1394	JEFFERSO	WILLE F	RD	Project Number: 15					50329.243	
Client ID	AES ID		Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments
1394-4A	1512675- 007A	JC-3		2	ND	ND	ND	ND	ND	Paint included as binder
Layer: 1 1394-4B	1512675- 008A	JC-4		2	ND	ND	ND	ND	ND	Paint included as binder
Layer: 1										
1394-4C	1512675- 009A	JC-8		ND	ND	ND	ND	ND	ND	
Layer: 1										
1394-4C	1512675- 009A	JC-8		2	ND	ND	ND	ND	ND	
Layer: 2										
1394-4D	1512675- 010A	JC-1		2	ND	ND	ND	ND	ND	Paint included as binder
Layer: 1				<u> </u>						
1394-4D	1512675- 010A	JC-1		ND	ND	ND	ND	ND	ND	
Layer: 2										

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

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**Microanalyst:** 

freef Elena Ivanova

Yelena Khanina



#### **Bulk Sample Summary Report**

RVLAD

Lab Code 102082-0

14-Dec-15

Client Name: Geo	tt Name: GeoTechnical & Env. Consultants				AES Job Number: 1512675						
Project Name: 139	4 JEFFERSON	WILLE RD	Project Number: 15					50329.243			
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments		
1394-4E	1512675- 011A	JC-6	ND	ND	ND	ND	ND	ND	Paint included as binder		
1394-4F	1512675- 012A	JC-9	2	ND	ND	ND	ND	ND	Paint included as binder		
1394-4F	1512675- 012A	JC-9	ND	ND	ND	ND	ND	ND			
Layer: 2	1512675- 013A	JC-5	ND	ND	ND	ND	ND	ND	Paint included as binder		
1394-5A	1512675- 014A	Black Flashing Tar - Chimney	10	ND	ND	ND	ND	ND			
Layer: 1	1512675- 015A	Black Flashing Tar - Chimney	10	ND	ND	ND	ND	ND			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

freef Elena Ivanova

Yelena Khanina



#### **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

14-Dec-15

Client Name: GeoTechnical & Env. Consultants					AES Job Number: 1512675				
Project Name: 1394 JEFFERSONVILLE RD					Proje	ct Nu	nber:	15	50329.243
Client ID	Client ID AES ID Location			Asbestos Mineral Percentage					Comments
					_			_	
1394-6A	1512675- 016A	Roof Shingles	ND	ND	ND	ND	ND	ND	
Layer: 1									
1394-6B	1512675- 017A	Roof Shingles	ND	ND	ND	ND	ND	ND	
Layer: 1									

 $Note: \ CH=chrysotile, \ AM=amosite, \ CR=crocidolite, \ AC=actinolite, \ TR=tremolite, \ AN=anthophylite$ 

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

ful Elena Ivanova

Yelena Khanina

# The Environmental Institute Robert Hadden Social Security Number - XXX-XX-4710 Geotechnical & Environmental Consultants - 514 Hillcrest Industrial Blvd. - Macon, Georgia 31204 Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation Asbestos in Buildings: Inspector & Management Planner Refresher <u>14944</u> April 23, 2015 Course Date April 23, 2015 Examination Date April 22, 2016 David W. Hogue - Principal Instructor / Training Manager Rachel G. McCain - Exam Administrator (Approved by the ABIH Certification Maintenance Committee for 1 CM point - Approval #11-583) (Florida Provider Registration #FL49-0001342 - Inspector Ref. Course #0002805 - Mgmt. Plan Ref. Course #0002806) TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com

The Environmen	tal Institute
Taturo Ta	
Social Security Number - XX	<u>ICUS</u>
Geotechncial & Environmental Consultants - 514 Hillcre	est Industrial Blvd Macon, Georgia 31204
Has completed coursework and	satisfactorily passed
an examination that meets all	criteria required for
EPA/AHERA/ASHARA (TSCA Title II)	Approved Accreditation
v 509	
Asbestos in Buildings: Inspec	ction and Assessment
February 2-4, 2015 Course Date	2331 Certificate Number
February 4, 2015	
Examination Date	
<u>February 3, 2016</u>	INVIRONMENTAL INSTITUTE
Expiration Late	
David W. Hogue - Principal Instructor / Training Manager	
- TOMWIF	A A A A A A A A A A A A A A A A A A A
Rachel G. McCain - Exam Administrator	
(Approved by the APILI Contification Maintenance Com	mittee for 2 CM paints - Approval (144 500)
(Florida Provider Registration Number FL49-0	001342 - Course #FL49-0004700)
TEI - 1041 West Oak Fairway, Suite F - Mariella, Georg	1a 30002 - (110) 421-3000 - WWW.lei-ali.com

ASBESTOS SURVEY RESULTS 750 SUNNYDALE DRIVE MACON, GEORGIA GEC JOB # 150329.243

#### **PREPARED FOR**

#### MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

#### **PREPARED BY**

#### GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

ISSUE DATE: December 28, 2015





December 28, 2015

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201 Via email: DFortson@maconbibb.us

#### SUBJECT: Asbestos Survey Results 750 Sunnydale Drive Macon, Georgia GEC JOB # 150329.243

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. Jayro Lucas, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, **NONE** of the materials sampled tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; not considered ACM.

The suspect materials observed and sampled in this survey included: roof shingles; beige linoleum; white sink undercoat; wallboard (sheetrock); wallboard mud (joint compound); brown linoleum; and popcorn ceiling coat.

Asbestos containing materials were not encountered during the survey. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.

Along with the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and

accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

#### Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

ayn Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

Robert F. Helde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944

JL/RTH/hm Attachments



# APPENDIX



3080 Presidential Drive, Atlanta, GA 30340-3704 (770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

BULK ASBESTOS ANALYSIS

1512676
(478)257-1606

Client Name: 6	.C	Phone:		(4718)257-160	<u>6</u>
Address: <u>کرک</u>	Hillcrest Ind. Blud.	Fax:		(478)757-160	8
City, State, Zip: <u>Mac</u>	on GA 31204	Project Na	ame:	750 Sunydele I	De.
Contact : Bob Hal	lan Jayro Lucas David Prize	Project N	umber:	150329.243	_
Sampler's Nam <u>e:</u> J	yro Lucas	Sampling	Date:	12/4/15	
Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1750 - IA	Rouf Shingles	PLM	STD		
2750-1B	~ ~		١		
3 750 - 2A	Beige linderm - Kitchon	,			
4 750 ZB	~ ~ ~				
5 750 - 3A	white sink under wat				
6 750 - 30	~ ~ ~				
7 - 4A	Dry wall - 2				
8 750 - YB	Drywall - 4				
9 750 JA	Brown lindlerm - Bath				
10 750 - 5B	^ ~ ^				
11 750 - 6A	JC - 1				
12 750 66	π - 2				
13-750-66	$\overline{\tau}$ - 3				
14 750 - 6 D	56 - 4				
15 750-1 E	JL- 5				
16 757 - 6F	JC-6				
172-0 - 7A	Poecaco cailing -5				
18 750 - 7B	~ ~ ~ ~ ~ 6				
19 750 - 20	~~~-8				
20 750 - 71					
Relinquished by: Man	Date/Tin Date/Tin Date/Tin Date/Tin	me: 12/4/13 me:	3'3	3	
				4	
Lab Recipient	Date/Time: 12-X-15 (		f Shipment:	Fedex	

L



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & E	eoTechnical & Env. Consultants					AES Job Number: 1512676				
Project Name:	750 SUNNYDALE	SUNNYDALE DR.				ct Nu	mber:	15	50329.243		
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe	rcenta TR	ge AC	Comments		
750-1A	1512676- 001A	Roof Shingles	ND	ND	ND	ND	ND	ND			
Laver: 1											
750-1B	1512676- 002A	Roof Shingles	ND	ND	ND	ND	ND	ND			
Layer: 1											
750-2A	1512676- 003A	Beige Linoleum - Kitchen	ND	ND	ND	ND	ND	ND	Vinyl		
Layer: 1											
750-2A	1512676- 003A	Beige Linoleum - Kitchen	ND	ND	ND	ND	ND	ND	Backing		
Layer: 2											
750-2B	1512676- 004A	Beige Linoleum - Kitchen	ND	ND	ND	ND	ND	ND	Vinyl		
Layer: 1											
750-2B	1512676- 004A	Beige Linoleum - Kitchen	ND	ND	ND	ND	ND	ND	Backing		
Layer: 2											

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

7

QC Analyst:

Yelena Khanina

Penka Topuzova



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

10-Dec-15

Client Name: G	Client Name: GeoTechnical & Env. Consultants				AES Job Number: 1512676					
Project Name: 7	50 SUNNYDALE	DR.			Proje	ct Nu	nber:	15	50329.243	
Client ID AES ID Locatio			A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments	
750-3A	1512676- 005A	White Sink under Coat	ND	ND	ND	ND	ND	ND		
Layer: 1										
750-3B	1512676- 006A	White Sink under Coat	ND	ND	ND	ND	ND	ND		
Layer: 1										
750-4A	1512676- 007A	Drywall - 2	ND	ND	ND	ND	ND	ND	Paint included as binder	
Laver: 1										
750-4A	1512676- 007A	Drywall - 2	ND	ND	ND	ND	ND	ND		
Layer: 2										
750-4B	1512676- 008A	Drywall - 4	ND	ND	ND	ND	ND	ND		
Layer: 1										
750-5A	1512676- 009A	Brown Linoleum - Bath	ND	ND	ND	ND	ND	ND	Vinyl	
Layer: 1										

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



#### **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

10-Dec-15

Client Name:	Client Name: GeoTechnical & Env. Consultants				AES Job Number: 1512676					
Project Name:	750 SUNNYDALE	DR.	Project Number: 150329.243							
Client ID	AES ID	Location	A CH	Asbestos Mineral Percentage           CH         AM         CR         AN         TR         AC					Comments	
750-5B	1512676- 010A	Brown Linoleum - Bath	ND	ND	ND	ND	ND	ND	Vinyl	
750-6A	1512676- 011A	JC - 1	ND	ND	ND	ND	ND	ND		
750-6B	1512676- 012A	JC - 2	ND	ND	ND	ND	ND	ND	Paint included as binder	
750-6C	1512676- 013A	JC - 3	ND	ND	ND	ND	ND	ND	Paint included as binder	
750-6D	1512676- 014A	JC - 4	ND	ND	ND	ND	ND	ND	Paint included as binder	
Layer: 1 750-6E Layer: 1	1512676- 015A	JC - 5	ND	ND	ND	ND	ND	ND		

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

10-Dec-15

Client Name: G	Client Name: GeoTechnical & Env. Consultants				AES Job Number: 1512676						
Project Name: 7	50 SUNNYDALE	DR.	Project Number: 150329.243								
Client ID	AES ID	Location	Asbestos Mineral Percentage           CH         AM         CR         AN         TR         AC						Comments		
750-6F Layer: 1	1512676- 016A	JC - 6	ND	ND	ND	ND	ND	ND			
750-7A Layer: 1	1512676- 017A	Popcorn Ceiling - 5	ND	ND	ND	ND	ND	ND	Paint included as binder		
750-7B	1512676- 018A	Popcorn Ceiling - 6	ND	ND	ND	ND	ND	ND	Paint included as binder		
750-7C	1512676- 019A	Popcorn Ceiling - 8	ND	ND	ND	ND	ND	ND	Paint included as binder		
750-7D Layer: 1	1512676- 020A	Popcorn Ceiling - 1	ND	ND	ND	ND	ND	ND	Paint included as binder		

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

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Yelena Khanina

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The Environmental Institute								
Taturo Ta								
Social Security Number - XX	<u>ICUS</u>							
Geotechncial & Environmental Consultants - 514 Hillcre	est Industrial Blvd Macon, Georgia 31204							
Has completed coursework and	satisfactorily passed							
an examination that meets all	criteria required for							
EPA/AHERA/ASHARA (TSCA Title II)	Approved Accreditation							
v 509								
Asbestos in Buildings: Inspec	ction and Assessment							
February 2-4, 2015 Course Date	2331 Certificate Number							
February 4, 2015								
Examination Date								
<u>February 3, 2016</u>	INVIRONMENTAL INSTITUTE							
Expiration Late								
David W. Hogue - Principal Instructor / Training Manager								
- TOMWIF	A A A A A A A A A A A A A A A A A A A							
Rachel G. McCain - Exam Administrator								
(Approved by the APILI Contification Maintenance Com	mittee for 2 CM paints - Approval (144 500)							
(Florida Provider Registration Number FL49-0	001342 - Course #FL49-0004700)							
TEI - 1041 West Oak Fairway, Suite F - Mariella, Georg	1a 30002 - (110) 421-3000 - WWW.lei-ali.com							

#### SAMPLING METHODOLOGY

The limited survey (limited in that the survey may not have penetrated beyond solid wood or other apparent substrates to ceilings, walls, and more typically flooring) for the area focused primarily on identifying suspect ACMs in the specified areas. Quantities of confirmed ACM that are to be abated/remediated should be corroborated by the prospective abatement contractor. Samples were analyzed by a laboratory accredited in accordance with Georgia law.

The intent of this survey was to identify suspect ACM and to collect and submit bulk samples of such materials for laboratory analysis to identify the presence/absence and percent asbestos content in the suspect materials.

During a walk-through of the survey area, the inspector visually checked for the presence of suspect ACM. The inspection of the subject location included the following activities:

- Suspect materials were examined for variations in color, texture, thickness and other visually apparent characteristics useful in determining the uniformity of the material.
- Each suspect material that appeared to be uniform was assumed to be a Homogeneous Material (HM) and was assigned a number.
- For each HM, descriptions and general locations of suspect ACM were noted, and are presented in the Detected Asbestos Sample Summary Table, the chain of custody, and in the laboratory reports.
- The physical condition of each HM and the presence of visible debris were also noted.
- Since visual survey is inadequate to determine whether a material contains asbestos, each suspect material is presumed to be ACM until a sufficient number of samples of each material are analyzed for asbestos content. The minimum number of samples that must be collected and analyzed for asbestos content in order to establish a suspect material as non-ACM is dependent upon material type and quantity. For each miscellaneous suspect material that appeared to be homogeneous, a minimum of two samples was collected.
- The inspector performed bulk sampling in accordance with U.S. EPA guidelines to minimize release of asbestos fibers during sample collection. Each bulk sample was thoroughly wetted with amended water and collected by removing a small piece or core of the suspect material and placing the sample in a clean, sealable container. An attempt was made to include each layer of suspect material present.
- Each sample was assigned a unique number, which was included on the sample container and on the chain-of-custody.
- Sampling locations were selected based on the goal of representing the area and homogeneity of the materials surveyed. Samples were not located in any way so as to influence the analytical results or findings of this report. Destructive sampling was performed. Sample location descriptions are presented in the Detected Asbestos Sample Summary Table, and are also entered on the Chain-of-Custody forms included with the Laboratory Report included in the Appendix.
- Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for PLM analysis of bulk samples for asbestos content.



#### LABORATORY PROCEDURES

All suspect ACM samples were analyzed for asbestos content by polarized light microscopy (PLM) using dispersion staining (Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116). This analytical method, which the U.S. EPA currently recommends for the determination of asbestos in bulk samples, is used for the qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite. The fibrous composition of the bulk sample is reported in visually estimated percentages of asbestos and non-asbestos materials (i.e. cellulose, fibrous glass, synthetic).

The analytical results indicate the percent asbestos content in the sampled material. The amount of asbestos identified in a sample of ACM may vary in a homogeneous material depending on the sample location. Such variation in content may be due to incomplete mixing of material components during manufacturing processes, or it may indicate that materials with a visually similar appearance are actually of different composition.

#### Important Note To Our Clients

The PLM method for analysis of bulk samples for asbestos content requires that the microscopist make a visual estimation of the percentage of asbestos in a given sample. By definition, any material with greater than 1% asbestos is considered regulated asbestos-containing material. The extent of regulatory requirements under EPA and OSHA asbestos regulations depends upon the category and condition of the material.

If asbestos is identified in a sample of friable material by PLM analysis, with results between a trace and 10% asbestos, the owner must either assume that the content is greater than 1%, and treat the material as regulated, or the owner may confirm the regulatory status by having samples of these materials reanalyzed by the point counting method. Some of these materials may be confirmed as less than or equal to 1% when the more quantitative point counting technique is used. Samples are not initially analyzed by point counting because the regulations require analysis by PLM. Also, point counting is a more expensive method. Point Counting results supersede the initial results obtained by PLM using the visual estimation of area.

Some resinously bound materials such as mastics and roofing materials, and materials with very small fibers such as floor tiles and joint compounds, may yield false negative PLM results. Resins, bitumen, and similar sticky matrices may obscure the visual identification of asbestos minerals. Fiber sizes may be beneath the visual limit of the light microscope. The presence or absence of asbestos in such samples may be confirmed using the Transmission Electron Microscope (TEM) with the Modified Chatfield (quantitative), or Drop-Mount (qualitative) methods.



#### LABORATORY ACCREDITATION

#### **Asbestos Laboratory Accreditation**

AES of Atlanta, Georgia, has received accreditation for PLM and TEM analysis under the National Voluntary Lab Accreditation Program (NVLAP) of the National Institute of Standards and Technology. To ensure quality, AES has developed an internal quality control program with the following features:

- Sample collection, preservation, storage, analysis and disposal methods comply with approved EPA and NIOSH methods;
- Analysts participate quarterly in proficiency rounds administered by AES and conducted with two other laboratories.
- Chain-of-Custody Records (COCR) are maintained on all samples both during the collection phase of the work and during the in-house analysis;
- Statistical parameters or control charts are used to monitor accuracy of analysis and overall laboratory effectiveness;
- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
- A collection of reference samples is used to ensure analysts' accuracy;
- Each sample is analyzed by two separate analysts;
- Sample certificates of analysis, reagent certificates, and sample container certificate files are maintained; and
- Hard copy QA/QC files are maintained for customer examination.



# <u>Macon/Bibb County</u> Board of 7ax Assessors

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Field Definition	s Return to Main S	earch Page	Bibb Home			
Owner and Parcel Information									
Owner Name	MF74 LLC	MF74 LLC		Today's Date	Novembe	November 10, 2015			
Mailing Address	507 HILL	507 HILLCREST INDUSTRIAL B		Parcel Number	S072-013	S072-0130			
	MACON,	GA 31204		Tax District	11 (Distri	ct 11)			
Location Address	750 SUN	NYDALE DR		2014 Millage Rate	11	11			
Legal Description	SUNNYD	ALE		Acres	0.38	0.38			
Property Class(NOTE: Not Zoning Info)	R3-Resid	ential		Neighborhood	7240	7240			
Zoning	R-2			Homestead Exemption	No (S0)	No (S0)			
Landlot/District	51/MR			Parcel Map	Show Pare	Show Parcel Map			

2015 Tax Year Value Information								
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value				
\$ 1,395	\$ 8,745	\$ 0	\$ 10,140	\$ 33,007				
The value of this parcel reflects the 1-year sales value cap (improvement value above includes accessory value information if parcel contains accessory items).								

