



**Environmental Management Consulting, Inc.**

**PROJECT MANUAL  
ASBESTOS ABATEMENT PROJECT**

**WAUKESHA COUNTY COURTHOUSE  
DISTRICT ATTORNEY OFFICE – PHASE II-III  
515 W. MORELAND BLVD.  
WAUKESHA, WI 53188  
WAUKESHA COUNTY CAPITAL PROJECT NUMBER: 201001**

**DATE: OCTOBER 12, 2010  
EMC PROJECT NUMBER: 100258-05**

**PREPARED FOR:**

**WAUKESHA COUNTY DEPT. OF PARKS/LAND USE  
MS. LESLIE WILLIAMS  
515 W. MORELAND BLVD., ROOM AC260  
WAUKESHA, WI 53188**

**PREPARED BY:**

**ENVIRONMENTAL MANAGEMENT CONSULTING, INC.  
W7748 COUNTY HIGHWAY V  
LAKE MILLS, WI 53551-9643  
MR. WILLIAM A. FREEMAN**

*Securing Safer Futures...*

W 7748 Cty Hwy V, Lake Mills, WI 53551 ◆ 920.648.6343 Fax: 920.648-4370 ◆ [www.emc-wi.com](http://www.emc-wi.com)

PROJECT MANUAL

ASBESTOS ABATEMENT PROJECT DESIGN

OWNER

Waukesha County Dept. of Parks and Land Use  
ATTN: Ms. Leslie Williams  
515 W. Moreland Blvd., Room AC260  
Waukesha, WI 53188

PROJECT DESIGNER

Environmental Management Consulting, Inc.  
Mr. William A. Freeman  
W7748 County Highway V  
Lake Mills, WI 53551-9643

Project No.: 100258-05

Date of Issue: October 14, 2010

A handwritten signature in black ink, appearing to be 'W.A. Freeman', written over a horizontal line.

Mr. William A. Freeman  
Project Designer  
EPA Accreditation Number: APD-01284

## PROJECT TIMETABLE

Project Manual/Specification Package  
Available from Purchasing Division Website  
[www.waukeshacounty.gov/bids\\_list.aspx](http://www.waukeshacounty.gov/bids_list.aspx) and  
EMC Office

DATE: Friday, October 15, 2010

Non-Mandatory Pre-bid Meeting and Project  
Walk-through held at Waukesha County

DATE: Tuesday, October 26, 2010

TIME: 1:30 PM

Bid Due at Waukesha County Office

DATE: Tuesday, November 2, 2010

TIME: 10:30AM

Award of Contract

DATE: Friday, November 12, 2010

Contractor to File  
Notifications Phase II-III Work

DATE: Thursday, November 18, 2010

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SECTION I

ANNOUNCEMENT FOR BIDS

## INVITATION TO BID

Project: **201001A**  
**Waukesha County DA Offices**  
**515 W. Moreland Blvd**  
**Waukesha, WI**

1. Scope: Environmental Management Consulting, Inc. (EMC)  
W7748 County Highway V  
Lake Mills, WI 53551
2. Notice is hereby given that sealed bids are due on Tuesday, November 2 at 10:30 a.m., 2010.
3. Bid documents will be **available for distribution** on or after Friday, October 15, 2010. Bidders **may obtain** bid documents only from the Waukesha County Purchasing website, <https://purchasing.waukeshacounty.gov> or the Environmental Management Consulting, Inc. office located at W7748 County Highway V, Lake Mills, WI 53551-9643 (920) 648-6343. **Documents will not be mailed.**
4. A non-mandatory Pre-bid meeting and walk through Tuesday, October 26, 2010 1:30PM. Meet in the Coffee Shop CG-58 on the Ground Floor of the Courthouse.

Published by Order of:  
Waukesha County Department of Public Works  
Facilities Management Division  
515 Moreland Blvd  
Waukesha, WI 53188

Date: October 12, 2010

SECTION II  
BID INFORMATION



## SECTION II

## BID INFORMATION

### 2.1 INVITATION TO BID

Project: DPW201001-A

1. Bids will be prepared in accordance with contract documents prepared by Environmental Management Consulting, Inc., located at W7748 County Hwy V, Lake Mills, WI 53551, Phone (920) 648-6343, Fax (920) 648-4370, and dated Tuesday, October 12, 2010.
2. Notice is hereby given that sealed bids are due in the Waukesha County Department of Administration – Purchasing Division office, room 310, at the Waukesha County Administration Center at 10:30 A.M., on November 2, 2010. (Reference Bid Form, Item 2)
3. Bids will be publicly read in the Waukesha County Administration Center, Room 310, 515 W. Moreland Blvd., Waukesha, Wisconsin.
4. Oral, faxed or e-mailed bids will be rejected.
5. All blanks on the bid form shall be filled in by typewriter print or manually in ink. If the unfilled areas are illegible, the bid shall be rejected. The bidder shall make no additional stipulations on the bid form or qualify the bid in any manner.
6. Where so indicated on the bid form, the values shall be expressed in both words and figures. In the event of discrepancy between the words and figures, the amount written in words shall govern.
7. Bids will be submitted using the Bid Forms provided herein. Bid security shall be by a qualified surety in the form of a bid bond, in the amount of ten percent (10%) of bid amount, and shall be submitted with the bid. Bidders shall agree to not withdraw the bid for a period of sixty (60) days after due date of bids.
8. Accepted bidders will be required, as a condition precedent to award of contract, to furnish in the amount of 100% of the contract prices, satisfactory Performance Bond, Labor and Material Payment Bond and Certificate of Insurance.
9. Bid documents will be available for distribution on or after Friday, October 15, 2010. Bidders may obtain bid documents from the Waukesha County Purchasing website, <https://purchasing.waukeshacounty.gov> or the Environmental Management Consulting, Inc. office located at W7748 County Highway V, Lake Mills, Wisconsin 53551-9643, (920) 648-6343. Documents will not be mailed.
10. Bid documents will be available for examination on or after Friday, October 15, 2010. Examination only, may be made at Waukesha County, Department of Public Works, Facilities Management Division, Room G1 - 515 W. Moreland Blvd, Waukesha, Wisconsin 53188.

