



**NEW MEXICO PUBLIC SCHOOL FACILITIES AUTHORITY**  
1312 Basehart SE # 200, Albuquerque, NM 87106 • (505) 843-6272 • <https://www.nmpsfa.org/>

**HAZARDOUS MATERIALS ABATEMENT SERVICES CONTRACT # PA2024-03**

THIS AGREEMENT is made and entered into by and between the State of New Mexico, Public School Facilities Authority, hereinafter referred to as the “PSFA,” and Advanced Environmental Solutions, Inc., hereinafter referred to as the “Contractor,” and is effective as of the date set forth below.

WHEREAS, the PSFA issued a Request for Proposals, titled “Hazardous Materials Abatement Services” (RFP);

WHEREAS, the RFP, Addenda and the Proposal submitted by Contractor are incorporated by reference and made a part of this Agreement by way of reference;

WHEREAS, the Contractor has the experience, technical ability and is fully licensed to provide hazardous materials abatement services in conformity with the laws of the State of New Mexico;

WHEREAS, this Agreement shall be utilized by the PSFA and school districts collectively, on an as-needed-basis, when the PSFA and school districts are Co-Owners of a Public School Capital Outlay Council (PSCOC) funded project, or by the PSFA or school districts acting on their own; and

NOW, THEREFORE, THE FOLLOWING TERMS AND CONDITIONS ARE MUTUALLY AGREED BETWEEN THE PARTIES:

**1. Scope of Work.**

- A. For each Project, the Contractor shall provide and perform all necessary, required, services specified in the Contractor’s accepted and approved Quote in conformance with the services listed at Exhibit A of this Agreement.
- B. Contractor shall submit a proposal for each Project on the established Quote Form hereto attached as Appendix No. 1.
- C. A purchase order will be assigned for each Project.

**2. Compensation.**

- A. The Contractor shall be compensated in full payment for services satisfactorily performed for completion of set deliverables as set forth in the accepted and approved Quote in conformance with the rates established at Exhibit B.

- B. Payment shall be made upon acceptance of each deliverable and upon the receipt and acceptance of a detailed, certified Payment Invoice.
- C. Payment will be made to the Contractor's designated mailing address. In accordance with Section 13-1-158 NMSA 1978, payment shall be tendered to the Contractor within thirty (30) days of the date of written certification of acceptance.
- D. The Contractor shall be reimbursed for applicable New Mexico gross receipts taxes, excluding interest or penalties assessed on the Contractor by any authority. The payment of taxes for any money received under this Agreement shall be the Contractor's sole responsibility and should be reported under the Contractor's Federal and State tax identification Number. Contractor and all subcontractors shall pay all Federal, state and local taxes Applicable to its operation and any persons employed by the Contractor. Contractor shall require all subcontractors to hold OWNER AND CO-OWNER harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under Federal and/or state and local laws and regulations and any other costs, including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker's Compensation.
- E. The Contractor shall be reimbursed for allowed travel expenses herein defined in Appendix No.1. Itemized receipts are required as expense documentation for all reimbursements. If an itemized receipt is not submitted as the expense documentation, reimbursement for that purchase will not be given. Lump sum receipts will not be accepted. Allowed billable travel expenses shall not exceed the State of New Mexico's current allowable travel and per diem limits; NMAC 2.42.2.8.A-B.
- F. The parties do not intend for the Contractor to continue to provide services without compensation when the total compensation amount is reached in the approved and accepted quote. Contractor is responsible for notifying the PSFA when the services provided under the quote reach the total compensation amount. In no event will the Contractor be paid for services provided in excess of the total compensation amount without an amendment to the quote.

3. **Term.**

This Agreement shall become effective when signed by the PSFA and shall terminate on August 13, 2027 unless terminated pursuant by the Termination and Appropriations provisions of this Agreement. The PSFA reserves the right to renew the Agreement through a written amendment signed by all required signatories, but in this case, the Agreement shall not exceed the total number of years allowed pursuant to Section 13-1-50 NMSA 1978.

4. **Termination.**

- A. Grounds. The PSFA may terminate this Agreement for convenience or cause. The Contractor may only terminate this Agreement based upon the PSFA's uncured, material breach of this Agreement.

B. Notice: PSFA Opportunity to Cure.

- 1) Except as otherwise provided in Paragraph (4)(B)(3), the PSFA shall give Contractor written notice of termination at least thirty (30) days prior to the intended date of termination.
- 2) Contractor shall give PSFA written notice of termination at least thirty (30) days prior to the intended date of termination, which notice shall (i) identify all the PSFA's material breaches of this Agreement upon which the termination is based and (ii) state what the PSFA must do to cure such material breaches. Contractor's notice of termination shall only be effective (i) if the PSFA does not cure all material breaches within the thirty (30) day notice period or (ii) in the case of material breaches that cannot be cured within thirty (30) days, the PSFA does not, within the thirty (30) day notice period, notify the Contractor of its intent to cure and begin with due diligence to cure the material breach.
- 3) Notwithstanding the foregoing, this Agreement may be terminated immediately upon written notice to the Contractor (i) if the Contractor becomes unable to perform the services contracted for, as determined by the PSFA; (ii) if, during the term of this Agreement, the Contractor is suspended or debarred by the State Purchasing Agent; or (iii) the Agreement is terminated pursuant to Paragraph 5, "Appropriations", of this Agreement.

C. Liability. Except as otherwise expressly allowed or provided under this Agreement, the PSFA's sole liability upon termination shall be to pay for acceptable work performed prior to the Contractor's receipt or issuance of a notice of termination; provided, however, that a notice of termination shall not nullify or otherwise affect either party's liability for pre-termination defaults under or breaches of this Agreement. The Contractor shall submit an invoice for such work within thirty (30) days of receiving or sending the notice of termination. *THIS PROVISION IS NOT EXCLUSIVE AND DOES NOT WAIVE THE PSFA'S OTHER LEGAL RIGHTS AND REMEDIES CAUSED BY THE CONTRACTOR'S DEFAULT/BREACH OF THIS AGREEMENT.*

D. Termination Management. Immediately upon receipt by either the PSFA or the Contractor of notice of termination of this Agreement, the Contractor shall:

- 1) not incur any further obligations for salaries, services or any other expenditure of funds under this Agreement without written approval of the PSFA;
- 2) comply with all directives issued by the PSFA in the notice of termination as to the performance of work under this Agreement; and
- 3) take such action as the PSFA shall direct for the protection, preservation, retention or transfer of all property titled to the PSFA and records generated under this Agreement.

Any non-expendable personal property or equipment provided to or purchased by the Contractor with contract funds shall become property of the PSFA upon termination and shall be submitted to the PSFA as soon as practicable.

5. **Appropriations.**

The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the Legislature of New Mexico for the performance of this Agreement. If sufficient appropriations and authorization are not made by the Legislature, this Agreement shall terminate immediately upon written notice being given by the PSFA to the Contractor. The PSFA's decision as to whether sufficient appropriations are available shall be accepted by the Contractor and shall be final. If the PSFA proposes an amendment to the Agreement to unilaterally reduce funding, the Contractor shall have the option to terminate the Agreement or to agree to the reduced funding, within thirty (30) days of receipt of the proposed amendment.

6. **Status of Contractor.**

The Contractor and its agents and employees are independent contractors performing professional services for the PSFA and are not employees of the State of New Mexico. The Contractor and its agents and employees shall not accrue leave, retirement, insurance, bonding, use of state vehicles, or any other benefits afforded to employees of the State of New Mexico as a result of this Agreement. The Contractor acknowledges that all sums received hereunder are reportable by the Contractor for tax purposes, including without limitation, self-employment and business income tax. The Contractor agrees not to purport to bind the State of New Mexico unless the Contractor has express written authority to do so, and then only within the strict limits of that authority.

7. **Assignment.**

The Contractor shall not assign or transfer any interest in this Agreement or assign any claims for money due or to become due under this Agreement without the prior written approval of the PSFA.

8. **Subcontracting.**

The Contractor shall not subcontract any portion of the services to be performed under this Agreement without the prior written approval of the PSFA. No such subcontract shall relieve the primary Contractor from its obligations and liabilities under this Agreement, nor shall any subcontract obligate direct payment from the Procuring PSFA.

9. **Release.**

Final payment of the amounts due under this Agreement shall operate as a release of the PSFA, its officers and employees, and the State of New Mexico from all liabilities, claims and obligations whatsoever arising from or under this Agreement.

10. **Confidentiality.**

Any confidential information provided to or developed by the Contractor in the performance of this Agreement shall be kept confidential and shall not be made available to any individual or organization by the Contractor without the prior written approval of the PSFA.

11. **Product of Service -- Copyright.**

All materials developed or acquired by the Contractor under this Agreement shall become the property of the State of New Mexico and shall be delivered to the PSFA no later than the termination date of this Agreement. Nothing developed or produced, in whole or in part, by the Contractor under this Agreement shall be the subject of an application for copyright or other claim of ownership by or on behalf of the Contractor.