	Land Information								
Туре	Description	Calculation Method	Frontage	Depth	Acres	Photo			
RES	7240 -FF / 80 FF	Front Feet	116	142	0.38	NA			

Improvement Information								
Style	Heated Sq Ft	Interior Walls	Exterior Walls	Attic Area Sq Ft	Basement Area Sq Ft	Year Built	Photo	
One Family	1,132	Drywall	Wood/Shingle-Frame	0	0	1986	Building Images	
Roof Type	Flooring Type	Heating Type	Rooms Bedrooms/Bathrooms/Extra Plumbing	Value	Cond	Number Fire Pl	Sketch	
Asphalt Shingles	Plywood/Carpet	Cent Heat/AC	0/3/1.5/2	\$ 8,745	Average	0	Sketch Building 1	

Accessory Information								
Description	Year Built	Dimensions/Units	Value					
No accessory information associated with this parcel.								

Sale Information									
Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grante	Grantor		е	
06/03/2014	9268 43	61 138	\$ 10,140	Bank Sale	BANK OF AME	BANK OF AMERICA N A		.C	
12/03/2013	9177 306	61 138	\$ O	Foreclosure	THOMAS SH	ARON J	BANK OF AMERICA, N.A., SUCCESSOR BY MERG		
09/20/2007	0765300329	61 138	\$ 65,000	Fair Market - Improved	T C HOLDINGS OF GA LLC & HERBERT LEROY		THOMAS SHARON J		
01/11/2007	0735800243		\$ 28,500	Un-qualified					
09/05/2006	0723900232		\$ 20,750	Un-qualified					
10/19/2001	0509000260		\$ 36,500	Fair Market - Improved					
06/13/2000	0468700140		\$ 55,000	Fair Market - Improved					
Recent Sales in Neighborhood Recent Sales in AreaPrevious ParcelNext ParcelField DefinitionsReturn to Main Search PageBibb Home						Bibb Home			

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assesment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. Website Updated: November 6, 2015

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The Bibb County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER BIBB COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---- Date printed: 11/10/15 : 11:50:52



# **Bibb County Tax Assessor's Office**

Close Window
Color Area Type
Description

1 STORY	1132
Attached Frm Carport	306
Open Frame Porch	70

Square

Feet

# <u>Macon/Bibb County</u> Board of 7ax Assessors

Building Photo 1



Close Window © 2004 by the Bibb County Assessor's Office | Website design by <u>apublic.net</u>

ASBESTOS SURVEY RESULTS 1548 JEFFERSONVILLE ROAD MACON, GEORGIA GEC JOB # 160114.240

#### **PREPARED FOR**

#### MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

#### **PREPARED BY**

#### GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

ISSUE DATE: February 22, 2016





February 22, 2016

Via email: DFortson@maconbibb.us

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201

#### SUBJECT: Asbestos Survey Results 1548 Jeffersonville Road Macon, Georgia GEC JOB # 160114.240

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. Jayro Lucas and Nathan Caffarelli, both AHERA/ASHARA accredited Asbestos Inspectors with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, one of the materials sampled tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

The suspect materials observed and sampled in this survey included; wallboard mud (joint compound); wallboard (sheetrock); 6x6 roll flooring; exterior window glaze; beige roll flooring; multi-layer flooring; multi-layer roof shingles with felt; and **black flashing tar totaling 10 linear feet.** 

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present. Along with the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

#### Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

ayn Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

Robert F. Helde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944

JL/RTH/hm Attachments



# APPENDIX



3			- •						
	ANALYTICAL ENVIRONMENTAL	SERVICES	, INC.						
	3080 Presidential Drive, Atlanta, GA (770) 457-8177 / Toll Free (800) 972-4889 /	30340-3704 Fax (770) 457-8	188						
	CHAIN OF CUSTO	DY		1021	174				
BULK ASBESTOS ANALYSIS									
Client Name: 6EC	(428) 757-1606								
Address: <u>514 H</u>	Ilcrest Ind Blud.	Fax:		(478)757160	8				
City, State, Zip: Maco	n 64 31204	Project Na	ame:	1548 Jeffersa	wille RL				
Contact : J. Lycas	D. Price B. Hadden, N. La Han	_ <u>∥,</u> Project Nι	umber:	160114.240					
Sampler's Name: Jayro Lucas Sampling Date: 2/10/16									
		- Analysis	Turparoupd		Eor AES				
Sample ID	Sample Location/Description	Requested	Time	Comments	Use Only				
1 1548-1A	Eterior window date	PLM	STD						
2 1548-13	ų <i>II II</i>		1						
3   2A	BRAR CUIL SLODGIN Run #1				-				
4 23									
5 3/4	6x6 all flooring Run # 3								
6 3B	11 11 11								
7 4A	JL Rm #6								
8 43	JC Hallway								
9 46	JC Rm #4								
10 5A	Plaster Wall Right 1								
11 5B	11 11 Rn # 2								
12 14	wall band Runth 6								
13 63	YII Rm #4								
14 7A	Multi lager flooring Rut #5								
15 7B									
16 8/4	shinles w/ felt multi laver	-							
17 8B									
18 94	Stastin far			SSA					
19 9 9 B	11 11								
20									
Relinguished by:	1 Date/Time:	2-11-16	9 m						
Received by:	Date/Time:								
Relinquished by:	Date/Time:								
Received by:	Date/Time:								
ennen en e	FOR LAB USE O	NLY							
Lab Recipient	Uffell Date/Time: 2/12-1163	Method of	Shipment:	jeour					
l									

.

#### Analytical Environmental Services, Inc

Client:GeoTechnical & Env. ConsultantsProject:1548 JEFFERSONVILLE RDLab ID:1602D24

**Case Narrative** 

Samples 1548-7A and 1548-7B had two types of flooring each. Client will be charged for 2 extra samples.



#### **Bulk Sample Summary Report**

galvn

Lab Code 102082-0

19-Feb-16

Client Name: GeoTechnical & Env. Consultants			AES Job Number: 1602D24								
Project Name: 1	Project Name: 1548 JEFFERSONVILLE RD				Project Number: 160114.240						
Client ID	AES ID     Location				s Mine CR	ral Pe AN	rcenta TR	Comments			
1548-1A	1602D24 -001A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1 1548-1B Layer: 1	1602D24 -002A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder		
1548-2A	1602D24 -003A	Beige Roll Flooring Rm #1	ND	ND	ND	ND	ND	ND	Vinyl		
1548-2A	1602D24 -003A	Beige Roll Flooring Rm #1	ND	ND	ND	ND	ND	ND	Backing		
1548-2B	1602D24 -004A	Beige Roll Flooring Rm #1	ND	ND	ND	ND	ND	ND	Vinyl		
Layer: 1 1548-2B Layer: 2	1602D24 -004A	Beige Roll Flooring Rm #1	ND	ND	ND	ND	ND	ND	Backing		

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

This report must not be reproduced except in full without written approval of Analytical Environmental Services, Inc.

**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

19-Feb-16

Client Name:	t Name: GeoTechnical & Env. Consultants			AES Job Number: 1602D24								
Project Name:	ne: 1548 JEFFERSONVILLE RD				Project Number: <b>160114.240</b>							
Client ID	Client ID AES ID Location				s Mine CR	ral Pe AN	Comments					
1548-3A	1602D24 -005A	6x6 Roll Flooring Rm #3	ND	ND	ND	ND	ND	ND	Vinyl			
1548-3A	1602D24 -005A	6x6 Roll Flooring Rm #3	ND	ND	ND	ND	ND	ND	Backing			
1548-3B	1602D24 -006A	6x6 Roll Flooring Rm #3	ND	ND	ND	ND	ND	ND	Vinyl			
Layer: 1 1548-3B	1602D24 -006A	6x6 Roll Flooring Rm #3	ND	ND	ND	ND	ND	ND	Backing			
Layer: 2 1548-4A	1602D24 -007A	JC Rm #6	ND	ND	ND	ND	ND	ND	Paint included as binder			
Layer: 1	1602D24 -008A	JC Hallway	ND	ND	ND	ND	ND	ND	Paint included as binder			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

galvn

Lab Code 102082-0

19-Feb-16

Client Name: Ge	Name: GeoTechnical & Env. Consultants				AES Job Number: 1602D24					
Project Name: 15	Name: 1548 JEFFERSONVILLE RD					Project Number: 160114.240				
Client ID	AES ID	Location	A CH	Asbestos Mineral Percentage					Comments	
1548-4C	1602D24 -009A	JC Rm #4	ND	ND	ND	ND	ND	ND	Paint included as binder	
Layer: 1 1548-5A	1602D24	Plaster Wall Rm #1	ND	ND	ND	ND	ND	ND	Paint included as binder	
Layer: 1	-010/4									
1548-5A	1602D24 -010A	Plaster Wall Rm #1	ND	ND	ND	ND	ND	ND		
Layer: 2										
1548-5B	1602D24 -011A	Plaster Wall Rm #2	ND	ND	ND	ND	ND	ND	Paint included as binder	
Layer: 1										
1548-5B	1602D24 -011A	Plaster Wall Rm #2	ND	ND	ND	ND	ND	ND		
Layer: 2										
1548-6A	1602D24 -012A	Wallboard Rm #6	ND	ND	ND	ND	ND	ND	Paint included as binder	
Layer: 1										

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

19-Feb-16

Client Name: G	Name: GeoTechnical & Env. Consultants				AES Job Number: 1602D24						
Project Name: 15	ect Name: 1548 JEFFERSONVILLE RD					Project Number: 160114.240					
Client ID	AES ID	Location	Location Asbestos Mineral Percentage					Comments			
1548-6A	1602D24 -012A	Wallboard Rm #6	ND	ND	ND	ND	ND	ND			
Laver: 2											
1548-6B	1602D24 -013A	Wallboard Rm #4	ND	ND	ND	ND	ND	ND	Paint included as binder		
Layer: 1											
1548-6B	1602D24 -013A	Wallboard Rm #4	ND	ND	ND	ND	ND	ND			
Layer: 2											
1548-6B	1602D24 -013A	Wallboard Rm #4	ND	ND	ND	ND	ND	ND			
Layer: 3											
1548-7A	1602D24 -014A	Multi Layer Flooring Rm #5	ND	ND	ND	ND	ND	ND	Tan Vinyl		
Layer: 1											
1548-7A	1602D24 -014B	Multi Layer Flooring Rm #5	ND	ND	ND	ND	ND	ND	Black floor tile with glue. Latex included as resilient.		
Layer: 1											

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina


## **Bulk Sample Summary Report**

**QAIVN** 

Lab Code 102082-0

19-Feb-16

Client Name: Ge	Client Name: GeoTechnical & Env. Consultants					AES Job Number: 1602D24						
Project Name: 154	48 JEFFERSON	WILLE RD	Project Number: 160114.240									
Client ID	AES ID	Location		sbesto	s Mine	ral Pe	rcenta	ge	Comments			
				AM				AC				
1548-7B	1602D24 -015A	Multi Layer Flooring Rm #5	ND	ND	ND	ND	ND	ND	Tan Vinyl			
Laver: 1												
1548-7B	1602D24 -015B	Multi Layer Flooring Rm #5	ND	ND	ND	ND	ND	ND	Black floor tile with glue. Latex included as resilient.			
Layer: 1												
1548-8A	1602D24 -016A	Shingle w/ Felt Multi Layer	ND	ND	ND	ND	ND	ND				
Laver: 1												
1548-8A	1602D24 -016A	Shingle w/ Felt Multi Layer	ND	ND	ND	ND	ND	ND				
Laver: 2												
1548-8B	1602D24 -017A	Shingle w/ Felt Multi Layer	ND	ND	ND	ND	ND	ND				
Layer: 1												
1548-8B	1602D24 -017A	Shingle w/ Felt Multi Layer	ND	ND	ND	ND	ND	ND				
Layer: 2												

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



## **Bulk Sample Summary Report**

galvn

Lab Code 102082-0

19-Feb-16

Client Name: GeoTechnical & Env. Consultants				AES Job Number: 1602D24						
Project Name:	Project Name: 1548 JEFFERSONVILLE RD				Project Number: 160114.240					
Client ID       AES ID       Location				sbesto AM	s Mine	ral Per	rcenta TR		Comments	
			en	1111	CR	111	II	ne		
1548-9A	1602D24 -018A	Flashing Tar	10	ND	ND	ND	ND	ND		
Layer: 1										
1548-9B	1602D24 -019A	Flashing Tar	10	ND	ND	ND	ND	ND		
Layer: 1										

 $Note: \ CH=chrysotile, \ AM=amosite, \ CR=crocidolite, \ AC=actinolite, \ TR=tremolite, \ AN=anthophylite$ 

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina

The Environmental Institu	ute
Jayro Lucas Social Security Number - XXX-XX-1273	
GEC - 514 Hillcrest Industrial Blvd Macon, Georgia 31204	
Has completed coursework and satisfactorily pa	essed
an examination that meets all criteria required	for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reacc	reditation
January 19 2016 1.5.3	843
Course Date Certificate	Number
January 19, 2016 Examination Date	
January 18, 2017     Expiration Date     David W. Hogue - Principal Instructor / Training Manager	INTERNITAL CONTRACTOR
Rachel G. McCain-Exam Administrator	
(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point	- Approval #11-577)
(Florida Provider Registration Number FL49-0001342 - Course #FL49 TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3	9-0002805) 600 - www.tei-atl.com

The Environmente	
Nathan Caff	farelli
Social Security Number - XXX-XX-	4383
Geotechnical Environmental Consultants - 514 Hillcrest Indu	strial Blvd Macon, Georgia 31204
Has completed coursework and satis	factorily passed
an examination that meets all criter	ia required for
EPA/AHERA/ASHARA (TSCA Title II) App	proved Accreditation
	2
Asbestos in Buildings: Inspectio	n and Assessment
December 7-9. 2015	4764
Course Date	Certificate Number
<u>December 9, 2015</u>	Jan Market
Examination Date	
December 8, 2016	ENVIRONMENTAL
David W. Hogue - Principal Instructor / Training Manager	
The MAR	
Rachel G. McCain - Exam Administrator	
$\mathbf{V}$	
(Approved by the ABIH Certification Maintenance Committee (Florida Provider Registration Number FL49-000134	e for 3 CM points - Approval #11-529) 2 - Course #FL49-0004700)
TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30	062 - (770) 427-3600 - www.tei-atl.com

## SAMPLING METHODOLOGY

The limited survey (limited in that the survey may not have penetrated beyond solid wood or other apparent substrates to ceilings, walls, and more typically flooring) for the area focused primarily on identifying suspect ACMs in the specified areas. Quantities of confirmed ACM that are to be abated/remediated should be corroborated by the prospective abatement contractor. Samples were analyzed by a laboratory accredited in accordance with Georgia law.

The intent of this survey was to identify suspect ACM and to collect and submit bulk samples of such materials for laboratory analysis to identify the presence/absence and percent asbestos content in the suspect materials.

During a walk-through of the survey area, the inspector visually checked for the presence of suspect ACM. The inspection of the subject location included the following activities:

- Suspect materials were examined for variations in color, texture, thickness and other visually apparent characteristics useful in determining the uniformity of the material.
- Each suspect material that appeared to be uniform was assumed to be a Homogeneous Material (HM) and was assigned a number.
- For each HM, descriptions and general locations of suspect ACM were noted, and are presented in the Detected Asbestos Sample Summary Table, the chain of custody, and in the laboratory reports.
- The physical condition of each HM and the presence of visible debris were also noted.
- Since visual survey is inadequate to determine whether a material contains asbestos, each suspect material is presumed to be ACM until a sufficient number of samples of each material are analyzed for asbestos content. The minimum number of samples that must be collected and analyzed for asbestos content in order to establish a suspect material as non-ACM is dependent upon material type and quantity. For each miscellaneous suspect material that appeared to be homogeneous, a minimum of two samples was collected.
- The inspector performed bulk sampling in accordance with U.S. EPA guidelines to minimize release of asbestos fibers during sample collection. Each bulk sample was thoroughly wetted with amended water and collected by removing a small piece or core of the suspect material and placing the sample in a clean, sealable container. An attempt was made to include each layer of suspect material present.
- Each sample was assigned a unique number, which was included on the sample container and on the chain-of-custody.
- Sampling locations were selected based on the goal of representing the area and homogeneity of the materials surveyed. Samples were not located in any way so as to influence the analytical results or findings of this report. Destructive sampling was performed. Sample location descriptions are presented in the Detected Asbestos Sample Summary Table, and are also entered on the Chain-of-Custody forms included with the Laboratory Report included in the Appendix.
- Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for PLM analysis of bulk samples for asbestos content.



#### LABORATORY PROCEDURES

All suspect ACM samples were analyzed for asbestos content by polarized light microscopy (PLM) using dispersion staining (Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116). This analytical method, which the U.S. EPA currently recommends for the determination of asbestos in bulk samples, is used for the qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite. The fibrous composition of the bulk sample is reported in visually estimated percentages of asbestos and non-asbestos materials (i.e. cellulose, fibrous glass, synthetic).

The analytical results indicate the percent asbestos content in the sampled material. The amount of asbestos identified in a sample of ACM may vary in a homogeneous material depending on the sample location. Such variation in content may be due to incomplete mixing of material components during manufacturing processes, or it may indicate that materials with a visually similar appearance are actually of different composition.

#### Important Note To Our Clients

The PLM method for analysis of bulk samples for asbestos content requires that the microscopist make a visual estimation of the percentage of asbestos in a given sample. By definition, any material with greater than 1% asbestos is considered regulated asbestos-containing material. The extent of regulatory requirements under EPA and OSHA asbestos regulations depends upon the category and condition of the material.

If asbestos is identified in a sample of friable material by PLM analysis, with results between a trace and 10% asbestos, the owner must either assume that the content is greater than 1%, and treat the material as regulated, or the owner may confirm the regulatory status by having samples of these materials reanalyzed by the point counting method. Some of these materials may be confirmed as less than or equal to 1% when the more quantitative point counting technique is used. Samples are not initially analyzed by point counting because the regulations require analysis by PLM. Also, point counting is a more expensive method. Point Counting results supersede the initial results obtained by PLM using the visual estimation of area.

Some resinously bound materials such as mastics and roofing materials, and materials with very small fibers such as floor tiles and joint compounds, may yield false negative PLM results. Resins, bitumen, and similar sticky matrices may obscure the visual identification of asbestos minerals. Fiber sizes may be beneath the visual limit of the light microscope. The presence or absence of asbestos in such samples may be confirmed using the Transmission Electron Microscope (TEM) with the Modified Chatfield (quantitative), or Drop-Mount (qualitative) methods.



### LABORATORY ACCREDITATION

#### **Asbestos Laboratory Accreditation**

AES of Atlanta, Georgia, has received accreditation for PLM and TEM analysis under the National Voluntary Lab Accreditation Program (NVLAP) of the National Institute of Standards and Technology. To ensure quality, AES has developed an internal quality control program with the following features:

- Sample collection, preservation, storage, analysis and disposal methods comply with approved EPA and NIOSH methods;
- Analysts participate quarterly in proficiency rounds administered by AES and conducted with two other laboratories.
- Chain-of-Custody Records (COCR) are maintained on all samples both during the collection phase of the work and during the in-house analysis;
- Statistical parameters or control charts are used to monitor accuracy of analysis and overall laboratory effectiveness;
- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
- A collection of reference samples is used to ensure analysts' accuracy;
- Each sample is analyzed by two separate analysts;
- Sample certificates of analysis, reagent certificates, and sample container certificate files are maintained; and
- Hard copy QA/QC files are maintained for customer examination.



