

**SPECIFICATIONS & DRAWINGS FOR
ENVIRONMENTAL REMEDIATION
& DEMOLITION PROJECT**

for

Arkansas Tech University
Bryan Hall
Russellville, Arkansas 72801

EEG PROJECT 13-0111-047

Prepared for:

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April 12, 2013

CONTRACT SPECIFICATIONS

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I. GENERAL INFORMATION

Requirements

Site Investigation

In accordance with an agreement between Arkansas Tech University and **ENVIRONMENTAL ENTERPRISE GROUP, INC. (EEG)**, EEG has produced this design document and will act as Project Manager to oversee the environmental remediation and demolition project. The Contractor acknowledges that he has investigated and satisfied himself as to:

- a. The conditions affecting the work, including but not limited to physical conditions of the site which may bear upon site access, handling and storage of tools and materials, access to water, electric or other utilities or otherwise affect performance of required activities.
- b. The character and quantity of all surface and subsurface materials or obstacles to be encountered in so far as this information is reasonably ascertainable from an inspection of the site, including exploratory work done by the Building Owner or a designated consultant, as well as information presented in drawings and specifications included with this contract.

Any failure by the Contractor to acquaint himself with available information will not relieve him from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Building Owner is not responsible for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Building Owner or by on site conditions. The contractor is responsible to establish or verify quantities of materials to be abated and demolished.

1.0 Summary of Work

- 1.1 The scope of work for this project involves the removal and disposal of asbestos-containing and potentially hazardous materials. The contract also involves the demolition of existing structures and utilities associated with the site. This contract includes backfill, compaction, and placement of fill material in selected areas of the site. All given quantities are estimated and Contractor shall be responsible for verifying estimates.

More specifically, the scope of work entails:

- Asbestos abatement as identified in EEG's survey document.
- Building demolition and earthwork to include:
 - Disconnection, excavation, and termination of all utilities back to existing streets.
 - Placement and maintenance of erosion control devices in accordance with contractor provided SWPPP.
 - Demolition and disposal of all structures indicated.
 - Demolition and disposal of sidewalks.
- Site work to include:
 - ATU to provide construction fencing and gates serving the project site.
 - Provide, place, and compact select fill material at excavation of the buildings foot print.
 - Grade the site to match the existing grade.
 - Perform compaction testing.

It is anticipated that the contractor awarded this project should interface in such a way to expedite the work. Some portion of the demolition may occur during abatement activities.

Any questions pertaining to this specification should be addressed to the project designer.

Address all correspondence to:

Mr. Bob E. Smith
Environmental Enterprise Group, Inc. (EEG)
220 North Knoxville, Suite 200
Russellville, Arkansas 72801

1.2 Scope of Work for Environmental Remediation

Contractor shall properly remove and dispose of the following asbestos-containing materials (ACM):

- Approximately 525 square feet of tan 9" x 9" floor tile and black mastic in Rooms 115 and 121
- Approximately 840 square feet of black mastic under non-ACM Gray 12" x 12" floor tile in Rooms 118, 122, 123 and 124
- Approximately 608 square feet of black mastic under non-ACM tan 12" x 12" floor tile in the south lounge area
- Approximately 4,872 square feet of green 9" x 9" floor tile and black mastic in the first floor central north-south hallway, second floor east-most part of the southeast wing, second floor central wing and second floor west-most part of the northwest wing
- Approximately 144 square feet of gray resilient floor covering with non-ACM tan/black mastic in the second floor kitchen areas on the northwest and southeast wings
- Brown/silver reflective backing on approximately 15 incandescent light fixtures in Rooms 119 and 122, the second floor northwest wing and the second floor central wing
- Approximately 7,754 square feet of black/tan mastic on the first floor northwest and southwest wings, the east-most part of the second floor northwest and northeast wings and Rooms 116, 117, 119 and 120
- White window glaze on the exterior of approximately 328 windows
- Approximately 260 square feet of white tank insulation in the boiler room
- Approximately 2,880 linear feet of white pipe insulation in the boiler room and crawlspace
- Approximately 3,775 square feet of felt on built-up roof on the northeast roof field and edge
- Approximately 3,510 square feet of felt on built-up roof on the northwest roof field and edge
- One assumed ACM fire door in the boiler room
- Transite Soffitt material

A mandatory pre-bid will be held at 10:00 a.m. on Thursday, April 18, 2013, beginning at Bryan Hall located on the Arkansas Tech University campus. Plans and specifications will be available at the meeting for \$100 refundable deposit. **Deposits will be refunded to unsuccessful responsive bidders who return the specifications to EEG within 30 days of the pre-bid.**

Sealed bids will be received until 2:00 p.m. on Thursday, May 2, 2013, at the Arkansas Tech Purchasing Office at 203 West "O" Street, Russellville, Arkansas, 72801-2222.

1.3 Special Project Consideration

The Contractor awarded this project agrees to allow any federal or state inspector, acting in their official capacity, to have access to the job-site.

2.0 Project Timeframe

2.1 Work shall start and be complete on the dates given in the following timeframe.

2.2	<u>Start Date</u>	<u>Completion Date</u>
	May 20, 2013	June 21, 2013

Contractor may perform the work between the hours of 7:00 a.m. and 4:00 p.m., Monday through Friday or between the hours of 7:00 a.m. and 5:30 p.m. Monday through Thursday. The Owner's Representative shall perform all final visual inspections. After successful completion of the final visual inspection, final air clearance monitoring shall be performed by the Owner's Representative using aggressive sampling methods. PCM clearance levels of <.01 f/cc in the work areas and a positive result of visual inspections shall be considered a clean area. All critical barriers and running negative air machines are to remain in place until analytical evidence allows their removal. Any deviation from this schedule must be approved by the Owner's Representative.

3.0 Liquidated Damages

- 3.1 Contractor must agree to commence work on the date specified in Section 2.2 and to fully complete the project within the calendar days indicated on the Agreement between the Owner and Contractor.
- 3.2 Failure to complete as per contract by the agreed upon dates will force the Contractor to suffer liquidated damages of **\$500 per day**.
- 3.3 Liquidated damages will be subtracted from the contract sum for each work shift or part thereof during which the project remains incomplete. Liquidated damages will be assessed for every day the Contractor goes beyond the scheduled completion date as indicated in Section 2.2. Liquidated damages are not intended to penalize the Contractor, but rather are intended to compensate the Owner for damage which will occur in regard to disrupted work schedules and additional operating expenses, should the Contractor fail to complete the work on time. In addition, Contractor shall bear the cost for any additional air monitoring or project management costs incurred due to failure to meet scheduled start or completion dates as indicated in Section 2.2. Such fees will be **\$500 per shift**.

4.0 Meetings

4.1 Pre-Construction Meeting

If applicable, the owner and Project Superintendent may meet at a designated time and place prior to the commencement of abatement project activities. The purpose of the meeting is to review all pre-work submittals, conduct pre-existing damages and reconfirm the responsibilities of all parties.

5.0 Insurance Requirements

5.1 Certificates of Coverage

5.1.1 Contractor shall have certificates of coverage.

5.1.1.1 The Contractor shall purchase and maintain insurance that will protect him from claims that may arise out of or result from his activities under this Contract, whether those activities are performed by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable. Where applicable, all insurance carriers used must be a licensed or admitted carrier for the state in which the Contractor is domiciled. For the General Liability (GL) insurance policy, the insurance agent must be an appointed agent by the carrier and be registered as such with the Arkansas Insurance Commission. All policies must be in force and valid for the duration of the contract. Contractor to list EEG as additional insured.

5.1.1.1.1 Contractor shall have proof of coverage under the Workman's Compensation insurance system of the State of Arkansas.

5.1.1.1.2 Contractor shall have a certificate of general liability insurance for personal injury, occupational disease and sickness and death and property damage, which specifically states providing coverage for asbestos abatement work.

5.2 Policy Limits

1. **A. Worker's Compensation:**

Bodily Injury by Accident	- \$500,000 each accident
Bodily Injury by Disease	- \$100,000 each accident
Bodily Injury by Disease	- \$500,000 policy limit

B. Employer's Liability - \$500,000

2. **Comprehensive General Liability**

A. Bodily and Personal Injury - \$1,000,000 each person
\$1,000,000 each occurrence

B. Property Damage - \$1,000,000 each occurrence
\$1,000,000 aggregate

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- 3. Automobile Liability
 - A. Bodily Injury - \$500,000 each person
\$500,000 each occurrence OR
\$500,000 combined single limit
 - B. Property Damage - \$500,000 each occurrence

- 4. Independent Contractors
 - A. Bodily and Personal Injury - \$1,000,000 each person
\$1,000,000 each occurrence
 - B. Property Damage - \$1,000,000 each occurrence
\$1,000,000 aggregate

- 5. Contractual Liability
 - A. Bodily and Personal Injury - \$1,000,000 each person
\$1,000,000 each occurrence
 - B. Property Damage - \$1,000,000 each occurrence
\$1,000,000 aggregate

Furnish one copy of certificates herein required for each copy of the agreement; specifically set forth evidence of all coverage required. The form of the certificate will be AIA Document G705 or a similar company form. Furnish to EEG copies of any endorsements that are subsequently issued amending coverage, including policy renewals.

5.3 Prevailing Wage

The Arkansas Department of Labor prevailing wage rate shall apply to this project.

5.4 Contractor shall submit copies of insurance coverage as described in Section 5.0.

5.5 Bonds

Bonds will be required if the project cost is in excess of \$20,000.

The bid proposal shall include a bid security in the amount of five percent of the total bid offered. The bidder will be required to submit a bidder's deposit, which includes enclosing a cashier's check payable to the order of the OWNER drawn upon a bank or trust company doing business in Arkansas or by a corporate bid bond in an amount equal to five (5) percent of the bid. The bidder shall include in the bid the bid bond amount so that the bid represents the total cost to the Owner of all work included in the contract.

Should Bidder fail to enter into a contract and furnish the required bonds and insurance certificates within 10 days after receipt of Intent to Award, the bid guarantee will be forfeited to the Owner as liquidated damages.

PERFORMANCE AND PAYMENT BOND

If the project cost is in excess of \$20,000, the bidder shall furnish a Performance and Payment Bond in the amount equal to 100 percent of the contract price as security for faithful performance of the Contract and payment of all obligations arising there under immediately after receipt of the Intent to Award. The bond shall be written by a surety company qualified and authorized to do business in the State of Arkansas. The bond shall be executed by a resident local agent licensed by the State Insurance Commissioner, to represent the surety company. The bond shall be written in favor of the Owner. Bidder shall file the bond with the Circuit Clerk in the county where the work is to be performed. Failure to deliver said bonds, as specified, shall be considered as having abandoned the Contract and the bid security will be retained as liquidated damages. The bidder shall include in the bid the Performance and Payment bond amount so that the bid represents the total cost to the Owner of all work included in the contract.

The contractor shall utilize the following performance bond and payment bond form:

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PERFORMANCE BOND AND PAYMENT BOND

We _____, hereinafter referred to as Principal, and _____, hereinafter referred to as Surety, are held and firmly bound unto _____, as obligee, hereinafter referred to as EEG, in the amount of \$ _____, said amount to be deemed a performance bond payable to EEG under the terms of this Performance and Payment Bond Agreement. The Principal and Surety state that the Surety is a solvent corporate surety company authorized to do business in the State of Arkansas.

Principal has by written agreement dated _____ entered into a Contract (the Contract) with EEG for: _____

_____ The above referenced Contract is incorporated herein by reference.

Under this Performance and Payment Bond Agreement, the Principal and Surety shall be responsible for the following:

- a. The Principal shall faithfully perform the above reference Contract, which is incorporated herein by reference and shall pay all indebtedness for labor and materials furnished or performed under the Contract.
- b. In the event that the Principal fails to perform the Contract, the Principal and the Surety, jointly and severally, shall indemnify and save harmless EEG from all cost and damage which EEG may suffer by reason of Principal's failure to perform the Contract. Said indemnification shall include, but not be limited to, full reimbursement and repayment to EEG for all outlays and expenses which EEG may incur in making good any such default or failure to perform the Contract by the Principal.
- c. Principal shall pay all persons all indebtedness for labor or material furnished or performed under the Contract and in doing so this obligation shall be null and void. In the event that Principal fails to pay for such indebtedness, such persons shall have a direct right of action against the Principal and Surety, jointly and severally, under this obligation, subject to EEG's priority.
- d. Principal shall guarantee the faithful performance of the prevailing hourly wage clause as provided in the Contract.

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This bond given in accordance with Arkansas laws and regulations (including Ark. Code Ann. § 18-44-503, § 19-4-1405 and § 22-9-401 et seq.). The Surety guarantees that the Principal shall comply with Ark. Code Ann. § 22-9-308 (d) by payment and full compliance with all prevailing hourly wage contract provisions where the contract amount exceeds the amount provided in Ark. Code Ann. § 22-9-302(1).

Any alteration which may be made in the terms of the Contract, or in the work to be done under it, or the giving by EEG of any extension of time for the performance of the contract, or any other forbearance on the part of either EEG or the Principal to the other shall not in any way release the Principal and the Surety or Sureties or either or any of them, their heirs, personal representatives, successors or assigns from their liability hereunder, notice to the Surety or Sureties of any such alteration, extension or forbearance being hereby waived. In no event shall the aggregate liability of the Surety exceed the amount provided in the Contract.

This Performance and Payment Bond Agreement is binding upon the above named parties, and their successors, heirs, assigns and personal representatives.

Executed by the parties who individually represent that each has the authority to enter into this agreement.

BY: _____
Contractor Date

BY: _____
Arkansas Resident Local Agent/ Attorney-in-Fact Date
(In accordance with Ark. Code Ann. § 22-9-402(b)(1)(2))

Agent Date

Address

City County State Zip Code

Business Phone: _____

Fax: _____

Mail: _____

**THIS FORM IS THE ONLY PERFORMANCE AND PAYMENT BOND ACCEPTABLE
TO EEG**

6.0 Owner Responsibilities

- 6.1 The owner shall be responsible for source of electricity and water. The Contractor shall be responsible for labor, materials and other items necessary to provide use and bear all associated costs.

Reference Section 15.0, Worker Protection and Section 17.0, Execution of Abatement Work for additional information.

- 6.2 If the owner permits the Contractor to use any of the owners equipment, tools, or facilities, such use will be gratuitous and the Contractor shall release the owner from any responsibility arising from claims for personal injuries including death, arising out of the use of such equipment, tools, or facilities irrespective of the condition there of or any negligence on the part of the owner in permitting their use.
- 6.3 Contractor shall perform the initial cleaning of all surfaces in the work areas required by 40 CFR Part 763.91(C) by HEPA vacuuming and/or wet-wiping all surfaces and fixtures in the work areas.
- 6.4 Disposal of ACM shall be performed in accordance with State of Arkansas waste disposal laws and with all federal and local regulations.
- 6.5 After removal of ACM, surfaces will be sealed with an encapsulant after successfully passing the final visual inspection.

6.5.1 Bid Submittals

- 6.5.1.1 Contractors must be licensed General Contractors for the State of Arkansas and provide evidence of such current licensure.
- 6.5.1.2 Abatement Contractor must be a licensed Asbestos Abatement Contractor for the State of Arkansas and provide evidence of such current licensure.
- 6.5.1.3 Contractors shall provide copies of current insurance coverage as described in section 5.0 of the specifications. The owner and EEG must be listed as additional insured on provided insurance certificates.

Pre-Qualification Submittals

In the event the owner chooses, the contractor may be required to provide the following pre-qualifying information prior to being contracted to perform this project. See 6.5.1.4 through 6.5.1.5.5

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- 6.5.1.4** Contractor shall provide a resume of the firm including:
- A.** The number of years engaged in asbestos removal.
 - B.** List of full-time supervisory personnel employed by the company including their training and job experience. Provide evidence of their successful completion of an EPA-approved "Asbestos Contractor/Supervisor" course.
 - C.** List of current asbestos removal workers employed by the company and evidence of their licensure in the State of Arkansas.
 - D.** List of equipment, type(s) and quantities, such as negative air units, decontamination facilities and HEPA vacuums.
- 6.5.1.5** Contractor shall submit a notarized statement, signed by an officer of the company, describing any citations and/or violations by any regulatory agency or consultant concerning performance on previous abatement projects. Failure to disclose the information requested will result in the disqualification of the bidder. The statement shall contain the following information:
- 6.5.1.5.1** A record of any citations issued by Federal, State or Local regulatory agencies relating to asbestos abatement activity. Include projects, dates, and resolutions.
 - 6.5.1.5.2** A list of penalties incurred through non-compliance with asbestos abatement project specifications including liquidated damages, overruns in scheduled time limitations and resolutions.
 - 6.5.1.5.3** Situations in which an asbestos-related contract has been terminated including projects, dates and reasons for terminations.
 - 6.5.1.5.4** A listing of any asbestos-related legal proceedings/claims in which the Contractor (or employees scheduled to participate in this project) has participated or is currently involved. Include descriptions of role, issue and resolution to date.
 - 6.5.1.5.5** The Contractor shall provide a notarized statement that the company or any of his subcontractors has not been suspended, debarred, or voluntarily excluded from performing EPA-funded projects under 40 CFR Part 32.

7.0 Notification

- 7.1 Written notification to the Arkansas Department of Environmental Quality (ADEQ) is required for this project. The Contractor shall follow all current NESHAP requirements and provide the Consultant with a copy of the notice (see *Appendix A*).
- 7.2 Notification of asbestos abatement project to local fire departments, police and emergency medical personnel.