12. **Conflict of Interest; Governmental Conduct Act.**

- A. The Contractor represents and warrants that it presently has no interest and, during the term of this Agreement, shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance or services required under the Agreement.
- B. The Contractor further represents and warrants that it has complied with, and, during the term of this Agreement, will continue to comply with, and that this Agreement complies with all applicable provisions of the Governmental Conduct Act, Chapter 10, Article 16 NMSA 1978. Without in anyway limiting the generality of the foregoing, the Contractor specifically represents and warrants that:
- 1) in accordance with NMSA 1978, § 10-16-4.3, the Contractor does not employ, has not employed, and will not employ during the term of this Agreement any PSFA employee while such employee was or is employed by the PSFA and participating directly or indirectly in the PSFA's contracting process;
  - 2) this Agreement complies with NMSA 1978, § 10-16-7(A) because (i) the Contractor is not a public officer or employee of the State; (ii) the Contractor is not a member of the family of a public officer or employee of the State; (iii) the Contractor is not a business in which a public officer or employee or the family of a public officer or employee has a substantial interest; or (iv) if the Contractor is a public officer or employee of the State, a member of the family of a public officer or employee of the State, or a business in which a public officer or employee of the State or the family of a public officer or employee of the State has a substantial interest, public notice was given as required by NMSA 1978, § 10-16-7(A) and this Agreement was awarded pursuant to a competitive process;
  - 3) in accordance with NMSA 1978, § 10-16-8(A), (i) the Contractor is not, and has not been represented by, a person who has been a public officer or employee of the State within the preceding year and whose official act directly resulted in this Agreement and (ii) the Contractor is not, and has not been assisted in any way

regarding this transaction by, a former public officer or employee of the State whose official act, while in State employment, directly resulted in the PSFA's making this Agreement;

- 4) this Agreement complies with NMSA 1978, § 10-16-9(A) because (i) the Contractor is not a legislator; (ii) the Contractor is not a member of a legislator's family; (iii) the Contractor is not a business in which a legislator or a legislator's family has a substantial interest; or (iv) if the Contractor is a legislator, a member of a legislator's family, or a business in which a legislator or a legislator's family has a substantial interest, disclosure has been made as required by NMSA 1978, § 10-16-7(A), this Agreement is not a sole source or small purchase contract, and this Agreement was awarded in accordance with the provisions of the Procurement Code;
  - 5) in accordance with NMSA 1978, § 10-16-13, the Contractor has not directly participated in the preparation of specifications, qualifications or evaluation criteria for this Agreement or any procurement related to this Agreement; and
  - 6) in accordance with NMSA 1978, § 10-16-3 and § 10-16-13.3, the Contractor has not contributed, and during the term of this Agreement shall not contribute, anything of value to a public officer or employee of the PSFA.
- C. Contractor's representations and warranties in Paragraphs A and B of this Article 12 are material representations of fact upon which the PSFA relied when this Agreement was entered into by the parties. Contractor shall provide immediate written notice to the PSFA if, at any time during the term of this Agreement, Contractor learns that Contractor's representations and warranties in Paragraphs A and B of this Article 12 were erroneous on the effective date of this Agreement or have become erroneous by reason of new or changed circumstances. If it is later determined that Contractor's representations and warranties in Paragraphs A and B of this Article 12 were erroneous on the effective date of this Agreement or have become erroneous by reason of new or changed circumstances, in addition to other remedies available to the PSFA and notwithstanding anything in the Agreement to the contrary, the PSFA may immediately terminate the Agreement.
- D. All terms defined in the Governmental Conduct Act have the same meaning in this Article 12(B).

13. **Amendment.**

- A. This Agreement shall not be altered, changed or amended except by instrument in writing executed by the parties hereto and all other required signatories.
- B. If the PSFA proposes an amendment to the Agreement to unilaterally reduce funding due to budget or other considerations, the Contractor shall, within thirty (30) days of receipt of the proposed Amendment, have the option to terminate the Agreement, pursuant to the termination provisions as set forth in Article 4 herein, or to agree to the reduced funding.

14. **Merger.**

This Agreement incorporates all the Agreements, covenants and understandings between the parties hereto concerning the subject matter hereof, and all such covenants, Agreements and understandings have been merged into this written Agreement. No prior Agreement or understanding, oral or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this Agreement.

15. **Penalties for Violation of Law.**

The Procurement Code, NMSA 1978 §§ 13-1-28 through 13-1-199, imposes civil and criminal penalties for its violation. In addition, the New Mexico criminal statutes impose felony penalties for illegal bribes, gratuities and kickbacks.

16. **Applicable Law.**

The laws of the State of New Mexico shall govern this Agreement, without giving effect to its choice of law provisions. Venue shall be proper only in a New Mexico court of competent jurisdiction in accordance with NMSA 1978, § 38-3-1 (G). By execution of this Agreement, Contractor acknowledges and agrees to the jurisdiction of the courts of the State of New Mexico over any and all lawsuits arising under or out of any term of this Agreement.

17. **Workers Compensation.**

The Contractor agrees to comply with state laws and rules applicable to workers compensation benefits for its employees. If the Contractor fails to comply with the Workers Compensation Act and applicable rules when required to do so, this Agreement may be terminated by the PSFA.

18. **Records and Financial Audit.**

The Contractor shall maintain detailed time and expenditure records that indicate the date; time, nature and cost of services rendered during the Agreement's term and effect and retain them for a period of three (3) years from the date of final payment under this Agreement. The records shall be subject to inspection by the PSFA, the General Services Department/State Purchasing Division and the State Auditor. The PSFA shall have the right to audit billings both before and after payment. Payment under this Agreement shall not foreclose the right of the PSFA to recover excessive or illegal payments

19. **Indemnification.**

The Contractor shall defend, indemnify and hold harmless the PSFA and the State of New Mexico from all actions, proceeding, claims, demands, costs, damages, attorneys' fees and all other liabilities and expenses of any kind from any source which may arise out of the performance of this Agreement, caused by the negligent act or failure to act of the Contractor, its officers, employees, servants, subcontractors or agents, or if caused by the

actions of any client of the Contractor resulting in injury or damage to persons or property during the time when the Contractor or any officer, agent, employee, servant or subcontractor thereof has or is performing services pursuant to this Agreement. In the event that any action, suit or proceeding related to the services performed by the Contractor or any officer, agent, employee, servant or subcontractor under this Agreement is brought against the Contractor, the Contractor shall, as soon as practicable but no later than two (2) days after it receives notice thereof, notify the legal counsel of the PSFA and the Risk Management Division of the New Mexico General Services Department by certified mail.

**20. Invalid Term or Condition.**

If any term or condition of this Agreement shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected and shall be valid and enforceable.

**21. Enforcement of Agreement.**

A party's failure to require strict performance of any provision of this Agreement shall not waive or diminish that party's right thereafter to demand strict compliance with that or any other provision. No waiver by a party of any of its rights under this Agreement shall be effective unless express and in writing, and no effective waiver by a party of any of its rights shall be effective to waive any other rights.

**22. Insurance.**

A. Prior to any work/services to be performed for any Project under this agreement, the Contractor shall provide the PSFA and Co-Owner with a Certificate of Insurance acceptable to the PSFA for the following described insurance coverages. The Certificates of Insurance shall clearly state the coverages, limits of liability, covered operations, effective dates and dates of expiration of policies of Insurance. The Insurance shall be written on an occurrence basis. The PSFA shall be listed as additional insured on the Contractor's policies. The Certificates of Insurance shall contain provisions that coverages afforded under the policies will not be canceled or allowed to expire until at least forty-five (45) days prior written notice has been given to the PSFA.

- i. **Worker's Compensation Insurance and Employer's Liability Insurance.** Worker's compensation insurance and employer's liability insurance in compliance with the laws of all applicable jurisdictions and any other coverages that may apply where the work is performed covering all employees engaged in the performance of the Work associated in this Agreement and any project hereunder, including coverage for Employer's Liability for:
  - a. Bodily Injury by Accident: \$100,000 each accident
  - b. Bodily Injury by Disease: \$100,000 each employee
- ii. **Comprehensive General Liability Insurance,** including endorsements providing broad form property damage, personal injury coverage and contractual assumption of liability, for all liability the Contractor will assume under the awarded Agreement. Limits shall not be less than the following:



- a. Bodily Injury: \$1,000,000 per person / \$1,000,000 per occurrence.
  - b. Property Damage or combined single limit coverage: \$1,000,000.
  - c. Personal and advertising injury limit: \$1,000,000.
- iii. **Professional Liability Insurance.** The Contractor shall provide and maintain Professional Liability Insurance with one million dollar limit (\$1,000,000) and shall be maintained in full force and effect at all times during the performance of Project.
- iv. **Liability Insurance.** The Contractor shall maintain insurance that shall protect the Contractor from claims set forth below, which may arise out of or result from operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by anyone directly or indirectly employed, or by anyone for whose acts may be liable:
- a. Claims under Workers' Compensation, Disability Benefit and other similar Employee Benefit Acts, which are applicable to the Work to be performed;
  - b. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
  - c. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- B. The Contractor will promptly notify and furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits.
- C. All policies shall be endorsed to provide that the underwriters and insurance companies of the Contractor shall not have any right so subrogate against the PSFA, Co-Owner or the State of New Mexico.

23. **Notices.**

Any notice required to be given to either party by this Agreement shall be in writing and shall be delivered in person, by courier service or by U.S. mail, either first class or certified, return receipt requested, postage prepaid, as follows:

**To the PSFA:**

Daniel Dominquez, Contract Analyst  
New Mexico Public School Facilities Authority  
1312 Basehart Rd., SE Suite 200  
Albuquerque, New Mexico 87106  
Telephone: 505-468-0262  
[REDACTED]

**To the Contractor:**

Andy L. Saiz, Business Development Manager  
Advanced Environmental Solutions, Inc.  
2318 Roldan Drive

Belen, NM 87002  
505-450-8953



24. Equal Opportunity Compliance

The Contractor agrees to abide by all federal and state laws and rules and regulations, and executive orders of the Governor of the State of New Mexico, pertaining to equal employment opportunity. In accordance with all such laws of the State of New Mexico, the Contractor assures that no person in the United States shall, on the grounds of race, religion, color, national origin, ancestry, sex, age, physical or mental handicap, or serious medical condition, spousal affiliation, sexual orientation or gender identity, be excluded from employment with or participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity performed under this Agreement. If Contractor is found not to be in compliance with these requirements during the life of this Agreement, Contractor agrees to take appropriate steps to correct these deficiencies.

25. Equitable Remedies

Contractor acknowledges that its failure to comply with any provision of this Agreement will cause the PSFA irrevocable harm and that a remedy at law for such a failure would be an inadequate remedy for the PSFA, and the Contractor consents to the PSFA's obtaining from a court of competent jurisdiction, specific performance, or injunction, or any other equitable relief in order to enforce such compliance. The PSFA's rights to obtain equitable relief pursuant to this Agreement shall be in addition to, and not in lieu of, any other remedy that PSFA may have under applicable law, including, but not limited to, monetary damages.

26. Authority.

If Contractor is other than a natural person, the individual(s) signing this Agreement on behalf of Contractor represents and warrants that he or she has the power and authority to bind Contractor, and that no further action, resolution, or approval from Contractor is necessary to enter into a binding contract.

**IN WITNESS WHEREOF, the parties have executed this Agreement as of the date of the Contractor and PSFA signature below.**

By:



Andy L. Saiz ✓  
Business Development Manager  
Advanced Environmental Solutions, Inc.