11. Pre-bid meeting and walkthrough on Tuesday, October 26, 2010, at 1:30\_PM. Meet in the Coffee Shop CG -58 on the Ground Floor of the Courthouse. BE SURE TO REVIEW THE PLANS AND SPECIFICATIONS PRIOR TO THE PRE-BID MEETING.
12. The right to reject any or all bids, either in whole or in part or to waive any informalities or irregularities is reserved by Waukesha County.

Published by Order of:  
Waukesha County Department of Public Works  
Facilities Management Division  
Project: DPW201001- A  
Phone: (262)548-7197  
Fax: (262) 548-7535  
515 Moreland Blvd  
Waukesha, WI 53188

# **AIA** Document A701™ – 1997

## *Instructions to Bidders*

### AS MODIFIED BY OWNER

for the following PROJECT:  
(Name and location or address):

THE OWNER:  
(Name and address):

THE ARCHITECT:  
(Name and address):

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

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### AS MODIFIED BY OWNER

### A 701 MASTER INSTRUCTIONS TO BIDDERS

## ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, (as modified by Owner) or in other Contract Documents are applicable to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

1.5.1 Base Bid includes all work required to complete the Project, including Building Permits, General Conditions, overhead, profit, insurance, bonds, taxes, and all other expenses. Bid Guarantee (10%) Bid Bond Cost, Public Improvement Performance Bond and Labor and Materials Payment Bond Cost (100%).

1.5.2 Mandatory Alternate Bid includes all work required to complete the alternate, including Building Permits, General Conditions, overhead, profit, insurance, bonds, taxes, and all other expenses. Bid Guarantee (10%) Bid Bond Cost, Public Improvement Performance Bond and Labor and Materials Payment Bond Cost (100%).

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment or labor for a portion of the Work.

## ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents.

§ 2.1.3 The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

§ 2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

### ARTICLE 3 BIDDING DOCUMENTS

#### § 3.1 COPIES

~~§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid in the number and for the deposit sum, if any, stated therein. The deposit One (1) set of Documents will be refunded provided to Bidders who submit a bona fide Bid and return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing General Contractors at no charge. Subcontractors wishing documents or General Contractors wishing additional sets must purchase these sets at cost. Damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.~~

§ 3.1.2 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the Advertisement or Invitation to Bid, or in supplementary instructions to bidders.

§ 3.1.3 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

§ 3.1.4 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

#### § 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

§ 3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

§ 3.2.4 Any conflicts within or between the Drawings and the Project Manual shall be submitted to (NAME AND ADDRESS OF A/E FIRM) in writing, for resolution, and their decision shall be final as to which shall prevail. This provision shall apply regardless of whether said conflict is acknowledged before or after bids are opened, or Contracts let, or actual construction has commenced.

#### § 3.3 SUBSTITUTIONS

§ 3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

§ 3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.3 If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

§ 3.3.4 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

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**§ 3.4 ADDENDA**

§ 3.4.1 Addenda will be transmitted to all who are known by the issuing office to have received a complete set of Bidding Documents.

§ 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

**ARTICLE 4 BIDDING PROCEDURES**

**§ 4.1 PREPARATION OF BIDS**

§ 4.1.1 Bids shall be submitted on the forms included with the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

§ 4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change."

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

**§ 4.2 BID SECURITY**

§ 4.2.1 Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Section 6.2.

4.2.1.1 Bids must be accompanied by a bid guarantee in the form of a bid bond, only in an amount not less than ten percent (10%) of the full amount of the Base Bid.

§ 4.2.2 If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

§ 4.2.3 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn or (c) all Bids have been rejected.

#### § 4.3 SUBMISSION OF BIDS

§ 4.3.1 All copies of the Bid, the bid security, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, ~~if applicable, the designated portion of the Work for which the Bid is submitted.~~ If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

§ 4.3.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.4 Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.

#### § 4.4 MODIFICATION OR WITHDRAWAL OF BID

~~§ 4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.~~  
Matters pertaining to the withdrawal of a bid and to claims of error, omission or mistake in preparing or submitting a bid shall be governed by Section 66.0901 of the Wisconsin Statutes.

~~§ 4.4.2 Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date and time stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.~~

~~§ 4.4.3 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these instructions to Bidders.~~

~~§ 4.4.4 Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.~~

#### ARTICLE 5 CONSIDERATION OF BIDS

##### § 5.1 OPENING OF BIDS

At the discretion of the Owner, if stipulated in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

##### § 5.2 REJECTION OF BIDS

The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

##### § 5.3 ACCEPTANCE OF BID (AWARD)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest ~~qualified-responsible and responsive~~ Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interests.