8.0 Work Submittals

The Contractor will provide two (2) copies of the following information to EEG's Representative at the address given on the cover of this document before the project may begin. Failure to provide these documents prior to the project start date will be considered a breach of the contract and the contractor will be assessed liquidated damages of \$750 with an additional \$750 per day penalty to cover the cost of the project management.

8.1 Employee Information

8.1.1 Submit documentation from a physician that all employees or agents have received medical monitoring as required in 29 CFR 1926.1101 and 29 CFR 1910.134.

8.1.2 Submit evidence that all abatement employees have been fit-tested for his/her assigned respiratory protection equipment.

8.1.3 Licensed Employees

Contractor shall post a list of on-site employees, both supervisory and workers with evidence of current license with the State of Arkansas Department of Environmental Quality (ADEQ), as well as copies of certificates of completion of EPA accredited training course and their social security numbers.

Submit resume or qualifications for the company / entity conducting personal air monitoring.

Submit proof of AIHA Accreditation for Laboratory Performing Analysis of Personal Air Samples.

8.2 Site Requirements

8.2.1 Examples of warning signs.

8.2.2 Security measures to be taken at entrances and exits to work area.

8.2.3 Layout of all decontamination enclosure systems and barriers.

8.2.4 Placement of negative air equipment.

8.2.5 Specimen copies of daily progress reports and visitor's logs, pump calibration log, field sample sheets and record of disciplinary action for safety violations.

8.3 Equipment

8.3.1 Manufacturer's certification that all equipment meets EPA and OSHA requirements.

8.3.2 Description of any special equipment.

8.3.3 Rental Equipment

Provide copies of written notification to the rental agency of the rental equipment's intended use.

8.3.4 Respiratory/Personal Protective Equipment

- A.** Provide list of all respiratory protection equipment, including cartridges, face pieces, sources of compressed air.
- B.** Provide copy of NIOSH/MSHA approval for respirators and cartridges.
- C.** Provide intended use of cartridges (e.g. organic vapor for adhesive removal).
- D.** Document brand and model of full body covering and any other personal protective equipment to be used.

8.4 Submit proof that required site location and arrangements for transport and disposal of asbestos-containing waste materials have been made. Submit a copy of handling procedures and list of protective equipment utilized for asbestos disposal at the landfill, signed by landfill owner.

8.5 Health and Safety Program

Submit copies of the following programs, policies and procedures:

8.5.1 Respiratory Protection Program

8.5.2 Hazard Communication Program (include copies of MSDS information for all chemicals to be brought on-site)

8.5.3 Electrical Safety Program (include site specific SOP to be used for electrical isolation including work in and near the electrical room)

8.5.4 Fire Protection Program

8.5.5 Emergency Response Plan

8.5.6 Heat Stress Program

8.5.7 Training Program (include topics to be covered prior to commencement of work and topics to be covered during weekly meetings)

8.6 Listing of all major subcontractors and suppliers complete with name, address, phone numbers and appropriate submittals for the material, equipment or work to be performed.

9.0 Submittals During Abatement Activities

- 9.1 Submit weekly progress reports and updates to the Project Schedule.

Include review of progress with respect to the established milestones, major problems and actions taken, injury reports, equipment breakdown and updates to the Project Schedule.

- 9.2 Maintain daily information on worker and visitor access to the work area in a Visitor Log.

9.3 **Emergency Planning and Safety Meeting:**

The Contractor shall hold weekly safety meetings with all personnel to be employed on the site of this project. Written minutes, the signatures of those in attendance and the topics covered shall be submitted to EEG's Representative. The following topics shall be discussed prior to commencement of work and periodically thereafter:

- 9.3.1 Emergency planning shall be developed prior to abatement initiation and agreed to by Contractor and Owner's Representative.
- 9.3.2 Emergency procedures shall be in written form and prominently posted in the clean change area and equipment room of the worker decontamination area. Everyone prior to entering the work area must read and sign these procedures to acknowledge receipt and understanding of work site layout, location of emergency exits and emergency procedures.
- 9.3.3 Emergency planning shall include the written notification of police, fire and emergency medical personnel of planned abatement activities.
- 9.3.4 Emergency planning shall include considerations of fire, explosion, toxic atmospheres, electrical hazards, slips, trips and falls, confined spaces and heat related injury. Written procedures shall be developed and employee training in procedures shall be provided. Documentation of safety meetings shall be provided in the form of written minutes to EEG's Representative, including signature of employees in attendance, name of instructor, topics covered and date of meeting.
- 9.3.5 Employees shall be trained in evacuation procedures in the event of workplace emergencies.
- 9.3.6 Telephone numbers of all emergency response personnel shall be prominently posted in the clean change area and equipment room, along with the location of the nearest telephone and directions to the nearest hospital.
- 9.3.7 The "Contractor's Guidelines" prepared by EEG, Inc. shall be covered with all employees prior to working on the project.
- 9.3.8 Health and safety programs, plans and procedures will be reviewed during weekly safety meetings.

- 9.4 All submittals will be clearly presented and in a form which may be easily included in the

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Project Manual.

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- 9.5 The Contractor must have available for viewing at the job site, a copy of and comply with 29 CFR 1910.1001, 29 CFR 1910.1200, 29 CFR 1910.20, 29 CFR 1926.1101 and 29 CFR 1926 Part III Amendment of 14 September 1988; 40 CFR Part 763 Subpart E Part II and III, 40 CFR Part 61 Subpart M the National Emission Standard for Hazardous Air Pollutants and the State of Arkansas Asbestos Abatement Regulations. (Cards must be on-site also)
- 9.6 Air monitoring data per specifications must be on site as soon as it is available. A copy of the previous day's air monitoring results will be posted in or near the clean room.
- 9.7 Bulk sample analysis.
- 9.8 Sign in/sign out sheet.
- 9.9 Written notification to the Arkansas Department of Environmental Quality (ADEQ) is required for this project. The Contractor shall follow all current NESHAP requirements and provide the Consultant with a copy of the notice. (See *Appendix A*)
- 9.10 Waste transportation and disposal records (these items must also be included in close-out documents).

10.0 Project Coordination

The Contractor shall designate one individual as Project Superintendent or Coordinator (P.C.). The Project Coordinator must have a minimum of two (2) years of on the job experience in the practice of asbestos abatement. In addition, the P.C. must have completed a training and certification course for "Supervision of Asbestos Abatement Contracts" which is an EPA-accredited course equivalent. Prior to commencing work, the Contractor shall submit the name of the Project Coordinator to EEG's Representative in the pre-work submittals. The Project Coordinator shall remain until the project is complete and cannot be removed without the written consent of EEG's Representative. The Project Coordinator shall be required to supervise the work activities at all times and shall stop work not in accordance with the requirements of the contract documents. He shall be knowledgeable in and responsible for the duties of the Contractor as set forth in the contract specifications and regulatory requirements.

11.0 Contractor Duties

- 11.1 Pay all sales, consumer, payroll, use and other taxes as required by law.
- 11.2 Comply with all codes, ordinances, regulations and standards of the industry. If a conflict between the contract specifications and above-mentioned legal requirements; then the more stringent shall govern or apply.
- 11.3 Ensure that all employees of the Contractor are fit to perform their assigned tasks. Contractor shall be held accountable for the behavior and actions of the Contractor's employees.
- 11.4 The use of the best available technology and stringent standards for all abatement work activities including safety of the workplace is the sole responsibility of the Contractor.
- 11.5 Contractor shall be responsible for the protection of existing property during the abatement project. Contractor shall repair damage to property or equipment caused by their abatement activities. All damages caused by the Contractor to be repaired or replaced with materials approved by the Consultant and work, thereof.

12.0 Sign Requirements

- 12.1 No company or project identification signs will be allowed to be erected at the project site.
- 12.2 Warning signs as required by 29 CFR 1926.1101 (OSHA) shall be posted at all entries and exits to the work area and shall read:

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

- 12.3 Warning labels for all asbestos disposal bags, barrels, or containers as required by the U.S. Department of Transportation shall read:

**RQ HAZARDOUS SUBSTANCE
SOLID, N.O.S., ORM-E, NA 9188
(ASBESTOS)
HAZARDOUS WASTE
DANGER
CONTAINS ASBESTOS FIBERS
AVOID
BREATHING DUST
CANCER & LUNG DISEASE HAZARD
HANDLE WITH CARE!**

- 12.4 Contractor is responsible for removing all signs after a work area is complete.

13.0 Project Close-out

- 13.1 The work required under this section consists of the final inspections, submitting of all closeout documents and related items to complete the work indicated in the contract and described in the project specifications.
- 13.1.1 The Contractor shall make a request for a final inspection by EEG's Representative as soon as possible prior to inspection for each work area. A list of any deficiencies, compiled by EEG's Representative, will be corrected by the Contractor. If in his judgment the project is not ready for a final inspection, EEG's Representative may schedule another inspection.
- 13.1.2 The Contractor shall promptly remedy all defects as reported by EEG's Representative as per specifications.
- 13.1.3 The Contractor shall submit final request for payment to EEG along with the following items after receiving a written clearance of the project from the Consultant.

13.2 Close-Out Documents

Contractor shall submit two (2) copies of their Project Manual containing the following information including all AHERA record keeping requirements response actions (40 CFR Part 763.94) to the Russellville Office of EEG, Inc. within 14 days after receipt of "Owner's Release".

- 13.2.1 Current insurance certificates.
- 13.2.2 Abatement contract with any change orders that may apply.
- 13.2.3 Current Asbestos Abatement License.
- 13.2.4 Written notification to the Arkansas Department of Environmental Quality (ADEQ) is required for this project. The Contractor shall follow all current NESHAP requirements and provide the Consultant with a copy of the notice (see **Appendix A**).
- 13.2.5 Guarantee of Work which shall read "We hereby guarantee all work performed by us on the (Name of Contract) project to be free from defective materials and workmanship for a period of one (1) year or such longer period of time as may be called for in the contract documents for such portions of the work.
- 13.2.6 Copies of any correspondence with authorities and permits.
- 13.2.7 Statement, which is signed by EEG, that the project has received final acceptance from the Owner.
- 13.2.8 Certify that all rental vehicles and equipment, if any, have been visually inspected and cleared by the Project Supervisor.

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- 13.2.9 Copies of all air monitoring data including area, personal and manometer charts.
- 13.2.10 Employee information, certificates, physicals and respirator fit tests.
- 13.2.11 Daily employee logs and supervisor reports with project schedule as accomplished.
- 13.2.12 Lien Waivers--the following unmodified document must be submitted, signed and notarized by all parties involved, prior to final payment--Contractor's Affidavit of Release of Liens (AIA documents G706 and G706A) and Consent of Surety (AIA Document G707 or G707A).
- 13.2.13 Identification of any continuing Owner responsibilities required by applicable regulations.
- 13.2.14 Any warranties for replacement materials.
- 13.2.15 Waste Disposal Manifest

14.0 Temporary Facilities and Equipment

14.1 All materials and equipment must comply with applicable standards and be maintained in serviceable condition.

14.1.1 Scaffolding

14.1.1.1 All scaffolding, ladders and/or staging shall be provided as necessary to perform the work of this contract. Scaffolding may be of suspension or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with applicable OSHA regulations.

14.1.1.2 All metal ladders, etc, shall be equipped with an abrasive non-slip surface.

14.1.1.3 Provide a non-skid surface on all scaffold surfaces subject to foot traffic.

14.1.2 Barricades, Coverings and Guardrails

14.1.2.1 Provide handrails, guardrails and covers for floor, roof and wall openings and stairways.

14.1.2.2 Provide suitable temporary watertight coverings over openings as required to protect interior work from inclement weather.

14.1.2.3 Meet requirements of federal, state and local authorities having jurisdiction for the protection of persons and property.

14.1.3 Temporary Water Service

14.1.3.1 If available, use of existing domestic water service to the building is permissible for temporary water supply during construction. The tie-into location to the existing system shall be coordinated with and acceptable with the Owner.

14.1.3.2 Service costs for water used from existing facilities shall be paid by the contractor.

14.1.3.3 Back-flow protection shall be included at all connections to the Owner's water system. All valves are to be temperature and pressure rated for operation of the temperatures and pressures encountered. Connections and fittings shall be removed without damage or alteration to existing water piping and equipment, after completion of use. Leaking or dripping valves shall be piped to the nearest drain or located over an existing sink or grade where water will not damage existing finishes or equipment.

- 14.1.3.4 Heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system will be employed to provide water into each Decontamination Unit and work area. Provide temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment and fittings as required to allow for connection to existing wall hydrants or spouts.
- 14.1.3.5 If available, use of hot water from the building hot water system may be secured provided back-flow protection is installed at point of connection and if written authorization is provided by the Owner's Representative.
- 14.1.3.6 Damage to the existing water service or system due to abatement project activities or by the Contractor's employees or subcontractors is the sole responsibility of the Contractor.

14.1.4 Temporary Electricity and Lighting

- 14.1.4.1 The contractor is responsible for securing and paying for electrical service necessary to facilitate this project. The electrical power for the majority of the facility has been shut down and disconnected. Locations of temporary power poles erected by the contractor must be approved by EEG prior to placement of poles.
- 14.1.4.2 The contractor shall pay for the service cost of electrical power used from all facilities. Contractor shall bear all costs and responsibilities for labor, materials and other items necessary to provide use.
- 14.1.4.3 Provide branch and circuit wiring, with area distribution boxes located so that lighting and power is available throughout the project by the use of construction type power cords. All lighting must be grounded and equipped with a ground fault interrupter.
- 14.1.4.4 Artificial lighting must be provided by the contractor for all areas of work when natural light is not adequate for work.
- 14.1.4.5 Provide service to Decontamination Unit sub panel and disconnect shall be equipped and sized to accommodate all electrical equipment required for work completion.
- 14.1.4.6 Power outlets other than 110-120 volt power must have identification warning signs. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide dry type transformers where required to provide voltages necessary for work operations.
- 14.1.4.7 Provide receptacle outlets equipped with reset button, pilot light and ground-fault circuit interrupters, for plug-in connection of power tools and equipment.

14.1.4.8 Use only grounded extension cords. Use single lengths or use waterproof connectors to connect separate lengths of electric cords when single lengths will not reach areas of work. Use "hard-service" cords where exposed to abrasion and traffic.

14.1.4.9 Damage to the existing electrical system due to abatement project activities or by the Contractor's employees or subcontractors is the sole responsibility of the Contractor.

14.1.5 Temporary Telephone Service

14.1.5.1 Contractors to utilize contractor provided cell phones for communication on site.

14.1.5.2 Calls of a personal nature are not allowed.

14.1.5.3 Damage to the existing telephone service or system due to abatement project activities or by the Contractor's employees or subcontractors is the sole responsibility of the Contractor.

14.1.6 Temporary Sanitary Facilities

14.1.6.1 Contractor's personnel may not use existing toilet facilities in the work area during performance of the work.

14.1.6.2 Contractor shall provide and maintain portable toilet facilities for the duration of the project.

14.1.7 Temporary Fire Protection

14.1.7.1 Provide and maintain temporary fire protection in accordance with requirements of the local protection code during performance of the work.

14.1.7.2 Provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires. Provide type "ABC" dry chemical extinguisher, or a combination of several extinguisher of NFPA recommended types for the exposures in each case.

14.1.8 Temporary Project Superintendent's Field Office

14.1.8.1 If temporary offices are provided by Contractor, coordinate location of placement with EEG's Representative.

14.1.8.2 Temporary offices shall be in a weather and watertight building or trailer and maintained in a neat and orderly appearance.

14.1.8.3 Arrangements are to be made with utility companies by Contractor to provide water and electricity for office. Contractor pays all costs for meters,

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installation, maintenance, removal and service charges for utilities to office.

14.1.9 Temporary Storage

14.1.9.1 Owner is to remove all movable objects from the work area prior to Contractors arrival.

14.2 Execution

14.2.1 General

14.2.1.1 Maintain and operate systems to assure continuous service.

14.2.1.2 Modify and extend systems as work progresses.

14.2.2 Scaffolding

14.2.2.1 Exercise care during erection and/or moving of scaffolding so that the polyethylene floor covering is not damaged.

14.2.2.2 Non-slip surfaces should be cleaned as necessary.

14.2.2.3 Clean all construction aids within the work area, wrap in one layer of 6 mil polyethylene sheet and seal before removal from work area at the completion of abatement work if not cleaned of all visible residue.

14.2.3 Installation

For temporary services and facilities installation use qualified tradesmen. Temporary services and facilities should be located where they will serve entire project adequately with minimum interference with performance of the work.

14.2.4 Water Service

14.2.4.1 Contractor to make arrangements with the local utility company for water service. When available, water connection (without electrical charge) to Owner's existing potable water system is limited to one 3/4" pipe size connection, and a maximum flow of 10 gpm each to hot and cold water supply.

14.2.4.2 Maintain hose connections and outlet valves in leak proof condition. Provide a drip pan of suitable size to minimize the possibility of water damage where finish work below an outlet might be damaged by spillage or leakage. As water accumulates drain it promptly.

14.2.5 Electrical Service

14.2.5.1 Contractor to make arrangements with the local utility company for water service. Weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics for each use must be provided. Run wiring overhead and rise vertically where wiring will be least exposed to damage from construction activities.