Date:

8/22/23

By:

[Redacted Signature]

Martica Casias  
PSFA Executive Director  
New Mexico Public School Facilities Authority (PSFA)

Date: 8.23.2023

The records of the Taxation and Revenue Department reflect that the **Contractor** is registered with the Taxation and Revenue Department of the State of New Mexico to pay gross receipts and compensating taxes.

**Contractor NM Tax ID Number:**

[Redacted Tax ID Number]

**SAMPLE AGREEMENT: EXHIBIT A**  
**Scope of Work**

**1. INTRODUCTION**

The Hazardous Materials Abatement Contractor will receive a scope of work from the Owner, for each project with time lines, floor plans, and analytical results of material sampled. Amounts of material for Hazardous Materials abatement will also be included.

Hazardous Materials abatement services as required by this RFP will necessitate close communication with the department and supervisory personnel as well as outside architects and contractors under contract to NMPSFA and the school district using this agreement. All work performed on this contract must be facilitated through the school district using this agreement. In addition, the Procurement Division maintains all contracts.

The Hazardous Materials Abatement Contractor(s) shall provide a written estimate of total hours (suggested work schedule) and cost required, and submits procedures to be used to complete any particular project prior to beginning the work. All prices given shall be inclusive of all work necessary to complete specified work, i.e., pre cleaning, disposal, cleaning, setup, etc. Normally, the Contractor will be required to perform Hazardous Materials abatement procedures after school hours, weekends and holidays as specified by the school district. However, if specified project will not interfere with school activities (e.g., glove bag procedures) then the project may be performed during the normal school day. A total price of each project will be given to the school district before any work is performed. No premiums or price increases are allowed for evening work, weekends, and/or holidays. RFP prices are for all work.

**I. DESCRIPTION OF WORK**

The work specified herein shall be the removal and/or encapsulation of asbestos containing materials by competent persons trained, knowledgeable and qualified in the techniques of Hazardous Materials abatement, handling and disposal of asbestos containing and asbestos contaminated materials and the subsequent cleaning of contaminated areas, who comply with all applicable Federal, State, and Local regulations and are capable of and willing to perform the work of this Contract.

The Contractor shall supply all labor, materials, services, insurance, permits and equipment necessary to carry out the work in accordance with all applicable Federal, State and Local regulations and these specifications. The Contractor will be required to obtain all necessary permits if the assigned project requires reinstallation. The project will be permitted and inspected by City or local authorities. Green tags shall be delivered to the project administrator to be kept on file (If applicable). Air clearance reports may be required depending on project as requested by Owner.

Prior to commencement of any project, the Contractor must consider special conditions at the site when performing the Hazardous Materials abatement. (E.g. high temperatures, equipment that must remain in operation, other toxic substances in the air, penetrating the work area or contaminating surfaces.) The Contractor will be responsible for obtaining this information from the school district during the Project Start Meeting.

The Contractor is responsible for restoring the work area and auxiliary areas utilized during the Hazardous Materials abatement to conditions equal to or better than original as specified in individual scope of work. For example, all fixtures (lights, alarms, intercoms, grills, HVAC ducting,

etc.) will be replaced by the Contractor at no additional cost (unless demolition is the ultimate goal of the project). The Contractor shall, during the progress of work, remove and dispose all debris (non-asbestos containing included) and keep the premises clean. Upon completion of the work, the Contractor shall remove all construction equipment and surplus materials (except materials that are to remain the property of the school district as provided in the specifications). Any damages caused during the performance of Hazardous Materials abatement activities shall be repaired by the Contractor (e.g. paint peeled off by barrier tape, nail holes, water damage, broken glass) at no additional expense to said school district.

## **II. APPLICABLE STANDARDS AND GUIDELINES**

### **A. GENERAL REQUIREMENTS**

All work under this contract shall be done in strict accordance with all applicable Federal, State and Local regulations, standards and codes governing Hazardous Materials abatement or other regulated materials and any other trade work done in conjunction with the Hazardous Materials abatement.

The most recent edition of any relevant regulation, standard, document or code shall be in effect. In the event of conflict between the job requirements or these specifications, the more stringent shall govern.

Copies of all standards, regulations, codes and other applicable documents, including this specification and those listed in Section 1.5.2 shall be available at the work site in the clean change area of the worker decontamination system.

### **B. SPECIFIC REQUIREMENTS**

#### **Occupational Safety and Health Administration (OSHA)**

- **TITLE 29 CODE OF FEDERAL REGULATIONS SECTION 1910.1001 - General Industry Standard For Asbestos.**
- **TITLE 29 CODE OF FEDERAL REGULATIONS SECTION 1910.134 - General Industry Standard For Respiratory Protection.**
- **TITLE 29 CODE OF FEDERAL REGULATIONS SECTION 1926.1101 - Construction Industry**
- **TITLE 29 CODE OF FEDERAL REGULATIONS SECTION 1910.2 - Access To Employee Exposure And Medical Records**
- **TITLE 29 CODE OF FEDERAL REGULATIONS SECTION 1910. - Hazard Communication**
- **ENVIRONMENTAL PROTECTION AGENCY (EPA)**
- **TITLE 40 CODE OF FEDERAL REGULATIONS PART 61- National Emission Standard For Asbestos.**
- **TITLE 40 CODE OF FEDERAL REGULATIONS PART 763 - Asbestos Abatement Projects; Worker**
- **PROTECTION; FINAL RULE AND ASBESTOS-CONTAINING MATERIALS IN SCHOOLS; FINAL RULE AND NOTICE; MODEL ACCREDITATION PLAN.**

• **THE CONTRACTOR MUST COMPLY WITH NEW MEXICO STATE CONSTRUCTION INDUSTRIES LICENSING ACT AND LPG ACT, 1978.**

**C. SUBMITTALS NOTICES**

Contractor shall submit the following forms: Labor and Materials Payment Bond, and Performance Bond (if applicable). See Appendix A.: Use AIA documents or similar forms acceptable to Owner.

**1. PRIOR TO COMMENCEMENT OF WORK, AT PRE-START MEETING:**

- a. Should Hazardous Materials abatement projects involving greater than 260 linear feet of pipe insulation or 160 square feet of sprayed, troweled or otherwise applied material or covering or composing building structures or components, send written notification in accordance with 40 CFR Part 61, to the appropriate State or Federal air pollution control agency responsible for the enforcement of the National Emission Standard for Hazardous Air Pollutants (NESHAPP). Provide the school district with a copy of the notice. The Contractor shall provide evidence that the EPA has been notified of the removal procedures and the location of the waste disposal.
- b. Submit proof satisfactory to the school district that required permits, site location and arrangements for transport and disposal of asbestos containing materials have been made. Submit the name of the landfill to be used for the disposal. Submit proof that all regulations pertaining to asbestos disposal will be met. Obtain and submit a copy of an asbestos manifest signed by the owner of the landfill.
- c. Submit documentation satisfactory to the school district that the Contractor's employees, including foremen, supervisors and any other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of Hazardous Materials abatement activities, have received adequate training and understand the hazards of asbestos.
- d. Submit documentation from a physician that all employees or agents who may be exposed to airborne asbestos in excess of background level have been medically monitored to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects. In addition, document that personnel have received medical monitoring as required in OSHA 29 CFR 1910 and OSHA 29 CFR 1926. The Contractor must be aware of and provide information to the examining physician about unusual conditions in the work place environment (e.g. high temperatures, humidity, chemical containments) that may impact on the employee's ability to perform work activities.
- e. Submit to the school district, for each individual project, shop drawings for layout and construction of decontamination enclosure systems and barriers for isolation of the work area as detailed in this specification and required by applicable regulations. (The school district may wish to specify these layouts in the specifications.) With the school district, two (2) days prior to mobilization, inspect the premises wherein all Hazardous Materials abatement and Hazardous Materials abatement related activities will occur and submit a statement signed by both, agreeing on building and fixture condition prior to the commencement of work.

- f. Submit manufacturer's certification that HEPA vacuums, negative pressure ventilation units and other local exhaust ventilation equipment conform to ANSI Z9.2-79. When rental equipment is to be used in Hazardous Materials abatement areas or to transport asbestos contaminated waste, a written notification concerning intended use of the rental equipment must be provided to the rental agency with a copy submitted to the school district with close out documents.
- g. Document NIOSH & MSHA approvals for all respiratory protective devices utilized on site. Include manufacturer certification of HEPA filtration capabilities for all cartridges and filters.
- h. Submit pre-abatement air sampling results (if conducted, these samples are optional, since the Contractor rarely has access to the site prior to job initiation.) Include location of samples, name of Air Sampling Professional, equipment, and methods utilized for sampling and analysis.
- i. Submit documentation of respirator fit testing for all Contractor employees and agents who must enter the work area. This fit testing shall be in accordance with procedures as detailed in the OSHA 29 CFR 1910.

**2. DURING HAZARDOUS MATERIALS ABATEMENT ACTIVITIES AND TO BE INCLUDED IN CLOSEOUT DOCUMENTS**

- a. Submit weekly to the Project Manager (or as otherwise required by the school district) job progress reports detailing Hazardous Materials abatement activities. Include review of progress with respect to previously established milestones and schedules, major problems and action taken, injury reports, equipment breakdown and bulk material and air sampling results conducted by Contractor's Project Monitor.
- b. Submit copies to the Project Manager of all transport manifest, trip tickets and disposal receipts for all asbestos waste materials removed from the work area during the Hazardous Materials abatement process by the next business day and in the closeout documents.
- c. Submit daily to the Project Manager, copies of work site entry logbooks with information on worker and visitor access.
- d. Prior to use on the project and at least weekly during the project, submit log documents to the Project Manager of HEPA filter inspection of HEPA vacuums for damage and proper installation and differential pressure readings on negative pressure ventilation units.
- e. Submit manometer readings. A hand written hourly log may be substituted for machine printout for verification of negative .02 inches water column on negative pressure enclosure.
- f. Submit to the Project Manager results of bulk material analysis and air sampling data collected during the course of the Hazardous Materials abatement including OSHA compliance air monitoring results.
- g. Submit to the Project Manager results of material testing conducted during the Hazardous Materials abatement for purposes of utilization during Hazardous Materials abatement activities (e.g. testing of Encapsulants for depth of penetration, testing of

substitute materials for adherence to encapsulated surfaces.)