§ 5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

~~5.3.3 After bids are opened, no bid may be withdrawn for a period of 60 days without the consent of the Owner. All bids shall remain firm during this 60 day period after the bids are opened.~~

~~5.3.4 The successful bidder, by submitting a bid, agrees to commence work and to fully complete work in accordance with the Work Schedule dates indicated on the Proposal Form. Should it be found impossible~~

to complete the work on or before the time specified for completion, the Bidder shall state the number of additional calendar days required for completion in the space provided in the Proposal Form.

5.3.5 Letting of work described herein is subject to the provisions of Section 66.0901 of the Wisconsin Statutes as amended to date.

#### ARTICLE 6 POST-BID INFORMATION

##### § 6.1 CONTRACTOR'S QUALIFICATION STATEMENTS

~~Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.~~

##### § 6.2 OWNER'S FINANCIAL CAPABILITY

~~The Owner shall, at the request of the Bidder to whom award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Bids, furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Bidder will not be required to execute the Agreement between the Owner and Contractor.~~

##### § 6.3 SUBMITTALS

§ 6.3.1 ~~The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:~~

- ~~1 a designation of the Work to be performed with the Bidder's own forces;~~
- ~~2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work; and~~
- ~~3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.~~

~~§.~~

6.3.1 All Bidders shall be required to submit a listing of all their proposed Subcontractors. Include the committed prices for each of the listed Subcontractors. If requested, the list shall be furnished to the Owner no later than forty-eight (48) hours after the opening of the Bids, and must include the name of the Bidder submitting the list.

§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

#### ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

##### § 7.1 BOND REQUIREMENTS

§ 7.1.1 ~~§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Bonds may be secured through the Bidder's usual sources.~~



§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 If the Owner requires that bonds be secured from other than the Bidder's usual sources, changes in cost will be adjusted as provided in the Contract Documents. The successful bidder will be required to furnish and pay for a Public Improvement Performance/Labor and Material Payment Bond for the full amount of the Contract Sum, for the diligent, full and faithful performance of the work for which he has been contracted. Bonds shall be written on Wisconsin AIA Document A312-1984 issued by a surety company licensed to do business in the State of Wisconsin. The attorney-in-fact who executes the bond on behalf of the surety company shall affix thereto a certificate and current copy of his power of attorney indicating the monetary limit of such power. The Owner reserves the right to accept or reject the use of any surety company.

§  
§ 7.13 § 7.2 TIME OF DELIVERY AND FORM OF BONDS

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond. Both bonds shall be written in the amount of the Contract Sum.

§ 7.2.3 The bonds required Public Improvement Performance/Labor and Material Payment Bond shall be dated on or after the date of the Contract, and shall be furnished to the Owner prior to the execution of the Contract by the Owner.

§  
§  
§  
§ 7.2.3  
§ 7.2.4

§ 7.2.4 The Bidder shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

**ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR**

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101, Standard Form of Agreement as revised by Owner Between Owner and Contractor Where the Basis of Payment Is a Stipulated Sum.

## **2.3 SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

### **GENERAL:**

Carefully review Project Manual(s), including Bidding Requirements, General Requirements, Specifications, Alternates, and Amendments, all of which contain provisions applicable to all Bidders. Examine all drawings, as successful Bidder will be required to execute all Work belonging to their Contract which is shown on drawings, stated in the specifications, or reasonably implied as necessary to complete their Contract, including removal of existing work and preparing present work to receive new, if such be the requirements of actual job conditions.

Visit site to become acquainted with: Adjacent areas; means of approach to the site; present conditions of project site; and facilities for delivering, storing, placing and handling of materials and equipment. Compare specifications and drawings with existing work in place, inspect demolition requirements and inform yourself of all conditions affecting execution of work, including other new work, if any, being performed. Review informational documentation, such as geotechnical reports, soil test borings and other available information, if any.

### **BACKGROUND CHECKS:**

Contractor shall complete background checks at Contractor's expense on all personnel prior to starting any activity for the County. Contractor shall confirm in writing to Waukesha County that they have successfully conducted the background checks prior to the commencement of work and that Contractor will not use any personnel for whom background checks have revealed factors that make them unsuitable for the activity to be undertaken for the County. This includes replacement personnel.

At a minimum, resources to be checked should include, but are not limited to, civil (<http://wcca.wicourts.gov/index.xsl>) and criminal records (<http://wi-recordcheck.org/index.html>), Department of Transportation motor vehicle/licensing records (<http://www.dmv.org/wi-wisconsin/departments-motor-vehicles.php>). In order to do so, Contractor must obtain certain information for each of the Contractor's employees expected to be performing work for Waukesha County. At a minimum, the information shall include full name (including middle initial), date of birth and social security information. Additional information that is helpful in completing background checks includes maiden name, sex, race, driver's license number and issuing state and places of residence for the last three years.

NOTE: If the individual has resided outside of the State of Wisconsin within the last three (3) years, you will have to do similar research within the state they resided in.

All costs associated with the background checks are to be borne by the Contractor. All records received as a result of background checks are to be retained by the Contractor for a period of three (3) years after contract expiration.

Waukesha County reserves the right to request the results of the background checks and/or to do additional background checks on their own.

**WORKSITE AVAILABILITY:**

A specific window of opportunity exists for completion of the Work, therefore Work shall commence on the date noted in the Bid Form (Reference Bid Form, Section 7.B.).