# <u>Macon/Bibb County</u> Board of 7ax Assessors

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Field Definition	Return to Mair	n Search Page	Bibb Home	
	Owne	er and Parce	el Informatio	on			
Owner Name	HEAVE	ENLY FATHER L	LC	Today's Date	February	23, 2016	
Mailing Address		RUSTIC OAK CO	URT	Parcel Number	T071-006	T071-0062	
		STONE MOUNTAIN, GA 30087		Tax District	11 (Distri	ct 11)	
Location Address	1548	1548 JEFFERSONVILLE RD		2014 Millage Rate	11		
Legal Description				Acres	0.37		
Property Class(NOTE: Not Zoning Info	o) R3-Re	sidential	1	Neighborhood	7180		
Zoning	R-3			Homestead Exemption	n No (SO)		
Landlot/District	51/M	R	I	Parcel Map	Show Par	cel Map	

2015 Tax Year Value Information							
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value			
\$ 11,045	\$ 27,955	\$ O	\$ 39,000	\$ 39,000			

		Land Information				
Туре	Description	Calculation Method	Frontage	Depth	Acres	Photo
RES	7180 -FF / 90 FF	Front Feet	133	121	0.37	NA

Improvement Information							
Style	Heated Sq Ft	Interior Walls	Exterior Walls	Attic Area Sq Ft	Basement Area Sq Ft	Year Built	Photo
One Family	912	Drywall	Brick Veneer	0	0	1948	Building Images
Roof Type	Flooring Type	Heating Type	Rooms Bedrooms/Bathrooms/Extra Plumbing	Value	Cond	Number Fire Pl	Sketch
Asphalt Shingles	Hardwood	No Heat	0/2/1.0/0	\$ 27,955	Average	0	Sketch Building 1

Accessory Information						
Description	Year Built	Dimensions/Units	Value			
No accessory information associated with this parcel						

				Sale Info	rmat	tion			
Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason		Grantor		Grantee	•
01/30/2015	9404 153	90 259	\$ 675	CORPORATE TO CORPORATE		SRB SERVICING LLC		HEAVENLY FATHER, LLC	
12/13/2010	8462 303	90 259	\$ 717	Quit-Claim Deed	Deed TRIAD DOMINION EQUITIES, LLC,		D DOMINION SRB SERVICING,		G, LLC
03/02/2010	8269 212	90 259	\$ 12,000	Foreclosure	HALL CARL JAMES & MARGARET L		JAMES & RET L	TRIAD DOMINION EC A TEXAS I	DUITIES, LLC,
Recent Sa Rece	les in Neighbor nt Sales in Area	hood Pi	revious Parce	Next Parcel	<u>Fie</u>	Id Definitions	<u>Return to</u>	<u>Main Search Page</u>	Bibb Home

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All data is subject to change before the next certified tax roll. Website Updated: February 19, 2016

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The Bibb County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER BIBB COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---- Date printed: 02/23/16 : 12:02:39

## <u>Macon/Bibb County</u> Board of 7ax Assessors

Building Photo 1



<u>Close Window</u> © 2004 by the Bibb County Assessor's Office | Website design by <u>apublic.net</u>

Resize

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## **Bibb County Tax Assessor's Office**

**Close Window** 

ColorArea Type<br/>DescriptionSquare<br/>Feet1 STORY8401 STORY72Open Brick Porch24Concrete Terrace12

ASBESTOS SURVEY RESULTS 1632 JEFFERSONVILLE ROAD MACON, GEORGIA GEC JOB # 150329.245

## **PREPARED FOR**

## MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

#### **PREPARED BY**

## GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

**ISSUE DATE:** January 4, 2016





January 4, 2016

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201

Via email: DFortson@maconbibb.us

## SUBJECT: Asbestos Survey Results 1632 Jeffersonville Road Macon, Georgia GEC JOB # 150329.245

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. Anthony Whipple, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, several of the materials sampled tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

The suspect materials observed and sampled in this survey included: **9**" **x 9**" **floor tile with black mastic**; **exterior siding**; **wallboard mud (joint compound)**; **wallboard (sheetrock)**; **12**" **x 12**" **rock pattern floor tile with black mastic**; exterior window glaze; brown rock pattern linoleum; roof shingles with felt; **black flashing tar**; and rear of house multi-layer shingle siding.

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.

Along with the Asbestos Detection Table, the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

ayn Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

Robert F. Herlde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944

JL/RTH/hm Attachments



## APPENDIX



## DETECTED ASBESTOS SAMPLE SUMMARY 1632 Jeffersonville Road GEC PROJECT NO. 150329.245

SAMPLE ID SAMPLE DATE:		HOMOGENEOUS MATERIAL		PHYSICAL		ASBES <sup>-</sup>	QUANTITIES	
12/2/2015	LAYER	DESCRIPTION	LOCATION	CONDITION	% ASBESTOS	TYPE	COMMENTS	
1632-2A	LAYER 2	9x9 Tile	Living Room	Good	2	СН	Floor Tile	
1632-2A	LAYER 3	9x9 Tile	Living Room	Good	5	СН	Black Mastic	440 SE
1632-2B	LAYER 2	9x9 Tile	Kitchen	Damaged	2	СН	Floor Tile	440 SF
1632-2B	LAYER 3	9x9 Tile	Kitchen	Damaged	5	СН	Black Mastic	
1632-3C	LAYER 1	Joint compound	Living Room	Damaged	2	СН	Jointcompound	1800 SE
1632-6A	LAYER 1	Wallboard	Kitchen	Damaged	2		Wallboard	1800 SF
1632-1A	LAYER 1	Exterior siding	Exterior	Good	25	СН	Siding	1300 SE
1632-1B	LAYER 1	Exterior siding	Exterior	Good	25	СН	Siding	1300 SF
		12x12 floor tile with black						
1632-4A	LAYER 2	mastic	Room 1	Damaged	5	СН	Floor Tile	216 85
		12x12 floor tile with black						210 SF
1632-4B	LAYER 1	mastic	Room 1	Damaged	5	СН	Floor Tile	
1632-9A	LAYER 1	Black Flashing Tar	Roof	Good	5	CH	Flashing Tar	515
1632-9B	LAYER 1	Black Flashing Tar	Roof	Good	5	CH	Flashing Tar	5 LF

NOTE: CH = Chrysotile Asbestos; AM = Amosite Asbestos; ND = Not Detected

CY = Cubic Yards; SF = Square Feet; CF = Cubic Feet; LF = Linear Feet

ANALYTICAL ENVIRONMENTAL SERVICES, II	NC.
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3080 Presidential Drive, Atlanta, GA 30340-3704 (770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

## **BULK ASBESTOS ANALYSIS**

1512M41

_		BOER ADDED TOO ANA		10				
	Client Name: 6EC		Pho	ne:		(418)757-1626		
	Address: 514 /	Hillcrest Fide Blud.	Fax:			(478)757-1608	)	
	City, State, Zip: Mau	6A 31204	- Proje	ect Na	ame:	1637 Jeffer	- 	
	Contact : But Halle	David force A them What	7 Proi	ect N	umber:	150329705		
	Sampler's Name:	line Ullindo	Sam	nlina	Date:	462/15		
Г			-	, in the second		12/23/13		
	Sample ID	Sample Location/Description	Requ	uested	Time	Comments	For AES Use Only	
1	1632-DA	9×9 Ft wath BICKIK MASTIC RM	PL	M	54D			
2	16322B	9x9FtwithBlockmastickitchen						
3	1630-1A	Exterior siding						
4	1637 1B							
- 5	1632-3A	ICM & Ceiling Joint Compand						
6	1633-38	Km 5 Ceiling (JC)						
· 7	1632 30	Living Koom (eiling JC						
8	163, 30	Kitchin JC		1				
9	1430 3E	Kitchin Jc		1				
10	1632-4A	tile with block mostic						
11	1632-4B							
12	1637 5A	Km I wanted grize						
13	1632-6A	Kitchen wallboard						
14	11433 TA	Bath Recon Brash Rock pottant	incley	m [				
15	1632 1B	11 ,1 11						
16	1632-6B	Bathrown Wallbook						
17	1632-3F	Bathroom JC					_	
18	1632 - 8A	Reof shireles with Felt						
19	1:032-8B	11_11_ <u>11</u>						
20	1632-9A	Black flashing for Electrial Supply	line	V	$\underline{\Psi}$			
	Relinquished by:	Date/Time:	n/2	1/15	0815	·	_	
	Received by:	Date/Time:					_	
	Relinquished by:	Date/Time: _					_	
_				_				
		Date/Time: 202 9.00	ALY ALMe	thod of	Shipment:	Fult	_	
	1632							

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3080 Presidential Drive, Atlanta, GA 30340-3704

(770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

## BULK ASBESTOS ANALYSIS

	Client Name:	EC		Phone:		( )		
	Address:			- Fax:		( )		
	City, State, Zip:			- Proiect	Name:	1633 106 100 10	16 02	
	Contact :			- · Project	Number:	150329245		
	Sampler's Name			- Samplir	na Date:	130321 211		
	Sample ID	Sample Location/Descri	ption	Analysi Request	s Turnaround ed Time	Comments	For AES Use Only	
1	1632-9B	Bathriam Block flashing to	ur	PLM	STD			
2	1632-10A.	read of House simul lager	staingle			305=		
3	1632-10B	11 IX	11					
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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	Relinquished by:	- the fight	Date/Time:	12/21/1	5 0815		_	
	Received by:		Date/Time:					
	Received by:		Date/Time:				_	
		F0	R LAB USE OI	NLY				
	Lab Recipient	Date/Time:	H22 8:14		of Shipment:	Feller		

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(SIZMY)



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

29-Dec-15

Project Name: 1632 Jeffersonville   Client ID AES ID	Location 9"x9" Ft with Black Mastic	As CH	sbestos	Proje Mine	ct Nur	nber:	15	50329.245
Client ID AES ID	Location 9"x9" Ft with Black Mastic	As CH	sbestos	Mine	ral Pa			
	9"x9" Ft with Black Mastic		Asbestos Mineral Percentage   Cor     CH   AM   CR   AN   TR   AC					
1632-2A 1512M41 -001A	Living Rm	ND	ND	ND	ND	ND	ND	Glue
1632-2A 1512M41 -001A -001A	9"x9" Ft with Black Mastic Living Rm	2	ND	ND	ND	ND	ND	Floor tile
1632-2A 1512M41 -001A -001A	9"x9" Ft with Black Mastic Living Rm	5	ND	ND	ND	ND	ND	Black Mastic
1632-2A 1512M41 -001A	9"x9" Ft with Black Mastic Living Rm	ND	ND	ND	ND	ND	ND	Plywood
1632-2B 1512M41 -002A	9x9 Ft with Black Mastic Kitchen	2	ND	ND	ND	ND	ND	Floor tile
1632-2B 1512M41 -002A	9x9 Ft with Black Mastic Kitchen	5	ND	ND	ND	ND	ND	Black Mastic

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## Bulk Sample Summary Report

**MVLAD** 

Lab Code 102082-0

29-Dec-15

Client Name:	Client Name: GeoTechnical & Env. Consultants						AES Job Number: 1512M41							
Project Name:	1632 Jeffersonville	:			Proje	ct Nu	nber:	15	50329.245					
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments							
1632-1A	1512M41 -003A	Exterior Siding	25	ND	ND	ND	ND	ND	Paint included as binder					
1632-1B	1512M41 -004A	Exterior Siding	25	ND	ND	ND	ND	ND	Paint included as binder					
1632-3A	1512M41 -005A	Rm 2 Ceiling Joint Compound (JC)	ND	ND	ND	ND	ND	ND	Paint included as binder					
1632-3B Layer: 1	1512M41 -006A	Rm 3 Ceiling (JC)	ND	ND	ND	ND	ND	ND	Paint included as binder					
1632-3C	1512M41 -007A	Living Room Ceiling JC	2	ND	ND	ND	ND	ND	Paint included as binder					
1632-3C	1512M41 -007A	Living Room Ceiling JC	ND	ND	ND	ND	ND	ND						

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

29-Dec-15

Client Name:	GeoTechnical & E	nv. Consultants	AES Job Number: 1512M41								
Project Name:	1632 Jeffersonville				Proje	ct Nur	nber:	15	50329.245		
Client ID	AES ID	Location	Asbestos Mineral Percentage     CH   AM     CR   AN     TR   AC						Comments		
1632-3D	1512M41 -008A	Kitchen JC	ND	ND	ND	ND	ND	ND	Paint included as binder		
1632-3E	1512M41 -009A	Kitchen JC	ND	ND	ND	ND	ND	ND			
1632-3E	1512M41 -009A	Kitchen JC	ND	ND	ND	ND	ND	ND			
Layer: 2 1632-4A	1512M41 -010A	Rm 1 12"x12 Rock Pattern Floor Tile with Black Mastic	5	ND	ND	ND	ND	ND	Floor tile		
1632-4A	1512M41 -010A	Rm 1 12"x12 Rock Pattern Floor Tile with Black Mastic	ND	ND	ND	ND	ND	ND	Black Mastic		
1632-4B	1512M41 -011A	Rm 1 12"x12 Rock Pattern Floor Tile with Black Mastic	5	ND	ND	ND	ND	ND	Floor tile		

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## Bulk Sample Summary Report

**QAIVN** 

Lab Code 102082-0

29-Dec-15

Client Name:	Client Name: GeoTechnical & Env. Consultants						AES Job Number: 1512M41								
Project Name:	1632 Jeffersonville				Proje	ct Nur	nber:	15	50329.245						
Client ID	AES ID	Location	Asbestos Mineral Percentage         CH       AM       CR       AN       TR       AC						Comments						
1632-4B	1512M41 -011A	Rm 1 12"x12 Rock Pattern Floor Tile with Black Mastic	ND	ND	ND	ND	ND	ND	Black Mastic						
Layer: 2	1512M41 -012A	Rm 1 Window Glaze	ND	ND	ND	ND	ND	ND							
1632-6A	1512M41 -013A	Kitchen Wallboard	2	ND	ND	ND	ND	ND	Paint included as binder						
1632-6A	1512M41 -013A	Kitchen Wallboard	ND	ND	ND	ND	ND	ND							
1632-6A	1512M41 -013A	Kitchen Wallboard	ND	ND	ND	ND	ND	ND							
Layer: 3	1512M41 -014A	Bathroom Brown Rock Pattern Linoleum	ND	ND	ND	ND	ND	ND	Vinyl						

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## Bulk Sample Summary Report

**MANA** 

Lab Code 102082-0

29-Dec-15

Client Name:	lient Name: GeoTechnical & Env. Consultants					AES Job Number: 1512M41								
Project Name:	1632 Jeffersonville				Proje	ct Nur	nber:	15	50329.245					
Client ID	AES ID	Location	Asbestos Mineral Percentage     CH   AM     CR   AN     TR   AC						Comments					
1632-7A	1512M41 -014A	Bathroom Brown Rock Pattern Linoleum	ND	ND	ND	ND	ND	ND	Backing					
1632-7B	1512M41 -015A	Bathroom Brown Rock Pattern Linoleum	ND	ND	ND	ND	ND	ND	Vinyl					
1632-7B	1512M41 -015A	Bathroom Brown Rock Pattern Linoleum	ND	ND	ND	ND	ND	ND	Backing					
1632-6B	1512M41 -016A	Bathroom Wallboard	ND	ND	ND	ND	ND	ND						
1632-3F	1512M41 -017A	Bathroom JC	ND	ND	ND	ND	ND	ND						
1632-3F	1512M41 -017A	Bathroom JC	ND	ND	ND	ND	ND	ND	Insufficient amount of joint compound to be analyzed					
			1	1		I								

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## Bulk Sample Summary Report

**MAJAN** 

Lab Code 102082-0

29-Dec-15

Client Name:	Client Name: GeoTechnical & Env. Consultants						AES Job Number: 1512M41							
Project Name:	1632 Jeffersonville				Proje	ct Nur	nber:	15	50329.245					
Client ID	AES ID	Location	Location Asbestos CH AM						Comments					
1632-3F	1512M41 -017A	Bathroom JC	ND	ND	ND	ND	ND	ND						
1632-8A	1512M41 -018A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND						
1632-8A	1512M41 -018A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND						
Layer: 2	1512M41 -019A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND						
1632-8B	1512M41 -019A	Roof Shingles with Felt	ND	ND	ND	ND	ND	ND						
1632-9A	1512M41 -020A	Black Flashing Tar Electrical Supply Line	5	ND	ND	ND	ND	ND						
Layer: 1														

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

**RVLAD** 

Lab Code 102082-0

29-Dec-15

Client Name:	GeoTechnical & E	nv. Consultants	AES Job Number: 1512M41								
Project Name:	1632 Jeffersonville				Proje	ct Nu	nber:	15	50329.245		
Client ID	AES ID	Location		sbesto	s Mine	ral Per	Comments				
			Сп	AN		AIN		AC			
1632-9B	1512M41	Bathroom Black Flashing Tar	5	ND	ND	ND	ND	ND	Paint included as binder		
	-021A										
Layer: 1			<u> </u>								
1632-10A	1512M41	Read of House Mult Layer	ND	ND	ND	ND	ND	ND			
	-022A	Shingle Siding									
Layer: 1			<u> </u>								
1632-10A	1512M41	Read of House Mult Layer	ND	ND	ND	ND	ND	ND			
	-022A	Shingle Siding									
Layer: 2											
1632-10A	1512M41	Read of House Mult Layer	ND	ND	ND	ND	ND	ND			
	-022A	Shingle Siding									
Layer: 3			<u> </u>								
1632-10B	1512M41	Read of House Mult Layer	ND	ND	ND	ND	ND	ND			
	-023A	Shingle Siding									
Layer: 1			<u> </u>								
1632-10B	1512M41	Read of House Mult Layer	ND	ND	ND	ND	ND	ND			
	-023A	Sningle Slaing									
			1								
Layer: 2											

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**



Lab Code 102082-0

29-Dec-15

Client Name:GeoTechnical & Env. ConsultantsAES Job Number:15Project Name:1632 JeffersonvilleProject Number:15						512M41 50329.245			
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments
1632-10B Layer: 3	1512M41 -023A	Read of House Mult Layer Shingle Siding	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

This report must not be reproduced except in full without written approval of Analytical Environmental Services, Inc.

**Microanalyst:** 

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Penka Topuzova

Yelena Khanina

<u>The Environmen</u>	tal Institute						
· · ·	<u> </u>						
Anthonu V	Vhipple						
Social Security Number - GEC - 514 Hillcrest Industrial Blvd	XXX-XX-3420 Macon, Georgia 31204						
Has completed coursework a	nd satisfactorily passed						
an examination that meets all criteria required for							
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation							
January 20, 2015 Course Date	Certificate Number						
Lourse Date January 20, 2015 Examination Date							
January 19, 2016							
David W. Hogue - Principal Instructor / Training Manager							
Rachel G. McCain - Exam Administrator							

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## SAMPLING METHODOLOGY

The limited survey (limited in that the survey may not have penetrated beyond solid wood or other apparent substrates to ceilings, walls, and more typically flooring) for the area focused primarily on identifying suspect ACMs in the specified areas. Quantities of confirmed ACM that are to be abated/remediated should be corroborated by the prospective abatement contractor. Samples were analyzed by a laboratory accredited in accordance with Georgia law.