14.2.6 Removal

14.2.6.1 When use of temporary material and equipment is not required, remove promptly.

14.2.6.2 Damage caused by temporary installations or facilities is to be repaired and cleaned.

14.2.6.3 Existing facilities used for temporary services are to be restored to specified or original condition.

15.0 Worker Protection

- 15.1 Prior to commencement of work, the workers shall be instructed, and shall be knowledgeable, in the areas described under submittals and notices.
- 15.2 Respiratory Protection
- 15.2.1 Provide workers with personally issued and marked respiratory equipment approved by NIOSH and OSHA Standard 29 CFR 1926.1101.
- 15.2.2 Respiratory protection used shall at all times be in compliance or in excess of OSHA requirements. The following is a schedule of minimum respiratory protective equipment to be used during this operation. Contractor is responsible for enforcing requirements.
- 15.2.2.1 Pre-cleaning of Work Area: Half Face air purifying respirators equipped with HEPA cartridges specified for Asbestos Dust and MSHA/NIOSH approved.
- 15.2.2.2 Plastic Installation: Half Face air purifying respirators equipped with HEPA cartridge specified for Asbestos Dust and MSHA/NIOSH approved.
- 15.2.2.3 Gross Asbestos Removal and Gross Clean-up: Powered Air Purifying Respirators. This is a minimum requirement for OSHA Class I work. Contractor shall perform work in Class I removal areas in full face piece supplied air respirators in the pressure demand mode equipped with egress bottle, or provide a negative exposure assessment.
- 15.2.2.4 Final cleaning operations and plastic removal: Half Face air purifying respirators equipped with HEPA cartridge specified for Asbestos Dust and MSHA/NIOSH approved.
- 15.2.2.5 Loading Bags on Truck (outside work area): Half Face air purifying respirators equipped with HEPA cartridge specified for Asbestos Dust and MSHA/NIOSH approved.
- 15.2.2.6 Unloading Bags at Landfill: Half Face air purifying respirators equipped with HEPA cartridge specified for Asbestos Dust and MSHA/NIOSH approved.
- 15.2.2.7 Flooring removal with chemical solvent: Respirators shall meet requirements for gross removal of asbestos (Section 15.2.2.3). Respirators shall also be equipped with a second stage filter for protection from organic vapors from solvent.
- 15.2.2.8 Flex Connector Removal and Glovebag Operations: Powered air purifying respirators or full-face air purifying respirators.

15.2.2.9 The above schedule is based upon minimal acceptable protection. If at any time during the abatement project, the exposure level exceeds .01 f/cc after applying the protection factor of the respirators in use to the fiber levels, then the respiratory protection equipment should be substituted for that with protection factors to reduce exposure below .01 f/cc. Personal air monitoring results shall be posted in the clean room of the decontamination unit or other clearly visible area within 24 hours of sampling completion.

15.3 Protective Clothing

- 15.3.1 Workers shall wear full body protective suits when working in containment areas. Provide workers with sufficient sets of protective full body clothing. Such clothing shall consist of full body coveralls and headgear or equivalent sets. Provide eye protection, hard hats and footwear as required by applicable safety regulations. Non-disposable clothing and footwear shall be left in the contaminated equipment room until the end of the asbestos abatement work, at which time such items shall be disposed of as asbestos waste or placed in disposal containers properly marked with warning labels and left unopened until inside the next contained work area. The Contractor will provide at least four (4) sets of full body clothing per day per inside worker and at least three (3) sets for each outside worker, air monitor and supervisor. If the Contractor does not use disposable suits equipped with attached foot covering, elastic wrist and elastic hoods attached, these pieces must be provided and secured to each other with "duct" tape or equivalent. Wrists and neck openings must be taped.
- 15.3.2 Provide authorized visitors with a set of suitable protective clothing, headgear, eye protection and footwear, as described above, whenever they are required to enter the work area.
- 15.3.3 Provide and post, in the equipment room and the clean room, the decontamination and work procedures to be followed by workers.

16.0 Removal Materials, Tools and Equipment

- 16.1 Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.
- 16.2 Store all material subject to damage off the ground, away from wet or damp surfaces, under cover sufficient to prevent damage or contamination.
- 16.3 Damaged or deteriorating materials shall not be used and shall be removed from the premises. Materials that become contaminated with asbestos shall be disposed of in accordance with applicable regulations.
- 16.4 Plastic sheeting of 4 mil (0.1 mm) for wall application and 6 mil <0.15 mm> for floors. Surfaces should be layered to assure protection of electrical equipment, floor and wall coverings.
- 16.5 Tape - Duct tape or other type capable of sealing joints of adjacent sheets or plastic sheets and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials under both dry and wet conditions including use of amended water.
- 16.6 Adhesives - capable of sealing joints of adjacent sheets or plastic sheets and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials under both dry and wet conditions including use of amended water.
- 16.7 Surfactant (wetting agent) - shall consist of 50% polyoxyethylene ether and 50% of (polyoxyethylene) (polyglycol) ester, or equivalent, and shall be mixed with water to provide a concentration of one ounce with water to provide a concentration of one ounce surfactant to 3 to 5 gallons of water or equivalent depending on brand and manufacturer's instructions.
- 16.8 Impermeable Containers - suitable to receive and retain any asbestos-containing or contaminated materials until disposal at an approved site. (The containers shall be labeled in accordance with OSHA regulation 29 CFR 1926.1101). Containers must be both air and watertight and include tags or labels affixed which provide the name, telephone number of the Owner facility from which the asbestos-containing material was removed.
- 16.9 Glovebags - shall be designed as defined in contract specification definition.
- 16.10 Water Sprayers - as used for removal work shall be airless sprayers.
- 16.11 Air Purifying Equipment - A sufficient quantity of negative pressure ventilation units equipped with HEPA filtration and operated in accordance with ANSI 29.2-79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-83-002 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings *Appendix F*: shall be utilized so as to provide one workplace air change every 15 minutes.

To calculate total air flow requirement:

$$\text{Total ft}^3/\text{min} = \frac{\text{Vol of Work Area (in ft}^3\text{)}}{15 \text{ Min}}$$

To calculate the number of units needed for the abatement:

$$\text{Number of Units Needed} = \frac{(\text{Total ft}^3/\text{min})}{(\text{Capacity of Unit in ft}^3/\text{min})}$$

If air supplied respirators are utilized, estimate the volume of supplied air and add to workplace air volume when calculating ventilation requirements. For small enclosures and glovebags, a HEPA filtered vacuum system may be utilized to provide negative air pressure.

- 16.12** HEPA Vacuums - A sufficient supply of HEPA filtered vacuum systems shall be available during cleanup.
- 16.13** Other Equipment - A sufficient supply of scaffolds, ladders and lifts as required to accomplish work and that meet all applicable safety regulations. All equipment must be wet-wiped and HEPA vacuumed to remove all visible debris prior to leaving the work area.
- 16.14** Warning Labels and Signs - As required by OSHA (Regulation 29 CFR 1926.1101) and in official language. (See Section 12.0)
- 16.15** Other Materials - provide all other materials, such as lumber, nails and hardware, which may be required to construct and dismantle the decontamination area and the barriers that isolate the work.

17.0 Execution of Abatement Work

17.1 General Cleaning

Contractor will provide on-site containers for the collection of non-asbestos debris and waste. The jobsite shall be kept free from the accumulation of non-asbestos waste or debris. Any waste disposed or stored in asbestos disposal bags or containers shall be considered as asbestos waste and treated as such. The use of pre-labeled asbestos disposal bags or containers to collect non-asbestos waste outside the containment area shall not be permitted.

17.2 Work Areas

- 17.2.1 Post approved caution signs in accordance with OSHA regulation 29 CFR 1926.1101 (see Section 12.0).
- 17.2.2 Shut down and lock out electrical power to work area where using wet gross removal methods. Provide temporary power and insure the safe installation of same.
- 17.2.3 Shut down, lock out or isolate heating, ventilation and air conditioning (HVAC) components to all work areas. Clean and seal all vents or HVAC components within work area.
- 17.2.4 Filters from HVAC systems shall be carefully removed and disposed of as asbestos waste after abatement is complete.
- 17.2.5 A minimum of one worker to be designated to remain outside containment at all times to maintain security and keep outside area picked up and clean.

17.3 Pre-Cleaning

- 17.3.1 Pre-Clean all surfaces in the work area using HEPA filtered vacuuming and/or wet wiping methods. Do not use dry sweeping or vacuums not equipped with HEPA filters. Extra precautions must be taken to prevent the disturbance of ACM during pre-cleaning.
- 17.3.2 All pre-cleaning methods shall be employed to prevent damage to building materials.
- 17.3.3 Pre-Seal all windows, corridors, doorways, ducts, grills, diffusers, grates, drains and any other opening between the gross removal work areas and uncontaminated areas with two layer of 6 mil plastic sheeting and tape.
- 17.3.4 Cover floors in the gross removal work areas with a minimum of two layers of 6 mil plastic (unless the flooring is to be removed). Extend floor sheeting at least 12" up the sidewalls. Additional layers of protection for carpet and tile floors is advised. Any damage to floor coverings during the abatement project is the Contractor's responsibility and if not repaired to original condition, Contractor to install new floor covering.

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- 17.3.5 Plastic shall be sized to minimize seams. If an area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least 6 feet between seams is sufficient. Do not locate any seams at wall/floor joints.
- 17.3.6 Wall sheeting will overlap floor sheeting by at least 12" beyond the wall/floor joint to provide a better seal. It shall be secured to prevent it from falling away from the walls when negative pressure is being utilized. Any damage to walls during the abatement project is the Contractor's responsibility.
- 17.3.7 Construct worker and equipment decontamination units at all locations where workers or equipment will enter/exit a work area. Plans for the construction and location of the units shall be submitted by the Contractor in the Pre-Work Submittal.
- 17.3.8 Wastewater containing asbestos shall be collected and treated as ACM or filtered before disposal into a sanitary sewer.
- 17.3.9 Following a work shift, the worker decontamination unit should be cleaned and the shower room disinfected. The equipment room shall be HEPA vacuumed and wet cleaned.
- 17.3.10 Install and initiate negative pressure ventilation equipment as needed to provide one air change within the work area every 15 minutes. Openings made in the enclosure system to accommodate these units shall be made airtight with tape and/or caulking as needed. If more than one unit is installed, they should be turned on one at a time, checking the integrity of wall barriers for secure attachment and need for additional reinforcement. Insure that adequate power supply is available to satisfy the requirements of the ventilating units. Negative pressure ventilation units shall be exhausted to the outside of the building whenever feasible. They shall not be exhausted into occupied areas of the building. Twelve inch wire reinforced extension ducting shall be used to reach from the work area to the outside when required. Careful installation, air monitoring and daily inspections shall be done to insure that the ducting does not release fibers into uncontaminated building area.
- 17.3.11 Provide make-up air openings to avoid damage to barriers but to maintain negative pressure in excess of .02 inches of water differential. Documentation of negative pressure must be obtained by means of a manometer. Documentation of calibration of mentioned equipment must be provided.
- 17.3.12 Maintain operation of negative air units until abatement operation completion or signified by acceptance of final air clearance sampling results.
- 17.3.13 Clearly identify and maintain emergency and fire exits from the work area.

17.3.14 Remove, clean and enclose in polyethylene the ceiling mounted objects such as lights, fire alarm systems and other items that may interfere with the abatement process and were not previously cleaned and sealed off. Utilize localized spraying of amended water and/or HEPA vacuums to reduce fiber dispersal during the removal of these fixtures. After abatement work is complete, reinstall ceiling mounted objects other than surface mounted light fixtures.

17.3.15 Statement on Filters

Water Filter: Provide staged filter units on drain lines or any water source, which carries asbestos-contaminated water from the work area.

The filtration shall incorporate disposable filter elements as follows:

The primary filter shall filter particles to 100 microns. Intermediary filters of 50 microns, 25 microns and 5 microns shall be provided before the final filter. The final filter shall filter particles 0.3 microns or greater.

17.4 Fresh towels, soap and shampoo shall be available in the showers at all times.

17.5 A disposal bag for contaminated filters shall be provided in the shower room.

17.6 Work Area Corridors, doorways or cased openings not to be used for passage during the abatement work shall be sealed from uncontaminated areas of the building by construction of critical barriers. Walls shall be made of wood or metal studs. Plywood of at least 3/8" thickness shall be applied to the work area side. Cover both partition sides with a double layer of 6 mil plastic with staggered joints and seal in place. Tape and caulk edges of barrier to form an airtight seal.

17.7 All plastic barriers inside the workplace and decontamination units shall be inspected prior to the start and following the completion of daily abatement activities. These inspections shall be documented in the daily project log.

17.8 Damage or defects to barriers shall be repaired immediately.

18.0 Decontamination (To Be Posted In The Work Area)

- 18.1 All personnel entering the work area shall read and be familiar with posted regulations, respiratory protection requirements and emergency procedures. All personnel who enter the work area shall sign the visitor's log upon entry and exit of work area. Each worker and authorized visitor shall, upon entering the job-site, remove street clothes in the clean change room and put on a respirator and protective clothing before entering the equipment and access areas or the work area. When changing from street clothes to disposable work clothes, the worker will remove all street clothing and then dress in only the disposable suit and 100% nylon clothing.
- 18.2 Worker decontamination - each worker and authorized visitor shall, each time he leaves the work area; remove gross contamination from clothing before leaving the work area; proceed to the equipment area and remove all clothing, except respirators and nylon clothing if worn, still wearing the respirator proceed naked to the showers; clean the outside of the respirator; thoroughly shampoo and wash themselves; and wash and rinse the inside of the respirator.
- 18.3 Following showering and drying off with disposable towels, each worker and authorized visitor shall proceed directly to the clean change room and dress in street clothes at the end of each day's work, or in clean coveralls before eating, smoking, drinking, or re-entering the work area.
- 18.4 Contaminated work footwear shall be stored in the equipment room when not in use in the work area. Upon completion of asbestos abatement, dispose of footwear as contaminated waste or seal in disposal container to remain unopened until inside next containment area. Place contaminated work suits in receptacles for disposal with other asbestos-contaminated materials.
- 18.5 Workers removing waste containers from the equipment decontamination enclosure shall enter the washroom from outside wearing a respirator and dressed in clean overalls. No worker shall use this system as a means to leave or enter the work area.
- 18.6 Worker shall not eat, drink, smoke, chew gum, or tobacco in the work area or while inside of a decontamination unit.
- 18.7 Clean external surfaces of contaminated containers and equipment thoroughly by wet sponging. HEPA vacuum before moving such items into the equipment decontamination enclosure system washroom for final cleaning and removal to uncontaminated areas. Insure that personnel do not leave work areas through the equipment decontamination enclosure system.
- 18.8 Contractor shall notify EEG of work area preparation for an inspection prior to any removal of ACM.

19.0 Gross Removal Procedures

- 19.1 Wet all asbestos-containing material with an amended water solution using equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Keep all removed material wet enough to prevent fiber release until it can be containerized for disposal. The use of high-pressure sprayers shall not be permitted.
- 19.2 Saturated asbestos-containing material shall be removed in manageable sections. Removed material shall be containerized while wet.
- 19.3 Material removed from building structures or components shall not be dropped or thrown more than one (1) floor level. Asbestos-containing material shall be containerized at elevated levels for disposal and then lowered or shall be placed onto inclined chutes which empty into approved containers.
- 19.4 Bags shall not be overfilled. They should be securely sealed to prevent accidental opening and leakage by taping in gooseneck fashion. Any ACM removed with metal lath or material which may puncture bags shall be wrapped in plastic and cardboard and placed in drums for disposal at landfill. Bags shall be decontaminated on exterior surfaces by wet cleaning and HEPA vacuuming before being placed in clean drums and sealed with locking ring tops.
- 19.5 Large components removed must be adequately wetted intact, then wrapped in 2 layers of 6 mil polyethylene sheeting secured with tape for transport to the landfill.
- 19.6 Wet clean all surfaces to insure all residual fibers have been removed.
- 19.7 The Project Superintendent shall notify EEG's Representative of the work area's readiness for visual inspection.

20.0 Air Monitoring and Clearance Testing

- 20.1 Analysis of area and PCM clearance samples shall be performed by EEG's Representative's at EEG's on-site laboratory. The Contractor will be responsible for providing personal monitoring of his employees per 29 CFR 1926.1101. A minimum of two personal samples shall be collected for each 8-hour work shift with a combined sample volume of 960 liters and using a 25mm cassette, set at 1.6 to 2.5 liters per minute. In addition, the Contractor will collect a minimum of 1 Excursion Limit (EL) sample which is representative of the highest personnel exposure per activity. Results of these samples shall be completed and made available to the Consultant within 24 hours. If samples are unreadable due to overloading, wet filters or any other reason, the Consultant may require increased worker respiratory protection.
- 20.2 A background sample from each work area shall be performed by EEG's Representative's on-site laboratory to provide a reference baseline level of ambient fiber concentrations. EEG's representative will also take a sample from outside air.
- 20.3 After a work area has passed EEG's Representative's visual inspection, aggressive sampling shall be performed.
- 20.4 The final plastic critical barriers around the abatement area are to remain in place for the clearance-sampling period.
- 20.5 The PCM clearance samples will be collected and analyzed by EEG's Representative at EEG's field laboratory. The results of these tests shall be <.01 f/cc. PCM final clearance analysis shall be completed and made available to the owner and contractor within 1 hour after sample collection.
- 20.6 The Owner will incur costs for first clearance test series. If the Contractor fails the first series or requires any additional air monitoring, the cost for the Owner's air monitoring personnel and sample analysis shall be the responsibility of the Contractor.
- 20.7 If the first clearance test results satisfactorily pass, the post-removal encapsulation of surfaces from which asbestos has been removed shall take place. The encapsulant must be colored and satisfactorily adhere to the substrate or an acceptable substitute shall be used.
- 20.8 After the encapsulation has been completed and any mist has settled, the remaining plastic sheeting, seals, decontamination enclosures and debris shall be carefully removed and disposed of as asbestos waste.
- 20.9 Contractor shall then wet-wipe and HEPA vacuum the work area prior to re-occupancy or replacement material.
- 20.10 If clearance testing results are unacceptable, the work area shall remain sealed until cleared and all costs associated with retesting shall be the responsibility of the Contractor.