**DOCUMENTS:**

Bidders shall be familiar with all Bidding Requirements and proposed Contract Documents. See General Conditions for definition of Contract Documents.

**BID FORM:**

Alterations of or amendments to Bid Form, attachments thereto, or inclusion of any correspondence, or other written or printed matter or details of any nature other than that specifically called for may disqualify Bid. No e-mailed alterations to the Bid will be accepted.

Only Bids which are made on regular Bid Form will be considered. No Bids for any arbitrary subdivision or sub-classification of work required by requested bid(s) will be accepted.

Requirements of Signing: Include with each Bid full business address of Bidder. Bids by corporations shall be executed in the full legal name of the corporation, giving State of Corporation and be signed by an authorized officer or officers, who shall, in each case, type or print name and corporate title beneath the signature. Partnership bids shall state the full name of all partners, e.g., "Smith and Jones, a partnership of John S. Smith and William B. Jones". Such bids must also be signed by an authorized partner or other representative, typing or printing the name and title of the signer beneath the signature, followed by the words "Sole Proprietor". When requested by Owner, furnish satisfactory evidence of agency or authority of any person signing on behalf of another.

Submission of Bids: Reference Bid Form, Section 2.

**CONTRACT AND CONTRACT DOCUMENTS:**

The Contract Agreement, into which successful Bidder will be required to enter, is based on AIA Document A105-2007 (as modified by owner). Familiarize yourself with the provisions of this document.

**CONTRACTOR'S QUALIFICATION STATEMENT:**

Bidders who are being considered for the award of a Contract shall submit to the Owner upon request a properly executed AIA Document A305, Contractor's Qualification Statement.

**ACCEPTANCE OF BID (AWARD):**

It is the intent of the Owner to award a Contract or accept any bid which will be in the best interests of the Owner, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner reserves the right to waive informalities or irregularities in a Bid received and to accept the Bid, which in the Owner's judgment is in the Owner's best interests.

The Owner reserves the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the Base Bid and Alternates accepted.

**WITHDRAWAL OF BIDS:**

Matters pertaining to the withdrawal of a bid and to claims of error, omission or mistake in preparing or submitting a bid shall be governed by Section 66.091 of the Wisconsin Statutes.

All Bids shall be effective and open for acceptance for a period of sixty (60) days after date set for opening of Bids.

**RESERVATION:**

Owner reserves the right to: reject any or all Bids, reject a Bid not accompanied by a required bid security or by other data required by the Bidding Documents, reject a Bid which is in any way incomplete or irregular, waive any irregularities in any Bid, or accept any Bid which will be to best interests of Owner.

**INADEQUACIES AND OMISSIONS:**

Failure to request timely clarification or interpretation of Bidding Documents shall not relieve Bidder/Contractor of responsibility to execute the work in accordance with the intent of the Contract Documents. Signing of Contract means that the Contractor has thorough comprehension of full intent and scope of Contract Documents.

The Owner and his consultants are not responsible for oral instructions.

**INTERPRETATIONS AND CORRECTIONS:**

Carefully review and compare all parts of the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is being submitted. Examine the site and local conditions, and immediately report to the Owner errors, inconsistencies or ambiguities discovered.

Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall submit a written request to the Architect. Received in Architect's office at least five (5) days prior to the date set for receipt of Bids.

Interpretations and corrections of and changes to the Bidding Documents will be made in writing by Addendum only. Documents made in any other manner are not binding. Bidders shall not rely upon verbal instructions or information.

**POWER OF ATTORNEY AND BOND REQUIREMENTS:**

Submit with each Bid a bond executed by an attorney-in-fact, including a certified and effectively dated copy of his power of attorney. Where the certification is by facsimile, or otherwise does not bear an original signature, the bonding company must be qualified for recognition under facsimile execution.

**Project: 201001A Asbestos Abatement Project at Waukesha County District Attorney  
Offices Phase II & III**

**2.4 BID FORM**

1. GENERAL DIRECTIONS TO BIDDERS

- A. All bids must be submitted on these standard form sheets inclusive without modification. Fill out all blanks on the Bid Form by typing or writing in ink. Sign in ink. Erasures or other changes in Bid must be explained or noted over signature of Bidder. Enter bid amount in both written words and printed figures in spaces provided on Bid Form. In case of conflict, amount given in written words will govern.
- B. Base Bid(s) must be for Work bid in strict accordance with the Drawings and Specifications. **INCLUDE BOND COSTS IN THE BASE BID(S).** Bid all requested Alternates. If no change to the Base Bid applies, enter "No Change."
- C. Bid Forms containing qualifications, conditions, omissions, unexplained erasures, alterations or items not called for in Bid Form or other irregularities of any kind may have their bid disqualified at the discretion of the Owner.
- D. Bidders shall examine the provisions of the project manual thoroughly to ensure compliance with all bidding requirements.
- E. Bidders shall only submit the bid forms included in the project manual – DO NOT return the project manual.
- F. Bidders shall ensure that all items in the Bid Form such as Work Schedule, Bidders Official Title and Signature, Non-Collusion Affidavit, Proof of Responsibility and Informational Attachment to Bid are properly executed.
- G. The required Bid Guarantee Bid Bond must be submitted with the Bid Form. Said Bid Guarantee shall be in an amount not less than ten percent (10%) of the Base Bid.
- H. Bids not conforming to the above directions may be declared irregular and are subject to disqualification at the discretion of the Owner.