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During a walk-through of the survey area, the inspector visually checked for the presence of suspect ACM. The inspection of the subject location included the following activities:

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- Each suspect material that appeared to be uniform was assumed to be a Homogeneous Material (HM) and was assigned a number.
- For each HM, descriptions and general locations of suspect ACM were noted, and are presented in the Detected Asbestos Sample Summary Table, the chain of custody, and in the laboratory reports.
- The physical condition of each HM and the presence of visible debris were also noted.
- Since visual survey is inadequate to determine whether a material contains asbestos, each suspect material is presumed to be ACM until a sufficient number of samples of each material are analyzed for asbestos content. The minimum number of samples that must be collected and analyzed for asbestos content in order to establish a suspect material as non-ACM is dependent upon material type and quantity. For each miscellaneous suspect material that appeared to be homogeneous, a minimum of two samples was collected.
- The inspector performed bulk sampling in accordance with U.S. EPA guidelines to minimize release of asbestos fibers during sample collection. Each bulk sample was thoroughly wetted with amended water and collected by removing a small piece or core of the suspect material and placing the sample in a clean, sealable container. An attempt was made to include each layer of suspect material present.
- Each sample was assigned a unique number, which was included on the sample container and on the chain-of-custody.
- Sampling locations were selected based on the goal of representing the area and homogeneity of the materials surveyed. Samples were not located in any way so as to influence the analytical results or findings of this report. Destructive sampling was performed. Sample location descriptions are presented in the Detected Asbestos Sample Summary Table, and are also entered on the Chain-of-Custody forms included with the Laboratory Report included in the Appendix.
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#### LABORATORY PROCEDURES

All suspect ACM samples were analyzed for asbestos content by polarized light microscopy (PLM) using dispersion staining (Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116). This analytical method, which the U.S. EPA currently recommends for the determination of asbestos in bulk samples, is used for the qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite. The fibrous composition of the bulk sample is reported in visually estimated percentages of asbestos and non-asbestos materials (i.e. cellulose, fibrous glass, synthetic).

The analytical results indicate the percent asbestos content in the sampled material. The amount of asbestos identified in a sample of ACM may vary in a homogeneous material depending on the sample location. Such variation in content may be due to incomplete mixing of material components during manufacturing processes, or it may indicate that materials with a visually similar appearance are actually of different composition.

#### Important Note To Our Clients

The PLM method for analysis of bulk samples for asbestos content requires that the microscopist make a visual estimation of the percentage of asbestos in a given sample. By definition, any material with greater than 1% asbestos is considered regulated asbestos-containing material. The extent of regulatory requirements under EPA and OSHA asbestos regulations depends upon the category and condition of the material.

If asbestos is identified in a sample of friable material by PLM analysis, with results between a trace and 10% asbestos, the owner must either assume that the content is greater than 1%, and treat the material as regulated, or the owner may confirm the regulatory status by having samples of these materials reanalyzed by the point counting method. Some of these materials may be confirmed as less than or equal to 1% when the more quantitative point counting technique is used. Samples are not initially analyzed by point counting because the regulations require analysis by PLM. Also, point counting is a more expensive method. Point Counting results supersede the initial results obtained by PLM using the visual estimation of area.

Some resinously bound materials such as mastics and roofing materials, and materials with very small fibers such as floor tiles and joint compounds, may yield false negative PLM results. Resins, bitumen, and similar sticky matrices may obscure the visual identification of asbestos minerals. Fiber sizes may be beneath the visual limit of the light microscope. The presence or absence of asbestos in such samples may be confirmed using the Transmission Electron Microscope (TEM) with the Modified Chatfield (quantitative), or Drop-Mount (qualitative) methods.



### LABORATORY ACCREDITATION

#### **Asbestos Laboratory Accreditation**

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- Chain-of-Custody Records (COCR) are maintained on all samples both during the collection phase of the work and during the in-house analysis;
- Statistical parameters or control charts are used to monitor accuracy of analysis and overall laboratory effectiveness;
- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
- A collection of reference samples is used to ensure analysts' accuracy;
- Each sample is analyzed by two separate analysts;
- Sample certificates of analysis, reagent certificates, and sample container certificate files are maintained; and
- Hard copy QA/QC files are maintained for customer examination.



# <u>Macon/Bibb County</u> Board of 7ax Assessors

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Field Definitio	ns <u>Retu</u>	rn to Main Searc	ch Page	Bibb Home					
Owner and Parcel Information												
Owner Name	BILL	JE LARRY	Тс	oday's Date	C	December 1	7, 2015					
Mailing Address		SPRADLEY DR	Pa	arcel Number	г 1	T071-0010						
	MACO	ON, GA 31211	Та	ax District	1	11 (District 11)						
Location Address	1632	JEFFERSONVIL	LE RD 20	014 Millage R	ate 1	11						
Legal Description			Ac	res	C	0.27						
Property Class(NOTE: Not Zoning Info)		esidential	Ne	eighborhood	7	7180						
Zoning		C-2		omestead Exe	emption N	No (S0)						
Landlot/District		15/MR		arcel Map	3	Show Parcel	Мар					

2015 Tax Year Value Information							
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value			
\$ 5,396	\$ 6,461	\$ O	\$ 11,857	\$ 11,857			

Land Information								
Туре	Description	Calculation Method	Frontage	Depth	Acres	Photo		
RES	7180 -FF / 90 FF	Front Feet	51	228	0.27	NA		

Improvement Information								
Style	Heated Sq Ft	Interior Walls	Exterior Walls	Attic Area Sq Ft	Basement Area Sq Ft	Year Built	Photo	
One Family	1,104	Drywall	Frame/Asbestos 0		0	1939	Building Images	
Roof Type	Flooring Type	Heating Type	Rooms Bedrooms/Bathrooms/Extra Plumbing	Value	Cond	Number Fire Pl	Sketch	
Asphalt Shingles	Softwood	No Heat	0/2/0.0/0	\$ 6,461	Poor	0	Sketch Building 1	

Accessory Information						
Description	Year Built	Dimensions/Units	Value			
No accessory information associated with this parcel.						

Sale Information												
Sale Date Deed Book / Page		ge	Plat Book / Page		Sale Price		Reason		Grantor		Grantee	
10/03/1997	0404500228				\$	\$ 7,000 Fair Market - Vacant			BILLUE LARRY			
Recent Sales in Neighborhood Recent Sales in Area		Pre	vious Parcel	<u>Next Pa</u>	<u>rcel</u>	<u>Field [</u>	Definitions	<u>Return to Ma</u>	in Search P	age	Bibb Home	

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assesment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. Website Updated: December 11, 2015

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The Bibb County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER BIBB COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---- Date printed: 12/17/15 : 15:42:50

## **Bibb County Tax Assessor's Office**





Close Window

Color	Area Type Description	Square Feet
	1 STORY	1104
	Open Frame Porch	120

# Macon/Bibb County Board of 7ax Assessors

Building Photo 1



<u>Close Window</u> © 2004 by the Bibb County Assessor's Office | Website design by <u>apublic.net</u>

ASBESTOS SURVEY RESULTS 1648 JEFFERSONVILLE ROAD MACON, GEORGIA GEC JOB # 150329.246

#### **PREPARED FOR**

## MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

#### **PREPARED BY**

## GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

ISSUE DATE: February 18, 2016





February 18, 2016

Via email: DFortson@maconbibb.us

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201

## SUBJECT: Asbestos Survey Results 1648 Jeffersonville Road Macon, Georgia GEC JOB # 150329.245

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. David Price, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, several of the materials sampled tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

The suspect materials observed and sampled in this survey included: plaster; wallboard (sheetrock); wallboard mud (joint compound); exterior window glaze; **9**" **x 9**" **floor tile with black mastic and felt**; brown linoleum; white pebble pattern linoleum flooring; **green small block linoleum backing** (flooring); **9**" **x 9**" beige vinyl; **black/ gray flashing tar at chimneys**; brown roof shingles with felt; and roll roofing with felt.

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.
Along with the Asbestos Detection Table, the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

#### Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

mutur B. Withow

Anthony Whipple Environmental Specialist Asbestos Certification #15359

Robert F. Helde Robert T. Hadden

Robert T. Hadden Environmental Department Manager Asbestos Inspection/Mgmt. Planner #14944

AW/RTH/hm Attachments



#### SAMPLING METHODOLOGY

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- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
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## APPENDIX



## DETECTED ASBESTOS SAMPLE SUMMARY 1648 Jeffersonville Road GEC PROJECT NO. 150329.246

SAMPLE ID SAMPLE DATE:		HOMOGENEOUS MATERIAL		PHYSICAL		ASBES	ESTIMATED	
2/5/2016	LAYER	DESCRIPTION	LOCATION	CONDITION	% ASBESTOS	TYPE	COMMENTS	QUANTITIES
1648-6A	LAYER 1	9x9 Ft Black Mastic & Felt	Rm 4	Good	2	СН	Floor tile	
1648-6A	LAYER 2	9x9 Ft Black Mastic & Felt	Rm 4	Good	5	СН	Black Mastic	680 85
1648-6B	LAYER 1	9x9 Ft Black Mastic & Felt	Back Porch	Good	2	СН	Floor tile	080 SF
1648-6B	LAYER 2	9x9 Ft Black Mastic & Felt	Back Porch	Good	5	СН	Black Mastic	
		Green Small Block						
1648-9A	LAYER 2	Linoleum	Kitchen	Good	35	СН	Backing	120 SE
		Green Small Block						120 31
1648-9B	LAYER 2	Linoleum	Kitchen	Good	35	СН	Backing	
1648-11A	LAYER 1	Black/Gray Flashing Tar	Front Chimney	Good	5	CH		50 I E
1648-11B	LAYER 1	Black/Gray Flashing Tar	Side Chimney	Good	5	СН		50 EF

NOTE: CH = Chrysotile Asbestos; AM = Amosite Asbestos; ND = Not Detected

CY = Cubic Yards; SF = Square Feet; CF = Cubic Feet; LF = Linear Feet

ANALYTICAL ENVIRONMENTAL SERVICES, INC. 3080 Presidential Drive, Atlanta, GA 30340-3704 (770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188 CHAIN OF CUSTODY BULK ASBESTOS ANALYSIS									
Client Name: GI	=_(	Phone:		(478)7574600					
		Fav:		(U)					
Address. $519$ H <sub>1</sub>	Crest Industrial ISLUD	Draigat N	lamai	<u>(4)</u> 13 F160x					
City, State, Zip: MAC	Un GA 31204		vame:	1645-Jeffersonni Ile	Road				
Contact: DPrice,	BHodden, Twhippe	Project	Number:	150329.246					
Sampler's Name: David	1 Price	Sampling	g Date:	2516					
Sample ID	Sample Location/Description	Analysis Requeste	Turnaround d Time	Comments	For AES Use Only				
$1 \sqrt{8} - 1 $	Ender highly Olastr	AM.	6TD						
21648-18	Rm2 RUBIL D OPENT								
31648-1-C	Kitcher WALL plaster								
4 1648-1-1)	Hallway WALL placer								
5 1648-1-E	Rm 3 WALL plastr								
6 1648-1-F	RMY WALL Plaster								
7 1648-1-6	Bathroom wallplaste								
8 1648-ZA	Rm Living Rin B WALL WALL be	ard		4X8 sheet					
91648-ZB	RM3 DWALL WAILboard								
10 1648 - 3A	Living Rm (m) Joint compound	(JC)		BWAIL 4x8 shee					
11 1648 BB	Rm3 DWAIL JC								
12/648-3C	Back Left of porch JC								
13 /648-3D									
14/648-3E	Rm3 JC Dunil Comt	(ACA)							
15 1648 - 4 A	Exterior wondow glaze								
16 1648 - 5B	Exteror window glass D	side							
17 1648 - 5A	Exterior winder Caulk Livi	ngRm							
18 648-5B	Exterior door Caulk Kitche	0							
$\frac{19}{10} \frac{1090 - 64}{100}$	Rm 4 9×9 Ft Blockmenter fe	+							
20 1040 - 6 P	NI BROKPUICH GXY Blackmart	2/2/1	255						
Relinquished by:	Date/Time:	90110							
Relinquished by:	Date/Time:								
Received by:	Date/Time:								
Lab Recipient	FOR LAB USE OF Date/Time: 2-9-16-3"	NLY Method	of Shipment:	Fele					

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.
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3080 Presidential Drive, Atlanta, GA 30340-3704 (770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

## 

		BULK ASBESTUS ANA	<u>L12</u>	15				
	Client Name: GEC		Pho	ne:		H7 )757-1606		
	Address: 514 Hill	crest Industrial BLVD	Fax	:		(478) 752 1608	_	
	City, State, Zip: mocur	GA 3ROY	Proj	ect N	lame:	1648 Jeffersonville Ad		
	Contact: BPrice B Hodden Twhipp				lumber:	150329.246		
Sampler's Name: David Price			Sam	npling	Date:	2/5/16		
	Sample ID	Sample Location/Description	An Req	alysis uested	Turnaround Time	Comments	For AES Use Only	
1	1648-7A	Brock porch a) book Dooe Limete	um	RM	S4D			
2	16487B	vi ()						
3	1648-8A	Rm 2 white peoble pattern Linelle	m			15x 15		
4	1645-8B	<u>11 // (.)</u>						
5	1648-9A	Kitchen Green Small block lingle	un					
6	1648-9B	11 11 L <sub>1</sub>						
7	1648-10A	Bathroom 9'x9 "Beise viny						
8	1648-100	11 (1 ž j						
9	1648-11A	Black/gray flashing to front Chimps	4					
10	1648-11.B	Blackforay Flashing tar side Chimney	l			JOLE		
11	1648-12A	Brown Boot shingles + felt						
12	1648-12B	11 TI J/						
13	H648-13A	Backpurch Roll Roffing with falt				DEXG		
14	1648-13B	11 IV IV		V				
15				(				
16								

20							
Relinquishe	l by:		Date/Time:				
Received by			Date/Time:				
Relinquishe	l by:		Date/Time:			 	
Received by			Date/Time:	-			
		FC	R LAB USE ONL	Y		 	
Lab Recipier	t	Date/Time:		Method of	Shipment:		

17 18

19

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1402908

Client:GeoTechnical & Env. ConsultantsProject:1648-Jeffersonville RoadLab ID:1602908

**Case Narrative** 

Samples 1648-7A and 1648-7B had two types of flooring each. Client will be charged for 2 extra samples.



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	Client Name: GeoTechnical & Env. Consultants					AES Job Number: 1602908						
Project Name:	1648-Jeffersonville	Road	Project Number: 150329.246									
Client ID	Client ID AES ID Location				s Mine CR	ral Pe AN	ge AC	Comments				
1648-1A	1602908- 001A	Living Rm1 Rm Wall C Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder			
1648-1A	1602908- 001A	Living Rm1 Rm Wall C Plaster	ND	ND	ND	ND	ND	ND				
1648-1B	1602908- 002A	Rm 2 Wall D Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder			
1648-1B	1602908- 002A	Rm 2 Wall D Plaster	ND	ND	ND	ND	ND	ND				
1648-1C	1602908- 003A	Kitchen Wall Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder			
Layer: 1 1648-1C Layer: 2	1602908- 003A	Kitchen Wall Plaster	ND	ND	ND	ND	ND	ND				

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

16-Feb-16

Client Name:	ame: GeoTechnical & Env. Consultants							AES Job Number: 1602908					
Project Name:	Name: 1648-Jeffersonville Road Project Number:							15	50329.246				
Client ID	AES ID	Location	Asbestos Mineral Percentage   Commenta     CH   AM   CR   AN   TR   AC						Comments				
1648-1D	1602908- 004A	Hallway Wall Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder				
1648-1D Layer: 2	1602908- 004A	Hallway Wall Plaster	ND	ND	ND	ND	ND	ND					
1648-1E Laver: 1	1602908- 005A	Rm 3 Wall Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder				
1648-1E Laver: 2	1602908- 005A	Rm 3 Wall Plaster	ND	ND	ND	ND	ND	ND					
1648-1F	1602908- 006A	Rm 4 Wall Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1 1648-1F	1602908- 006A	Rm 4 Wall Plaster	ND	ND	ND	ND	ND	ND					
Layer: 2													

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	Client Name: GeoTechnical & Env. Consultants					AES Job Number: 1602908							
Project Name:	1648-Jeffersonville	e Road			Proje	ct Nu	nber:	15	50329.246				
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	e AC	Comments				
1648-1G	1602908- 007A	Bathroom Wall Plaster	ND	ND	ND	ND	ND	ND					
1648-1G	1602908- 007A	Bathroom Wall Plaster	ND	ND	ND	ND	ND	ND					
1648-2A	1602908- 008A	Rm1 Living Rm B Wall Wallboard	ND	ND	ND	ND	ND	ND	Paint included as binder				
1648-2A Layer: 2	1602908- 008A	Rm1 Living Rm B Wall Wallboard	ND	ND	ND	ND	ND	ND					
1648-2B	1602908- 009A	Rm3 D Wall Wallboard	ND	ND	ND	ND	ND	ND	Paint included as binder				
Layer: 1 1648-2B	1602908- 009A	Rm3 D Wall Wallboard	ND	ND	ND	ND	ND	ND					
Layer: 2													

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	AES Job Number: 1602908									
Project Name:	1648-Jeffersonville	e Road	Project Number: <b>150329.246</b>							
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments	
1648-3A	1602908- 010A	Living Rm Rm1 Joint Compound (JC)	ND	ND	ND	ND	ND	ND	Paint included as binder	
1648-3B	1602908- 011A	Rm3 D Wall JC	ND	ND	ND	ND	ND	ND	Paint included as binder	
1648-3C	1602908- 012A	Back Left of Porch JC	ND	ND	ND	ND	ND	ND	Paint included as binder	
1648-3D	1602908- 013A	Back Left of Porch JC	ND	ND	ND	ND	ND	ND	Paint included as binder	
1648-3E	1602908- 014A	Rm3 JC D Wall	ND	ND	ND	ND	ND	ND	Paint included as binder	
Layer: 1	1602908- 015A	Exterior Window Glaze Front Window	ND	ND	ND	ND	ND	ND	Paint included as binder	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	nv. Consultants	AES Job Number: <b>1602908</b>							
Project Name:	1648-Jeffersonville	e Road			Proje	ct Nu	nber:	15	50329.246
Client ID	AES ID	Location	Asbestos Mineral Percentage       Comments         CH       AM       CR       AN       TR       AC						Comments
1648-4B	1602908- 016A	Exterior Window Glaze	ND	ND	ND	ND	ND	ND	Paint included as binder, Talc included as binder
Layer: 1 1648-5A	1602908- 017A	Exterior Window Caulk D Side Living Rm	ND	ND	ND	ND	ND	ND	Paint included as binder, Talc included as binder
1648-5A	1602908- 017A	Exterior Window Caulk D Side Living Rm	ND	ND	ND	ND	ND	ND	
1648-5B	1602908- 018A	Exterior Door Caulk Kitchen	ND	ND	ND	ND	ND	ND	Paint included as binder, Talc included as binder
1648-6A	1602908- 019A	Rm4 9x9 Ft Black Mastic & Felt	2	ND	ND	ND	ND	ND	Floor tile
Layer: 1 1648-6A	1602908- 019A	Rm4 9x9 Ft Black Mastic & Felt	5	ND	ND	ND	ND	ND	Black Mastic
Layer: 2									