21.0 Glovebag Operations

- 21.1 Any glovebag to be utilized by the Contractor must be approved by the Owner's Representative. It must be utilized inside a full work area containment or use a negative pressure glovebag.
- 21.2 The Contractor shall place plastic sheeting below the work area in quantity sufficient to collect any gross debris.
- 21.3 Glovebags shall be installed so that they completely cover the pipe or other structure where asbestos work is to be done. Glovebags are installed by cutting the sides of the glovebag to fit the size of the pipe from which asbestos is to be removed. The glovebag is attached to the pipe by folding the open edges together and securely sealing them with tape. All openings in the glovebag must be sealed with duct tape or equivalent material. The bottom seam of the glovebag must also be sealed with duct tape or equivalent to prevent any leakage from the bag that may result from a defect in the bottom seam.
- 21.4 The employee who is performing the asbestos removal with the glovebag must have at least a half mask dual-cartridge HEPA equipped respirator; respirators should be worn by employees who are in close contact with the glovebag and who may thus be exposed as a result of small gaps in the seams of the bag or holes punched through the bag by a razor knife or a piece of wire mesh.
- 21.5 The removed asbestos material from the pipe or other surface that has fallen into the enclosed bag must be thoroughly wetted with a wetting agent (applied with an airless sprayer through the precut port provided in most glovebags or applied through a small hole in the bag).
- 21.6 Once the asbestos material has been thoroughly wetted, it can be removed from the pipe. The choice of tool to use to remove the asbestos-containing material depends on the type of material to be removed. Painted canvas can be cut with a razor knife and peeled away from the asbestos-containing material underneath. Once the canvas has been peeled away, the asbestos-containing material underneath may be dry, in which case it should be re-sprayed with a wetting agent to insure that it generates as little dust as possible when removed. If the asbestos-containing material is covered with wire mesh, the mesh should be cut with nips, tin snips, or other appropriate tool and removed.
- A wetting agent must then be used to spray any layer of dry material that is exposed beneath the mesh, the surface of the stripped underlying structure and the inside of the glovebag.
- 21.7 After removal of the layer of asbestos-containing material, the pipe or surface from which asbestos has been removed must be thoroughly cleaned with a wire brush and wet-wiped with a wetting agent until no traces of the asbestos-containing material can be seen.
- 21.8 When the asbestos removal and encapsulation have been completed, a vacuum hose from a HEPA filtered vacuum must be inserted into the glovebag through the port to remove any air in the bag that may contain asbestos fibers. When the air has been removed from the bag, the bag should be squeezed tightly (as close to the top as possible), twisted and sealed with tape, to keep the asbestos materials safely in the bottom of the bag. The HEPA vacuum can then be removed from the bag and the glovebag itself can be removed from the work area to be disposed of properly.

21.9 HEPA vacuum the work area for any residual material.

22.0 Disposal Procedures

- 22.1 If necessary, as the work progresses, to prevent exceeding available storage capacity on site, sealed and labeled containers of asbestos-containing waste shall be removed and transported to the prearranged disposal location.
- 22.2 Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAP and applicable state and local guidelines and regulations.
- 22.3 All dump receipts shall be delivered to the Owner's Representative for his records. The Disposal Form shall be delivered to the Owner's Representative after each disposal.
- 22.4 Once drums, bags and wrapped components have been removed from the work area, they shall be loaded into an enclosed truck for transportation. As per OSHA regulations, warning signs or labels shall be displayed on both sides and the rear of the vehicle or unit used to transport asbestos waste material. Such signs or labels shall be of sufficient size to be read from at least a distance of fifteen (15) feet.
- 22.5 The enclosed cargo area of the truck shall be free of debris and lined with 6 mil polyethylene sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be installed first and extend up the sidewalls. Wall sheeting shall be overlapped and taped into place.
- 22.6 Personnel loading asbestos-containing waste shall be protected by disposable clothing including head, body and foot protection and at a minimum, half-face piece, air-purifying, dual cartridge respirators equipped with high efficiency filters. The color of protective clothing worn outside the work area shall be a different color than that worn inside the work area.
- 22.7 Any debris or residue observed on containers or surfaces outside of the work area resulting from clean up or disposal activities shall be immediately cleaned using HEPA filtered vacuum equipment and/or wet methods as appropriate.
- 22.8 **Disposal at the Landfill**
- 22.8.1 Upon reaching the landfill, trucks are to approach the dump location as closely as possible for unloading of the asbestos-containing waste.
- 22.8.2 Bags, drums and components shall be inspected, as they are off-loaded at the disposal site. Material in damaged containers shall be repacked in empty drums or bags as necessary.
- 22.8.3 Waste containers shall be placed on the ground at the disposal site, not pushed or thrown out of trucks.
- 22.8.4 Personnel off-loading containers at the disposal site shall wear protective equipment consisting of disposable head, body and foot protection and, at a minimum, half-face piece, air-purifying, dual cartridge respirators equipped with high efficiency filters.

**ENVIRONMENTAL REMEDIATION & DEMOLITION SPECIFICATION
ARKANSAS TECH UNIVERSITY - BRYAN HALL**

- 22.8.5** Following the removal of all containerized waste, the truck cargo area shall be decontaminated using HEPA vacuums and/or wet methods to meet the no visible residue criteria.
- 22.8.6** If landfill personnel have not been provided with personal protective equipment for the compaction operation by the landfill operator, Contractor shall supply protective clothing and respiratory protection for the duration of this operation.
- 22.8.7** The Owner/operator shall maintain accurate written records of the disposal of all asbestos-containing waste materials. Records shall contain the following information:
- 22.8.7.1** Origin of waste, including name and address of facility and the name of facility Owner;
 - 22.8.7.2** Owner/operator's name, address, telephone number and (where applicable) Arkansas asbestos contractor license number;
 - 22.8.7.3** Waste disposal site name, address, telephone number and (for Arkansas disposal site) Arkansas Solid Waste permit number;
 - 22.8.7.4** List of all asbestos waste materials being disposed, including a description of each type of material;
 - 22.8.7.5** Number and type of containers for each type of asbestos waste material;
 - 22.8.7.6** Total quantity of each type of asbestos waste material being disposed (in square, linear or cubic feet); and
 - 22.8.7.7** Name of waste transporter and dates materials were transported to landfill.

23.0 Hazardous Materials

23.1 General Related Documents

23.2 General Related Sections

23.2.1 Codes and Regulations – Asbestos Abatement describes federal, state, and local regulations applicable to asbestos.

23.2.2 Disposal of Regulated Asbestos-Containing Material describes the handling and disposal of asbestos-containing waste.

23.3 Description of the Work - General

23.3.1 This section describes the segregation, packaging, labeling, transport, and disposal of waste materials generated by demolition activities and the subsequent shipment of properly packaged and labeled waste materials to an approved disposal site.

23.4 General Codes and Regulations

23.4.1 General Applicability of Codes and Regulations: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.

23.4.2 Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to hazardous waste management and disposal. Hold the Owner and Designer harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of the Contractor, the Contractor's employees, or Subcontractors.

23.4.3 Federal Requirements: which govern the management, hauling, and disposal of hazardous waste include but are not limited to the following:

23.4.3.1 DOT: U.S. Department of Transportation, including but not limited to:

- Hazardous Substances
Title 49, Part 171 and 172 of the Code of Federal Regulations
- Hazardous Material Regulations
General Awareness and Training Requirements for Handlers, Loaders, and Drivers
Title 49, Parts 171-180 of the Code of Federal Regulations
- Hazardous Materials Regulations
Editorial and Technical Revisions
Title 49, Parts 171-180 of the Code of Federal Regulations

23.4.3.2 EPA: U.S. Environmental Protection Agency (EPA), including but not limited to:

- Management of Hazardous Wastes Resource Conservation and Recovery Act (RCRA)
Title 40, Parts 260-268 of the Code of Federal Regulations
- Universal Waste Regulations
Title 40, Part 273, Subtitle C of the Code of Federal Regulations

23.4.4 State Requirements: which govern the management, hauling, and disposal of hazardous waste include but are not limited to the following:

23.4.4.1 Regulation 23 – Hazardous Waste Regulations
Arkansas Department of Environmental Quality

23.5 General Definitions

23.5.1 Toxicity Characteristic Leaching Procedure (TCLP): A laboratory test method to determine the mobility of both organic and inorganic analytes present in liquid, solid, and multiphasic wastes performed in accordance with test methods required under 40 CFR Part 268.

23.6 General Submittals

23.6.1 Before Start of Work: Submit the following to the Designer for review. Do not start work until these submittals are returned as approved by the Designer's indicating that the submittal is returned for unrestricted use.

23.6.1.1 Copy of state and local licenses for waste hauler

23.6.1.2 U.S. EPA Identification Number of waste hauler

23.6.1.3 Name and address of waste disposal facility where hazardous waste materials are to be disposed including:

- a. Contact person and telephone number
- b. Copy of state license and permit
- c. Disposal facility permits

23.6.1.4 Specimen copy of Uniform Hazardous Waste Manifest form

23.6.1.5 Copy of EPA "Notice of Hazardous Waste Activity" form

23.6.1.6 Copy of forms required by state and local agencies

23.6.1.7 Sample of disposal label to be used

23.6.2 **During Work:** Submit the following as required by the work:

23.6.2.1 Submit copies of all executed manifests and disposal site receipts to the Designer.

23.7 **Product Materials**

23.7.1 **Disposal Bags:** Provide 6 mil (0.15 mm) thick leak-tight polyethylene bags.

23.7.2 **DOT Hazardous Waste Disposal Containers:** Provide DOT approved Packaging Group I, II, or III as appropriate for the material being shipped. Shipping containers shall be in accordance with DOT regulations Title 49 CFR Parts 173, 178, and 179.

23.7.3 **DOT Hazardous Waste Labels:** in accordance with DOT regulations Title 49 CFR Parts 173, 178, and 179.

23.8 **General - Execution**

23.8.1 Do not mix potentially hazardous waste streams. Where feasible, separate each type of hazardous waste from other types of hazardous wastes, from asbestos wastes, and from construction waste.

23.8.2 Segregate, package, label, transport, and dispose of hazardous waste in accordance with DOT, EPA, State, and Local regulations.

23.9 **Hazardous Waste Designation – Execution**

23.9.1 Where not otherwise designated by the Owner as hazardous waste, characterize all suspect waste products by conducting representative TCLP testing or other appropriate analytical method.

23.9.1.1 A schedule of materials that must be managed as hazardous waste is attached in *Appendix H*. This schedule was compiled by non-destructive means. Additional materials may be encountered. Contractor is responsible for disposal of all hazardous materials at the site.

23.9.1.2 Additional TCLP testing obtained at the site for contractor's use in fulfilling waste management requirements is at contractor's expense.

23.9.2 Representative sampling of waste products will be in accordance with EPA document SW 846.

23.10 Hazardous Waste – Execution

23.10.1 The following waste products are designated by EEG as non-salvageable and as hazardous waste types:

23.10.1.1 Waste Type A: PCB Waste

- a. PCB-containing ballasts from fluorescent light fixtures

23.10.1.2 Waste Type B: Mercury-Containing Waste

- a. Thermostats with mercury switches. Individually bagged mercury-containing thermostats.
- b. Fluorescent and mercury-vapor lamps

23.10.1.3 Waste Type C: Equipment Lubricant

- a. Elevator fluid in control motors
- b. Contaminated water in elevator pits

23.10.1.4 Waste Type D: Refrigerant

- a. Refrigerant contained in HVAC units – roof-mounted and other, i.e. coolers, ice machines, Coke machines, etc.

23.10.1.5 Waste Type E: Computer Monitors and Circuits

- a. Contractor to ascertain the waste type designation for any hazardous wastes encountered at the site.

23.11 Hazardous Waste Packaging and Labeling: Package each segregated hazardous waste types A, B, C, and D in specified containers as follows. **IMPORTANT: Do Not Mix Waste Streams.**

23.11.1 Waste Type A

23.11.1.1 Package in DOT-approved, open-top drums.

23.11.1.2 Fill to capacity only with Waste Type A (Do not mix waste stream types). Additionally, leaking ballasts shall be segregated and placed in separate disposal containers as required by DOT.

23.11.1.3 Install gasket on lid, apply lock ring, and seal.

23.11.1.4 Apply hazardous waste label to drum side.

23.11.1.5 Enter proper DOT shipping data and OSHA warning labels.

23.11.1.6 Adjacent to each label, enter the date indicating when waste was first placed in

each drum.

23.11.2 Waste Type B & E

- 23.11.2.1 Package in DOT-approved, Open-Top Drums or other approved container with Polyethylene disposal Bag liners (as required). Fluorescent Light Tubes shall be handled to prevent breakage and placed in special shipping cartons approved by DOT.
- 23.11.2.2 Fill liner bags only with Waste Type B (Do not mix waste stream types); then neck liner bags down into container and seal with duct tape.
- 23.11.2.3 Install gasket on lid, apply lock ring (if applicable), and seal.
- 23.11.2.4 Apply Hazardous Waste Label to container side.
- 23.11.2.5 Enter DOT Shipping Data and OSHA warning labels.
- 23.11.2.6 Adjacent to each label, enter the date indicating when waste was first placed in each drum.

23.11.3 Waste Type C

- 23.11.3.1 Package in DOT-approved containers. Liquid in the elevator pits may be pumped directly into a transport truck to be transported to an appropriate treatment facility.
- 23.11.3.2 Fill individual containers to capacity only with Waste Type C (Do not mix waste stream types).
- 23.11.3.3 Install gasket on lid, apply lid, and seal.
- 23.11.3.4 Apply appropriate label to container and enter proper DOT Shipping Data and OSHA warning labels.
- 23.11.3.5 Adjacent to each label, enter the date indicating when waste was first placed in each drum.

23.11.4 Waste Type D

- 23.11.4.1 Material shall be evacuated under a vacuum to prevent discharge into the atmosphere.
- 23.11.4.2 The container used to collect waste refrigerant shall meet the requirements of DOT for compressed gases.
- 23.11.4.3 The company evacuating the HVAC units shall have proper permits and licensing to handle the material.
- 23.11.4.4 Container shall be labeled with proper DOT Shipping Data and OSHA warning

labels.

- 23.11.4.5 **Sealed and Labeled Containers:** Maintain all containers in a continuously sealed condition after they have been sealed.
 - 23.11.4.6 Do not reopen sealed containers.
 - 23.11.4.7 Do not place additional waste in sealed containers.
- 23.12 **Temporary Storage:** Partially filled containers of hazardous waste may be stored at the work site for intermittent packaging provided that:
- 23.12.1 Each container is properly labeled when it is first placed in service;
 - 23.12.2 Each container remains closed at all times except when compatible waste types are added; and
 - 23.12.3 When moved from site to site, each container remains within the geographic boundaries of the facility without moving or crossing public access highways.
- 23.13 **Removal of Hazardous Wastes:** Immediately seal containers of hazardous waste as each container is filled. Remove containers of hazardous waste from the work site **within seventy-two (72) hours of being filled.**
- 23.13.1 **Transporting filled containers** from the work site to an approved disposal site or recycling center.
 - 23.13.2 **Continuously maintain custody** of all hazardous materials generated at the work site including security, short-term storage, transportation, and disposition until custody is transferred to an approved disposal site or recycling center. Document continuous chain-of-custody.
 - 23.13.3 **Do not remove**, or cause to be removed, hazardous waste from Owner's property without a legally executed Uniform Hazardous Waste manifest.
 - 23.13.4 **At completion of hauling** and disposal of each load, submit copy of waste manifest, chain-of-custody form, and landfill receipt to Designer.
- 23.14 **Recycling and Recovery:** Turn over waste, which contains materials for which recovery and/or recycling is possible, to an approved recycling center. Materials subject to recycling under the Universal Waste Rule include:
- 23.14.1 Fluorescent light tubes (Waste Type B)
 - 23.14.2 Thermostats with mercury switches (Waste Type B)
 - 23.14.3 Lead acid batteries
 - 23.14.4 Computer monitors and circuits (Waste Type E)

23.15 Backcharges:

- 23.15.1** Where Contractor fails to fulfill packaging, handling, transport, or disposal requirements as outlined herein, Owner will charge back to the Contractor all costs associated with insuring that hazardous wastes are segregated, packaged, transported, and disposed on in accordance with all applicable Federal and State regulations.
- 23.15.2** Environmental pollution of Owner's property or other environmental resulting from Contractor's hazardous waste management activities will be promptly remediated under Owner's direction, to the Owner's sole satisfaction, and at the Contractor's sole expense.
- 23.15.3** Contractor agrees to either reimburse the Owner or reduce the Contract amount by change order to cover all costs associated with waste re-packaging, waste re-segregation, or pollution remediation efforts.