THE BIDDER HEREBY AGREES THAT THIS BID IS INVALID WITHOUT BIDDER'S SIGNATURE APPEARING IN THE SIGNATURE BLOCK ON THE LAST PAGE OF THIS BID FORM.

2. BID SUBMITTAL PROCEDURE

In submitting a Bid, the Bidder represents that:

- He/She thoroughly reviewed and understood the Bidding and Contract Documents and the Bid is made in full accordance with these documents and amendments issued thereto.
- He/She has thoroughly reviewed and understands the Bidding and Contract Documents related to the Work of other portions of the Project, if any, being bid concurrently or presently under construction.

- He/She has thoroughly reviewed informational reports and document available to him/her, visited the project site, become familiar with actual local conditions under which the Work is to be performed and has correlated his evaluations and personal observations with the requirements of the Bidding and Contract Documents.
- That the Bid is based without exception upon the products, materials, equipment and systems required by the Bidding Contract Documents.
- A. After Bid Forms are completed, place one (1) set of signed originals and the Bid Bond in a sealed envelope. Oral, telephonic, e-mailed, or faxed Bids are invalid and will not be considered.
- B. Address the envelope to:  
Waukesha County DOA  
Risk/Purchasing Division  
Administration Center, Room 310  
515 W. Moreland Blvd.  
Waukesha, WI 53188
- C. Bidders shall affix their name and address to the front upper left-hand corner of the envelope with the words "Sealed Bid Enclosed" written on the outside. Identified in lower left corner should be: Bid number, project name and opening date.
- D. NOTE: If you are delivering your response in person, you must enter through the Courthouse public entrance (Door #2), 515 W. Moreland Blvd. and deliver it to the Department of Administration receptionist in Room 310, of the Administration Center, to be time stamped no later than bid closing time. Be sure to allow sufficient time to obtain entry as the County has now instituted a Controlled Access policy. For more information – go to [www.waukeshacounty.gov](http://www.waukeshacounty.gov) and click on the Waukesha County Security Screening link located at the bottom of the page.

3. BID CLOSING

- A. Bids must be submitted on or before 10:30 a.m. on Tuesday, November 2, 2010. The Bidder assumes full responsibility for timely delivery at the location designated for receipt of Bids. **Bids received after the time and date for receipt of Bids will be rejected and returned unopened.**

4. BID OPENING

A. A public bid opening will be held at 10:30 a.m. at the Waukesha County Administration Center, Room 310 515 W Moreland Blvd, Waukesha, Wisconsin.

We \_\_\_\_\_ (a corporation)  
\_\_\_\_\_ (a partnership)  
\_\_\_\_\_ (an individual)  
\_\_\_\_\_ (Cross out inapplicable)

Of \_\_\_\_\_  
Street City County State Zip

hereby agree to execute the proposed Contract and to furnish a satisfactory Public Improvement Performance/Labor and Material Payment Bond, in the amount of one hundred percent (100%), and to provide all labor and material required for the construction of the designated work, for the prices hereinafter set forth, in strict accordance with the Construction Documents released by: Environmental Management Consulting, Inc., W7748 County Highway V, Lake Mills, WI 53551, dated October 12, 2010.

Including Amendment Nbr(s). \_\_\_\_\_ dated \_\_\_\_\_.

5. BASE BID

Base Bid includes all work required to complete the Project, including Building Permits, General Conditions, overhead, profit, insurance, bonds, taxes, and all other expenses. Bid Guarantee ten percent (10%) Bid Bond Cost, Public Improvement Performance Bond and Labor and Materials Payment Bond Cost one hundred percent (100 %) for the sum of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

Schedule of Values:

Phase II \$ \_\_\_\_\_

Phase III \$ \_\_\_\_\_

5a. UNIT PRICES

The following unit prices are submitted by the undersigned as a price per unit of measurement for materials (or services) that will be added to or deducted from the Contract Sum by Change Order in the event the quantities of Work required by the Contract Documents are increased or decreased. The listed unit prices include all work to complete the project including General Conditions, overhead, profit, insurance, bonds, taxes, and all other expenses.



Adjustments in the Contract amount will be made on net variation, including additions and deductions and deductions of total quantities.

Removal of asbestos containing pipe fitting insulation  
(inside existing containment) per fitting. \$ \_\_\_\_\_

Removal of asbestos containing pipe insulation  
(inside existing containment) per linear foot. \$ \_\_\_\_\_

Removal of asbestos containing pipe fitting insulation  
(glovebag removal methods) per fitting. \$ \_\_\_\_\_

Removal of asbestos containing pipe insulation  
(glovebag removal methods) per linear foot. \$ \_\_\_\_\_

Removal of asbestos containing duct insulation  
per square foot. \$ \_\_\_\_\_

Removal of adhesive from duct per square foot. \$ \_\_\_\_\_

Removal of heater drip pan with asbestos containing  
Insulation. \$ \_\_\_\_\_

Removal of floor tile and mastic per square foot. \$ \_\_\_\_\_

Price per mobilization for each additional mobilization  
beyond the original one. \$ \_\_\_\_\_

6. ALTERNATE  
BID NO. 1: Shall include the cost to maintain critical barriers and negative pressure throughout Phase II and Phase III throughout the entire reconstruction of both areas.

Phase II

For the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_).

Phase III

For the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_).