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

RVLAD

Lab Code 102082-0

16-Feb-16

Client Name:	Client Name: GeoTechnical & Env. Consultants					AES Job Number: <b>1602908</b>							
Project Name:	1648-Jeffersonville	Road			Proje	ct Nu	nber:	15	50329.246				
Client ID	AES ID	Location	Asbestos Mineral Percentage     CH   AM     CR   AN     TR   AC					Comments					
1648-6A	1602908- 019A	Rm4 9x9 Ft Black Mastic & Felt	ND	ND	ND	ND	ND	ND	Felt				
1648-6B	1602908- 020A	Rm Back Porch 9x9 Black Mastic & Felt	2	ND	ND	ND	ND	ND	Floor tile				
1648-6B Layer: 2	1602908- 020A	Rm Back Porch 9x9 Black Mastic & Felt	5	ND	ND	ND	ND	ND	Black Mastic				
1648-6B Laver: 3	1602908- 020A	Rm Back Porch 9x9 Black Mastic & Felt	ND	ND	ND	ND	ND	ND	Felt with glue				
1648-7A	1602908- 021A	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Gray vinyl				
1648-7A	1602908- 021A	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Backing				

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	Client Name: GeoTechnical & Env. Consultants					AES Job Number: 1602908							
Project Name:	1648-Jeffersonville	e Road			Proje	ct Nu	nber:	15	50329.246				
Client ID	AES ID	Location	Asbestos Mineral Percentage         CH       AM       CR       AN       TR       AC						Comments				
1648-7A	1602908- 021B	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Tan vinyl				
1648-7A	1602908- 021B	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Backing				
1648-7B	1602908- 022A	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Gray vinyl				
1648-7B	1602908- 022A	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Backing				
1648-7B	1602908- 022B	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Tan vinyl				
1648-7B Layer: 2	1602908- 022B	Back Porch @ Back Door Brown Linoleum	ND	ND	ND	ND	ND	ND	Backing				

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name: Ge	AES Job Number: 1602908								
Project Name: 16	48-Jeffersonvill	e Road			Proje	ct Nu	nber:	15	50329.246
Client ID	AES ID	Location	Location       Asbestos Mineral Percentage         CH       AM       CR       AN       TR       AC						Comments
1648-8A	1602908- 023A	Rm2 White Pebble Pattern Linoleum	ND	ND	ND	ND	ND	ND	Vinyl
1648-8A	1602908- 023A	Rm2 White Pebble Pattern Linoleum	ND	ND	ND	ND	ND	ND	Backing with glue
1648-8B Layer: 1	1602908- 024A	Rm2 White Pebble Pattern Linoleum	ND	ND	ND	ND	ND	ND	Vinyl
1648-8B Layer: 2	1602908- 024A	Rm2 White Pebble Pattern Linoleum	ND	ND	ND	ND	ND	ND	Backing with glue
1648-9A	1602908- 025A	Kitchen Green Small Block Linoleum	ND	ND	ND	ND	ND	ND	Vinyl
1648-9A	1602908- 025A	Kitchen Green Small Block Linoleum	35	ND	ND	ND	ND	ND	Backing
Layer. 2			1						

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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**Microanalyst:** 

7

QC Analyst:

Yelena Khanina

Penka Topuzova



## **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	Client Name: GeoTechnical & Env. Consultants						umber	r: 10	502908	
Project Name: 1	648-Jeffersonville	e Road	Project Number: 150329.246							
Client ID	Client ID AES ID Locat			sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments	
1648-9A	1602908- 025A	Kitchen Green Small Block Linoleum	ND	ND	ND	ND	ND	ND	Glue	
1648-9A	1602908- 025A	Kitchen Green Small Block Linoleum	ND	ND	ND	ND	ND	ND	Plywood	
1648-9B	1602908- 026A	Kitchen Green Small Block Linoleum	ND	ND	ND	ND	ND	ND	Vinyl	
1648-9B Layer: 2	1602908- 026A	Kitchen Green Small Block Linoleum	35	ND	ND	ND	ND	ND	Backing	
1648-9B	1602908- 026A	Kitchen Green Small Block Linoleum	ND	ND	ND	ND	ND	ND	Glue	
1648-9B	1602908- 026A	Kitchen Green Small Block Linoleum	ND	ND	ND	ND	ND	ND	Plywood	
Layer: 4										

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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**Microanalyst:** 

7

Penka Topuzova

Yelena Khanina



## **Bulk Sample Summary Report**

GAIVN

Lab Code 102082-0

16-Feb-16

Client Name:	Client Name: GeoTechnical & Env. Consultants						umber	r: 10	502908
Project Name:	1648-Jeffersonville	e Road			Proje	ct Nur	nber:	15	50329.246
Client ID	AES ID	Location	Asbestos Mineral Percentage     CH   AM     CR   AN     TR   AC						Comments
1648-10A	1602908- 027A	Bathroom 9"x9" Beige Viynl	ND	ND	ND	ND	ND	ND	Vinyl
1648-10A	1602908- 027A	Bathroom 9"x9" Beige Viynl	ND	ND	ND	ND	ND	ND	Backing
1648-10B	1602908- 028A	Bathroom 9"x9" Beige Viynl	ND	ND	ND	ND	ND	ND	Vinyl
1648-10B	1602908- 028A	Bathroom 9"x9" Beige Viynl	ND	ND	ND	ND	ND	ND	Backing with glue
1648-11A	1602908- 029A	Black / Gray Flashing Tar Front Chimney	5	ND	ND	ND	ND	ND	
1648-11B Layer: 1	1602908- 030A	Black / Gray Flashing Tar Side Chimney	5	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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**Microanalyst:** 

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QC Analyst:

Yelena Khanina

Penka Topuzova



## **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

16-Feb-16

Client Name: G	Client Name: GeoTechnical & Env. Consultants						umber	:: 1 <b>(</b>	502908
Project Name: 10	648-Jeffersonville	e Road			Proje	ct Nui	nber:	15	50329.246
Client ID	AES ID	Location	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments		
1648-12A	1602908- 031A	Brown Roof Shingles & Felt	ND	ND	ND	ND	ND	ND	
Layer: 1 1648-12A	1602908- 031A	Brown Roof Shingles & Felt	ND	ND	ND	ND	ND	ND	
Layer: 2									
1648-12B	1602908- 032A	Brown Roof Shingles & Felt	ND	ND	ND	ND	ND	ND	
Layer: 1									
1648-12B	1602908- 032A	Brown Roof Shingles & Felt	ND	ND	ND	ND	ND	ND	
Layer: 2									
1648-13A	1602908- 033A	Back Porch Roll Roofing with Felt	ND	ND	ND	ND	ND	ND	
Layer: 1									
1648-13B	1602908- 034A	Back Porch Roll Roofing with Felt	ND	ND	ND	ND	ND	ND	
Layer: 1									

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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**Microanalyst:** 

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Penka Topuzova

Yelena Khanina



## ANALYTICAL ENVIRONMENTAL SERVICES, INC. Bulk Sample Summary Report



Lab Code 102082-0

16-Feb-16

Client Name:GeoTechnical & Env. ConsultantsProject Name:1648-Jeffersonville Road				AES Job Number:     1602908       Project Number:     150329.246						
Client ID AES ID Locatio			A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments	
1648-13B Layer: 2	1602908- 034A	Back Porch Roll Roofing with Felt	ND	ND	ND	ND	ND	ND		

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite For comments on the samples, see the individual analysis sheets.

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**Microanalyst:** 

7

QC Analyst:

Penka Topuzova

Yelena Khanina

The Environmental Institute	
David Price Social Security Number - XXX-XX-2462 Geotechnical & Environmental Consultants - 514 Hillcrest Industrial Blvd Macon, Georgia 31204	
Has completed coursework and satisfactorily passed an examination that meets all criteria required for EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation	
Asbestos in Buildings: Inspector Refresher	
Course Date Certificate Number January 19, 2016 Examination Date January 18, 2017	
David W. Hogue - Principal Instructor / Training Manager Add Add Add Add Add Add Add Add Add Add	
(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577) (Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805) TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com	ı

# <u>Macon/Bibb County</u> Board of 7ax Assessors

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Field Definition	ns	Return to Main Searc	:h Page	Bibb Home				
Owner and Parcel Information											
Owner Name	PEA	COCK EDWARD	JR 1	Γoday's	Date	January 27, 2016					
Mailing Address		2787 EMERY ROAD			lumber	T071-0011					
	MAC	MACON, GA 31217			trict	11 (Distri	ct 11)				
Location Address	164	8 JEFFERSONVI	LLE RD 2	2014 Mi	llage Rate	11					
Legal Description			ŀ	Acres		0.46					
Property Class(NOTE: Not Zoning Info	o) R3-F	Residential	r	Veighbo	orhood	7180					
Zoning		C-2			ead Exemption	No (S0)					
Landlot/District	51/	′MR	F	Parcel N	Лар	Show Pare	cel Map				

	2015 Tax Year Value Information											
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value								
\$ 9,951	\$ 4,347	\$ 1,211	\$ 15,509	\$ 15,509								

	Land Information										
Туре	Description	Calculation Method	Frontage	Depth	Acres	Photo					
RES	7180 -FF / 90 FF	Front Feet	109	156	0.46	NA					

	Improvement Information										
Style	Heated Sq Ft	Interior Walls	Exterior Walls	Attic Area Sq Ft	Basement Area Sq Ft	Year Built	Photo				
One Family	1,320	Plaster	Brick Veneer	0	0	1919	Building Images				
Roof Type	Flooring Type	Heating Type	Rooms Bedrooms/Bathrooms/Extra Plumbing	Value	Cond	Number Fire Pl	Sketch				
Asphalt Shingles	Hardwood	No Heat	0/0/1.0/0	\$ 4,347	Poor	2	Sketch Building 1				

Accessory Information									
Description	Year Built	Dimensions/Units	Value						
FRAME STORAGE Show Photo	2005	10x14 0	\$ 1,211						

	Sale Information										
Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason		Grantor	Gra	antee			
06/16/2009	8112 281	26 26	\$ 5,000	Unuseable	SIXTEE	N HUNDRED FORTY-	PEACOCK	EDWARD JR			
Recent Sales in Neighborhood Recent Sales in Area		Previous Parcel	Next Parcel Field De		<u>finitions</u>	<u>Return to Main Sea</u>	rch Page	Bibb Home			

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assesment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. Website Updated: January 22, 2016

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The Bibb County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER BIBB COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---- Date printed: 01/27/16 : 12:35:15



Building Photo 1



<u>Close Window</u> © 2004 by the Bibb County Assessor's Office | Website design by <u>apublic.net</u>

## **Bibb County Tax Assessor's Office**



Close Window

Color	Area Type Description	Square Feet				
	1 STORY					
	Screen Porch/Masonry					
	Enclosed Frm Porch					
	Concrete Terrace	112				
	Enclosed Frm Porch	56				
	Masonry Stoop	16				

## GEC Geotechnical & Environmental Consultants, Inc.

CALCULATION SHEET



ASBESTOS SURVEY RESULTS 2260 JEFFERSONVILLE ROAD MACON, GEORGIA GEC JOB # 150329.243

#### **PREPARED FOR**

#### MR. DAVID FORTSON, DIRECTOR MACON BIBB ENGINEERING DEPARTMENT 780 THIRD STREET MACON, GEORGIA 31201

#### **PREPARED BY**

## GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC. 514 HILLCREST INDUSTRIAL BOULEVARD MACON, GEORGIA 31204

ISSUE DATE: December 28, 2015





December 28, 2015

Via email: DFortson@maconbibb.us

Mr. David Fortson, Director Macon Bibb Engineering Department 780 Third Street Macon, Georgia 31201

## SUBJECT: Asbestos Survey Results 2260 Jeffersonville Road Macon, Georgia GEC JOB # 150329.243

Dear Mr. Fortson:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this report of Asbestos sampling results for the above referenced site. This letter details the results of the survey, and the Appendix contains data and text that outlines the procedures and documents the results of the sampling event. The samples were collected and analyzed to specifically target observed suspect materials within the noted structure interior, exterior, and observed debris within the grounds of the subject property.

Mr. Anthony Whipple, an AHERA/ASHARA accredited Asbestos Inspector with GEC performed the sampling. Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for Polarized Light Microscopy (PLM) and Point Count Method (PCM) analysis of bulk samples for asbestos content. According to the results, several of the materials sampled tested positive as Asbestos Containing Materials (ACM), with 1% or greater asbestos, and are therefore; considered ACM.

The suspect materials observed and sampled in this survey included: red linoleum; Indian pattern linoleum; rock pattern linoleum; **9" x 9" floor tile with black mastic**; red rock linoleum; plaster wall; wallboard mud (joint compound); wallboard (sheetrock); 12" x 12" ceiling tile; **exterior window glaze**; roll roofing; roof shingles with felt; **black gray flashing tar**; **rear of house debris pile (please note all material in debris pile must be abated as ACM).** 

Asbestos containing materials were encountered and are shown above in bold print. Notification to the Georgia EPD 10 days prior to the demolition is required under the NESHAP regulation regardless of whether ACM is present.

Along with the Asbestos Detection Table, the Asbestos Laboratory Report, the Chain of Custody, and the inspectors' latest accreditation, a description of the survey methodology, the laboratory's procedures, and accreditation information can be viewed in the Appendix to this report. Tax information from the Bibb County Tax Assessors webpage is also included.

GEC greatly appreciates the opportunity to serve you and remains available to further assist you as needed. If you have any questions about this report, please do not hesitate to contact us at (478) 757-1606.

Sincerely, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.

ayn Lucas

Jayro Lucas Environmental Technician Asbestos Certification #2331

Robert F. Hedde

Robert T. Hadden Environmental Department Manager Asbestos Inspection Management Planner #14944

JL/RTH/hm Attachments



## APPENDIX



## DETECTED ASBESTOS SAMPLE SUMMARY 2260 Jeffersonville Road GEC PROJECT NO. 150329.243

SAMPLE ID SAMPLE DATE:		HOMOGENEOUS MATERIAL		PHYSICAL	ASBESTOS CONTENT			ESTIMATED
12/2/2015	LAYER	DESCRIPTION	LOCATION	CONDITION	% ASBESTOS	TYPE	COMMENTS	QUANTITIES
2260-4A	LAYER 1	9x9 Tile	4x3 Hallway	Good	2	СН	Red floor tile	
2260-4A	LAYER 2	9x9 Tile	4x3 Hallway	Good	5	СН	Black Mastic	
								15 SF
2260-4A	LAYER 1	9x9 Lile	4x3 Hallway	Good	10	CH	Green floor tile	
2260-4B	LAYER 1	9x9 FT w/ Black Mastic	Room 3	Good	2	СН	Red floor tile	
2260-4B	LAYER 2	9x9 FT w/ Black Mastic	Room 4	Good	5	CH	Black Mastic	
2260-4B	LAYER 1	9x9 FT w/ Black Mastic	Room 5	Good	10	СН	Green floor tile	
2260-10A	LAYER 1	Exterior Window Glaze	Dining Room	Good	2	СН		21 Lipite
2260-10B	LAYER 1	Exterior Window Glaze	Rm 2	Good	2	СН		21 01115
2260-13A	LAYER 1	Black/Gray Flashing Tar		Good	10	СН		10 SE
2260-13B	LAYER 1	Black/Gray Flashing Tar		Good	10	СН		10.3F
2260-14A	LAYER 1	Debris Pile back roofing/flooring/siding		Good	10	СН	Green floor tile	
0000 444		Debris Pile back		Occarl	00		Cidina	
2260-14A	LATER 1	Debrie Dile beek		Good	20	CH	Siding	15 CY
2260-14B	LAYER 1	Debris Pile back roofing/flooring/siding		Good	15	СН	Flashing	
2260-14B	LAYER 1	Debris Pile back roofing/flooring/siding		Good	20	СН	Siding	

NOTE: CH = Chrysotile Asbestos; AM = Amosite Asbestos; ND = Not Detected

CY = Cubic Yards; SF = Square Feet; CF = Cubic Feet; LF = Linear Feet

		ANALYTICAL ENVIRONMENTAL 3785 Presidential Pkwy., Atlanta, GA (770) 457-8177 / Toll Free (800) 972-4889 /	SERVICE 30340-3704 Fax (770) 457	ES, INC. 7-8188	2/2	
		CHAIN OF CUSTO	DY		19175	97
		BULK ASBESTOS AN	ALYSIS			>
Client	Name: GEC		Phone:		(478)757-1606	5
Addre	ss: <u>514</u>	Hillcrest Int. 15/1,	Fax:		(478)757-1608	
City, S	State, Zip: Maco	A GA 31204	Project	Name:	2260Je Herson	ille Rd
Conta	ct: TEwrdon, B)	Hadden Twhiple, DAvice TAterma	_ Project	Number:	150329,243	
Samp	ler's Nam <u>e: AnHa</u>	my Whindle	Samplin	g Date:	n/2/15	
			Analysis	Turnaro	und	For AES
	Sample ID	Sample Location/Description	Requeste	d Time	Comments	Use Only
1220	0-1A	Dining lino, red	Pin	660		
2	IB					
3	24	Ru#4 Inlian Potkern Lino				
4 ~	2B	11 11 11 11 11				
5	3A	Kitchen rock pattern lino				
6 -	3B	n in u				
7 -	44	4x3 hall very 9x9+:1e			layered	
8	4B	h n ti				
9 -	SA	Ref Rock lino bathroom				
10 -	<u>5</u> B	<u> </u>				
11	GA	LRechimner, JE plaster				
12 -	65	Rm#1 plaster wall				
13 ~	66	Bathrown plaster wall				
14	61)	4x3 hallway plaster ceiling				
15	65	Rm #4 plaster ceiling				
16 -	7A	Rm #4 closet SR wall JL				
17 —	73	BR Dring Run JC				
18	12	Sun Room JC				
19 —	84	Sun Room well bund				
20	<u>97</u>	Kitchen JC	V	V.		
Relinqu	ished by:	Date/Time	npp	5 5:3	<u> </u>	
Receive	d by:	Date/Time	:			
Relinqu	ished by:	Date/Time	:			
Keterre	-a by:					
Lab Red	cipient Naclic	Date/Time: [2-7-15 2	ONLY Method	d of Shipmen	nt Fede	_

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/

ANALYTICAL	ENVIRONMENTAL	SERVICES.	INC.

1

3080 Presidential Drive, Atlanta, GA 30340-3704 (770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

## BULK ASBEŞTOS ANALYSIS

	Client Name: GE	C	Phone:		()	
	Address:	· Fax:		( )	_	
	City, State, Zip:	re	Project N	ame:	22 10 Tolloworkil	- -
	Contact :		Project N	umber:	15/1229 242	
	Sampler's Name:		Sampling	Date:	- 1. IN	_
				Date.	rep	
	Sample ID	Sample Location/Description	Analysis Requested	Turnarounu Time	Comments	For ALS Use Only
1	2260 - 7E	Rm#1 JL	PLM	StO		
2	- 8B	Drin Rh wall burd				
3	- 94	12×12 Linging ceiling tile				
4	~ 9B	11 1 1 11				
5		Bagthroom Et. tim				
6	- 6F	Plaster above ceiling tile dining				
7	- 10A	Ext unlow daze dining rm				
8	- 10B	Rm #2 ext window glaze				
9	— IIA	Rull rouf back puck rouf blackte			3×12	
10	- 11 13					
11	- 12A	raif shirle in felt				
12	- 12B	11				
13	13/4	blacklarey Elashin ter			10 f1 -	
14	- 133					
15	- 14A	debris pile back routing flouring				
16	-+	siding				
17	- 14B	1 11		V	15 yerloile	
18			η			
19						
20						
-	Relinquished by:	Date/Time:	1/1/15	5.30		_
	Received by:	Date/Time:				_
	Relinquished by:	Date/Time:				_
	Lab Recipient	Date/Time: 11-7-15 3'3	O Method o	of Shipment:	A Felox	

2/2

Client:GeoTechnical & Env. ConsultantsProject:2260 JEFFERSOVILLE RDLab ID:1512593

Case Narrative

Samples 2260-4A; 2260-4B had three types of flooring each. Sample 2260-14A had four types of materials; sample 2260-14B had three types of materials. Client will be charged for 9 extra samples.