23.16 Removal of Non-Hazardous Waste Materials:

- 23.16.1** Transport and legally dispose of non-hazardous waste products, materials, residues, and refuse at a location not on Owner's property.
- 23.16.2** Non-hazardous waste products, materials, residues, and refuse include but are not limited to:
 - 23.16.2.1** Materials which are determined to be non-hazardous wastes through objective sampling in accordance with EPA Document SW-846 and laboratory analysis in accordance with EPA Method 1311.
 - 23.16.2.2** Emptied hazardous material containers: containers holding a material with constituents listed on the MSDS as hazardous.
 - a. When a container is emptied of its hazardous contents by pouring or scraping so that less than one inch of material remains in the bottom of the container, the container is considered "empty" and is not in itself a hazardous waste.
 - b. Emptied hazardous material containers may be disposed of as construction debris waste (i.e. non-hazardous).
 - 23.16.2.3** Personnel protective clothing and safety equipment with de minimis or trace contamination, as determined by visual inspection by Owner's Representative.
- 23.17** Keep premises in a clean and orderly condition during performance of remediation work.
- 23.18** Place non-hazardous construction debris wastes on a daily basis in secure containers for local landfill disposal.

24.0 Toxicity Characteristics Leaching Procedure (TCLP)

Small amount of Lead Based Paint was identified on the exterior of the building. EEG shall collect one composite sample of building materials representative of the materials found at the Bryan Hall. This sample will be collected to characterize the building waste that would be generated by demolition activities. The sample shall be analyzed using Method 6010B with mercury analysis by Method 7470A. Based on past experience the concentrations of all TCLP metals in the sample are expected to be below the reporting limit.

DEFINITIONS

II. DEFINITIONS

Abatement

Procedures to control fiber release from asbestos-containing materials, including removal, encapsulation, enclosure, demolition.

AIHA

American Industrial Hygiene Association
475 Wolf Ledges Parkway
Akron, Ohio 44311

Airlock

A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways separated by a distance of at least three feet, such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through contamination.

Air Monitoring

The process of measuring the fiber content of a known volume of air collected during a specific period of time. The procedure normally utilized for asbestos follows the NIOSH Standard Analytical Method for Asbestos in Air P&CAM 239 or Method 7400. For clearance air monitoring, electron microscopy methods may be utilized for lower deductibility and specific fiber identification.

Air Sampling Professional

The professional contracted or employed by the Building Owner to supervise and/or conduct air monitoring and analysis schemes.

Amended water

Water to which a surfactant has been added.

ANSI

American National Standards Institute
1430 Broadway
New York, New York 10018

Asbestos

The asbestos form varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite.

Asbestos-Containing Material (ACM)

Asbestos or any material which contains more than 1% of any form of asbestos.

Asbestos-Containing Waste Material

Any waste that contains more than 1% asbestos by volume and is generated by a source subject to the provisions of the Arkansas regulation. This term includes all soft and hard asbestos-containing materials that can be removed or altered in any manner, which could release fibers into the air. This term also applies to any materials contaminated with asbestos, including but not limited to, equipment and clothing.

Asbestos Project Administrator

An individual qualified by virtue of experience and education, designated as the Owner's Representative and responsible for overseeing the asbestos abatement project.

ASTM

American Society For Testing and Materials
1916 Race Street
Philadelphia, PA 19103

Authorized Visitor

The Building Owner (and any designated representatives) and any representative of a regulatory or other agency having jurisdiction over the project.

Building Owner

The Owner or his authorized representative.

Clean Room

An uncontaminated area or room, which is a part of the worker decontamination enclosure system with provisions for storage of worker's street clothes and clean protective equipment.

Contractor

The individual and/or business with which the Building Owner arranges to perform the asbestos abatement.

Curtained Doorway

A device to allow ingress or egress from one room to another, while permitting minimal air movement between the rooms. The device is typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along one vertical side of the doorway and securing the vertical edge of the other sheet along the opposite vertical side of the doorway.

Decontamination Enclosure System

A series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of workers and equipment.

Demolition

The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operation.

Encapsulation

In this contract, it refers to the coating of surfaces from which ACM has been removed to prevent the possible release of residual asbestos fibers.

EPA

U.S. Environmental Protection Agency
401 M Street S.W.
Washington, D.C. 20460

Equipment Decontamination Enclosure System

That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment into or out of the work area, typically consisting of a washroom and holding area.

Equipment Room

A contaminated area or room which is part of the worker decontamination enclosure system with provisions for storage of contaminated clothing and equipment.

Facility

Any institutional, commercial or industrial structure, installation or building (excluding apartment buildings having no more than four dwelling units) or ships, active and inactive waste disposal sites and storage sites.

Fixed Object

A piece of equipment or furniture in the work area which cannot be removed from the work area.

II. DEFINITIONS

Glovebag Technique

A method with limited applications for removing small amounts of friable asbestos-containing material from HVAC ducts, short piping runs, valves, joints, elbows and other non-planar surfaces in a non-contained (plasticized) work area. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of 6 mil transparent polyethylene or polyvinylchloride plastic), two inward projecting longsleeves, an internal tool pouch and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. All workers who are permitted to use the glovebag technique must be highly trained, experienced and skilled in this method.

HVAC

Heating, ventilation and air conditioning system.

HEPA Filter

A high efficiency particulate air filter capable of removing particles >0.3 microns in diameter with 99.97% efficiency.

HEPA Vacuum

A vacuum system equipped with HEPA filtration.

Holding Area

A chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an airlock.

Movable Object

A piece of equipment or furniture in the work area which can be removed from the work area.

Negative Pressure Ventilation System

A portable exhaust system equipped with HEPA filtration and capable of maintaining a constant low velocity air flow into contaminated areas from adjacent uncontaminated areas.

NESHAP

The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

NIOSH

The National Institute for Occupational Safety and Health
ODC - NIOSH
Building J N.E. Room 3007
Atlanta, Georgia 30333

NIST NVLAP

National Institute Standards and Technology's National Voluntary Laboratory Accreditation Program

OSHA

The Occupational Safety and Health Administration
200 Constitution Avenue
Washington, D.C. 20210

Outside Air

The air outside buildings and structures.

Plasticize

To cover floors and walls with plastic sheeting as herein specified.

Prior Experience

Experience required of the Contractor on asbestos projects of similar nature and scope to insure capability of performing the asbestos abatement in a satisfactory manner. Similarities shall be in areas related to material composition, project size, abatement methods required, number of employees and the engineering, work practice and personal protection controls required.

Removal

The stripping of any asbestos-containing materials from surfaces or components of a facility.

Shower Room

A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water controllable at the tap and suitably arranged for complete showering during decontamination.

Staging Area

Either the holding area or some area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.

Strip

To take off friable asbestos materials from any part of a facility.

Surfactant

A chemical wetting agent added to water to improve penetration.

Visible Emissions

Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Waste Transfer Airlock

A decontamination system utilized for transferring containerized waste from inside to outside the work area.

Wet Cleaning

The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with water and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.

Work Area

Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area which has been sealed, plasticized and equipped with a decontamination enclosure system. A non-contained work area is an isolated or controlled-access work area, which has not been plasticized nor equipped with a decontamination enclosure system.

Worker Decontamination Enclosure

A decontamination system consisting of a clean room, a shower room and an equipment room separated from each other and from the work area airlocks and contained doorways. This system is used for all worker entrances and exits in the work area and for equipment and waste pass out for small jobs.

APPENDIX A
*Notice of Intent for Demolition or Renovation/
Asbestos Notice of Intent*

ASB

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

ASBESTOS NOTICE OF INTENT

Department Use Only

P. O. BOX 8913
LITTLE ROCK, AR 72219-8913
ATTN: ASBESTOS SECTION
PHONE NUMBER: 501-682-0718

Postmarked
Date received
Priority
County
NOI #

1)CHECK ONE
DEMOLITION *6.1 ANNUAL NOTICE *6.4
ORDERED DEMOLITION *6.2 EMERGENCY NOTICE *6.5
RENOVATION *6.3 COURTESY NOTICE
***(DEPARTMENT REQUIRES NOTIFICATION TO BE SUBMITTED 10 WORKING DAYS PRIOR TO PROJECT START DATE.)
2) RENOVATION *6.6H (ABATEMENT DATES)
START
END
3) ABATEMENT WORK HOURS *6.6H
(Weekdays) AM/PM to AM/PM
(Weekends) AM/PM to AM/PM
DAYS OF WEEK REMOVAL WILL OCCUR (CIRCLE EACH)
SUN MON TUE WED THURS FRI SAT
4) DEMOLITION DATES *6.6I
START
END
5) WORK HOURS *6.6H
(Weekdays) AM/PM to AM/PM
(Weekends) AM/PM to AM/PM
DAYS OF WEEK WORK WILL OCCUR (CIRCLE EACH)
SUN MON TUE WED THURS FRI SAT
6) CONTRACTOR/CONSULTANT*6.6B
AR LICENSE # .ADDRESS
CITY STATE ZIP CODE
CONTACT PERSON: TELEPHONE

7) FACILITY OWNER *6.6B _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
CONTACT PERSON _____ TELEPHONE _____

8) NAME OF STRUCTURE(S)*6.6G _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
NUMBER OF FLOORS _____ DIMENSIONS _____ AGE _____
PRIOR USE _____ PRESENT USE _____

9) PROJECT DESIGNER - (NEEDED IF 3 SQ/3 LN RACM IS INVOLVED)*5.2, *5.3D & *6.6R
NAME _____ AR CERTIFICATION # _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
LICENSED FIRM _____ AR LICENSE # _____
(CERTIFIED, WORKING AS A FULL-TIME EMPLOYEE OF FACILITY OR LICENSED FIRM.)

10) INSPECTOR - (NEEDED FOR ALL FACILITY PROJECTS) *5.1, *6.3B & *6.6R
NAME _____ AR CERTIFICATION # _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
LICENSED FIRM _____ AR LICENSE # _____
DATE OF ASBESTOS SURVEY USED FOR RENO/DEMO PROJECT _____
AREA TO BE DISTURBED INCLUDED IN SURVEY? _____ YES _____ NO _____
(AS OF JAN. 15, 1998, SURVEYS ARE TO BE PREPARED BY AR CERTIFIED INSPECTOR WORKING AS FULL-TIME EMPLOYEE OF FACILITY OR FOR LICENSED FIRM.)

11) AIR MONITOR (NEEDED IF CONTAINMENT IS USED) *5.3, 6.6R & 9.7
NAME _____ AR CERTIFICATION # _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
LICENSED FIRM _____ AR LICENSE # _____
(CERTIFIED, WORKING AS FULL-TIME EMPLOYEE OF FACILITY OR LICENSED FIRM.)

12) (A) APPROXIMATE AMOUNT AND TYPE OF RACM TO BE REMOVED: *6.6F _____

(B) IF PROJECT IS DEMOLITION, LIST TYPE AND AMOUNT OF CATEGORY I AND CATEGORY II ACM BEING LEFT IN PLACE: *6.6F _____

(C) PROCEDURE, INCLUDING ANALYTICAL METHODS, EMPLOYED TO DETECT THE PRESENCE OF RACM AND CATEGORY I AND CATEGORY II NONFRIABLE ACM: *6.6E _____

13) DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK TO BE PERFORMED AND METHODS(S) TO BE EMPLOYED, INCLUDING DEMOLITION OR RENOVATION TECHNIQUES TO BE USED AND DESCRIPTION OF AFFECTED FACILITY COMPONENTS: *6.6J _____

14) DESCRIPTION OF WORK PRACTICES AND ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION OR RENOVATION SITE: *6.6K _____

15) DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED OR REDUCED TO A POWDER: *6.6P _____

16) If demolition ordered by a government agency, please identify the agency below: *6.2 & 6.6N
NAME OF INDIVIDUAL _____ TITLE _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
AUTHORITY _____
DATE OF ORDER _____ DATE ORDERED TO BEGIN _____
METHOD OF DEMOLITION _____

(COPY OF ORDER MUST BE ATTACHED)

17) FOR EMERGENCY RENOVATIONS *6.5 & 6.6O

DATE OF EMERGENCY _____ HOUR OF EMERGENCY _____

DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT _____

EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS OR WOULD CAUSE EQUIPMENT DAMAGE OR UNREASONABLE FINANCIAL BURDEN: _____

(18) WASTE TRANSPORTER *6.6Q

NAME OF TRANSPORTER _____

ADDRESS _____ CITY _____

STATE _____ ZIP CODE _____ TELEPHONE _____

19) WASTE DISPOSAL SITE *6.6L

NAME OF LANDFILL _____

ADDRESS _____ CITY _____

STATE _____ ZIP CODE _____ TELEPHONE _____

20) *If abatement is involved, I certify that at least one Contractor/supervisor trained in the provisions of Regulation 21 will be on site during the abatement process and will supervise the abatement. *6.6M*

I certify that the information contained in this Notice of Intent (NOI) is true and correct. I understand that falsification or omission of relevant information shall be grounds for enforcement action by the Department of Environmental Quality or Environmental Protection Agency.

SIGNATURE _____ DATE _____

(Signatures must be original signatures-no photocopies or rubber stamps.)

MAKE CHECKS PAYABLE TO: AR DEPARTMENT OF ENVIRONMENTAL QUALITY

**SEND TO: ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ)
ASBESTOS/LEAD SECTION
P O BOX 8913
LITTLE ROCK, AR 72219-8913**

APPENDIX B
Closeout Document Checklist

APPENDIX B

Closeout Document Checklist

-
- | | | | |
|---------------------------------|--|----------------------------------|--|
| <input type="checkbox"/> 13.2 | Contractor shall submit two (2) bound copies of their Project Manual containing the following information including all AHERA record keeping requirements response actions (40 CFR Part 763.94) to the Russellville office of EEG, Inc. within 14 days after receipt of "Owner's Release". | <input type="checkbox"/> 13.2.7 | Statement which is signed by the Owner that the project has received final acceptance from the Owner. |
| <input type="checkbox"/> 13.2.1 | Current insurance certificates and release from surety. | <input type="checkbox"/> 13.2.8 | Certify that all rental vehicles and equipment, if any, have been visually inspected and cleared by the Project Supervisor. |
| <input type="checkbox"/> 13.2.2 | Abatement contract with any change orders that may apply. | <input type="checkbox"/> 13.2.9 | Copies of all air monitoring data including area, personal and manometer charts. |
| <input type="checkbox"/> 13.2.3 | Current Asbestos Abatement License | <input type="checkbox"/> 13.2.10 | Employee information, certificates, physicals and respirator fit tests. |
| <input type="checkbox"/> 13.2.4 | Written notification to the Arkansas Department of Environmental Quality (ADEQ) is required for this project. The Contractor shall follow all current NESHAP requirements and provide the Consultant with a copy of any notices (see Appendix A). | <input type="checkbox"/> 13.2.11 | Daily Employee logs and supervisor reports with project schedule as accomplished. |
| <input type="checkbox"/> 13.2.5 | Guarantee of Work which shall read "We hereby guarantee all work performed by us on the (Name of Contract) project to be free from defective materials and workmanship for a period of one (1) year or such longer period of time as may be called for in the contract documents for such portions of the work". | <input type="checkbox"/> 13.2.12 | Contractor's Affidavit of Release of Liens (AIA Document G706 and G706A) and consent of Surety (AIA Document G707 or G707A). |
| <input type="checkbox"/> 13.2.6 | Copies of any correspondence with authorities and permits. | <input type="checkbox"/> 13.2.13 | Identification of any continuing Owner responsibilities required by applicable regulations. |
| | | <input type="checkbox"/> 13.2.14 | Waste disposal manifest. |

APPENDIX C
Visual Clearance and Clearance of Project Procedures

APPENDIX C

Procedures for Visual Inspection and Clearance of Project Sequence

- A. After an abatement area is clean of asbestos, the following final clearance sequence shall be performed. The Owner's Representative shall conduct a preliminary visual inspection upon request of the Contractor. Upon notification of the Owner's Representative, the Contractor shall perform "lockdown" procedures, and then remove the outer layer of plastic sheeting and perform wet-wiping and HEPA vacuuming of all surfaces. The Owner's Representative then shall perform a second-stage visual inspection. Upon notification from the Owner's Representative, all plastic sheeting (except critical barriers) shall be removed and final wet-wiping and HEPA vacuuming performed. The Owner's Representative shall then perform a final visual inspection. After successful completion of the final visual inspection, final air clearance monitoring shall be performed by the Owner's Representative, using aggressive sampling methods. A PCM level of less than .01 f/cc in the work area at Bryan Hall and a positive result of visual inspection shall be considered a clean area. After a successful "Final Inspection", the Contractor will remove all barriers.
- B. If non-compliance is found in any such test, repeated cleaning and sampling will be done until the abatement area is in compliance. The cost of all re-cleaning and repeating of Final Inspections shall be paid by the Contractor.
- C. After the Contractor has had a successful "Final Inspection", taken down barriers and removed all property, the Contractor shall conduct an additional wipe-down of the abatement area, to leave a dust-free area.

APPENDIX D
Contractor's Guidelines

APPENDIX D

Contractor's Guidelines

EEG, Inc. has been employed by the Owner to manage this project and protect their short and long-term interests. The following guidelines have been developed to assist you in understanding this relationship. EEG, Inc. representatives are by contract responsible for ensuring the work is carried out in the safest, most professional manner possible. In order to accomplish this, EEG, Inc. will work directly with you as the designated Owner's Representative. You in turn will be held responsible for the progress and action of all Contractor's and subcontractor's workers. By working through this structure, this project will go smoothly and safely for all interested parties.