7. COMMENCEMENT, PROGRESS AND COMPLETION OF WORK

- A. If written Notice of Intent to Award Contract is issued not later than Friday, November 12, 2010 with a project commencement of Tuesday November 23, 2010, can you complete the Work in compliance with the requirements of the Contract Documents within the time frame outlined in said documents, in full cooperation and coordination with other Prime Contractors, if any.  
Yes \_\_\_ No \_\_\_ .

If "No", state additional calendar days required \_\_\_\_\_.

- B. The undersigned understands that time is of the essence and agrees that the specified time period for completion stated above is a reasonable time for the completion of the work. All time limits shall be binding.

8. BID ACCEPTANCE:

- A. All Bids as stated above are effective and open for acceptance by the Owner for a period of sixty (60) days after date set for opening of bids.

FIRM NAME: \_\_\_\_\_

BY SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATED: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

FAX NBR: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

If a corporation, answer the following:

Incorporated under laws of what state?

SEAL \_\_\_\_\_ (If Bid is by Corporation)

- Attachments:
1. Non-Collusion Affidavit (1 page)
  2. Bidders Proof of Responsibility (2 pages)
  3. Informational Attachment to Bid Form (2 pages)
  4. Bid Bond (10%)(by Contractor)

**NON-COLLUSION AFFIDAVIT:**

City of

County of

State of

being first duly sworn, deposes and says that he is

(Sole Owner, Partner, President, etc.)

of

The party making the foregoing bid affirms that such is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, communication, or conference, with any person to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the Waukesha County Department of Public Works or any person or persons interested in the proposed contract; and that all statements contained said bid are true; further, that such bidder has not, directly or indirectly submitted this bid, or the contents thereof, or divulged information or data relative thereto to any association or to any member or agent thereof.

(Affiant)

Sworn and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 2010.

(Notary Public in and for)

**BIDDER'S PROOF OF RESPONSIBILITY**

Bidders Proof of Responsibility is to be provided to Owner at time of bid submittal.

Note: This information is required by Section 66.0901(2) of the Wisconsin Statutes. Contents of the completed form will be considered confidential.

**STATEMENT OF BIDDER'S QUALIFICATIONS**

Name of Bidder:

Address:

Date Organized:

Where incorporated:

How many years have you been in business under the present firm name?

Same business under a former name

Contracts on hand. Include gross amount of each contract and the probable completion date.

What is the general character of the work performed by your firm?

Have you ever failed to complete any work awarded to you?

If "YES", give location and reason. (Attach statement if necessary.)

Have you ever defaulted on a contract? \_\_\_\_\_ If "YES" attach statement giving particulars.

List some important contracts completed by your firm giving kind of work and approximate cost.

Attach a list of officers of your firm and the principal members of your personnel with brief statement of background and experience of each. Furnish written evidence, preferably from your bank, or credit available to you.

**BIDDER'S PROOF OF RESPONSIBILITY(CONTINUED)**

Financial statement: At close of business on \_\_\_\_\_, 2009.

| <u>Assets</u>       |          | <u>Liabilities</u>                   |          |
|---------------------|----------|--------------------------------------|----------|
| Accounts Receivable | \$ _____ | Accounts, Notes and Interest Payable | \$ _____ |
| Real Estate Equity  | \$ _____ | Other Liabilities                    | \$ _____ |
| Materials in Stock  | \$ _____ |                                      | \$ _____ |
| Equipment           | \$ _____ |                                      | \$ _____ |
| Furniture, Fixtures | \$ _____ |                                      | \$ _____ |
| Other Assets        | \$ _____ |                                      | \$ _____ |
| TOTAL ASSETS        | \$ _____ | TOTAL LIABILITIES                    | \$ _____ |
|                     |          | YOUR NET WORTH                       | \$ _____ |

Additional or explanatory information on the above may be submitted if desired.

Dated at \_\_\_\_\_ on \_\_\_\_\_, 2010.

Firm Name: \_\_\_\_\_

By: \_\_\_\_\_ Title: \_\_\_\_\_

B. \_\_\_\_\_ State of \_\_\_\_\_.

County of \_\_\_\_\_ being duly

sworn, says he is \_\_\_\_\_ of \_\_\_\_\_  
and that the answers to the foregoing questions and all statements attached are true and correct.

Signed

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2010.

Notary Public:

State of:

My Commission Expires:



**INFORMATIONAL ATTACHMENT TO BID FORM(CONTINUED)**

3. The names, business address, phone/fax numbers, and class of work of the principal Subcontractors proposed for applicable parts of the work are: (Include earthwork, paving, concrete, masonry, steel, carpentry, architectural woodwork, roofing, drywall, painting, elevator, plumbing, fire protection, HVAC, electrical, etc.).

We understand that the successful Bidder/Contractor shall establish to the acknowledged acceptance and satisfaction of the Owner the competence, the reliability and responsibility of the persons or entities proposed to administer, supervise, furnish and perform the Work required by the Bidding and Contract Documents. Any deviations from the above listed information shall also be approved by the Owner.

FIRM NAME \_\_\_\_\_

BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATED \_\_\_\_\_

**SEAL**

(If Bid is by Corporation)

\*\*\*





# AIA<sup>®</sup> Document A105<sup>™</sup> – 2007

## Standard Form of Agreement Between Owner and Contractor for a Residential or Small Commercial Project

### ASBESTOS ABATEMENT

#### AS MODIFIED BY OWNER

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

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

and the Contractor:  
*(Name, legal status, address and other information)*  
Name and address

for the following Project:  
*(Name, location and detailed description)*  
Name and location  
s

~~The Architect:~~ The Architect: PLEASE NOTE: ANY REFERENCE MADE IN THIS DOCUMENT TO "ARCHITECT" SHALL MEAN "ASBESTOS CONSULTANT".  
*(Name, legal status, address and other information)*

The Owner and Contractor agree as follows.