#### **Bulk Sample Summary Report**



Lab Code 102082-0

10-Dec-15

Client Name: GeoTechnical & Env. Consultants				AES Job Number: 1512593					
Project Name: 2260 JEFFERSOVILLE RD				Project Number: 1503329.243					
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	rcenta TR	ge AC	Comments
2260-1A	1512593- 001A	Dining Lino Red	ND	ND	ND	ND	ND	ND	Flooring
Layer: 1									
2260-1B	1512593- 002A	Dining Lino Red	ND	ND	ND	ND	ND	ND	Flooring
Layer: 1									
2260-2A	1512593- 003A	Rm #4 Indian Pattern Lino	ND	ND	ND	ND	ND	ND	Flooring
Layer: 1									
2260-2B	1512593- 004A	Rm #4 Indian Pattern Lino	ND	ND	ND	ND	ND	ND	Flooring
Layer: 1									
2260-3A	1512593- 005A	Kitchen Rock Pattern Lino	ND	ND	ND	ND	ND	ND	Vinyl
Layer: 1									
2260-3A	1512593- 005A	Kitchen Rock Pattern Lino	ND	ND	ND	ND	ND	ND	Backing
Layer: 2									

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina


#### **Bulk Sample Summary Report**

NV(AP

Lab Code 102082-0

10-Dec-15

Client Name:	e: GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	VILLE RD	Project Number: 1503329.243									
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments					
2260-3B	1512593- 006A	Kitchen Rock Pattern Lino	ND	ND	ND	ND	ND	ND	Vinyl			
Layer: 1 2260-3B	1512593- 006A	Kitchen Rock Pattern Lino	ND	ND	ND	ND	ND	ND	Backing			
2260-4A	1512593- 007A	4x3 Hallway 9x9 Tile	2	ND	ND	ND	ND	ND	Red floor tile			
Layer: 1 2260-4A	1512593- 007A	4x3 Hallway 9x9 Tile	5	ND	ND	ND	ND	ND	Black Mastic			
2260-4A	1512593- 007B	4x3 Hallway 9x9 Tile	10	ND	ND	ND	ND	ND	Green floor tile			
2260-4A Layer: 1	1512593- 007C	4x3 Hallway 9x9 Tile	ND	ND	ND	ND	ND	ND	Black / tan flooring			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

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ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

NV(AP

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & E	AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	Project Number: 1503329.243							
Client ID	AES ID	Location	A CH	sbesto	s Mine	ral Pe	Comments		
2260-4B	1512593- 008A	4x3 Hallway 9x9 Tile	2	ND	ND	ND	ND	ND	Red floor tile
Layer: 1 2260-4B	1512593- 008A	4x3 Hallway 9x9 Tile	5	ND	ND	ND	ND	ND	Black Mastic
2260-4B	1512593- 008B	4x3 Hallway 9x9 Tile	10	ND	ND	ND	ND	ND	Green floor tile
Layer: 1 2260-4B	1512593- 008C	4x3 Hallway 9x9 Tile	ND	ND	ND	ND	ND	ND	Black / tan flooring
2260-5A	1512593- 009A	Red Rock Lino Bathroom	ND	ND	ND	ND	ND	ND	Vinyl
2260-5A Layer: 2	1512593- 009A	Red Rock Lino Bathroom	ND	ND	ND	ND	ND	ND	Backing

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

NV(AD

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	VILLE RD	Project Number: 1503329.243									
Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments			
							AC					
2260-5B	1512593-	Red Rock Lino Bathroom	ND	ND	ND	ND	ND	ND	Vinyl			
	010A											
Layer: 1												
2260-5B	1512593-	Red Rock Lino Bathroom	ND	ND	ND	ND	ND	ND	Backing			
	010A											
Layer: 2												
2260-6A	1512593-	LR @ Chimney Plaster	ND	ND	ND	ND	ND	ND	Paint included as binder			
2200 011	011A											
Layer: 1												
2260-6A	1512593-	LR @ Chimney Plaster	ND	ND	ND	ND	ND	ND				
2200 011	011A											
Layer: 2												
2260-6B	1512593-	Rm #1 Plaster Wall	ND	ND	ND	ND	ND	ND	Paint included as binder			
	012A											
Layer: 1												
2260-6B	1512593-	Rm #1 Plaster Wall	ND	ND	ND	ND	ND	ND				
2200-0B	012A											
Layer: 2												

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & E	AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	Project Number: 1503329.243							
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments		
2260-6C	1512593- 013A	Bathroom Plaster Wall	ND	ND	ND	ND	ND	ND	Paint included as binder
2260-6C	1512593- 013A	Bathroom Plaster Wall	ND	ND	ND	ND	ND	ND	
2260-6D	1512593- 014A	4x3 Hallway Plaster Ceiling	ND	ND	ND	ND	ND	ND	Paint included as binder
Layer: 1 2260-6D	1512593- 014A	4x3 Hallway Plaster Ceiling	ND	ND	ND	ND	ND	ND	
2260-6E	1512593- 015A	Rm #4 Plaster Ceiling	ND	ND	ND	ND	ND	ND	Paint included as binder
2260-6E Layer: 2	1512593- 015A	Rm #4 Plaster Ceiling	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

galvn

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	Project Number: 1503329.243										
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments					
2260-7A	1512593- 016A	Rm #4 Closet SR Wall JC	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-7B	1512593- 017A	Dining Rm JC	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-7C	1512593- 018A	Sun Room JC	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-8A	1512593- 019A	Sun Room Wallboard	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-8A	1512593- 019A	Sun Room Wallboard	ND	ND	ND	ND	ND	ND				
2260-8A Layer: 3	1512593- 019A	Sun Room Wallboard	ND	ND	ND	ND	ND	ND				

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

RVLAP

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	Project Number: 1503329.243										
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments					
2260-7D	1512593- 020A	Kitchen JC	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-7E	1512593- 021A	Rm #1 JC	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-8B	1512593- 022A	Dining Rm Wallboard	ND	ND	ND	ND	ND	ND	Paint included as binder			
Layer: 1 2260-8B	1512593- 022A	Dining Rm Wallboard	ND	ND	ND	ND	ND	ND				
2260-9A	1512593- 023A	12x12 Dining Ceiling tile	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-9B	1512593- 024A	12x12 Dining Ceiling tile	ND	ND	ND	ND	ND	ND	Paint included as binder			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

GAIVK

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	TLLE RD			Proje	ct Nu	nber:	15	503329.243			
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	ge AC	Comments				
2260-6F	1512593- 025A	Plaster Above Ceiling Tile Dining	ND	ND	ND	ND	ND	ND	Paint included as binder			
2260-6F	1512593- 025A	Plaster Above Ceiling Tile Dining	ND	ND	ND	ND	ND	ND				
2260-10A	1512593- 026A	Ext. window Glaze Dining Rm	2	ND	ND	ND	ND	ND				
2260-10B	1512593- 027A	Rm #2 Ext. Window Glaze	2	ND	ND	ND	ND	ND				
2260-11A	1512593- 028A	Roll Roof Back Porch Roof Black Tar	ND	ND	ND	ND	ND	ND				
2260-11A Layer: 2	1512593- 028A	Roll Roof Back Porch Roof Black Tar	ND	ND	ND	ND	ND	ND				

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

NV(AP

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	Project Number: 1503329.243										
Client ID	AES ID	Location	Asbestos Mineral Percentage           CH         AM         CR         AN         TR         AC						Comments			
2260-11B	1512593- 029A	Roll Roof Back Porch Roof Black Tar	ND	ND	ND	ND	ND	ND				
2260-11B	1512593- 029A	Roll Roof Back Porch Roof Black Tar	ND	ND	ND	ND	ND	ND				
Layer: 2 2260-12A	1512593- 030A	Roof Shingle w/ Felt	ND	ND	ND	ND	ND	ND				
Layer: 1												
2260-12A	1512593- 030A	Roof Shingle w/ Felt	ND	ND	ND	ND	ND	ND				
Layer: 2												
2260-12B	1512593- 031A	Roof Shingle w/ Felt	ND	ND	ND	ND	ND	ND				
Layer: 1												
2260-12B	1512593- 031A	Roof Shingle w/ Felt	ND	ND	ND	ND	ND	ND				
Layer: 2												

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

10-Dec-15

Client Name:	GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	TLLE RD			Proje	ct Nu	nber:	15	503329.243			
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments					
2260-13A	1512593- 032A	Black /Gray Flashing Tar	10	ND	ND	ND	ND	ND				
Layer: 1	1512593- 033A	Black /Gray Flashing Tar	10	ND	ND	ND	ND	ND				
2260-14A	1512593- 034A	Debris Pile Back Roofing Flooring Siding	ND	ND	ND	ND	ND	ND	Shingle			
Layer: 1 2260-14A	1512593- 034A	Debris Pile Back Roofing Flooring Siding	ND	ND	ND	ND	ND	ND	Felt			
2260-14A	1512593- 034B	Debris Pile Back Roofing Flooring Siding	10	ND	ND	ND	ND	ND	Green floor tile			
2260-14A Layer: 1	1512593- 034C	Debris Pile Back Roofing Flooring Siding	ND	ND	ND	ND	ND	ND	Black / tan flooring			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina



#### **Bulk Sample Summary Report**

QAIVN

Lab Code 102082-0

10-Dec-15

Client Name:	e: GeoTechnical & Env. Consultants				AES Job Number: 1512593							
Project Name:	2260 JEFFERSOV	/ILLE RD	Project Number: <b>1503329.243</b>									
Client ID	AES ID	Location	A CH	sbesto AM	s Mine CR	ral Pe AN	Comments					
2260-14A	1512593- 034D	Debris Pile Back Roofing Flooring Siding	20	ND	ND	ND	ND	ND	Siding			
2260-14B	1512593- 035A	Debris Pile Back Roofing Flooring Siding	15	ND	ND	ND	ND	ND	Flashing			
Layer: 1 2260-14B	1512593- 035A	Debris Pile Back Roofing Flooring Siding	ND	ND	ND	ND	ND	ND	Shingle			
Layer: 2 2260-14B	1512593- 035A	Debris Pile Back Roofing Flooring Siding	ND	ND	ND	ND	ND	ND	Felt			
2260-14B	1512593- 035B	Debris Pile Back Roofing Flooring Siding	ND	ND	ND	ND	ND	ND	Flooring			
2260-14B Layer: 1	1512593- 035C	Debris Pile Back Roofing Flooring Siding	20	ND	ND	ND	ND	ND	Siding			

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume. PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

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**Microanalyst:** 

Achtopos .

Svetlana Arkhipov

Yelena Khanina

<u>The Environmen</u>	tal Institute
· · ·	<u> </u>
Anthonu V	Vhipple
Social Security Number - GEC - 514 Hillcrest Industrial Blvd	XXX-XX-3420 Macon, Georgia 31204
Has completed coursework a	nd satisfactorily passed
an examination that meets a	Il criteria required for
EPA/AHERA/ASHARA (TSCA Title li	l) Approved Reaccreditation
January 20, 2015 Course Date	Certificate Number
Lourse Date January 20, 2015 Examination Date	
January 19, 2016	
David W. Hogue - Principal Instructor / Training Manager	
Rachel G. McCain - Exam Administrator	

.

#### SAMPLING METHODOLOGY

The limited survey (limited in that the survey may not have penetrated beyond solid wood or other apparent substrates to ceilings, walls, and more typically flooring) for the area focused primarily on identifying suspect ACMs in the specified areas. Quantities of confirmed ACM that are to be abated/remediated should be corroborated by the prospective abatement contractor. Samples were analyzed by a laboratory accredited in accordance with Georgia law.

The intent of this survey was to identify suspect ACM and to collect and submit bulk samples of such materials for laboratory analysis to identify the presence/absence and percent asbestos content in the suspect materials.

During a walk-through of the survey area, the inspector visually checked for the presence of suspect ACM. The inspection of the subject location included the following activities:

- Suspect materials were examined for variations in color, texture, thickness and other visually apparent characteristics useful in determining the uniformity of the material.
- Each suspect material that appeared to be uniform was assumed to be a Homogeneous Material (HM) and was assigned a number.
- For each HM, descriptions and general locations of suspect ACM were noted, and are presented in the Detected Asbestos Sample Summary Table, the chain of custody, and in the laboratory reports.
- The physical condition of each HM and the presence of visible debris were also noted.
- Since visual survey is inadequate to determine whether a material contains asbestos, each suspect material is presumed to be ACM until a sufficient number of samples of each material are analyzed for asbestos content. The minimum number of samples that must be collected and analyzed for asbestos content in order to establish a suspect material as non-ACM is dependent upon material type and quantity. For each miscellaneous suspect material that appeared to be homogeneous, a minimum of two samples was collected.
- The inspector performed bulk sampling in accordance with U.S. EPA guidelines to minimize release of asbestos fibers during sample collection. Each bulk sample was thoroughly wetted with amended water and collected by removing a small piece or core of the suspect material and placing the sample in a clean, sealable container. An attempt was made to include each layer of suspect material present.
- Each sample was assigned a unique number, which was included on the sample container and on the chain-of-custody.
- Sampling locations were selected based on the goal of representing the area and homogeneity of the materials surveyed. Samples were not located in any way so as to influence the analytical results or findings of this report. Destructive sampling was performed. Sample location descriptions are presented in the Detected Asbestos Sample Summary Table, and are also entered on the Chain-of-Custody forms included with the Laboratory Report included in the Appendix.
- Bulk samples were submitted under appropriate Chain-of-Custody procedures to Analytical Environmental Services, Inc. (AES), in Atlanta, Georgia, a laboratory accredited for PLM analysis of bulk samples for asbestos content.



#### LABORATORY PROCEDURES

All suspect ACM samples were analyzed for asbestos content by polarized light microscopy (PLM) using dispersion staining (Method for the Determination of Asbestos in Bulk Building Materials" EPA/600/R-93/116). This analytical method, which the U.S. EPA currently recommends for the determination of asbestos in bulk samples, is used for the qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite and actinolite. The fibrous composition of the bulk sample is reported in visually estimated percentages of asbestos and non-asbestos materials (i.e. cellulose, fibrous glass, synthetic).

The analytical results indicate the percent asbestos content in the sampled material. The amount of asbestos identified in a sample of ACM may vary in a homogeneous material depending on the sample location. Such variation in content may be due to incomplete mixing of material components during manufacturing processes, or it may indicate that materials with a visually similar appearance are actually of different composition.

#### Important Note To Our Clients

The PLM method for analysis of bulk samples for asbestos content requires that the microscopist make a visual estimation of the percentage of asbestos in a given sample. By definition, any material with greater than 1% asbestos is considered regulated asbestos-containing material. The extent of regulatory requirements under EPA and OSHA asbestos regulations depends upon the category and condition of the material.

If asbestos is identified in a sample of friable material by PLM analysis, with results between a trace and 10% asbestos, the owner must either assume that the content is greater than 1%, and treat the material as regulated, or the owner may confirm the regulatory status by having samples of these materials reanalyzed by the point counting method. Some of these materials may be confirmed as less than or equal to 1% when the more quantitative point counting technique is used. Samples are not initially analyzed by point counting because the regulations require analysis by PLM. Also, point counting is a more expensive method. Point Counting results supersede the initial results obtained by PLM using the visual estimation of area.

Some resinously bound materials such as mastics and roofing materials, and materials with very small fibers such as floor tiles and joint compounds, may yield false negative PLM results. Resins, bitumen, and similar sticky matrices may obscure the visual identification of asbestos minerals. Fiber sizes may be beneath the visual limit of the light microscope. The presence or absence of asbestos in such samples may be confirmed using the Transmission Electron Microscope (TEM) with the Modified Chatfield (quantitative), or Drop-Mount (qualitative) methods.



#### LABORATORY ACCREDITATION

#### **Asbestos Laboratory Accreditation**

AES of Atlanta, Georgia, has received accreditation for PLM and TEM analysis under the National Voluntary Lab Accreditation Program (NVLAP) of the National Institute of Standards and Technology. To ensure quality, AES has developed an internal quality control program with the following features:

- Sample collection, preservation, storage, analysis and disposal methods comply with approved EPA and NIOSH methods;
- Analysts participate quarterly in proficiency rounds administered by AES and conducted with two other laboratories.
- Chain-of-Custody Records (COCR) are maintained on all samples both during the collection phase of the work and during the in-house analysis;
- Statistical parameters or control charts are used to monitor accuracy of analysis and overall laboratory effectiveness;
- Laboratory personnel receive formal training in instrument operation and regular performance evaluations;
- A collection of reference samples is used to ensure analysts' accuracy;
- Each sample is analyzed by two separate analysts;
- Sample certificates of analysis, reagent certificates, and sample container certificate files are maintained; and
- Hard copy QA/QC files are maintained for customer examination.



# <u>Macon/Bibb County</u> Board of 7ax Assessors

Recent Sales in Neighborhood Recent Sales in Area	Previous Parcel	Next Parcel	Field Definitio	ons	Return to Main Se	arch Page	Bibb Home					
Owner and Parcel Information												
Owner Name	RAY	MARION S	T	oday's	Date	November 1	0, 2015					
Mailing Address	PO BO	OX 5104	P	Parcel Number		T072-0017						
	MACC	ON, GA 31208-5	5104 Ta	ax Dist	rict	11 (District	11)					
Location Address	2260	2260 JEFFERSONVILLE RD			lage Rate	11						
Legal Description			A	cres		0.85						
Property Class(NOTE: Not Zoning Info	) R3-Re	esidential	N	leighbo	rhood	7180						
Zoning	C-2		н	Homestead Exemption		No (S0)						
Landlot/District		49/MR		Parcel M	ар	Show Parcel	Мар					

2015 Tax Year Value Information							
Land Value	Improvement Value	Accessory Value	Total Value	Previous Value			
\$ 15,770	\$ 33,519	\$ 0	\$ 49,289	\$ 49,289			

Land Information							
Туре	Description	Calculation Method	Frontage	Depth	Acres	Photo	
RES	7180 -FF / 90 FF	Front Feet	33	193	0.15	NA	
RES	7180 -FF / 90 FF	Front Feet	154	173	0.7	NA	

Improvement Information							
Style	Heated Sq Ft	Interior Walls	Exterior Walls	Attic Area Sq Ft	Basement Area Sq Ft	Year Built	Photo
One Family	1,090	Plaster	Brick Veneer	0	0	1914	Building Images
Roof Type	Flooring Type	Heating Type	Rooms Bedrooms/Bathrooms/Extra Plumbing	Value	Cond	Number Fire Pl	Sketch
Asphalt Shingles	Tile	Fir/Wall Furn	0/2/1.0/0	\$ 33,519	Fair	0	Sketch Building 1

Accessory Information					
Description	Year Built	Dimensions/Units	Value		
No accessory information associated with this parcel.					