1. You are responsible for the job you contract. Walk the job-site with an EEG, Inc. Project Manager and make sure you understand the project's scope of work. Read and become familiar with the project specifications. These specs will be used to answer most of your questions.
2. You are responsible for the supervision of the men you place on the project. Your crews, your crews' performance, the quality of your work, the quality of your crews' work and their conduct is your responsibility.
3. All aspects of this project will be handled on a professional basis.
4. Superintendent is responsible for keeping a project timeframe with an up-to-date bar chart report for review of the EEG, Inc. Project Manager on site.
5. Contractor's Superintendent will be on site at all times when work is taking place. The Superintendent will also be responsible for knowing what's going on in containment at all times.
6. All electrical equipment must have safety device intact and operational.
7. No unnecessary communication sessions on the job-site. No congregating on the job-site before or after the days work.
8. Contractor is to stay within their work area. No wandering around the project site.
9. Respirators and protective clothing will be worn properly. Anyone found not wearing their respirator properly will be dismissed from the project. Protective equipment shall be put on in the clean room of the decon and worn only inside containment.
10. Contractor employee's fighting on site will be automatically dismissed.
11. No smoking or dipping will be allowed on job-site. Smoking will be allowed in a designated outside area only.
12. Contractor will be responsible for keeping inside and outside work areas clean. Keep the job-site looking organized.
13. No alcoholic beverages or narcotics of any form shall be allowed on job-site. Any worker who shows signs of being under the influence of such drugs shall be removed from the job-site and may be permanently dismissed from the project.
14. Contractor's representatives shall not speak with outside parties (owner's representatives, media, building occupants, etc.) for any reason. All communications shall be performed by the EEG, Inc. Project Manager. The Project Superintendent shall instruct parties like EEGse.
15. Obscene language and actions shall not be used on the project site including T-shirts, caps, or other clothing with obscene print.

Environmental Enterprise Group, Inc. (EEG)
Project Manager

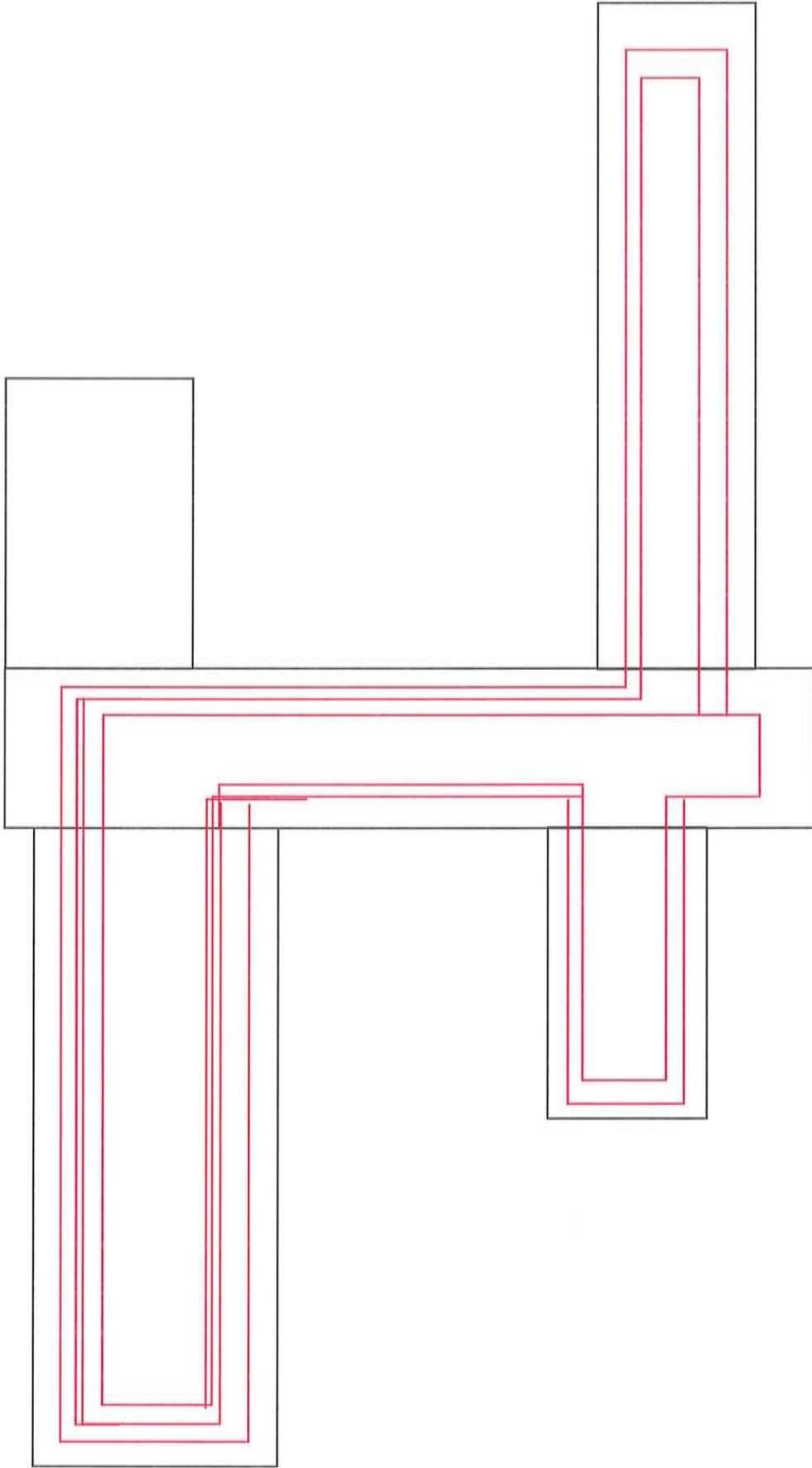
Date

Contractor's Superintendent

Date

APPENDIX E
Drawings

Bryan Hall Crawl Space



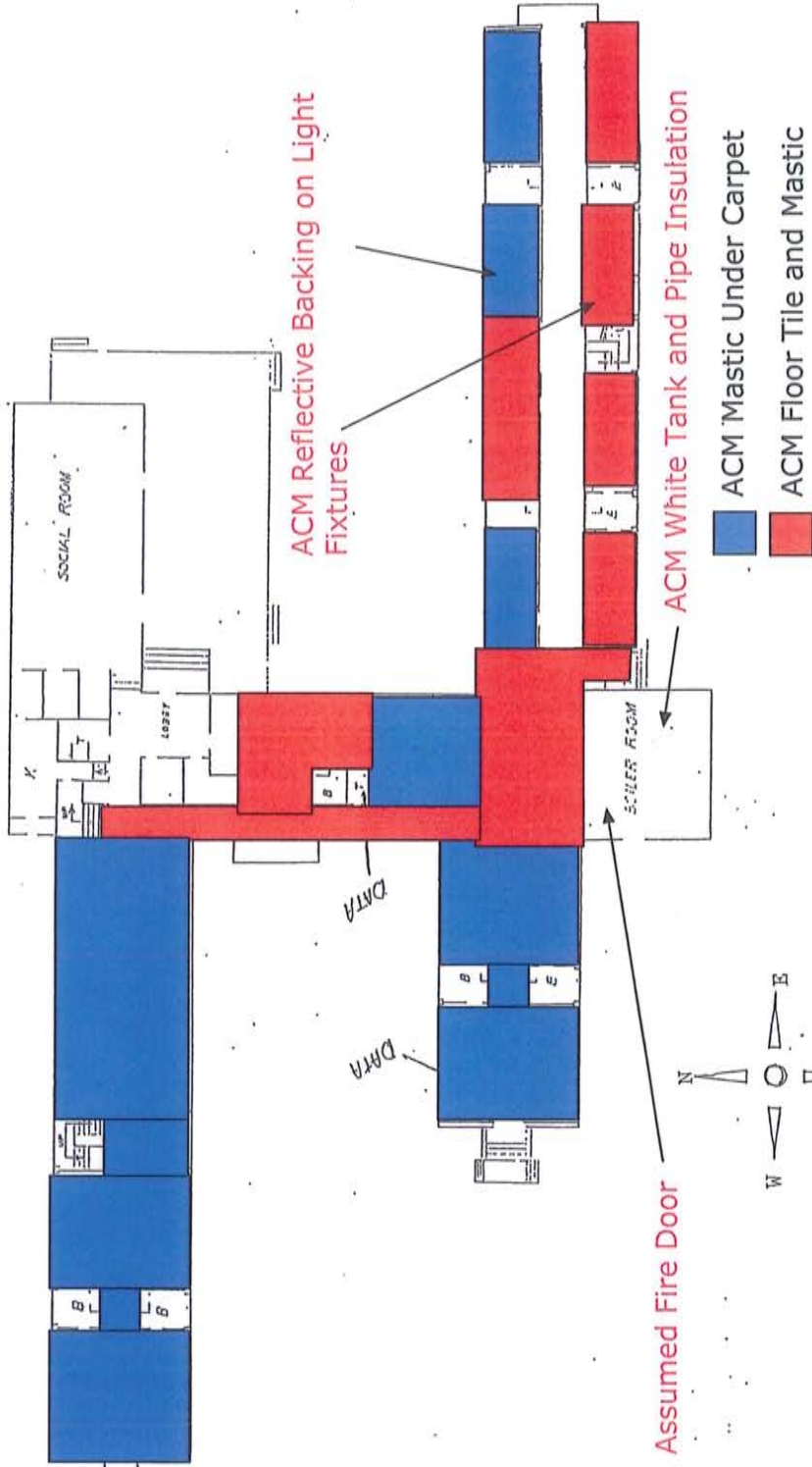
Note: ACM Pipe Insulation Exist in Crawl Space

Project #12-01111-202



Bryan Hall
Arkansas Tech University
Russellville, Arkansas

Bryan Hall First Floor



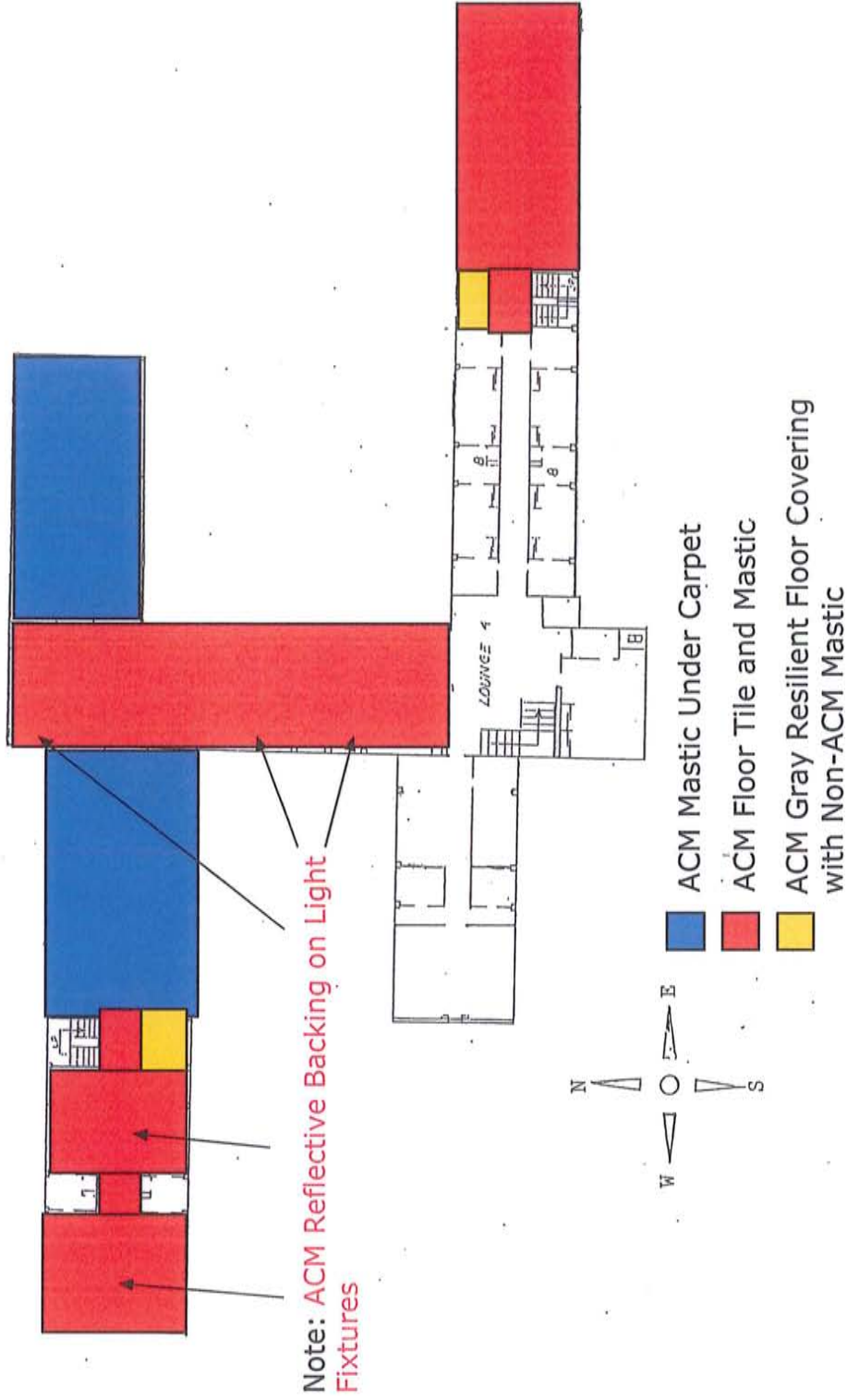
Note: ACM Window Glaze Exist on Exterior Windows
 ACM Pipe Insulation Exist in chases associated with bathrooms



Bryan Hall
 Arkansas Tech University
 Russellville, Arkansas

Project #12-0111-202

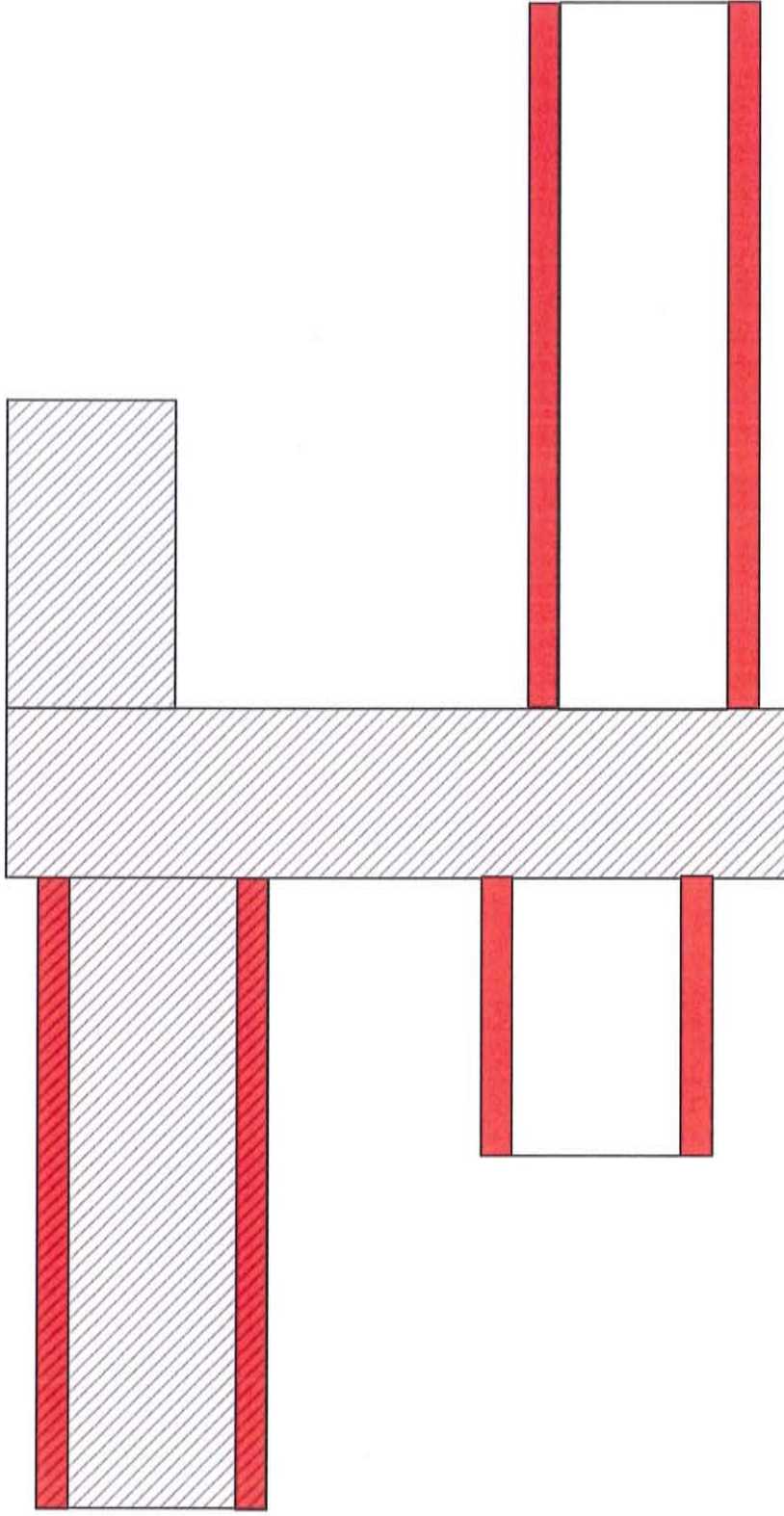
Bryan Hall Second Floor



Note: ACM Reflective Backing on Light Fixtures

Note: ACM Window Glaze Exist on Exterior Windows
ACM Pipe Insulation Exist in chases associated with bathrooms

Bryan Hall Roof



Assumed ACM Transite Panels



ACM Built-up Roof Felt



Project #12-0111-202



Bryan Hall
Arkansas Tech University
Russellville, Arkansas

APPENDIX F
Certifications



State of Arkansas
Department of
Environmental Quality



011927 ROBERT E. SMITH

having satisfied the requirements necessary to meet the provisions of AHERA/ASHARA under TSCA Title II and the Arkansas Pollution Control and Ecology Commission's Regulation 21 and is hereby certified in the State of Arkansas in the discipline(s) of Asbestos

Air Monitor 1/31/2014
Contractor/Supervisor 1/31/2014
Inspector 1/31/2014
Issue Date:01-Feb-2013

Management Planner 1/31/2014
Proj Des 1/31/2014

Jessie Markie
ADEQ Director



State of Arkansas
Department of
Environmental Quality



EEG, INC.

is a licensed

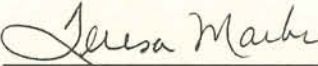
Asbestos Abatement Consultant

having qualified as required by law in accordance with the regulations adopted by the Arkansas Pollution Control and Ecology Commission's Regulation 21 pursuant to Arkansas Code Annotated §20-27-1001 et seq., relative to abatement of asbestos-containing material within the state of Arkansas.