- h. Post in the clean room area of the worker decontamination enclosure, a list containing the names, addresses, and telephone numbers of the Contractor, the school district contacts, the Asbestos Project Monitor, the General Superintendent, the testing laboratory and any other personnel who may be required to assist during Hazardous Materials abatement activities (e.g. Safety Officer, Building Maintenance Supervisor, Energy Conservation Officers).

**3. SAID SCHOOL DISTRICT AS BUILDING OWNER SHALL**

**a. PRIOR TO COMMENCEMENT OF WORK:**

- i. Submit to the Contractor, results of pre-abatement air sampling (if conducted) including location of samples, names of the Air Sampling Professional, equipment utilized and method of analysis.
- ii. Provide to the Contractor information concerning access, shut down and protection requirements of certain equipment and systems in the work area.

**b. DURING ABATEMENT**

- i. Submit to the Contractor, results of bulk material analysis and air sampling data collected during the course of the Hazardous Materials abatement. These sample results are for information only. They serve only to monitor Contractor performance during the project and shall not release the Contractor from any responsibility to sample for OSHA compliance.

**4. SITE SECURITY**

- a. The work area is to be restricted only to authorized, trained, and protected personnel. These may include the Contractor's employees, employees of Subcontractors, State and local inspectors and any other designated individuals. A list of authorized personnel shall be established prior to job start and posted in the clean room of the worker decontamination facility. This list, which shall include names and social security numbers, will be submitted to the said school district Police/Security prior to the project start date.
- b. The Contractor shall report entry into the work area by unauthorized individuals immediately to said school district.
- c. A logbook shall be maintained in the clean room area of the worker decontamination system. Anyone who enters the work area must record name, affiliation, time in, and time out for each entry.
- d. The Contractor is responsible to ensure security to the building in areas that may have been modified as necessary for the project. The Contractor is responsible for any modifications including parts and labor. At completion of project, all modifications must be returned to pre-abatement conditions.
- e. Access to the work area shall be through a single worker decontamination system in a designated location at the work site. All other means of access (doors, windows, hallways, etc.) shall be blocked by temporary walls constructed by the Contractor or locked so as to prevent entry to or exit from the work area. The only exceptions for this rule are the waste pass-out airlock which shall be scaled except during removal of



containerized asbestos waste from the work area, and emergency exits in case of fire or accident. Emergency exits shall not be locked from the inside, however, they shall be sealed with polyethylene sheeting and tape until needed. Contractor shall inspect and record time of inspection on a daily log.

- f. Contractor should have control of site security during Hazardous Materials abatement operations whenever possible, in order to protect work efforts and equipment. The Contractor will be issued a key to the worksite. The Contractor will be responsible for returning keys to said school district at the completion of the project. If keys are not returned or lost, the contractor will be invoiced for re-keying the respective property.
- g. Contractor will have said school district assistance in notifying building occupants of impending activity and enforcement of restricted access by school district employees.

## **5. EMERGENCY PLANNING**

- a. Emergency planning shall be developed prior to Hazardous Materials abatement initiation and agreed to by Contractor and said school district.
- b. 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 and emergency exists and emergency procedures.
- c. Emergency planning **shall** include written notification of police, fire and emergency medical personnel of planned Hazardous Materials abatement activities, work schedule and layout of work area, particularly barriers that may affect response capabilities. Submit with close out documents.
- d. 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.
- e. Employees shall be trained in evacuation procedures in the event of work place emergencies.
- f. For non-life threatening situations - employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers if necessary, before exiting the work place to obtain proper medical treatment.
- g. For life threatening injury or illness, worker decontamination shall take least priority after measures to stabilize the injured worker, remove him/her from the work place and secure proper medical treatment.
- h. 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.

## **6. PRE-START MEETING**

- a. The successful Bidder shall attend a pre-start job meeting on each project. Attending this meeting may be representatives of said school district and its agents along with testing/monitoring personnel (e.g. Asbestos Project Manager, Air Sampling Professional) who will actually participate in said school district testing/monitoring program.
- b. The Contractor and supervisory personnel who will provide on-site direction of the Hazardous Materials abatement activities must attend. The Contractor's Air Sampling, Professional shall also attend.
- c. At this meeting the Contractor shall provide all submittals as required. In addition contractor shall be prepared to provide detailed information concerning:
  - i. Preparation of work area.
  - ii. Personal protective equipment including respiratory protection and protective clothing.
  - iii. Employees who will participate in the project, including delineation of experience, training, and assigned responsibilities during the project.
  - iv. Decontamination procedures for personnel, work area and equipment.
  - v. Hazardous Materials Abatement methods and procedures to be utilized.
  - vi. Required air-monitoring procedures.
  - vii. Procedures for handling and disposing of waste materials.
  - viii. Procedures for final decontamination and clean up.
  - ix. A sequence of work and performance schedule.
  - x. Procedures for dealing with heat stress.
  - xi. Emergency procedures.

## **MATERIALS AND EQUIPMENT**

### **I. MATERIALS**

#### **A. GENERAL (ALL HAZARDOUS MATERIALS ABATEMENT PROJECTS)**

1. The New Mexico Public School Facilities Authority and said school district reserves the right to inspect materials to determine the quality, fitness and suitability of such materials. Inspection of materials may be conducted whenever considered necessary by NMPSFA or said school district. Deliver all materials in the original packages, containers or bundles bearing the name of the manufacturer and the brand name (where applicable).
2. Store all materials subject to damage off the ground, away from wet or damaged surfaces and under cover sufficient enough to prevent damage or contamination. Replacement materials shall be stored outside of the work area until Hazardous Materials abatement is completed.
3. Damaged or deteriorating materials shall not be used and shall be removed from the work site and disposed of properly.
4. Polyethylene sheeting for walls and stationary objects shall be a minimum of 2 layers of 4 mils thick. Floors and all other critical barriers: sheeting of at least 6 mil thickness shall be used in widths selected to minimize the frequency of joints.

5. Method of attaching polyethylene sheeting shall be agreed upon in advance by the Contractor and said school district and selected to provide secure containment throughout the project and secondly to minimize damage to equipment and surfaces. Method of attachment may include any combination of duct tape or other waterproof tape, furring strips, spray glue, staples, nails, screws or other effective procedures capable of sealing adjacent sheets of polyethylene and capable of sealing polyethylene to dissimilar finished and unfinished surfaces under both wet and dry conditions (including the use of amended water). Any damage to surfaces will be repaired to original condition or better.
6. Polyethylene sheeting utilized for worker decontamination enclosure shall be opaque white or black in color.
7. Special materials required to protect objects in the work area should be detailed (e.g. plywood over carpeting or hardwood floors to prevent damage from scaffolds and falling material) during pre-start meeting for individual projects.
8. Disposal bags shall be of 6 mil. polyethylene, preprinted with labels as required by EPA regulation 40 CFR 61.152 (b)(i)(iv) or OSHA requirement 29 CFR 1910.1001 (g)(2)(ii).
9. Disposal drums shall be metal or fiberboard with locking ring tops.
10. Use adhesive labels as per EPA or OSHA requirements.
11. Warning signs as required by OSHA 29 CFR 1910.1926.

#### **B. REMOVAL**

1. Surfactant (wetting agent) shall be a 50/50 mixture of Polyoxyethylene ether and Polyoxyethylene ester, or equivalent, mixed in a proportion of 1 fluid ounce to 5 gallons of water or as specified by manufacturer. (An equivalent surfactant shall be understood to mean a material with a surface tension of 29 dynes/cm as tested in its properly mixed concentration, using ASTM method D1331-56 "Surface and Interfacial Tension of Solutions of Surface Active Agents.") Where work area temperature may cause freezing of the amended water solution, the addition of ethylene glycol in amounts sufficient to prevent freezing is permitted.
2. Encapsulating agent to be applied to surfaces from which asbestos-containing material has been stripped. The Contractor will test the adhesion if new material is to be applied to the encapsulated substrate. Some manufacturers of replacement materials will not provide a material warranty on products applied over painted, encapsulated or otherwise coated surfaces. Without proper testing, the material may "fail" and require replacement at the Contractor's expense.

#### **C. ENCAPSULATION**

1. Encapsulation materials shall be bridging or penetrating type and conform with the following characteristics:
2. Encapsulants should not be solvent based or utilize a vehicle (the liquid in which the solid parts of the Encapsulants are suspended) consisting of hydrocarbons.
3. Encapsulants shall not be flammable.
4. Additional requirements if necessary will be given in the scope of the work for individual projects (Note: Encapsulation may significantly alter the acoustical

characteristics of a material, the fire rating of a material, or the bond of the material to the substrate. These factors must be considered during the Hazardous Materials abatement method selection process.)

5. Additional materials as necessary for removal, as specified.

## **II. EQUIPMENT**

### **A. GENERAL (ALL HAZARDOUS MATERIALS ABATEMENT PROJECTS)**

1. Air patent selected by Contractor must be public domain or Contractor must have license to use. Contractor shall provide a release of liability to the Building Owner.
2. 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. Recommended Specifications and Operating Procedures for the Use of Negative Pressure Systems for Hazardous Materials Abatement shall be utilized so as to provide one work place air change every 15 minutes or operated in accordance with 29 CFR 1926, Negative Enclosures.
3. To calculate total air flow requirement:  
$$\text{Total feet}^3/\text{min.} = \frac{\text{Vol. of work area (in feet}^3\text{)}}{15 \text{ min.}}$$
4. To calculate the number of units needed for the Hazardous Materials abatement:  
$$\text{Number of units needed} = \frac{(\text{Total feet}^3/\text{min.})}{(\text{Capacity of unit in feet}^3/\text{min.})}$$
5. For small enclosures and glove bags, a HEPA filtered vacuum system may be utilized to provide negative air pressure complying with negative pressure glove bags.
6. Submit a manometer log or Chart showing minimum of .02 inches of reduced pressure in inches of water column.
7. Respirators shall be provided that have been tested and approved by the OSHA Administration for use in asbestos contaminated atmospheres.
8. Full body disposable protective clothing, including head, body and foot coverings of material impenetrable by asbestos fibers (Tyvek R or equivalent) shall be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing.
9. Additional safety equipment (e.g. hard hats meeting the requirements of ANSI Standard Z89.1-1981, eye protection meeting the requirements of ANSI Standard Z87.1-1979, safety shoes meeting the requirements of ANSI Standard Z41.1-1967, disposable PVC gloves), as necessary, shall be provided to all workers and authorized visitors.
10. Nonskid footwear shall be provided to all Hazardous Materials abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
11. A sufficient supply of disposable mops, rags and sponges for work area decontamination shall be available.