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

State or local law may impose requirements on contracts for home improvements. If this document will be used for Work on the Owner's residence, the Owner should consult local authorities or an attorney to verify requirements applicable to this Agreement.

Int.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION DATE
- 3 CONTRACT SUM
- 4 PAYMENT
- 5 INSURANCE
- 6 GENERAL PROVISIONS
- 7 OWNER
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- 9 ARCHITECT/ASBESTOS CONSULTANT
- 10 CHANGES IN THE WORK
- 11 TIME
- 12 PAYMENTS AND COMPLETION
- 13 PROTECTION OF PERSONS AND PROPERTY
- 14 CORRECTION OF WORK
- 15 MISCELLANEOUS PROVISIONS
- 16 TERMINATION OF THE CONTRACT
- 17 OTHER TERMS AND CONDITIONS

ARTICLE 1 THE CONTRACT DOCUMENTS

§ 1.1 The Contractor shall complete the Work described in the Contract Documents for the Project. The Contract Documents consist of

- .1 this Agreement signed by the Owner and Contractor;
- .2 the drawings and specifications prepared by the Architect, ASBESTOS CONSULTANT, dated , and enumerated as follows:

|                 |       |       |
|-----------------|-------|-------|
| Drawings:       |       |       |
| Number          | Title | Date  |
|                 |       |       |
| Specifications: |       |       |
| Section         | Title | Pages |

- .3 addenda prepared by the Architect Asbestos Consultant as follows:
- |        |      |       |
|--------|------|-------|
| Number | Date | Pages |
|--------|------|-------|

Init.

- .4 written orders for changes in the Work change orders issued after execution of this Agreement; and
- .5 other documents, if any, identified as follows: performance and payment bond.

**ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

The number of calendar days available to the Contractor to substantially complete the Work is the Contract Time. The date of commencement of the Work shall be the date of this Agreement unless otherwise indicated below. The Contractor shall substantially complete the Work, no later than ( ) calendar days from the date of commencement, subject to adjustment as provided in Article 10 and Article 11.

*(Insert the date of commencement, if it differs from the date of this Agreement.)*

Commencement Date – Asbestos Containing Material (ACM) removal Work hereby agreed to be performed by the Contractor shall not begin until regulatory notices have been submitted to appropriate agencies and any stipulated waiting periods have expired.

10 Day DNR Notification:

Commencement date:

Completion date:

**ARTICLE 3 CONTRACT SUM**

§ 3.1 Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

~~(\$ )~~

§ 3.2 For purposes of payment, the Contract Sum includes the following values related to portions of the Work:  
*(Itemize the Contract Sum among the major portions of the Work.)*

| Portion of Work | Value |
|-----------------|-------|
|-----------------|-------|

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

*(Identify and state the unit price; state the quantity limitations, if any, to which the unit price will be applicable.)*

| Item | Units and Limitations | Price per Unit(\$ 0.00) |
|------|-----------------------|-------------------------|
|------|-----------------------|-------------------------|

§ 3.4 Allowances included in the Contract Sum, if any, are as follows:

*(Identify allowance and state exclusions, if any, from the allowance price.)*

| Item | Price |
|------|-------|
|------|-------|

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

*(State the numbers or other identification of accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)*

§ 3.6 The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work.

**ARTICLE 4 PAYMENT**

§ 4.1 Based on Contractor's Applications for Payment certified by the Architect, the ASBESTOS CONSULTANT and the Owner. The Owner shall pay the Contractor, in accordance with Article 12, as follows: (Insert below timing for payments and provisions for withholding retainage, if any.) Determined in accordance with Sec. 66.0901(9)(b) of the Wisconsin State Statutes if progress payments are made, 5% will be withheld until 50% of the work has been completed, at 50% completion when the progress is not satisfactory, additional amounts may be retained. Upon substantial completion of this work an amount retained may be paid to the contractor, retaining at all times an amount sufficient to cover the estimated cost of work still to be completed.

§ 4.2 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate below, or in the absence thereof, at the legal rate prevailing at the place of the Project.

**ARTICLE 5 INSURANCE**

§ 5.1 The Contractor shall provide Contractor's general liability and other insurance as follows: (Insert specific insurance requirements and limits.)

|                          |                                     |
|--------------------------|-------------------------------------|
| <u>Type of insurance</u> | <u>Limit of liability (\$ 0.00)</u> |
|--------------------------|-------------------------------------|

§5.1.1. The Contractor agrees that it will keep in force and effect insurance policies as outlined below.

(a) Workers' Compensation and Employer's Liability Insurance – Statutory Workers' Compensation and Employer's Liability Insurance with a limit of liability not less than \$100,000 each accident, \$500,000 Disease Policy Limit, \$100,000 Disease each employee. Contractor shall require subcontractors not protected under its insurance to take out and maintain such insurance.

Owner shall not be liable to Contractor or its employees for any injuries to Contractor's employees arising out of the performance of work under this agreement. Contractor and its workers' compensation insurance carrier agree to waive any and all rights of recovery from Owner for workers' compensation claims made by its employees. Contractor agrees that the indemnification and hold harmless provisions within Paragraph 8.12 extends to any claim brought by or on behalf of any employee of the Contractor.