License Number: 000234

Issue Date: 2013 January 17

Expire Date: 2014 January 17


ADEQ Director

APPENDIX G
Bid Form/Terms & Conditions/Non-Collusion Affidavit



Environmental Enterprise Group, Inc.

PROVIDING CUSTOMIZED SERVICES NATIONWIDE

BID FORM

BID DATE	BID TIME	LOCATION
Thursday, May 2, 2013	2:00 p.m.	Arkansas Tech University Purchasing Office Attn: Jessica Holloway 203 West "O" Street Russellville, Arkansas 72801

BID FROM: _____

BID TO: Arkansas Tech University Purchasing Office
Attn: Jessica Holloway
203 West "O" Street
Russellville, Arkansas 72801

PROJECT: Asbestos Abatement/Demolition/Site Work
◆ Arkansas Tech University - Bryan Hall ◆ Russellville, Arkansas

Gentlemen:

- Having carefully examined the premises and all conditions affecting the proposed project, the undersigned proposes to provide all labor, materials, services, and equipment necessary for, or incidental to, the execution of the project within the time set forth for the sum of:

ABATEMENT & HAZARDOUS MATERIALS REMEDIATION, DEMOLITION & SITE WORK

\$ _____

Dollar Amount Is To Be Shown Numerically and in Words

- Completion Date: Bidder agrees that the base bid will be substantially complete and ready for final payment in accordance with the forthcoming Contract Documents by the dates set forth in Section 2.2. The undersigned, in compliance with the Contract Documents for the execution of the above named project, does hereby declare:
 - That the undersigned understands that the owner reserves the right to reject any and all bids and to waive any formality.
 - That if awarded the Contract, the undersigned will enter into an Agreement, on AIA Form A101 or other acceptable substitute and execute required performance and payment bonds immediately upon receipt of the Intent to Award,

will commence work as specified, and will complete the Contract fully by the Completion Date indicated. Should the undersigned fail to fully begin and complete the work within the above stated time, he shall pay the owner, as fixed, agreed and liquidated damages and not as a penalty, the sum of Five Hundred Dollars (\$500.00) for each calendar day of delay until the work is begun, completed or accepted. The undersigned also agrees to pay EEG the sum of Seven Hundred and fifty dollars (\$750.00) as additional liquidated damages for each calendar of delay until the work is begun, completed or accepted. If the undersigned fails to execute the Contract or to deliver the required bonds to the owner within 5 days from receipt of the Intent to Award, these acts constitute a breach of the Contractor's duties.

- c. That this bid may not be withdrawn for a period of 30 days after the bid opening.
 - d. The undersigned understands it is the owner's intent to execute this contract within the limits established by the funds appropriated for the project.
3. The following documents are attached to and made a condition of this Bid.
- a. Bid security
 - b. Bid submittals (per Section 6.5.1.1 through 6.5.1.3)
 - b. Non-collusion affidavit
4. The undersigned acknowledges receipt of and inclusion as a part of the Contract Documents the following addenda:

NUMBER	DATE

Respectfully Submitted:

Name of Bidder (Typed or Printed)

Address

By: _____
Signature and Title

Contractor's License Number

Date of Bid

STANDARD TERMS AND CONDITIONS

1. **GENERAL:** Any special terms and conditions included in the Invitation for Bid override these standard terms and conditions. The standard terms and conditions and any special terms and conditions become part of any contract entered into if any or all parts of the bid are accepted by the owner.
2. **ACCEPTANCE AND REJECTIONS:** the owner reserves the right to accept or reject all or any part of a bid or any and all bids, to waive minor technicalities and to award the bid to best serve the interest of the owner.
3. **BID SUBMISSION:** Bids must be submitted on this form with attachments, when appropriate, on or before the date and time specified for bid opening. If this form is not used, the bid may be rejected. Each bid should be placed in a separate envelope completely and properly identified. The bid must be typed or printed. Late bids will not be considered under any circumstances. **SIGNATURE:** Failure to sign the bid will disqualify it. The person signing the bid should show title or authority to bind his firm in a contract.
4. **NO BID:** If submitting a bid, the bidder should respond by returning the front page of this form, marking it "NO BID" and explaining the reason on the bid. The bidder may be removed from the bidders' list by failure to respond three times in succession.
5. **PRICES:** Quote FOB destination. Bid the unit price. In case of errors in extension, unit prices shall govern. Prices are firm and not subject to escalation unless otherwise specified in the Invitation for Bid. Unless otherwise specified, the bid must be firm for acceptance for thirty days from the bid opening date. "Discounts from list" bids are not acceptable unless requested in the Invitation for Bid.
6. **BRAND NAME REFERENCES:** Any catalog brand name or manufacturer's reference used in the bid invitation is descriptive only, not restrictive, and used to indicate the type and quality desired. Bids on brands of like nature and quality will be considered. If bidding on other than referenced specifications, the bid must show the manufacturer, brand or trade name, and other descriptions, and should include the manufacturer's illustrations and complete descriptions of the product offered. EEG reserves the right to determine whether a substitute offered is equivalent to, and meets the standards of the item specified, and EEG may require the bidder to supply additional descriptive material. The bidder guarantees that the product offered will meet or exceed specifications identified in this bid invitation. If the bidder takes no exception to the specifications or reference data, he will be required to furnish the product according to brand names, numbers, etc., as specified in the invitation.
7. **GUARANTY:** All items bid shall be newly manufactured, in first class condition, latest model and design, including, where applicable, containers suitable for shipment and storage, unless otherwise indicated in the bid invitation. The bidder hereby guarantees that everything furnished hereunder are to be installed by the bidder, such items will function properly when installed. The bidder also guarantees that all applicable laws have been complied with relating to construction, packaging, labeling and registration. The bidder's obligations under this paragraph shall survive for a period of one year from the date of delivery, unless specified herein.
8. **SAMPLES:** Samples, or demonstrators, when requested, must be furnished free from expense to the owner. If samples are not destroyed during reasonable examination, they will be returned to the bidder, if requested, within ten days following the opening of bids, at the bidder's expense. All demonstrators will be returned after reasonable examination. Each sample should be marked with the bidder's name and address, bid number and item number.
9. **TESTING PROCEDURES FOR SPECIFICATIONS COMPLIANCE:** Tests may be performed on samples demonstrators submitted with the bid or on samples taken from regular shipment. In the event product tests fail to meet or exceed all conditions and requirements of the specification, the cost of the sample used and the reasonable cost of the testing shall be borne by the bidder.
10. **AMENDMENTS:** The bid cannot be altered or amended after the bid opening except as permitted by regulation.
11. **TAXES AND TRADE DISCOUNTS:** Not used.
12. **TYPE OF CONTRACTS:** (A) TERM contracts are for "requirements" during a definite period of time as stated but quantities shown are estimated and may vary. A Contract Award will be issued to the successful bidder. It results in a binding obligation without further action by either party. This award does not authorize shipment. Shipment against a term contract is authorized by the receipt of a "Delivery Order" from the ordering Department. (B) FIRM contracts are for a fixed number of units to be delivered immediately upon receipt of award or at such time(s) and in such quantities as may have been stated in proposal. A written owner provided Purchase Order mailed, or otherwise furnished, to the successful bidder with the time of acceptance specified in the Invitation for Bid results in a binding contract without further action by either party.
13. **DELIVERY TIME:** Bid must show number of days required to place commodity in designated location under normal conditions. Failure to state delivery time obligates bidder to complete delivery in thirty calendar days. Unrealistically short or long delivery promises may cause bid to be disregarded. Consistent failure to meet delivery promises without valid reason may cause removal from bid list. If delay is foreseen, contractor shall give written notice to EEG Purchasing Official. The EEG Purchasing Official has the right to extend delivery if reasons appear valid.
14. **DELIVERY REQUIREMENTS:** No substitutions or cancellations are permitted without written approval of the owner. Delivery shall be made during normal business hours unless prior approval for other delivery has been obtained from EEG. Packing memoranda shall be enclosed with each shipment. Final inspection and acceptance or rejection will be made after delivery. Items rejected because of nonconformance or damage shall be removed and replaced immediately with those, which meet specifications, all at the expense of the contractor.

15. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance of the owner after delivery. Backorders, default in promised delivery, or failure to meet specifications, authorize the owner to cancel this contract or any portion of it and reasonably purchase commodities elsewhere and charge full increase, if any, in cost and handling to the defaulting contractor. The contractor must give written notice to the owner of the reason and the expected delivery date. Consistent failure to meet delivery without a valid reason may cause removal from the bidders' list or suspension of eligibility for award.
16. **VARIATION IN QUANTITY:** the owner assumes no liability for commodities produced, processed or shipped in excess of the amount specified herein.
17. **EEG PROPERTY:** Any specifications, drawings, technical information, dies, cuts, negatives, positives, data or any other commodity furnished to the contractor hereunder or in contemplation hereof or developed by the contractor for use hereunder shall remain property of EEG, be kept confidential, be used only as expressly authorized, and returned at the contractor's expense to the FOB point, properly identifying what is being returned.
18. **PATENTS OR COPYRIGHTS:** The contractor agrees to indemnify and hold the owner and EEG harmless from all claims, damages, and costs, including attorneys' fees, arising from infringement of patents or copyrights.
19. **ASSIGNMENT:** Any contract entered into pursuant to this Invitation for Bid cannot be assigned nor the duties thereunder delegatable by either party without the written consent of the other party of the contract.
20. **OTHER REMEDIES:** In addition to the remedies outlined herein, the owner has the right to pursue any other remedy permitted by law or in equity.
21. **LACK OF FUNDS:** the owner may cancel this contract to the extent funds are no longer legally available for expenditures under this contract. Any delivered but unpaid for goods will be returned in normal condition to the contractor by the owner. If the owner is unable to return commodities in normal condition and there are no funds legally available to pay for the goods, the contractor may file a claim with the Arkansas Claims Commission. If the contractor has provided services and there are no longer funds legally available to pay for the services the contractor may file a claim.
22. **DISCRIMINATION:** In order to comply with the provisions of ACT 954 of 1977, relating to unfair employment practices, the bidder agrees as follows: (a) the bidder will not discriminate against any employee or applicant for employment because of race, sex, color, age, religion, handicap or national origin; (b) in all solicitations or advertisements for employees, the bidder will state that all qualified applicants will receive consideration requested by the Human Resources Commission for the purpose of determining compliance with the statute; (d) failure of the bidder to comply with the statute, the rules and regulations promulgated thereunder and this nondiscrimination clause shall be deemed a breach of contract and it may be canceled, terminated or suspended in whole or in part; (e) the bidder will include the provisions of items (a) through (d) in every subcontract so that such provisions will be binding upon such subcontractor or vendor.
23. **CONTINGENT FEE:** The bidder guarantees that he has not retained a person to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the bidder for the purpose of securing business.
24. **ANTITRUST ASSIGNMENT:** As part of the consideration for entering into any contract pursuant to this Invitation for Bid, the firm named on the front of this Invitation for Bid, acting herein by the authorized individual, its duly authorized agent, hereby assigns, sells and transfers to the State of Arkansas all rights, title and interest in and to all causes of action it may have under the antitrust laws of the United States or this state for price fixing, which causes of action have accrued prior to the date of this assignment and which relate solely to the particular goods or services purchased or produced by this state pursuant to this contract.
25. **INTEREST AND CARRYING CHARGES:** A contract may be entered into which contemplates the payment of interest, late charges, *but only when such late charges are incurred sixty (60) days after payment is due.*
26. **DISCLOSURE REQUIRED BY EXECUTIVE ORDER 98-04:** Not Used.
27. **MEDICARE EXCLUSION NOTICE:** Not used.
28. All invoices received in the EEG Accounts Payable Department containing insufficient information for processing shall be immediately returned to the Vendor.

NON-COLLUSION ASSURANCE AFFIDAVIT

I, _____, hereby state:

1. I am the duly authorized agent of _____, the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among and between bidders and state officials, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the awarding of any contract pursuant to the bid to which this statement is attached.
2. I am fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and have been personally and directly involved in the proceedings leading to the submission of the bid.
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:
 - a. To any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding;
 - b. To any collusion with any state official or employee as to quantity, quality, or price in the prospective contract, or as to any other terms of the prospective contract; or
 - c. In any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the awarding of a contract.
4. I hereby guarantee that the specifications outlined in the bid shall be followed as specified and that deviations from the specifications shall occur only as part of a formal change process.

Signature

Subscribed and sworn to before me this ____ day of _____, 20__.

Notary Public

APPENDIX H
AIA Documents



AIA[®] Document A101[™] – 1997

Standard Form of Agreement Between Owner and Contractor *where the basis of payment is a STIPULATED SUM*

AGREEMENT made as of the _____ day of _____ in the year of _____
(In words, indicate day, month and year)

BETWEEN the Owner:
(Name, address and other information)

and the Contractor:
(Name, address and other information)

The Project is:
(Name and location)

The Architect is:
(Name, address and other information)

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201-1997, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

This document has been approved and endorsed by The Associated General Contractors of America.

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.

(Insert the date of commencement if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)

If, prior to the commencement of the Work, the Owner requires time to file mortgages, mechanic’s liens and other security interests, the Owner’s time requirement shall be as follows:

§ 3.2 The Contract Time shall be measured from the date of commencement.

§ 3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than days from the date of commencement, or as follows:

(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. Unless stated elsewhere in the Contract Documents, insert any requirements for earlier Substantial Completion of certain portions of the Work.)

Portion of Work

Substantial Completion Date

, subject to adjustments of this Contract Time as provided in the Contract Documents.

(Insert provisions, if any, for liquidated damages relating to failure to complete on time or for bonus payments for early completion of the Work.)

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor’s performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

(State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires)

§ 4.3 Unit prices, if any, are as follows:

Description	Units	Price (\$ 0.00)
-------------	-------	-----------------

ARTICLE 5 PAYMENTS

§ 5.1 PROGRESS PAYMENTS

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment to the Contractor not later than the day of the same month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of (). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.8 of AIA Document A201-1997;
- .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of ();
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-1997.

§ 5.1.7 The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and

(Section 9.8.5 of AIA Document A201-1997 requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.)

- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201-1997.

§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 FINAL PAYMENT

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201-1997, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

ARTICLE 6 TERMINATION OR SUSPENSION

§ 6.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201-1997.

§ 6.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201-1997.

ARTICLE 7 MISCELLANEOUS PROVISIONS

§ 7.1 Where reference is made in this Agreement to a provision of AIA Document A201-1997 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 7.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

() per annum

(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Contractor's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Legal advice should be obtained with respect to deletions or modifications, and also regarding requirements such as written disclosures or waivers.)

§ 7.3 The Owner's representative is:
(Name, address and other information)

§ 7.4 The Contractor's representative is:
(Name, address and other information)

§ 7.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

§ 7.6 Other provisions:

ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

§ 8.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

§ 8.1.1 The Agreement is this executed 1997 edition of the Standard Form of Agreement Between Owner and Contractor, AIA Document A101-1997.

§ 8.1.2 The General Conditions are the 1997 edition of the General Conditions of the Contract for Construction, AIA Document A201-1997.

§ 8.1.3 The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated , and are as follows

Document	Title	Pages
----------	-------	-------

§ 8.1.4 The Specifications are those contained in the Project Manual dated as in Section 8.1.3, and are as follows:
(Either list the Specifications here or refer to an exhibit attached to this Agreement.)

Title of Specifications exhibit:

(Rows deleted)

§ 8.1.5 The Drawings are as follows, and are dated unless a different date is shown below:
(Either list the Drawings here or refer to an exhibit attached to this Agreement.)