## **B. REMOVAL**

1. A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g. scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be provided as needed.
2. Sprayers with pumps capable of providing 500 pounds per square inch (psi) at the nozzle tip at a flow rate of 2 gallons per minute for spraying amended water.
3. Rubber dust pans and rubber squeegees shall be provided for cleanup.
4. Brushes utilized for removing loose asbestos containing material shall have nylon or fiber bristles, not metal.
5. Sufficient supplies of HEPA filtered vacuum systems shall be available during clean up.

## **C. ENCAPSULATION**

1. Encapsulants shall be sprayed using airless spray equipment. Nozzle pressure should be adjustable within the 400 to 1500 psi range.
2. Additional support equipment as needed.
3. The nature of the Encapsulants may affect the requirements for respiratory protection. Vapors that may be given off during Encapsulants application must be taken into account when selecting respirators, if types other than air supplied are used.

## **D. SUBSTITUTIONS**

### **1. APPROVAL REQUIRED:**

The Contract is based on the materials, equipment and methods described in the Contract Documents.

NMPSFA and said school district may consider proposals for substitutions of materials, equipment and methods only when such proposals are accompanied by full and complete technical data and all other information required by NMPSFA and said school district to evaluate the proposed substitution.

Do not substitute materials, equipment or methods unless such substitution has been specifically approved for this work by NMPSFA and said school district at pre-start meeting.

### **2. "OR EQUAL":**

If the phrase "or equal" or "or equal as approved by the Owner (or NMPSFA)" occurs in the Contract Document, do not assume that materials, equipment or methods will be approved by NMPSFA and said school district unless the item has been specifically approved for the work by NMPSFA and said school district.

The decision of NMPSFA and the said school district shall be final.

Separate substitute bids: Bidders may, if they wish, submit completely separate bids using materials and methods other than those described in the Contract Documents, provided that all substitutions are clearly identified and described, and that the Bid in all other respects is in accordance with the provisions of the Contract Documents.

### **3. AVAILABILITY OF SPECIAL ITEMS:**

Verify during the estimation phase that all specified items will be available in time for installation during orderly and timely progress of the work.

In the event that specified items will not be so available, notify the school district prior to acceptance of the jobs.

Costs of delays because of non-availability of specified items, when the Contractor could have avoided such delays, will be back charged as necessary and shall not be borne by NMPSFA or said school district.

### **III. EXECUTION**

#### **A. PREPARATION**

##### **1. WORK AREAS:**

- a. Post Danger signs meeting the specifications of OSHA 29 CFR 1910.1926 at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of work place enclosure barriers.
- b. Shut down and lock out electric power to all work areas. The contractor will provide adequate temporary power and lighting. Ensure safe installation (including ground faulting) of temporary power sources and equipment by compliance with all applicable electrical code requirements and OSHA requirements for temporary electrical systems.
- c. Shut down and lock out all heating, cooling and air conditioning system (HVAC) components that are in, supply or pass through the work area. (Note: Interiors of existing ductwork may require decontamination. This may be done during the preclearing phase of operations before the ductwork is sealed off or during the final cleaning phase prior to re-engagement of the system. Appropriate equipment and control measures shall be utilized to prevent contamination of building spaces during this operation. Adequate cleaning of ductwork may sometimes be accomplished by drawing high volumes of air through the system using the HEPA filtered negative pressure ventilation units.) Investigate the work area and agree on pre-abatement condition with APS. Seal all intake and exhaust vents in the work area with tape and a double layer of 6 mil. Polyethylene. Also seal any seams in system components that pass through the work area. Remove all HVAC system filters and place in labeled 6 mil. Polyethylene bags for staging and eventual disposal as asbestos contaminated waste.
- d. The Contractor shall provide sanitary facilities for Hazardous Materials abatement personnel outside of the enclosed work area maintain them in a clean and sanitary condition throughout the project as per OSHA 29 CFR 1910.120, Toilet Facilities.
- e. APS will provide water access for construction purposes. Contractor shall connect to existing district system. Contractor must provide a backflow prevention. In the event that water to the site is unavailable, the Contractor is responsible for providing water.
- f. **Pre-clean** all movable objects within the work area using a HEPA filtered vacuum and/or wet cleaning methods as appropriate. After cleaning, these objects shall be removed from the work area and carefully stored in an uncontaminated

location. Carpeting, drapes, clothing, upholstered furniture and other fabric items may be disposed of as asbestos contaminated waste or cleaned as asbestos contaminated items utilizing HEPA vacuum techniques and off premises steam cleaning. Since adequate cleaning of severely contaminated fabric is difficult, said school district must carefully consider whether this option is appropriate prior to Hazardous Materials abatement.

- g. Pre-clean all fixed objects in the work area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate.** Careful attention must be paid to machinery behind grilles or grating where access may be difficult but contamination significant. Also pay particular attention to wall, floor and ceiling penetrations behind fixed items. After pre-cleaning, enclose fixed projects in double layer 6 mil. Polyethylene sheeting and seal securely in place with tape. Objects (e.g. permanent fixtures, shelves, electronic equipment, laboratory tables, sprinklers, alarm systems, closed circuit TV equipment and computer cables) which must remain in the work area and that require special ventilation or enclosure requirements should be identified during pre-start meeting with specified means of protection. (Contact the manufacturer for special protection requirements.) Control panels, gauges, etc. in the work area may require said school district access during Hazardous Materials abatement. These shall be designated and enclosures constructed with access flaps sealed with waterproof tape.
- h. Pre-clean all surfaces in the work area using HEPA filtered vacuums and/or wet cleaning methods as appropriate.** Do not use any methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters. Do not disturb asbestos containing materials during the pre-cleaning phase. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grilles, grates, diffusers, skylights and any other openings between the work area and uncontaminated areas outside of the work area (including the outside of the building, tunnels and crawl spaces) with a double layer of 6 mil. Polyethylene sheeting and tape. (Isolating work area from occupied areas.)
- i.** Cover floors in the work area with polyethylene sheeting.
- j.** Floors shall be covered with (3) three layers of 6 mil sheeting (minimum 2 layers 6 mil and a 6 mil drop cloth). Floors requiring special protection will be specified. Carpeting, hardwood flooring and tile floors may be damaged by leaks of water, ladder feet, scaffold wheels, etc. The Owner may require additional layers of protection such as plywood, canvas drop cloths or extra plastic sheeting. When specified, red powder will be used between layers to detect leaks in floor. Additional layers of sheeting may be utilized as drop cloths to aid in cleanup of bulk materials.
- k.** Plastic shall be sized to minimize seams. If the floor 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.
- l.** Floor sheeting shall extend at least 12" up sidewalls at the work area.

- m. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of materials. (Vinyl sheeting may be used for improved traction on floors.)
- n. Cover walls in the work area with polyethylene sheeting. Walls that are non-porous and will not be damaged by water, and surfactant may not need to be covered. They can be decontaminated using HEPA vacuums and wet cleaning techniques. Walls with mortar joints (e.g. tile) are considered porous. In addition, openings through these walls to uncontaminated areas of the building must be sealed as described in Section 3.1.1.9.
- o. Walls shall be covered with two layers of 4 mil. Polyethylene sheeting.
- p. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least 6 feet.
- q. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.
- r. Wall sheeting shall be secured adequately to prevent it from falling away from the walls for the duration of the project. This will require additional support/attachment when negative pressure ventilation systems are utilized.

## **2. WORKER DECONTAMINATION ENCLOSURE SYSTEMS**

- a. Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area. One system at a single location for each contained work over is preferred. These systems may consist of existing rooms outside of the work area, if the layout is appropriate, that can be enclosed in polyethylene sheeting and are accessible from the work area. When this situation does not exist, enclosure systems may be constructed out of metal, wood or plastic support as appropriate.
- b. Plans for construction, including materials and layout, shall be submitted as shop drawings and approved, in writing by said school district prior to work initiation. Worker decontamination enclosure systems constructed at the work site shall utilize 6 mil. Opaque black or white polyethylene sheeting or other acceptable materials for privacy. Detailed descriptions of portable, prefabricated units, if used, must be submitted for said district approval. Plans must include floor plan with dimensions, materials, size, thickness, plumbing and electrical utilities.
- c. The worker decontamination enclosure system shall consist of at least a clean room, a shower room, and an equipment room, each separated from each other and from the work area by curtained doorways.
- d. Entry to and exit from all airlocks and decontamination enclosure system chambers shall be through curtained doorways consisting of two sheets of overlapping polyethylene sheeting. One sheet shall be secured at the top and left side, the other sheet at the top and right side. Both sheets shall have weights attached to the bottom to insure that they hang straight and maintain a seal over



the doorway when not in use. Doorway designs, providing equivalent protection and acceptable to said school district may be utilized.

- e. Access between the decontamination enclosure systems shall be through a curtained door with a minimum of 3 feet separating each curtained doorway. Pathways into (from clean to contaminated) and out from (contaminated to clean) the work area shall be clearly designated.
- f. Clean room shall be sized to adequately accommodate the work crew. Clean disposable clothing, replacement filters for respirators, towels and other necessary items shall be provided in adequate supply at the clean room. A location for postings shall also be provided in this area. Whenever possible, a lockable door shall be used to permit access into the clean room from outside the work area. Lighting, heat and electricity shall be provided as necessary for comfort. This space shall not be used for storage of tools, equipment or materials, (except as designated) or as office space.
- g. Shower room shall contain one or more showers as necessary to adequately accommodate workers. Each showerhead shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed to ensure against leakage of any kind. The Contractor shall supply an adequate supply of soap, shampoo and towels, which shall be available at all times. Shower water shall be drained, collected and filtered through a system with at least 1.0 micron particle size collection capability. (Note: A system containing a series of several filters with progressively smaller pore sizes is recommended to avoid rapid clogging of filtration system by large particles.)
- h. The equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for HEPA vacuums and negative pressure ventilation equipment, extra tools, containers of surfactant and other materials and equipment that may be required during the Hazardous Materials abatement may also be stored here as needed. A walk off pan (a small children's swimming pool or equivalent), filled with water shall be located in the work area just outside the equipment room for workers to clean off foot coverings after leaving the work area and prevent excessive contamination of the worker decontamination enclosure system. A labeled 6-mil polyethylene bag for collection of disposable clothing shall be located in this room. Contaminated footwear (e.g. rubber boots, other reusable footwear) shall be stored in this area for reuse the following work day.