Sale Information										
Sale Date	Deed Book / Pag	e Plat Book /	Page	Sale Pr	ice	Re	ason	Grantor		Grantee
11/19/2002	0553800203				500	00 Fair Market - Improved			RAY	MARION S
<u>Recent Sales i</u> <u>Recent Sa</u>	n Neighborhood ales in Area	Previous Parcel	<u>Next</u>	Parcel	<u>Fiel</u>	d Definitions	<u>Return to Mai</u>	n Search P	age	Bibb Home

The Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. Website Updated: November 6, 2015

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The Bibb County Assessor's Office makes every effort to produce the most accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use or interpretation. The assessment information is from the last certified taxroll. All data is subject to change before the next certified taxroll. PLEASE NOTE THAT THE PROPERTY APPRAISER MAPS ARE FOR ASSESSMENT PURPOSES ONLY NEITHER BIBB COUNTY NOR ITS EMPLOYEES ASSUME RESPONSIBILITY FOR ERRORS OR OMISSIONS ---THIS IS NOT A SURVEY---- Date printed: 11/10/15 : 11:45:45



# **Bibb County Tax Assessor's Office**

**Close Window** 

Color	Area Type Description	Square Feet
	1 STORY	1090
	Open Frame Porch	324
	Utility Room	144
	Enclosed Brk Porch	140
	Open Frame Porch	28

# <u>Macon/Bibb County</u> Board of 7ax Assessors

Building Photo 1



<u>Close Window</u> © 2004 by the Bibb County Assessor's Office | Website design by <u>qpublic.net</u>

GEORGIA PROJECT NOTIFICATION FORM FOR ASBESTOS RENOVATION, ENCAPSULATION, OR DEMOLITION							
		AL INFORMATION F DETAILS	OR ANY SECT				
<u>DO NOT LEAV</u>	E ANY SE	CTION BLANK - IN		VN OR N/A IF	NEEDED.		
FOR PROJECTS WHERE FE EPD ASBESTOS FEES L POST OFFICE BOX 1 ATLANTA, GEORGIA (SEE SECTION 6 FOR FEE CALCULA	ES <u>ARE</u> D .OCKBOX 01173 30392 TION INS1	UE: TRUCTIONS)	FOR PROJECTS WHERE FEES <u>ARE NOT</u> DUE: EPD ASBESTOS PROGRAM ATTN: ASBESTOS NOTIFICATIONS 4244 INTERNATIONAL PARKWAY, SUITE 104 ATLANTA, GEORGIA 30354				
SECTION 1A - TYPE OF NOTICE (USE TH	IE APPRO	PRIATE CHECKBO	X TO INDICAT	Е ТНЕ ТҮРЕ С	F NOTICE YOU ARE SUBMITTING)		
ORIGINAL - INITIAL			ŧ				
SECTION 1B - TYPE OF PROJECT			□ <b>C</b>	HECK IF SEC	TION REVISED		
RENOVATION/ABATEMENT <b>ONLY</b> DEMOLITION ONLY	7 D J	RENOVATION/ABAT	EMENT <b>PRIOR</b> RENOVATION	<b>TO</b> DEMOLIT	ION   ENCAPSULATION  ORDERED DEMOLITION		
			SY (FOR NON	-FRIABLE PRO	JECTS OR UNDER TRIGGER		
SECTION 2 – SITE INFORMATION		Quinti		HECK IF SEC	TION REVISED		
PROJECT NAME:							
PROJECT ADDRESS:							
PROJECT CITY:		ZIP:	COUNTY:				
NEAREST MAJOR INTERSECTION:			•				
BLDG SIZE IN SQ. FT:	AGE C	of Building <u>in Ye</u> a	ARS:	NUMBER OF	FLOORS IN BUILDING:		
SPECIFIC LOCATION IN BUILDING OF ASE	ESTOS BI	EING REMOVED:					
SECTION 3A – ABATEMENT CONTRACTO	R		□ <b>C</b>	HECK IF SEC			
ASBESTOS REMOVAL CONTRACTOR:							
CONTRACTOR'S STREET ADDRESS:			COMPANY CERTIFICATE #:				
CITY:	STATE:	ZIP:	PHONE:		FAX:		
GA LICENSED AGENT:		GA AGENT'S ID:	EXPIRES:		CELL PHONE:		
3B – DEMOLITION CONTRACTOR			CHECK IF SECTION REVISED				
DEMOLITION CONTRACTOR:							
DEMOLITION CONTRACTOR'S STREET AD	DRESS:						
CITY:	STATE:	ZIP:	PHONE:		FAX:		
SECTION 4 – ACM INFORMATION* Require	ed for Con	npliance of Georgia	Rules 🗆 C		TION REVISED		
IS ASBESTOS PRESENT?   YES  I	NO 🗆 U	NKNOWN	D FRIABLE	NON-	FRIABLE D BOTH		
DID AN AHERA ACCREDITED INSPECTOR INSPECT THIS SITE?  VES NO ASSUMED ASBESTOS							
SECTION 5 - WORK SCHEDULES (10 WOR		Y ADVANCE NOTIF		UIRED FOR N	ON-EMERGENCY NOTIFICATIONS!		
			CI	HECK IF SECT	ION REVISED		
ABATEMENT START DATE	ABATE	MENT END DATE	WORK DAYS	6 (MON-SUN)	WORK HOURS (EX : 7A – 4P)		
DEMOLITION START DATE	DEMOL	ITION END DATE	WORK DAYS	6 (MON-SUN)	WORK HOURS (EX : 7A – 4P)		

#### SECTION 6 - ACM AMOUNTS, TYPE CODES, AND FEE CALCULATION

□ CHECK IF SECTION REVISED FIRST, LOCATE THE MATERIAL TO BE REMOVED IN COLUMN A. COLUMN B SHOWS THE USUAL NESHAP CATEGORY FOR THE MATERIAL. COLUMN C SHOWS THE CATEGORY THE MATERIAL WILL LIKELY BECOME DURING ABATEMENT, AND THAT IS THE CODE THAT SHOULD BE USED FOR COMPLETING THIS FORM. NOW, ENTER THE SQ. FT AND/OR L.F. AMOUNTS OF ACM TO BE ABATED DURING THIS PROJECT UNDER THE CORRECT HEADING ACCORDING TO TYPE IN COLUMN D, E, AND/OR F. THEN, LOCATE THE CORRESPONDING TYPE CODE(S) FOR THE MATERIAL(S) IN COLUMN G AND ENTER THE CODES IN THE SPACES PROVIDED BEFORE PROCEEDING TO THE FEE CALCULATION SECTION.

Column A		Column B		Column C	SF OR LF AMOUNT TO BE ABATED DURING PROJECT			Column G
	USUAL	NESHAP CATE	GORY	WILL				
ACMITYPE	Category 1	Category 2	RACM	LIKELY BECOME WHEN ABATED	Column D Category I	Column E Category 2	Column F RACM	ACM TYPE CODE
ASBESTOS ASPHALT SHINGLES				1 or RACM				AAS
ASBESTOS CEMENT (TRANSITE) PANELS				2 or RACM				ACP
ASBESTOS CEMENT (TRANSITE) ROOFING			V	RACM				ACR
ASBESTOS CEMENT (TRANSITE) SIDING SHINGLES				RACM				ACS
ASBESTOS FLASHING				1				AF
ASBESTOS GASKET				1 or RACM				AG
BOILER INSULATION				RACM				BI
BUILT-UP ROOFING				1 or RACM				BUR
COVE (BASEBOARD) MOLDING MASTIC				1				CM
CEILING PLASTER				RACM				CP
CEILING TILE				RACM				CT
DUCT SEAM MASTIC				1				DSM
DUCT VIBRATION DAMPENERS				1 or RACM				DVD
EXTERIOR (OUTSIDE) DUCT INSULATION				RACM				EDI
FELT DUCT TAPE				RACM				FDT
FLOOR MASTIC	$\checkmark$			1				FM
FIREPROOFING				RACM				FP
FIREPROOFING AND OVERSPRAY				RACM				FPO
FLOORTILE				1 or RACM				FT
FLOOR TILE AND MASTIC				1 or RACM				FTM
INTERIOR (INSIDE) DUCT INSULATION			V	RACM				IDI
JOINT COMPOUND ONLY				RACM				JC
LIGHT WEIGHT CONCRETE			$\checkmark$	RACM				LWC
OTHER: FLOOR LEVELING COMPOUND, CAULKING, ETC.		$\checkmark$	$\checkmark$	2 or RACM				OTR
PIPE INSULATION STRAIGHT RUNS			V	RACM				PI
PIPE INSULATION ELBOWS AND FITTINGS				RACM				PIE
RESILIENT FLOOR COVERINGS (SHEET FLOORING; LINOLEUM)	$\checkmark$		$\checkmark$	1 or RACM				RFC
ROOF MASTICS AND COATINGS				1				RMC
ROOFING SILVER COATING				1 or RACM				RSC
TEXTURED CEILING				RACM				TC
TEXTURED CEILING PLASTER			V	RACM				TCP
TANK INSULATION			V	RACM				TI
WALL BOARD AND JOINT COMPOUND			V	RACM				WBIC
WINDOW GLAZING			V	1 or RACM				WG
WALL PLASTER	,		V	RACM				WP
Row G:     Enter the ACM Type Codes from Col. G for each Category Below.     Category 1     Category 2     RACM       Category 1:								
		CALCULA	TING FEES					
Row H. IS THIS A RESIDENTIAL PROJECT	□. <b>YES</b>	(US	E TOTAL	FROM COLU	IMN F (RACM	) TO COMPLE	TE THIS SE	CTION)
RESIDENTIAL FEE SCHEDULE: \$0.10 PER LF/SF	RESID	ENTIAL PROJ	ECT		TOTA	FEES DUE AND	PAYABLE NO	w
OF FRIABLE ACM WITH MINIMUM FEE: \$25 - COLUMN F (RACM) TOTAL MAXIMUM FEE: \$50 PER RESIDENCE/ DWELLING H (A)SF/LF			otal F/LF	X \$0.10 EQUALS	H (NOT TO BE L	(B) \$ ESS THAN \$25 C	R MORE THAI	N \$50 PER
							PAYARIEN	W
LF/SF OF FRIABLE ACM WITH MINIMUM FEE: \$25 - MAXIMUM FEE: \$1,000 PER FACILITY.	COLUM	IN F (RACM) TO SF/LF	DTAL	X \$0.10 EQUALS	(NOT TO BE L	B) \$ ESS THAN \$25 C	R MORE THAN	N \$1,000)
CHECK NUMBER		FOR THE AMO	UNT SHOW	IN IN THE TOTA	L FEES DUE AE	OVE.		

SECTION 7 - WASTE TRANSPORTER, DISPOSAL SITE	, AND BUILDI		R INFORM	ATION		
WASTE TRANSPORTER NAME			TRANS	PORTER CONTACT	PERSON:	
TRANSPORTER'S MAILING ADDRESS:						
CITY:	STATE:	ZIP:		PHONE:	FAX:	
All Detached Non-Friable an	d Friable AC	M Must G	o To an	ACM Permitted La	andfill.	
DISPOSAL SITE			DISPOS	SAL SITE COUNTY:		
DISPOSAL SITE ADDRESS:						
CITY:	STATE:	ZIP:		PHONE:	FAX:	
		C	WNER'S	REPRESENTATIVE:		
OWNER'S STREET ADDRESS:						
OWNER'S MAILING ADDRESS (IF DIFFERENT):						
CITY:	STATE:	ZIP:		PHONE:	FAX:	
SECTION 8 - WORK METHODS: METHOD OF DEMOLIT	TION AND/OR	RENOVAT		VITY (DESCRIPTION	N OF WORK PRACTICES,	
ENGINEERING CONTROLS, AND CLEARANCE METHO	DDS)		IECK IF S	ECTION REVISED		
SECTION 9 - ADDITIONAL PROJECT INFORMATION			CK IF SE	CTION REVISED		
WILL ASBESTOS REMAIN IN THE PROJECT AREA?	🗆 NO	0 Y	ËS			
EXPLAIN YES OR UNKNOWN:						
IF NO ASBESTOS IS PRESENT, WAS THIS PROJECT P PRIOR ABATEMENT COMPANY:	E	<u>I NO I YES I UNKNOWN</u> YEAR ABATED:				
PRIOR COMPANY CONTACT PERSON:				PHONE:		
CERTIFICATION OF INFORMATION AND ACKNOWLEDGEMENT						
I, THE UNDERSIGNED, CERTIFY THAT AN INDIVIDUAL TRAINED ON THE PROJECT SITE DURING DEWOLITION AND/OR RENON OTHER PROJECT PERSONNEL HAVE ACCOMPLISHED APPRO NORMAL BUSINESS HOURS AND A	IN THE PROVISIC /ATION ACTIVITIE /PRIATE TRAINING ANYTIME REGULA	CHE CNS OF FEDE S DESCRIBE G AND TRAIN ATED ACTIVI	EAL REGUERN THE MING CERTING C	CTION REVISED JLATIONS (NESHAP/40 C KOTIFICATION, EVIDEN FICATES WILL BE AVAIL BEING CONDUCTED ON:	CFR PART 61 SUBPART M) WILL BE CE THAT THIS PERSON AND ALL ABLE FOR INSPECTION DURING SITE.	
NOTIFICATION AND I SHALL PROMPTL	Y SUBMIT REVIS	IONS, SUPPO	DRTING DC	CUMENTS, AND PROJE	ICT FEES.	
PRINTED NAME:				PHONE:		
SIGNATURE:				DATE:		
REPRESENTING:OWNERABATEMENT C	ONTRACTOR	D DEI	NOLITION		OTHER	
COMPANY NAME IF "OTHER" CHECKED:		ADDRES	S IF "OTH	HER" CHECKED:		
REFER TO THE DETAILED INSTRUCTIONS WHEN IN DOUBT ABOUT PROPER COMPLETION OF ANY SECTION. NEVER LEAVE BLANK SPACES – INSERT 'N/A' OR 'UNKNOWN' FOR ANY BLANK WHERE YOU DO NOT HAVE THE INFORMATION REQUESTED. PRINT RESPONSES NEATLY AND LEGIBLY. ALWAYS KEEP A COPY OF THIS FORM FOR YOUR RECORDS, AND PROVIDE COPIES TO ALL OTHER INVOLVED PARTIES. EPD NO LONGER ACCEPTS 'FAX ONLY DOCUMENTS'. <u>SUBMIT THE ENTIRE FORM VIA MAIL.</u> NEVER SUBMIT PROJECTS WHERE FEES ARE DUE WITHOUT ATTACHING THE REQUIRED FEE CHECK OR MONEY ORDER. • NOTIFICATIONS <u>WITH FEES MUST</u> BE MAILED TO THE EPD ASBESTOS FEES POST OFFICE ADDRESS. NOTIFICATIONS <u>WITH THESS SHOULD BE MAILED DIRECTLY TO THE EPD OFFICE ADDRESS.</u> (ADDRESSES ARE ON THE FIRST PAGE.) DO NOT SUBMIT 'TWO-SIDED' PHOTO COPIES. If a Project Notification is submitted by someone other than the asbestos abatement or demolition contractor - such as the Consultant or Owner, A REVISED NOTIFICATION MUST BE SUBMITTED BY THE CONTRACTOR TO WHOM THE PROJECT IS AWARDED BEFORE WORK BEGINS. THE CONTRACTOR MUST SIGN THE CERTIFICATION OF THE REVISED NOTIFICATION FORM. IT IS YOUR RESPONSIBILITY TO SUBMIT THIS FORM ACCURATELY AND COMPLETLY AND INCLUDE BY ALL <u>APPLICABLE FEES.</u>						
		2				

#### SUMMARY INSTRUCTIONS FOR COMPLETING THE GEORGIA EPD PROJECT NOTIFICATION FOR ASBESTOS RENOVATION, ENCAPSULATION, OR DEMOLITION PROJECTS

Complete the following Sections and provide the information requested according to the type of project being performed.

То Ве	Completed For Demolition Work (No fees due for Demolition Projects.)
	Section 1AVType of Notice
	Section 1BVType of Project
	Section 2 - Site Information
	Section 3B - Demolition Contractor
	Section 4 - ACM Information Asbestos Inspection Required for Compliance of Georgia Rules.
	Section 5 - Work Schedules for Demolition
	Section 6 - ACM Amounts & Type Codes
	All ACM which already is or will become friable must be removed before demolition; only non-friable ACM may
	be remaining during the demolition and it must ALL be collected, packaged, labeled, transported and disposed
	as ACM Waste).
	If all ACMs have been removed from the project site, Page 2 is not required.
	Section 7 - Waste Transporter and Disposal Site of Demolition Waste, and Building Owner (All Required)
	Section 8 - Work Methods
	Section 9 - Additional Project Information
	Certification of Information and Acknowledgement
(No fe	ees due for Demolition Projects.)

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Section 1A - Type of Notice Section 1B - Type of Project Section 2 - Site information Section 3A - Abatement Contractor Section 4 - ACM Information Asbestos Inspection Required for Compliance of Georgia Rules. Section 5 - Work Schedules for Abatement and Encapsulation Projects. Section 6 - ACM Amounts, Type Codes, and Fee Calculation Section 7 - Waste Transporter, Disposal Site, and Building Owner Information Section 8 - Work Methods

#### **Certification of Information and Acknowledgment**

#### To Be Completed for A Revision To A Prior Notification

Section 1A Type of Notice

Section(s) All Sections, In Which the Prior Information Has Changed or Needs To Be Updated.

Check the Revision Box In Each of The Revised Sections and Update the Information.

#### **Certification of Information and Acknowledgment**

DETAILED INSTRUCTIONS ARE AVAILABLE FOR FILLING OUT EACH OF THESE SECTIONS.

#### DETAILED INSTRUCTIONS FOR COMPLETING THE GEORGIA EPD PROJECT NOTIFICATION FOR ASBESTOS RENOVATION, ENCAPSULATION, OR DEMOLITION PROJECTS

The Georgia EPD realizes that paperwork completion is tedious and time-consuming, but treats paperwork infractions with the same gravity with which it views work practice violations. It is incumbent upon all individuals engaged in regulated asbestos-related activities to become familiar with all state and federal requirements, including proper paperwork completion. The following instructions are a stepby-step guide that should lead you successfully through the notification completion process. Should you still have questions or need assistance with completion of the notification documents, please call the Asbestos Program at (404) 363-7026.

#### HOW SHOULD YOU SUBMIT YOUR NOTIFICATION?

FOR PROJECTS WHERE FEES ARE DUE:	FOR PROJECTS WHERE FEES ARE NOT DUE:
EPD ASBESTOS FEES LOCKBOX	EPD ASBESTOS PROGRAM
POST OFFICE BOX 101173	ATTN: ASBESTOS NOTIFICATIONS
ATLANTA, GEORGIA 30392	4244 INTERNATIONAL PARKWAY, SUITE 104
(SEE SECTION 6 FOR FEE CALCULATION INSTRUCTIONS)	ATLANTA, GEORGIA 30354

**MAILED FORMS:** If your notification is a courtesy notification (see explanation below); a demolition only notification (the only two types of projects that are fee exempt); or a revision of a previously submitted notification where the fee amount **does not** change (a date change revision, for example), send the form directly to the EPD office at the address shown on the right above (not the lockbox address).

#### WHAT TYPE OF NOTICE SHOULD YOU SUBMIT? (SECTION 1A)

Asbestos Project Notifications will always fall into one of the following categories. <u>ALWAYS</u> check the box ( ) applicable to your current submittal:

ORIGINAL INITIAL - The first time a project notification is submitted for the project to which the notification applies.