Title of Drawings exhibit:

(Rows deleted)

§ 8.1.6 The Addenda, if any, are as follows:

Number	Date	Pages
--------	------	-------

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

§ 8.1.7 Other documents, if any, forming part of the Contract Documents are as follows:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201-1997 provides that bidding requirements such as advertisement or invitation to bid, Instructions to Bidders, sample

forms and the Contractor's bid are not part of the Contract Documents unless enumerated in this Agreement. They should be listed here only if intended to be part of the Contract Documents.)

This Agreement is entered into as of the day and year first written above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the Architect for use in the administration of the Contract, and the remainder to the Owner.

OWNER *(Signature)*

CONTRACTOR *(Signature)*

(Printed name and title)

(Printed name and title)

Additions and Deletions Report for AIA[®] Document A101[™] – 1997

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 09:39:51 on 02/22/2007.

PAGE 1

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PAGE 2

ARTICLE 1 THE CONTRACT DOCUMENTS

PAGE 3

...

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment to the Contractor not later than the day of the same month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

PAGE 4

() per annum

PAGE 5

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...

Title of Specifications exhibit:

Section	Title	Pages
---------	-------	-------

...

Title of Drawings exhibit:

Number	Title	Date
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PAGE 6

...

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, Lisa Carter, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 09:39:51 on 02/22/2007 under Order No. 1000264198_1 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A101™ – 1997 - Standard Form of Agreement Between Owner and Contractor where the basis of payment is a STIPULATED SUM, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

Application and Certificate for Payment

TO OWNER: PROJECT: APPLICATION NO: Distribution to: OWNER:
 FROM: VIA ARCHITECT: PERIOD TO: ARCHITECT:
 CONTRACTOR: ARCHITECT: CONTRACT FOR: CONTRACTOR:
 CONTRACTOR: PROJECT NOS: / / CONTRACT DATE: FIELD:
 OTHER:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM \$ 0.00
2. Net change by Change Orders \$ 0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2) \$ 0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$ 0.00
5. RETAINAGE:
 - a. 0 % of Completed Work (Column D + E on G703) \$ 0.00
 - b. 0 % of Stored Material (Column F on G703) \$ 0.00

Total Retainage (Lines 5a + 5b or Total in Column I of G703) \$ 0.00

6. TOTAL EARNED LESS RETAINAGE \$ 0.00
 (Line 4 Less Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT \$ 0.00
 (Line 6 from prior Certificate)

8. CURRENT PAYMENT DUE \$ 0.00

9. BALANCE TO FINISH, INCLUDING RETAINAGE
 (Line 3 less Line 6) \$ 0.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$ 0.00	\$ 0.00
Total approved this Month	\$ 0.00	\$ 0.00
TOTALS	\$ 0.00	\$ 0.00
NET CHANGES by Change Order	\$ 0.00	\$ 0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: _____ Date: _____
 By: _____ State of: _____
 County of: _____
 Subscribed and sworn to before me this _____ day of _____

Notary Public: _____
 My Commission expires: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$ 0.00
 (Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT: _____ Date: _____
 By: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract

AIA[®] Document G703[™] - 1992

Continuation Sheet

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

In tabulations below, amounts are stated to the nearest dollar.

Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO: 001

APPLICATION DATE:

PERIOD TO:

ARCHITECT'S PROJECT NO:

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		E WORK COMPLETED THIS PERIOD	F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED AND STORED TO DATE (D+E+F)	H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE RATE)
			FROM PREVIOUS APPLICATION (D + E)						
		\$ 0.00	\$ 0.00		\$ 0.00	\$ 0.00	0.00 %	\$ 0.00	\$ 0.00
	GRAND TOTAL	\$ 0.00	\$ 0.00		\$ 0.00	\$ 0.00	0.00 %	\$ 0.00	\$ 0.00



AIA[®] Document G706[™] – 1994

Contractor's Affidavit of Payment of Debts and Claims

PROJECT: <i>(Name and address)</i>	ARCHITECT'S PROJECT NUMBER:	OWNER: <input type="checkbox"/>
		ARCHITECT: <input type="checkbox"/>
TO OWNER: <i>(Name and address)</i>	CONTRACT FOR:	CONTRACTOR: <input type="checkbox"/>
	CONTRACT DATED:	SURETY: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

STATE OF:
COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

- Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment Yes No

The following supporting documents should be attached hereto if required by the Owner:

- Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
- Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
- Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: *(Name and address)*

BY: _____
(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

 **AIA**® Document G706A™ – 1994

Contractor's Affidavit of Release of Liens

PROJECT: <i>(Name and address)</i>	ARCHITECT'S PROJECT NUMBER:	OWNER: <input type="checkbox"/>
		ARCHITECT: <input type="checkbox"/>
TO OWNER: <i>(Name and address)</i>	CONTRACT FOR:	CONTRACTOR: <input type="checkbox"/>
	CONTRACT DATED:	SURETY: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

STATE OF:
COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

BY: _____
(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:



AIA® Document G707™ – 1994

Consent Of Surety to Final Payment

PROJECT: <i>(Name and address)</i>	ARCHITECT'S PROJECT NUMBER:	OWNER: <input type="checkbox"/>
	CONTRACT FOR:	ARCHITECT: <input type="checkbox"/>
TO OWNER: <i>(Name and address)</i>	CONTRACT DATED:	CONTRACTOR: <input type="checkbox"/>
		SURETY: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(Insert name and address of Surety)

on bond of
(Insert name and address of Contractor)

, SURETY,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the
 Surety of any of its obligations to
(Insert name and address of Owner)

, CONTRACTOR,

as set forth in said Surety's bond.

, OWNER,

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:
(Insert in writing the month followed by the numeric date and year.)

(Surety)

(Signature of authorized representative)

Attest:
 (Seal):

(Printed name and title)



AIA[®] Document G707A[™] – 1994

Consent of Surety to Reduction in or Partial Release of Retainage

PROJECT: <i>(Name and address)</i>	ARCHITECT'S PROJECT NUMBER:	OWNER: <input type="checkbox"/>
	CONTRACT FOR:	ARCHITECT: <input type="checkbox"/>
TO OWNER: <i>(Name and address)</i>	CONTRACT DATED:	CONTRACTOR: <input type="checkbox"/>
		SURETY: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(Insert name and address of Surety)

on bond of
(Insert name and address of Contractor)

, SURETY,

hereby approves the reduction in or partial release of retainage to the Contractor as follows:

, CONTRACTOR,

The Surety agrees that such reduction in or partial release of retainage to the Contractor shall not relieve the Surety of any of its obligations to
(Insert name and address of Owner)

as set forth in said Surety's bond.

, OWNER,

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:
(Insert in writing the month followed by the numeric date and year.)

(Surety)

(Signature of authorized representative)

Attest:
(Seal):

(Printed name and title)

APPENDIX I
Division 2 – Site Work

DIVISION 2 - SITE WORK

02060 - Building Demolition

02100 - Site Preparation

02210 - Site Grading

02220 - Excavation & Backfill

SECTION 02060 - BUILDING DEMOLITION

PART 1: GENERAL

1.1 SECTION INCLUDES

- A. Demolition of designated structures, portions of structures and removal of materials from site
- B. Demolition and removal of foundations and slabs-on-grade
- C. Disconnecting, removal and capping of identified utilities
- D. Removal of underground piping and conduit
- E. Other items as indicated

1.2 RELATED SECTIONS

- A. Section 2100 - Site Preparation: Clearing outside periphery of structures
- B. Section 02220 - Excavation and Backfill: Backfill materials

1.3 PROJECT RECORD DOCUMENTS

- A. Accurately record actual locations of capped utilities, subsurface obstructions and other items altered from drawings

1.4 QUALIFICATIONS

- A. Demolition Firm: Company specializing in performing the work of this section

1.5 REGULATORY REQUIREMENTS

- A. Conform to applicable code for demolition of structures, safety of adjacent structures, dust control, runoff control and disposal
- B. Obtain required permits from authorities
- C. Notify affected utility companies before starting work and comply with their requirements
- D. Contractor will be responsible for contacting local fire department and building official to coordinate and provide temporary egress and exits from existing areas adjacent to new construction. If required, provide temporary protected walkways during construction to protect occupants or public from injury.
- E. Do not close or obstruct roadways, sidewalks and existing occupied building fire exits unless otherwise approved by local fire department, code official and coordinated with owner. Keep debris clear from fire hydrants a minimum radius of 15 feet.
- F. Conform to applicable regulatory procedures when discovering hazardous or contaminated materials.
- G. The contractor shall obtain evidence in writing from the owner prior to any work commencing that no asbestos-containing material exists in the area(s) where demolition or construction is to be performed. A copy of the owner's asbestos survey must be available onsite during any renovation or demolition activity.
- H. Contractor shall submit Notice of Intent for demolition of existing building to Arkansas Department of Environmental Quality, Asbestos/Lead Section, 5301 Northshore Drive, North Little Rock, AR 72118-0744, no later than ten (10) working days prior to start of demolition.
- I. If clean concrete demolition debris is to be utilized as fill somewhere, the contractor shall provide written evidence signed by the property owner that they accept the debris.

1.6 SCHEDULING

- A. Describe demolition removal procedures and schedule.

PART 2: PRODUCTS

2.1 FILL MATERIALS

- A. Fill Material: Type fill as specified in Section 02220

PART 3: EXECUTION

3.1 PREPARATION

- A. Provide, erect and maintain temporary barriers and security devices as required and at locations indicated for protection of all personnel during demolition and removal operations. Barriers around exposed excavations shall be maintained until such excavations have been completely filled.
- B. Protect existing landscaping materials, appurtenances and structures that are not to be demolished.
- C. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.
- D. Mark location of utilities.

3.2 DEMOLITION REQUIREMENTS

- A. After date of Notice to Proceed, contractor is to assume responsibility for structures and items to be demolished and removed until such work is completed to the satisfaction of the owner's representative. After work is started on any building or structure, work shall continue without interruption until complete.
- B. Conduct demolition to minimize interference with adjacent structures.
- C. Cease operations immediately if adjacent structures appear to be in danger. Notify architect/engineer. Do not resume operations until directed.
- D. Conduct operations with minimum interference to public or private accesses. Maintain protected egress and access at all times.
- E. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon or limit access to their property.
- F. Sprinkle work with water to minimize dust. Provide hoses and water connections for this purpose. The contractor is to maintain compliance the NESHAP during demolition.
- G. Provide enclosed debris chutes with control gates from each floor to carry debris to level of truck beds and govern flow of material into truck. Provide overhead bridges of tight board or prefabricated metal construction at debris chutes to protect persons and property from falling debris.
- H. Wherever a cutting torch or other equipment that may cause a fire is used, provide and maintain fire extinguishers nearby ready for immediate use. All possible users shall be instructed in use of the extinguishers.
- I. Any damage done to existing buildings to remain as a result of demolition is to be repaired to original condition and approved by the architect.

3.3 DEMOLITION

- A. Disconnect, remove and cap designated utilities within demolition areas.
- B. Remove foundation walls and footings within area of new construction and where called for on drawings.
- C. Remove concrete slabs on grade.
- D. Backfill areas excavated and open pits and holes caused as a result of demolition in accordance with Section 02220.
- E. Rough grade and compact areas affected by demolition to maintain site grades and contours.
- F. Unless otherwise indicated, demolished materials shall become the property of the contractor. Remove demolished materials from the site.
- G. Do not burn or bury materials onsite. Leave the site in clean condition.
- H. Remove temporary work.

3.4 SCHEDULES

- A. Refer to the specifications for items called for to be demolished.

END OF SECTION

SECTION 02100 - SITE PREPARATION

PART 1: GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Removal of miscellaneous existing site appurtenances
 - 2. Protection and/or removal of trees and other vegetation
 - 3. Topsoil stripping
 - 4. Clearing, grubbing and mowing

1.2 RELATED REQUIREMENTS

Construction Drawings

1.3 PROTECTION

- A. Provide protection necessary to prevent damage to existing improvements, trees or vegetation, light poles, power poles, fire hydrants, etc. indicated on the contract documents to remain.
- B. Protect improvements on adjoining properties and on owner's property.
- C. Restore damaged improvements to original condition as acceptable to parties having jurisdiction.
- D. Conduct site clearing operations to ensure minimum interference with roads, streets, walks and other adjacent occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction. Streets and roadways shall be thoroughly cleaned and/or swept on a daily basis or more frequently as required by the governing authority.
- E. Unknown Utility Lines: All known utilities have been shown according to the information available. The contractor is responsible for coordinating with local utility companies (Arkansas One Call, 811) and the owner to locate and confirm all buried utilities in the construction area. The contractor is to notify the architect immediately if unknown lines, pipes or other underground objects are encountered. The contractor shall record exact locations of all utility lines known and unknown on as-built drawings.
- F. Mow and remove weeds and small undergrowth vegetation in the construction area as defined on the drawings.

PART 2: PRODUCTS

2.1 PRODUCTS

Not Used

PART 3: EXECUTION

3.1 GENERAL PROCEDURE

- A. Unless otherwise indicated on the drawings, remove trees noted to be removed, shrubs, grass, other vegetation, improvements or obstructions as shown. Removal includes digging out stumps and roots. Dispose of offsite. Do not remove items elsewhere onsite or premises unless specifically indicated. Notify the architect prior to clearing if any item called for as "removed by owner" remains upon issuance of Notice to Proceed.
- B. Completely remove stumps, roots and other debris below proposed sub-grade elevation. Fill depressions caused by clearing and grubbing operations with satisfactory soil materials as per requirements of Section 02220, unless further excavation or earthwork is required.
- C. Remove existing above-grade and below-grade improvements and abandoned underground piping or conduit necessary to permit construction and other work.
- D. Retain boxing and protection for items to remain in construction until finish grade is completed. Repair any damage that occurs to these items without expense to the owner.

END OF SECTION

SECTION 02210 - SITE GRADING

PART 1: GENERAL

1.1 RELATED SECTIONS

- A. Section 02220, Excavation and Backfill

PART 2: PRODUCTS

2.1 PRODUCTS

Not Used

PART 3: EXECUTION

3.1 GENERAL

- A. Do all cutting, filling, compacting and rough grading required to bring entire project area within the limits of construction shown to existing grades.
- B. Grades should be consistent with finish grades existing.
- C. Control grading operations to prevent water from running into excavated areas during construction.

3.2 ENVIRONMENTAL REQUIREMENTS

- A. Construct temporary erosion control systems as shown on construction drawings or as directed by contractor provided "Storm Water Pollution Prevention Plan" (SWPPP) to protect adjacent properties and water resources from erosion and sedimentation.
- B. In the event that the site work on this project will disturb five (5) or more acres, the contractor shall not begin construction without posting onsite the "National Pollution Discharge Elimination System" (NPDES) permit governing discharge of storm water from the site for the entire construction period. NPDES permit requires SWPPP to be in place during construction.
- C. The contractor shall be totally responsible for conducting storm water management practices in accordance with NPDES permit and for enforcement action taken or imposed by federal or state agencies, including cost of fines, construction delays and remedial actions resulting from the contractor's failure to comply with provisions of the NPDES permit.
- D. All grading operations are operations that are to be in strict compliance with the provisions of the Arkansas Water and Air Pollution Control Act, Act 472 of 1949 as amended, AR Ann. 8-4-101 et. seq. The contractor shall be responsible for submitting application to the state authority and obtaining permits.
- E. It shall be the contractor's responsibility to comply with current OSHA and other local, state and federal requirements for all excavation and fill operations and other areas of the work.

END OF SECTION

SECTION 02220 - EXCAVATION AND BACKFILL

PART 1: GENERAL

1.1 SOILS VERIFICATION

- A. The contractor shall be responsible for having a registered soils engineer present onsite to examine and conduct tests of soils preparation, including filling and grading. The soils engineer shall inspect excavations for foundations and footings, perform bearing testing and will submit a report to the general contractor with a copy of the architect stating conditions observed meet or exceed the limits found in the specifications and are consistent with acceptable construction practices. The contractor shall be responsible for any costs for meeting these requirements. The contractor shall coordinate inspections, testing and observations with the soils engineer.

PART 2: PRODUCTS

- 2.1 PRODUCTS
Not Used

PART 3: EXECUTION

3.1 FILL MATERIAL AND GRADING

- A. Place fill in layers not exceeding 8" in loose thickness, thoroughly compacting with a powered tamp. Moisture content of fill material is to be controlled to between 2% below and 3% above the optimum as determined by ASTM D-698. The fill material is to be compacted to a minimum of 95% of the maximum Standard Proctor dry density, ASTM Specification D-698.
- B. All imported engineered fill is to consist of approved, low-to-moderate plasticity silty clay material that is free from organic matter and debris. Engineered fill shall have liquid limits less than 40 and a plasticity index of at least 16 and less than 26. Locally available clayey gravel (hillside) materials should be used but should be approved prior to their use. No rock greater than 6" shall be allowed in the fill material. The contractor shall submit test results of fill material from the borrow pit proposed for use to the architect for approval prior to procurement.
- C. Haul away and dispose of any surface rubble and debris.

3.2 TEST REQUIRED

- A. The contractor shall coordinate compaction tests on the new fill areas from a recognized testing laboratory, approved by the Project Manager, at the following intervals. The contractor is to pay for compaction testing. The location of each test shall be noted on the report.
 - 1. Minimum of three tests per each layer of fill placed, one per each 2,500 square feet of demolished building area

- B. If any test results fall below the required minimum, the testing company is required to contact the contractor and architect immediately.

END OF SECTION