**3. WASTE CONTAINER PASS-OUT CHAMBER (USUALLY REQUIRED ONLY FOR LARGE JOBS) AND EMERGENCY EXITS.**

- a. The waste container pass-out airlock shall be constructed at some location away from the worker decontamination enclosure system. Wherever possible, this shall be located where there is direct access from the work area to the outside of the building.
- b. This airlock system shall consist of a chamber, a container staging area, and another airlock with access to outside the work area.

- c. The waste container pass-out chamber shall be constructed in similar fashion to the worker decontamination enclosure system using similar materials and curtain doorway designs.
- d. The waste chamber shall not be used to enter or exit the work site.
- e. Emergency exits routes shall be established and clearly marked with red duct tape arrows or other effective designations to permit easy location from anywhere within the work area. They shall be secured to prevent access from uncontaminated areas and still permit emergency exiting. These exits shall be properly sealed with polyethylene sheeting, which can be cut to permit egress if needed. These, exits may be the worker decontamination enclosure, the waste pass-out chamber and/or other alternative exits satisfactory to fire officials.
- f. Isolation of the work area from occupied areas of the building (said school district must clearly identify all areas that will be occupied.)
- g. The contaminated work area shall be separated from uncontaminated occupied areas of the building by the construction of airtight barriers.
- h. Walls shall be constructed of wood or metal framing to support barriers in all openings larger than 4'x8'.
- i. A sheathing material (plywood, drywall) of at least 3/8" thickness shall be applied to work side of barrier.
- j. Cover both sides of partition with a double layer of 6-mil polyethylene sheeting with staggered joints and seal in place.
- k. Caulk edges of partition at floor, ceiling, walls and fixtures to form an airtight seal.
- l. Maintenance of work place barriers and work decontamination enclosure systems.
- m. Following completion of the construction of all polyethylene barriers and decontamination system enclosures and with negative air system running, allow overnight settling to insure that barriers will remain intact and secured to walls and fixtures before beginning actual Hazardous Materials abatement activities.
- n. All polyethylene barriers inside the workplace, in the worker decontamination enclosure system, in the waste container pass-out airlock and at partitions constructed to isolate the work area from occupied areas shall be inspected at least twice daily, prior to the start of each day's Hazardous Materials abatement activities and following the completion of the day's a Hazardous Materials abatement activities. Document inspections and observations in the daily project log.
- o. Damage and defects in the enclosure system are to be repaired immediately upon discovery.
- p. Use smoke tubes to test the effectiveness of the barrier system as required by 29 CFR 1926.
- q. At any time during the Hazardous Materials abatement activities after barriers have been erected, if visible material is observed outside of the work area or if damage occurs to barriers, work shall immediately stop, repairs be made to

barriers, and debris/residue cleaned up using appropriate HEPA vacuuming and wet mopping procedures.

- r. If air samples collected outside of the work area during Hazardous Materials abatement activities indicate airborne fiber concentrations greater than 0.01 f/cc or pre-measured background levels (whichever is lower) work shall immediately stop for inspection and repair of barriers. Clean up of surfaces outside of the work area using HEPA vacuums or wet-cleaning techniques may be necessary.
- s. Install and initiate operation of negative pressure ventilation equipment as needed to provide one air change in the work area every 15 minutes. An additional backup HEPA ventilation unit shall be available on site and available for use in the event of failure of equipment. Openings made in the enclosure system to accommodate these units shall be made air tight 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 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 areas.
- t. Once constructed and reinforced as necessary, with negative pressure ventilation units in operation as required, test enclosure for leakage utilizing smoke tubes. Repair or reconstruct as needed.
- u. Clearly identify and maintain emergency and fire exits from the work area.
- v. Remove, clean and enclose in polyethylene sheeting the ceiling mounted objects such as lights and other items that may interfere with the Hazardous Materials 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.

#### **4. REMOVAL OF BUILDING STRUCTURAL COMPONENTS.**

- 1. After isolation of work area as described in previous sections and initiation of negative pressure ventilation, remove ceiling tiles/panels within the work area carefully. If panels are to be reused, vacuum with a HEPA filtered vacuum cleaner and carefully damp sponge and wrap cleaned tiles/panels in 4 mil polyethylene sheeting and seal with tape. Store as designated by APS (preferably outside of the work area). If tiles/panels are to be discarded it is not necessary to clean them, but wrap in a similar fashion and stage for disposal in the waste container pass-out airlock.
- 2. Where suspended ceiling T-grid components must be removed to perform the Hazardous Materials abatement, HEPA vacuum and wet sponge each piece after removal from hangers. Wrap clean grid pieces in 4-mil polyethylene sheeting and seal with tape. Store as designated by said school district or in waste staging area if designated for disposal.

3. When removal of ceiling grid suspension system is not necessary for accessibility, to the asbestos containing materials, leave the system in place and clean properly following completion of Hazardous Materials abatement.
4. Remove plaster/drywall ceilings including lathe, furring channel system, wire mesh, ties, clips, screws, nails and other accessory items as necessary and dispose of as asbestos contaminated waste material. As work progresses, spray ceiling materials and debris with amended water to keep wet until containerized for disposal.

**5. COMMENCEMENT OF WORK SHALL NOT OCCUR UNTIL**

1. Enclosure systems have been constructed and tested.
2. Negative pressure ventilation systems are functioning adequately.
3. All pre-abatement submissions, notifications, postings and permits have been provided and are satisfactory to said school district.
4. All equipment for Hazardous Materials abatement, clean up and disposal are on hand.
5. All worker training and certification is completed.
6. Contractor receives written permission from said school district to commence Hazardous Materials abatement.

**6. ALTERNATIVE PROCEDURES.**

1. Procedures described in this specification are to be utilized at all times.
2. If specified procedures cannot be utilized, a request must be made in writing to said school district providing details of the problem encountered and recommended alternatives.
3. Alternative procedures shall provide equivalent or greater protection than procedures that they replace.
4. Any alternative procedure must be approved in writing by said school district prior to implementation.

**7. WORK PLACE ENTRY AND EXIT PROCEDURES**

**a. Personnel Entry and Exit:**

- i. All workers and authorized personnel shall enter the work area through the worker decontamination enclosure system.
- ii. All personnel who enter the work area must sign the entry log, located in the clean room upon entry and exit.
- iii. All personnel, before entering the work area, shall read and be familiar with all posted regulations, personal protection requirements (including work place entry and exit procedures) and emergency procedures. A sign off shall be used to acknowledge that these have been reviewed and understood by all personnel prior to entry.
- iv. All personnel shall proceed first to the clean room, remove all street clothes and appropriately place on respiratory protection (as deemed adequate for the job conditions) and disposable coveralls, head covering and foot covering. Hard hats, eye protection and gloves shall also be

utilized if required. Clean respirators and protective clothing shall be provided and utilized by each person for each separate entry into the work area.

- v. Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room and equipment room to the main work area.
- vi. Before leaving the work area all personnel shall remove gross contamination from the outside of respirators and protective clothing by brushing and/or wet wiping procedures. (Small HEPA vacuums with brush attachments may be utilized for this purpose, however, larger machines may tear the suits.) Each person shall clean bottoms of protective footwear in the walk off pan just prior to entering the equipment room.
- vii. Personnel shall proceed to equipment room where they remove all protective equipment except respirators. Deposit disposable and washable clothing into appropriately labeled containers for disposal.
- viii. Reusable, contaminated footwear shall be stored in the equipment room when not in use in the work area. Upon completion of Hazardous Materials abatement it shall be disposed of as asbestos contaminated waste. Rubber boots may be decontaminated at the completion of the Hazardous Materials abatement for reuse.
- ix. Still wearing respirators, personnel shall proceed to the shower area, clean the outside of the respirators and the exposed face area under running water prior to removal of respirator and shower and shampoo to remove residual contamination. Various types of respirators will require slight modification of these procedures. A powered air purifying respirator face piece may have to be disconnected from the Filter/power pack assembly, which is not waterproof, upon entering the shower. A dual cartridge respirator may be worn into the shower. Cartridges must be replaced for each new entry into the work area.
- x. After showering and drying off, proceed to the clean room and don clean disposable clothing if there will be later re-entry into the work area or street clothes if it is the end of the work shift.
- xi. These procedures shall be posted in the clean room and equipment room.

#### **8. WASTE CONTAINER PASS-OUT PROCEDURES.**

- a. Asbestos contaminated waste that has been containerized shall be transported out of the work area through the waste container pass-out airlock.
- b. Waste pass-out procedures shall utilize two teams of workers, an "inside" team and an "outside" team.
- c. The inside team wearing appropriate protective clothing and respirators for inside the work area shall clean the outside, including bottoms, of properly labeled containers (bags, drums, or wrapped components) using HEPA vacuums and wet wiping techniques and transport them into the waste container pass-out chamber. No worker from the inside team shall further exit the work area through this chamber.
- d. The outside team, wearing protective clothing and appropriately assigned respirators, shall enter the chamber from outside the work area, enclose the drums

in clean, labeled, 6 mil polyethylene bags and remove them from the waste-out to the outside. No worker from the outside team shall further enter the work area through this chamber.

- e. The exit from this chamber shall be secured to prevent unauthorized entry.

#### IV. PERSONNEL PROTECTION REQUIREMENTS

##### A. TRAINING

1. Prior to commencement of Hazardous Materials abatement activities all personnel who will be required to enter the work area or handle containerized asbestos containing materials must have received adequate training in accordance with AHERA and OSHA regulations.
2. Special onsite training on equipment and procedures unique to this job site shall be performed as required.
3. Training in emergency response and evacuation procedures shall be provided.