□ **REVISION** – To notify the EPD of any changes to the project after the Original Initial notification has been submitted. To submit a revision, CHECK THE BOX () in Section 1A and list the revision number. Also check the box in the heading of the section you are revising, strike through the incorrect information, and insert the correction. If additional fees are due, be sure to submit them to the lockbox and include the additional fee check information in the fee schedule. **DATE CHANGE REVISIONS SHOULD BE SENT DIRECTLY TO THE EPD OFFICE STREET ADDRESS.** For all revisions, <u>re-sign and re-date</u> the certification section of the project notification before resubmitting.

#### WHAT TYPE OF PROJECT ARE YOU CONDUCTING? (SECTION 1B)

□ **RENOVATION/ABATEMENT ONLY** – Where the project only involves the removal and disposal of asbestos containing materials. "Renovation" means the altering of, taking out, stripping, clean up, disposal of, or removal of friable or potentially friable asbestos containing materials from any facility, facility component or residential dwelling, equal to or greater than 10 square feet or 10 linear feet.

RENOVATION/ABATEMENT PRIOR TO DEMOLITION - Removal/abatement of friable asbestos containing materials equal to or greater than 10 square feet or 10 linear feet in preparation for demolition activities to be performed by someone else.

DEMOLITION ONLY – Where the project only entails demolition of any structure that has been thoroughly inspected for the presence or absence of asbestos. "Demolition" means the wrecking or taking out of any load supporting structural member of a facility together with related handling operations, or the intentional burning of any structure. Notification is required regardless of the presence or absence of asbestos containing materials.

□ ENCAPSULATION – A project in which special coatings approved for asbestos encapsulation will be used to cover the asbestos containing materials and prevent release of asbestos fibers. 'Encapsulation' means the process of coating, binding, or resurfacing walls, ceilings, pipes, or other structures with a sealant to prevent friable asbestos from becoming airborne.

□ JOINT RENOVATION/DEMOLITION – Where both renovation and demolition activities as described above <u>will be conducted by the</u> <u>same Contractor</u>. If demolition is to be conducted by a different company, that company must submit a separate notification.

□ ORDERED DEMOLITION – A demolition project ordered by a government agency. If the property has been condemned, the Order of Condemnation must be included with the project notification.

#### ADDITIONAL PROJECT NOTATIONS

□ **EMERGENCY** – Abatement, Encapsulation or Demolition projects that were unplanned, but result from a sudden, unexpected event that if not immediately attended to presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. <u>Waiver of the required 10 working day notification period will be granted on a case-by-case basis</u>. A letter of explanation regarding the emergency situation from the Owner of the Project, or their representative, must accompany the notification. EPD must be notified of the emergency situation within 24 hours from the time of its occurrence, or from the time you are contacted with a request for emergency work to be performed. Please call the EPD Asbestos Program's Duty Officer to discuss the situation and obtain their agreement on the emergency project. The main number for the Asbestos Program is 404-363-7026. The original notification, letter of explanation, and fee payment must be mailed to the Lockbox address within 7 days from the date of emergency work beginning.

**COURTESY** – A Courtesy Notification is **ONLY** submitted for small asbestos abatement/disturbance/encapsulation projects that involve friable asbestos removal of less than 10 square feet or 10 linear feet or for notification of non-friable asbestos removal projects.

#### SECTION 2 - SITE INFORMATION

**PROJECT NAME** - Identify the exact location where abatement or demolition work is going to take place. Provide the name of the building, company, or other description of all structures involved in the project here. For example: "Vacant House", "Residence", "Commercial Bldg", "ABC Company", "Office Bldg"). If the project is part of a DOT road-widening project, please include parcel number and structure number.

PROJECT ADDRESS - Street address where abatement, encapsulation, or demolition will take place.

\*If project involves multiple buildings/structures at one location, list all addresses, building names, unit numbers, etc. Use a separate sheet of paper as an attachment, if necessary.

\*If project involves multiple buildings/structures at different addresses, you may group together those addresses on the same street and/or adjacent streets, (within a few block radius). Use a separate sheet of paper as an attachment, if necessary. Include a site map or diagram showing locations.

- CITY/ZIP/COUNTY Complete all areas. YOU MUST LIST THE COUNTY.
- NEAREST MAJOR INTERSECTION For example: "State Hwy 41 near Windy Hill Rd"; "South Houston Lake Rd near State Hwy 96")
- BLDG SIZE IN SQ. FEET Square foot measurement of the entire building (all floors and spaces) combined.
- AGE OF BLDG IN YEARS Age of building in years.
- NUMBER OF FLOORS IN BUILDING Total number of floors in building, including sub-basement, basement, mezzanine, attic, and penthouse. Each level that can be occupied should be counted as a separate floor.
- SPECIFIC LOCATION OF ASBESTOS BEING REMOVED Provide specific area(s) of the structure that are being abated or demolished. For example: "Roof", "Kitchen Floor", "Steam Pipes in Basement", "Throughout Building", "Hallway", "Floor Number \_\_\_\_\_", "Room Number \_\_\_\_\_", etc).

#### SECTION 3 – PROJECT CONTRACTORS

3A – ABATEMENT CONTRACTOR – Name of the company that will perform the asbestos renovation/abatement.

- CONTRACTOR STREET ADDRESS The actual physical location of the Asbestos Removal Contractor's place of business. DO NOT USE A POST OFFICE BOX IN THIS SPACE!
- COMPANY CERTIFICATE NUMBER The number issued on the contractor company certificate by the Georgia Lead-Based Paint and Asbestos Program.
- CITY/STATE/ZIP/PHONE/FAX You must complete each space.
- LICENSED AGENTS NAME Name of the person licensed by EPD as the Principal Agent for this company
- AGENT'S ID NUMBER The agent's number issued by EPD. Example: "50123"
- EXPIRES The date on which the agent's certificate expires.
- CELL PHONE The cellular or pager number for the Principal Agent.

3B - DEMOLITION CONTRACTOR - Name of company performing work OTHER THAN asbestos removal.

- DEMOLITION CONTRACTOR'S STREET ADDRESS The actual physical location of this Contractor's place of business. DO NOT USE A POST OFFICE BOX IN THIS SPACE!
- CITY/STATE/ZIP/PHONE/FAX You must complete each blank.
  - (If more than 2 Contractors are involved with the project, use a separate sheet as an attachment to provide additional information)

#### SECTION 4 - ASBESTOS CONTAINING MATERIAL(S) (ACM) INFORMATION

#### IS ASBESTOS PRESENT?

- YES A thorough inspection for the presence of asbestos has been conducted and the written results indicate that asbestos <u>IS</u> present.
- NO A thorough inspection for the presence of asbestos has been conducted and the written results indicate that asbestos IS NOT present.
- UNKNOWN It is unknown if an asbestos inspection has been performed, or an inspection has been performed but the results are unknown at this time.
- FRIABLE "Friable Asbestos-Containing Material" means any material containing more than 1 percent asbestos, by weight, and which when dry may be crumbled, pulverized, or reduced to powder by hand pressure or non-friable material that will be subjected to sanding, grinding, abrading or crushing.
- NON-FRIABLE "Non-Friable Asbestos-Containing Material" means any asbestos-containing material that does not meet the definition of "FRIABLE".
- BOTH Both "Friable" and "Non-friable" materials are present on this project.

#### DID AN AHERA ACCREDITED INSPECTOR INSPECT THIS SITE?

Was the portion of the abatement project, or demolition area described in Section 2 of this form, thoroughly inspected by an AHERA Accredited Asbestos Inspector? Check the appropriate answer.

- YES
- NO
- UNKNOWN
- ASSUMED ASBESTOS A thorough inspection for the presence of asbestos HAS NOT been conducted but based on the type of material(s) being disturbed, the decision has been made to treat the material(s) as ACM.
- **INSPECTOR NAME** Name of individual who performed the inspection.
- INSPECTOR PHONE Number at which the Inspector may be reached, starting with area code.
- ACCREDITATION COURSE Name of course taken to obtain ASBESTOS INSPECTOR accreditation. For example: "Asbestos Inspector Initial (AII)" OR "Inspector Refresher (AIR)"
- CERTIFICATE NUMBER Number on the Asbestos Inspector Certificate of Course Completion issued by the Training Provider.
- EXPIRES Expiration date on certificate issued by Training Provider.

#### IMPORTANT NOTICE: A 10 (TEN) WORKING DAY NOTIFICATION IS REQUIRED PRIOR TO COMMENCING ANY REGULATED ASBESTOS ACTIVITY. (Exception: Valid Emergency Projects) WORKING DAYS ARE CONSIDERED MONDAY THROUGH FRIDAY. A HOLIDAY FALLING ON THESE DAYS WILL BE COUNTED AS A WORKING DAY. WORKING DAYS ARE COUNTED FROM THE DATE OF: US POST OFFICE POSTMARK DATE FEDEX/UPS SHIPPING DATE ELECTRONIC FILING OF PROJECT NOTIFICATION

NOTIFICATIONS POSTMARKED ON A SATURDAY OR SUNDAY DO NOT BEGIN THE 10 WORKING DAY NOTIFICATION PERIOD UNTIL THE FOLLOWING MONDAY.

#### FOR ALL PROJECTS

Provide the project START date and END dates. NOTE: If the Consultant or Project Owner is submitting the project notification, and project dates are as yet undetermined, submit dates as **TBD** (To Be Determined). <u>THE ABATEMENT OR DEMOLITION CONTRACTOR WHO RECEIVES THE</u> <u>CONTRACT MUST SUBMIT A REVISION TO UPDATE THE PROJECT DATES BEFORE WORK BEGINS.</u>

**WORK DAYS** - Provide actual days of the week on which work will be performed – NOT the number of days worked per week. For example: "M, Tu, Th" or "M-F"

**WORK HOURS -** Provide the actual times of the day the crew will be on site – NOT the number of hours worked per day. For example "7A – 4P" or "5P – MIDNIGHT"

**PHASED PROJECTS** - If multiple buildings/structures are involved, break project into Phases, and identify project dates per Phase. Use an additional page to described phased project start and stop dates and work hours in detail.

#### SECTION 6 - ACM TYPES INFORMATION AND FEE SCHEDULE

Use this section to identify the type and total quantity of asbestos that will be disturbed during this project and calculate fees owed based on your findings. All ACM's identified in Section 4 must be described completely here.

ACM TYPE(S)

- Step 1 Locate the type of ACM you will be disturbing in COLUMN A. Use the Category 1, 2 and RACM headings in COLUMN B to determine the material's current status, then locate the category the material will **MOST LIKELY BECOME** as a result of your abatement activities in COLUMN C.
- Step 2 Show the combined LINEAR FOOT (LF) and/or SQUARE FOOTAGE (SF) of the material to be disturbed in COLUMN D, E, or F, depending on the determination made from the code in COLUMN C
- Step 3 In COLUMN G, circle the corresponding ACM type code for any material amount listed in COLUMN(S) D, E, or F. In ROW G2, enter the type code(s) in the space(s) labeled CAT 1, CAT 2, and RACM.
- Step 4 Total COLUMNS D, E, and F and insert the total(s) in the appropriate space(s) provided.

#### DEFINITIONS:

**CATEGORY 1 NON-FRIABLE ACM** includes asbestos-containing packing, gaskets, resilient floor covering, mastics, and asphalt roof products that contain greater than 1% asbestos. Category 1 materials that will likely become friable as a result of removal activity must be listed in the RACM category.

**CATEGORY 2 NON-FRIABLE ACM** includes any asbestos-containing material, excluding Category 1 non-friable ACM, These are primarily the asbestos-cement products. Category 2 materials that will likely become friable as a result of removal activity must be listed in the RACM category.

**RACM (Regulated Asbestos-Containing Material)** means friable asbestos containing material, Category 1 non-friable ACM that has become friable, Category 1 non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or Category 2 non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations

#### FEE CALCULATION SECTION

 Step 1 - Use the check box
 to indicate whether the project is RESIDENTIAL (ROW H.) or NON-RESIDENTIAL (ROW I.).

 Step 2 - Place the total from COLUMN F on the correct line provided in either "BOX H (A). – RESIDENTIAL" or "BOX I (A) – NON-RESIDENTIAL".

 Step 3 – Multiply the number in BOX H (A) or I (A) by \$0.10 (Ten Cents - 10¢) and place the resulting amount in line H (B) or I (B)

#### MINIMUM AND MAXIMUM FEES:

**RESIDENTIAL PROJECTS:** Residential projects are subject to a minimum fee of \$25 and a maximum fee of \$50 per dwelling unit. **NON-RESIDENTIAL PROJECTS:** Non-residential projects are subject to a minimum fee of \$25 and a maximum fee of \$1,000.

#### DEFINITIONS:

RESIDENTIAL PROJECT: A residential dwelling means any family residence or apartment building with four or fewer dwelling units.

**NON-RESIDENTIAL PROJECT:** A non-residential project means any project conducted on any building that would fall outside the guidelines established by the definition of a residential dwelling. I.E.: any non-residential structure, or any residential structure with five or more dwelling units.

IF FEES ARE DUE FOR ANY PROJECT, SHOW THE CHECK NUMBER IN THE SPACE PROVIDED.

#### SECTION 7 – BUILDING OWNER, WASTE TRANSPORTER, AND DISPOSAL SITE INFORMATION

WASTE TRANSPORTER: Complete all areas NAME OF COMPANY CONTACT NAME: Name of person at Transport Company to call, if necessary. ADDRESS/CITY/STATE/ZIP/PHONE/FAX

#### **DISPOSAL SITE INFORMATION**

WASTE DISPOSAL SITE NAME: Name of Landfill. DISPOSAL SITE COUNTY: Provide County name. ADDRESS/CITY/STATE/ZIP/PHONE/FAX: Complete all areas.

#### **BUILDING OWNER**

OWNER OF PROJECT SITE/FACILITY: Name of legal owner of facility/property. OWNER'S REPRESENTATIVE: Name of person (other than Contractor) acting on behalf of Owner, particularly if completing & submitting this form. OWNER'S STREET ADDRESS: For service of legal process if required. OWNER'S MAILING ADDRESS if different than the street address. CITY/STATE/ZIP/PHONE/FAX Complete all areas. TELEPHONE NUMBER: Number at which Contact person may be reached, starting with area code.

#### SECTION 8 - WORK METHODS

Enter the method(s) of demolition and/or renovation activity and a description of work practices and engineering controls to be used on this project. Describe fully what types of abatement and/or demolition activities are going to take place, the method(s) of removal and/or demolition that will be used, and controls in place to prevent asbestos emissions. Attach a separate sheet of paper if more room is needed to answer this section. FOR EXAMPLE:

"Wet spud bar and chemical removal of FT M with critical barriers. 1 negative air. Visual clearance only";

"Wet spud bar removal of ACS over 6 mil plastic on ground. Place in plastic lined roll of dumpster. Visual clearance only" "Demo with front-end loader. Push down, wet, and machine load into 30 CY roll of dumpster"

#### **SECTION 9 - ADDITIONAL PROJECT INFORMATION**

WILL ASBESTOS REMAIN IN THE PROJECT AREA? Please answer "YES", "NO", or "UNKNOWN", and explain a YES or UNKNOWN answer.

IF NO ASBESTOS IS PRESENT, WAS THIS THE RESULT OF A PREVIOUS ABATEMENT?

IF THE PROJECT WAS PREVIOUSLY ABATED, PROVIDE ALL REQUESTED INFORMATION FOR THE PRIOR ABATEMENT COMPANY.

#### CERTIFICATION OF INFORMATION AND ACKNOWLEDGEMENT PROVIDE ALL REQUESTED INFORMATION - DO NOT LEAVE ANY SPACES BLANK AND INCLUDE SIGNATURE

**PRINTED NAME -** Print or type full name of person submitting form.

PHONE: Phone number of the person submitting the Project Notification.

**SIGNATURE -** The person submitting this form must submit with their signature.

DATE - Date project notification is signed

**REPRESENTING -** Check the appropriate title:

- OWNER Owner of Facility in which project is being performed
- □ ABATEMENT CONTRACTOR A Georgia Licensed Asbestos Abatement Contractor
- DEMOLITION CONTRACTOR Demolition Contractor
- OTHER CONTRACTOR A contractor representing another trade involved on the project. For example: "General Contractor," "Sub Contractor," or "Consultant."

**COMPANY NAME:** Name of company submitting the Project Notification.

ADDRESS: Complete the mailing address including street, city, state and zip code.

NOTE: If a Project Notification is submitted by someone other than the asbestos abatement or demolition contractor - such as the Consultant or Owner - in order to start the 10 working day notification period while the contract is out for bid, <u>A REVISED NOTIFICATION MUST BE SUBMITTED</u> <u>BY THE CONTRACTOR TO WHOM THE PROJECT IS AWARDED BEFORE WORK BEGINS.</u> <u>THE CONTRACTOR MUST SIGN THE</u> <u>CERTIFICATION AREA OF THE REVISED NOTIFICATION FORM.</u>

# PHOTOGRAPHS OF MISCELLANEOUS ITEMS TO BE REMOVED FROM VARIOUS PARCELS

#### NOTICE TO CONTRACTORS

Sealed bids will be received by the Macon-Bibb Board of Commissioners, until 12:00 p.m., Thursday, May 26, 2016. The bids shall be publicly opened and read in the Macon-Bibb County Procurement Department Conference Room later that day, at 2:00 p.m.

The work to be bid includes furnishing all materials, equipment, and labor for Asbestos Abatement and Demolition Work on Jeffersonville Road, Macon, Georgia. The work consists of clearing and regrassing 14 parcels of land containing major structures, including houses and two underground storage tanks, and removing minor miscellaneous items from various other sites along the corridor. (The contractor must complete specified asbestos abatement before proceeding with demolition.) The successful bidder will be allowed 90 calendar days to complete the work. Notice to proceed will be issued for approximately 7 of the buildings soon after the contract is signed; thereafter, notices will be issued intermittently for the remaining items of work.

All work will be performed according to GDOT and NESHAP specifications. Each bid must include a Proposal Guaranty (i.e., a Bid Bond, certified check, or irrevocable letter of credit) in favor of Macon-Bibb County in the amount of at least five percent (5%) of the bid for the complete work. The Proposal Guaranty shall be forfeited to Macon-Bibb County as liquidated damages if the Bidder fails to execute the Contract and provide Performance and Payment Bonds within fifteen (15) calendar days after being awarded the Contract.

Payment for the work will be made within 30 days after the Engineer's approval of the invoice.

The bidder is expected to examine the site of the proposed work and all components of the proposal document before submitting a Bid Proposal.

Qualifications of the bidder will be reviewed before award of the Contract. Macon-Bibb County may consider award of the Contract to other than the low bidder and reserves the right to reject any and all bids.

Bid documents may be examined and obtained at the Macon-Bibb County Procurement Department, Suite 308, Macon Bibb Government, 700 Poplar Street, Macon, Georgia 31201, by calling (478) 803-0550, or may be viewed and downloaded from the Macon-Bibb County Procurement Page www.maconbibb.us/purchasing.

Bidders must seal their bids in envelopes addressed to Macon-Bibb County Procurement Department, Suite 308, 700 Poplar Street, Macon, Georgia 31201, and marked: "Bid# 16-060-KMB- Demolition on Jeffersonville Road.