##### B. RESPIRATORY PROTECTION

1. All respiratory protection shall be provided to workers in accordance with the submitted written respiratory protection program, which includes all items in OSHA 29 CFR 1910.134 (b) (1-11). This program shall be posted in the clean room of the worker decontamination enclosure system.
2. Workers shall be provided with personally issued, individually identified (marked with waterproof designations) respirators.
3. Respirators shall be selected that meet the following level of protection requirements:
  - a. **It is imperative, however, that adequate air monitoring of fiber levels and a well-designed respiratory protection program (in accordance with 29 CFR 1910.134) be implemented.** Key points of the respirator program include proper selection of respirator type and size, training of personnel in the proper inspection, donning, use, cleaning and maintenance procedures for the respirator selected including their use, limitations, and a good fitting and fit testing program to provide proper protection. Single use disposable respirators are not recommended for use during any Hazardous Materials abatement activities; however, they may be allowed if initial exposure assessment indicates the downgrade. Negative pressure, dual-cartridge, respirators shall be equipped with high efficiency filters and exhalation and inhalation valves to permit the performance of positive and negative pressure fit checks.
  - b. Contractor will collect personal air samples on their employees during Hazardous Materials abatement and shall submit copies of all personal air monitoring as required by OSHA. The Contractor shall submit evidence that the firm participates in the NIOSH Proficiency Analytical Testing Program (PAT) and have been found proficient or is accredited by the AIHA for asbestos.

##### C. FIT CHECKS AND FIT TESTING

1. Workers must perform positive and negative air pressure fit checks each time a respirator is put on, whenever the respirator design so permits. Powered air purifying respirators shall be tested for adequate flow as specified by the manufacturer.

2. Workers shall be given a qualitative fit test in accordance with procedures detailed in OSHA 1910 and 1926 for all respirators to be used on this Hazardous Materials abatement project. An appropriately administered quantitative fit test may be substituted for the qualitative fit test.
3. Documentation of adequate respirator fit must be provided to said school district.
4. No one wearing a beard shall be permitted to don a respirator and enter the work area.
5. Additional respirators (minimum of 2 of each type) and training on their donning and use must be made available at the work site for authorized visitors who may be required to enter the work area

**D. PROTECTIVE CLOTHING**

1. Disposable clothing including head, foot and full body protection shall be provided in sufficient quantities and adequate sizes for all workers and authorized visitors.
2. Hard hats, protective eyewear, gloves, rubber boots and/or other footwear shall be provided as required for workers and authorized visitors. Safety shoes may be required for some activities.

**E. REMOVAL PROCEDURES**

1. Clean and isolate the work area.
2. 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. Saturate the material to the substrate, however, do not allow excessive water to accumulate in the work area. Keep all removed material wet enough to prevent fiber release until it can be containerized for disposal. If work area temperatures are below 32 degrees and amended water is subject to freezing, dry removal permits and procedures must be utilized.
3. Maintain a high humidity in the work area by misting or spraying to assist in fiber settling and reduce airborne concentrations. Wetting procedures are not equally effective on all types of asbestos containing materials but, shall nonetheless be used in all cases.
4. Saturated asbestos containing material shall be removed in manageable sections. Removed material should be containerized before moving to a new location for continuance of work. Surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.
5. Material removed from building structures or components shall not be dropped or thrown to the floor. Material should be removed as intact sections or components whenever possible and carefully lowered to the floor. If this cannot be done for materials greater than 50 feet above the floor, a dust tight chute shall be constructed to transport the material to containers on the floor or the material may be containerized at elevated levels (e.g. on scaffolds) and carefully lowered to the ground by mechanical means. For materials between 15 to 50 feet above the ground may be containerized at elevated levels or dropped onto inclined chutes or scaffolding for subsequent collection and containerization.

6. Containers (6 mil polyethylene bags or drums) shall be sealed when full. (Wet material can be exceedingly heavy. Double bagging of waste material is usually necessary. A determination of need for single or double bags must be made early in the Hazardous Materials abatement process and agreed to by said school district. Bags shall not be overfilled. They should be securely sealed to prevent accidental opening and leakage by tying tops of bags in an overhand knot or by taping in a gooseneck fashion. Do not seal bags with wire or cord. (Bags may be placed in drums for staging or transportation to the 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.)
7. Large components removed intact shall be wrapped in 2 layers of 6-mil polyethylene sheeting secured with tape for transport to the landfill.
8. Asbestos containing waste with sharp edged components (e.g. nails, screws, metal lath, tin sheeting) will tear the polyethylene bags and sheeting and shall be placed into drums for disposal.
9. After completion of all stripping work, surfaces from which asbestos containing materials have been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove all visible residue.
10. Clean up shall proceed in accordance with Section 3.6.
11. After the work area has been rendered free of visible residues, a thin coat of satisfactory encapsulating agent shall be applied to all surfaces in the work area including structural members, building components and plastic sheeting on walls, floors and covering non-removable items, to seal in non-visible residue.
  - a. High temperature components such as boilers and pipes may not permit the application of some Encapsulants.
  - b. If insulation or acoustical materials are to be re-applied to the abated area, be certain that the Encapsulants selected will permit good adhesion to the substrate. A small area should be tested before application.

**F. ENCAPSULATION PROCEDURES**

1. Prior to the application of either a bridging or penetrating Encapsulants, the load bearing characteristics of the friable material need to be tested in accordance with EPA. The results must be submitted to said school district before proceeding with work.
2. Clean and isolate the work area
3. Repair damaged and missing areas of existing sprayed or troweled material with non-asbestos containing substitutes. Material must adhere adequately to existing surfaces and provide an adequate base for application of encapsulating agents. Filler material shall be applied in accordance with manufacturer's recommended specifications.
4. Remove loose or hanging asbestos containing materials in accordance with the requirements of Section 3.4.



**5. Bridging type Encapsulants**

- a. Apply bridging type encapsulants to provide 0.004 inches of minimum dry film thickness over sprayed asbestos surfaces.

**6. Penetrating type encapsulant**

- a. Penetrating encapsulants used must be first field tested to insure proper penetration into the asbestos-containing material. Results must be submitted to the Environmental Management Department before work proceeds.
- b. Apply penetrating type encapsulant to penetrate existing sprayed asbestos materials by 100% with field test of 80-100%.
- c. Apply penetrating encapsulant to penetrate existing sprayed asbestos materials uniformly to substrate.
- d. During treatment with a penetrating type encapsulant, the contractor shall release selected random core samples of the asbestos containing materials in the presence of said school district to check the depth of penetration.
- e. Apply encapsulants using airless spray equipment.

**G. CLEAN UP PROCEDURE**

- 1. Remove and containerize all visible accumulations of asbestos containing material and asbestos containing debris utilizing rubber dustpans and rubber squeegees to move material around. Do not use metal shovels to pick up or move accumulated waste. Special care shall be taken to minimize damage to floor sheeting.
- 2. Wet clean all surfaces in the work area using rags, mops and sponges, as appropriate.
- 3. Remove the cleaned outer layer of polyethylene sheeting from walls and floors. Windows, doors, HVAC system vents and all other openings shall remain sealed. The negative pressure ventilation units shall remain in continuous operation. Decontamination enclosure systems shall remain in place and be utilized.
- 4. After cleaning the work area and applying an encapsulating agent, wait at least 24 hours to allow fibers to settle. HEPA vacuum and wet clean all objects and surfaces in the work area again.
- 5. Remove all containerized waste from the work area and waste container pass out airlock.
- 6. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.
- 7. The said school district Project Manager will inspect the work area for visible residue. If any accumulation of residue is observed, it will be assumed to be asbestos and the 24-hour settling period/cleaning cycle repeated.
- 8. The work area shall be cleaned until it is in compliance with State and Local requirements and/or any more stringent criteria agreed upon by the Contractor and said school district prior to initiation of Hazardous Materials abatement activities. (Criteria should be in the form of visual inspections and airborne fiber concentrations.)

**9. ADDITIONAL CLEANING CYCLES SHALL BE PROVIDED, AS NECESSARY, AT NO COST TO SAID SCHOOL DISTRICT UNTIL SAID CRITERIA HAVE BEEN MET.**

10. Following the satisfactory results of clearance air monitoring, remaining barriers may be removed and properly disposed of. A final visual inspection by said school district shall insure that no contamination remains in the work area. Unsatisfactory conditions may require additional cleaning and air monitoring. (See Re-establishment of the Work Area.)

**H. CLEARANCE AIR MONITORING**

1. Following the completion of cleanup operations, the contractor shall notify said school district that work areas are ready for clearance air monitoring.
2. Said school district shall then arrange for an Air Monitoring Professional to perform final visual inspections and to sample the air in the work area for airborne fiber concentrations.
3. The use of TEM (Transmission Electron Microscopy) will be used for clearance air monitoring. Volume requirements for electron microscope methods will be discussed with the analytical laboratory.
4. The number of samples that are required and the specific locations where they shall be taken will be established by said school district before Hazardous Materials abatement activity begins.
5. Aggressive sampling shall be performed with a specified number of portable fans circulating air in the work area to simulate actual use conditions. Negative pressure ventilation units shall not be utilized for this purpose.
6. Air sampling shall be analyzed by Phase Contrast Microscopy during Hazardous Materials abatement and clearance if the square footage is less than or equal to 160 and linear footage is less than or equal to 260. Otherwise, Transmission Electron Microscopy will be used for clearance.
7. An average of five inside samples shall indicate concentrations of asbestos fibers less than 70 s/mm<sup>2</sup> (TEM) for release of the work area.
8. Areas exceeding this level shall be re-cleaned using procedures in Section 3.6 and retested until satisfactory levels are obtained.

**I. DISPOSAL PROCEDURES**

1. 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.
2. Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAP and applicable State and Local guidelines and regulations.
3. All dump receipts, trip tickets, transportation manifests or other documentation of disposal shall be delivered to said school district for its records. A recommended record keeping format utilizes a chain of custody form which includes the names and addresses of the Generator (said school district), Contractor, pick up site, and disposal site, the estimated quantity of the asbestos waste and the type of containers used. The

form should be signed by the Generator, the Contractor, and the disposal site operator, as the responsibility for the material changes hands. If a separate hauler is employed, his name, address, telephone number and signature should also appear on the form.

#### **J. TRANSPORTATION TO THE LANDFILL**

1. Once drums, bags and wrapped components have been removed from the work area, they shall be loaded into an enclosed truck for transportation.
2. When moving containers, utilize hand trucks, carts and proper lifting techniques to avoid back injuries. Trucks with lift gates are helpful for raising drums during truck loading.
3. 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.
4. Drums shall be placed on level surfaces in the cargo area and packed tightly together to prevent shifting and tipping. Large structure components shall be secured to prevent shifting and bags placed on top. Do not throw containers into truck cargo area.
5. 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.
6. 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 up using HEPA filtered vacuum equipment and/or wet methods as appropriate.
7. Large metal dumpsters are sometimes used for asbestos waste disposal. These should have doors or tops that can be closed and locked to prevent vandalism or other disturbance of the bagged asbestos debris and wind dispersion of asbestos fibers. Non-bagged material shall not be placed in these containers, nor shall be used for non-asbestos waste. Bags shall be placed, not thrown.

#### **K. DISPOSAL AT THE LANDFILL**

1. Upon reaching the landfill, trucks are to approach the dump location as closely as possible for unloading of the asbestos containing waste.
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.
3. Waste containers shall be placed on the ground at the disposal site, not pushed or thrown out of trucks (weight of wet material could rupture containers).
4. Personnel offloading 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.

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. Polyethylene sheeting shall be removed and discarded along with contaminated cleaning materials and protective clothing, in bags or drums at the disposal site.
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.

**L. RE-ESTABLISHMENT OF THE WORK AREA**

1. Re-establishment of the work area shall only occur following the completion of clean up procedures and after clearance air monitoring has been performed and documented to the satisfaction of said school district as the Building Owner.
2. Polyethylene barriers shall be removed from walls and floors at this time, maintaining decontamination enclosure systems and barriers over doors, windows, etc., as required.
3. The Contractor and said school district shall visually inspect the work area for any remaining visible residue. Evidence of contamination will necessitate additional cleaning requirements
4. Additional air monitoring shall be performed in accordance with Section 3.8 if additional cleanup is necessary.
5. Following satisfactory clearance of the work area, remaining polyethylene barriers may be removed and disposed of as asbestos contaminated waste.
6. At the discretion of the Contractor, mandatory requirements for personal protective equipment may be waived following the removal of all barriers.
7. Re-secure mounted objects removed from their former positions during area preparation activities.
8. Relocate objects that were removed to temporary locations back to their original positions.
9. Re-establish HVAC mechanical and electrical systems in proper working order. Remove contaminated HVAC system filters and dispose of as asbestos contaminated waste. Decontaminated filter assembly using HEPA vacuums and wet cleaning techniques. Install new filters in HVAC systems. Dispose of old filters.
10. Repair all areas of damage that occurred as a result of Hazardous Materials abatement activities.

**V. SUPPORT ACTIVITIES AND PERSONNEL**

**A. TRAINING**

1. Training shall be provided by the Contractor to all employees or agents who may be required to disturb asbestos containing or asbestos contaminated materials for Hazardous Materials abatement and auxiliary purposes and to all supervisory personnel who may be involved in planning, execution or inspection of Hazardous Materials abatement projects.

2. Training shall provide, at a minimum, information on the following topics:
3. The health hazards of asbestos including the nature of various asbestos related diseases, routes of exposure, known dose response relationships, the synergistic relationship between asbestos exposure and cigarette smoking, latency periods for disease and health basis for standards.
4. The physical characteristics of asbestos including fiber size, aerodynamic properties, physical appearance and uses.
5. Employee personal protective equipment including the types of characteristics of respirator classes, limitations of respirators, proper selection, inspection, donning, use, maintenance and storage of respirators, field testing the face piece to face seal (positive and negative pressure fit tests), qualitative and quantitative fit testing procedures, variations between laboratory and field fit testing procedures, variations between laboratory and field fit factors, factors that affect respirator fit (e.g. facial hair), selection and use of disposable clothing, use and handling of washable clothing, nonskid shoes, gloves, eye protection and hard hats.
6. Medical monitoring requirements for workers including required and recommended tests, reasons for medical monitoring and employee access to records.
7. Air monitoring procedures and requirements for workers including description of equipment and procedures, reasons for monitoring, types of samples and current standards with recommended changes.
8. Work practices for Hazardous Materials abatement including purpose, proper construction and maintenance of air tight plastic barriers, job set up of airlocks, worker decontamination systems and waste transfer airlocks, posting of warning signs, engineering controls electrical and ventilation system lockout, proper working techniques, waste cleanup, storage and disposal procedures.
9. Personal hygiene including entry and exit procedures for the work area, use of showers and prohibition of eating, drinking, smoking and chewing in the work area.
10. Special safety hazards that may be encountered including electrical hazards, air contaminants (CO, wetting agents, encapsulants, materials from Owner's operation), fire and explosion hazards, scaffold and ladder hazards, slippery surfaces, confined spaces, heat stress and noise.
11. Workshops affording both supervisory personnel and Hazardous Materials abatement workers the opportunity to see (and experience) the construction of containment barriers and decontamination facilities.
12. Supervisory personnel shall, in addition, receive training or contract specifications, liability insurance and bonding, legal considerations related to Hazardous Materials abatement, establishing respiratory protection medical surveillance programs, EPA, OSHA, and State record keeping requirements, and other topics as requested by said school district.
13. Training must be provided by individuals qualified by virtue of experience and education to discuss the topic areas.
14. Training is to have occurred within 12 months prior to the initiation of Hazardous Materials abatement activities.

15. Contractor must document training by providing date of training, training entity, course outline, and names and qualifications of trainers.

**B. MEDICAL MONITORING**

1. Medical monitoring must be provided by the Contractor to any employee or agent that may be exposed to asbestos in excess of background levels during any phase of the Hazardous Materials abatement project. Due to the synergistic effects between smoking and asbestos exposure, it is highly recommended that only non-smokers be employed in positions which may require them to enter asbestos contaminated atmospheres
2. Medical monitoring shall include at a minimum:
  - a. A work/medical history to elicit symptomatology of respiratory disease.
  - b. A chest x-ray (posterior - anterior, 14 x 13 inches) evaluated by a Certified B reader.
  - c. A pulmonary function test, including forced vital capacity, EMC and forced expiratory volume at one second (FEM/p) administered and interpreted by a Certified Pulmonary Specialist.
3. Employees shall be given an opportunity to be evaluated by a physician to determine their capability to work. Safely while breathing through the added resistance of a respirator. (Examining physicians shall be aware of the nature of respiratory protective devices and their contributions to breathing resistance. They shall also be informed of the specific types of respirators the employee shall be required to wear and the work he will be required to perform, as well as special work place conditions, such as high temperatures, high humidity, and chemical contaminants to which he or she may be exposed.)

**C. ASBESTOS PROJECT MANAGER**

1. The Asbestos Project Manager shall be a said school district representative typically an Environmental Inspector from the Environmental Management Department as the Building Owner or a designated representative paid by said school district.
2. The Asbestos Project Manager shall be able to demonstrate through special education, training, skills, knowledge or experience satisfactory to said school district with the ability to carry out the following activities as required:
  - a. Assist in decision making regarding selection of procedures.
  - b. Assist in writing contract specifications for the Hazardous Materials abatement.
  - c. Assist in evaluation of bids and selection of a contractor.
  - d. Enforce contract specifications.
  - e. Tour work area with the Contractor and agree on pre-abatement conditions of the work area.
  - f. Inspect and sign off on barriers and decontamination enclosure systems.
  - g. Observe activities at all times during the course of Hazardous Materials abatement.



**SAMPLE AGREEMENT: EXHIBIT B**  
**Rate Schedule**

	*PERSONNEL TITLE/CLASSIFICATION	PAY RATE	
1.	Consultant – Senior, or equivalent* [Required]	\$ 150.00	Per hour
2.	Consultant – Project Engineer, or equivalent* [Required]	\$ 125.00	Per hour
3.	Consultant – Project Manager, or equivalent* [Required]	\$ 125.00	Per hour
4.	Consultant – Staff Observation, or equivalent* [Required]	\$ 80.00	Per hour
5.	Consultant – Field Specialist, or equivalent* [Required]	\$ 95.00	Per hour
		\$	Per hour
		\$	Per hour
		\$	Per hour
		\$	Per hour
		\$	Per hour



**SAMPLE AGREEMENT: APPENDIX 1  
Quote Form**



**New Mexico Public School Facilities Authority**

Quote for Hazardous Materials Abatement Services for Project No. \_\_\_\_\_

Project Name \_\_\_\_\_

Project Location \_\_\_\_\_

Date of Proposal \_\_\_\_\_

**1. General Description**

The contractor proposes to perform the requested Hazardous Materials Abatement work as requested in accordance with PSFA Contract No. PA2024-003 on a Firm Fixed Price.

**2. Services and Price/Costs**

Position Title*	Hours	Hourly Rate**	Total Price
			\$

\*Position Title must match the position titles in PSFA Contract No. PA2024-003

\*\* Hourly rate must match the Position Title in PSFA Contract No. PA2024-003

**2.1 Travel**

	Quantity		Total
Number of Miles Round Trip		X \$0.47* per mile	
Meals- 2-6 hour beyond normal work day		X \$20.00*	
Meals- 6-12 hour beyond normal work day		X \$42.00*	
Meals- 12+ hour beyond normal work day		X \$59.00*	
Meals- returning from overnight travel 2-6 hour beyond normal		X \$18.00*	

work day			
Meals- returning form overnight travel 6-12 hour beyond normal work day		X \$40.00*	
Meals- returning form overnight travel 12+ hour beyond normal work day		X \$55.00*	
Lodging- In State Areas		X \$155.00*	
Lodging- In State Special Areas (Santa Fe Only)		X \$202.00*	
Lodging- Out of State Areas		X \$155.00*	

\*Travel reimbursable rates are subject to change in accordance with the New Mexico's allowable travel per diem and mileage amount limits. See NMSA 2.42.2.8 A-B.

## 2.2 Printing/Other Costs

	Quantity	Price per Item	Quantity
Printing:			
Other:			
Other:			
Other:			

### 3. Purpose

The purpose of this Quote is to obtain Hazardous Materials Abatement services for the above referenced Project.

### 4. Scope

The scope of this requirement is to provide Hazardous Materials Abatement services to [insert language to describe the scope of work to be performed].

**5. Time is of the Essence**

The work shall commence on [date] and completed no later than [date].

**6. Deliverables**

[insert detailed deliverables of work to be performed.]