(b) Commercial General Liability Insurance – Policy shall be written to provide coverage for, but not limited to, premises and operations, product and completed operations, personal injury, blanket contractual, broad form property damage, independent contractors, XCU-explosion collapse, underground coverage. Limits of liability shall not be less than \$1,000,000 each occurrence, \$1,000,000 aggregate. Policy shall be endorsed to provide for the per project application of limits (ISO endorsement CG2503 or equivalent) or general aggregate must be waived in entirety. The Owner, its boards, commissions, agencies, officers, employees and representatives shall be named as additional insureds on a primary basis and so stated on the Certificate of Insurance.

(c) Asbestos Abatement Liability Insurance – Policy shall be written to provide asbestos abatement liability insurance coverage for injuries or damages caused by its asbestos abatement activities. Limits of liability shall not be less than \$1,000,000 each occurrence/claim. The Owner, Contractor, each of their boards, commissions, agencies, officers, employees and representatives shall be named as additional insured and so stated on the asbestos abatement subcontractor's certificate of insurance. In addition, due to the restrictive nature of policies available to environmental and/or asbestos contractors, complete disclosure as to the insurance provision applicable to the asbestos abatement sub-contractor is required.

( d ) Automobile Liability Insurance – Business automobile policy covering all owned, hired and non-owned private passenger and commercial vehicles. Limit of liability not less than \$500,000 combined single limit.

(e) Umbrella Liability Insurance – Coverage to be in excess of employer’s liability, commercial general liability, and automobile liability insurance. Limits of liability not less than \$ VERIFY WITH RISK MANAGEMENT each occurrence, \$ VERIFY WITH RISK MANAGEMENT aggregate.

(f) Contractor acknowledges that in the course of performing the services required by this contract that its employees, any of its subcontractor employees and 3<sup>rd</sup> parties may be exposed to asbestos materials, unless proper precautions are taken by the contractor which could cause injury, illness, or death. Contractor agrees to comply with all OSHA, EPA and other governmental regulations related to asbestos abatement providing for proper air monitoring, personal protection for its employees and waive any right to seek compensation from Owner for damages and expenses incurred as a result of exposure to asbestos. The Contractor agrees that the indemnification/hold harmless provisions within Paragraph 8.12 extends to any and all claims brought by or on behalf of any employee of the Contractor or any employee of its subcontractors as well as any other 3<sup>rd</sup> party related to asbestos.

~~§ 5.2 The Owner shall provide property insurance to cover the value of the Owner’s property, including any Work provided under this Agreement. The Contractor is entitled to receive an increase in the Contract Sum equal to the insurance proceeds related to a loss for damage to the Work covered by the Owner’s property insurance.~~

§ 5.3 The Contractor shall obtain an endorsement to its general liability insurance policy to cover the Contractor’s obligations under Section 8.12.

~~§ 5.4 Each party shall provide certificates of insurance showing their respective coverages. The Contractor shall provide to the Owner a certificate of insurance showing their coverages, as per 5.1.1., prior to commencement of the Work.~~

~~§ 5.5 Unless specifically precluded by the Owner’s property insurance policy, the Owner and Contractor waive all rights against (1) each other and any of their subcontractors, suppliers, agents and employees, each of the other; and (2) the Architect, Architect’s consultants and any of their agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance or other insurance applicable to the Work.~~

## ARTICLE 6 GENERAL PROVISIONS

### § 6.1 THE CONTRACT

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

### § 6.2 THE WORK

The term "Work" means the construction and services required by the Contract Documents, and includes all other labor, materials, equipment and services provided, or to be provided, by the Contractor to fulfill the Contractor’s obligations.

### § 6.3 INTENT

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by ~~one shall be as binding as if required by all.~~

all performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

### § 6.4 OWNERSHIP AND USE OF ARCHITECT’S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

~~Documents prepared by the Architect are instruments of the Architect’s service~~

### OWNERSHIP AND USE OF ASBESTOS CONSULTANT’S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

Drawings, specifications and other documents, including those in electronic form, prepared by the Asbestos Consultant and the Asbestos Consultant’s consultants are Instruments of Service for use solely with respect to this Project. The Architect shall retain all common law, statutory and other reserved rights, including the copyright. The Contractor, subcontractors, sub-subcontractors, and material or equipment suppliers are authorized to use and reproduce the instruments of service solely and exclusively for execution of the Work. The instruments of service

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~~may not be used for other Projects or for additions to this Project outside the scope of the Work without the specific written consent of the Architect. Project and any remodeling, reconstruction or repair of the Project and the completed Project. The Owner shall be deemed the owner of the Instruments of Service.~~

## ARTICLE 7 OWNER

### § 7.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER

~~§ 7.1.1 If requested by the Contractor, the~~ The Owner shall furnish all necessary surveys and a legal description of the site, if the Owner and Contractor deem it necessary.

§ 7.1.2 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, the Owner shall obtain and pay for other necessary approvals, easements, assessments and charges.

### § 7.2 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct Work which is not in accordance with the Contract Documents, the Owner may direct the Contractor in writing to stop the Work until the correction is made.

### § 7.3 OWNER'S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, correct such deficiencies. In such case, the Contract Sum shall be adjusted to deduct the cost of correction from payments due the Contractor.

### § 7.4 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 7.4.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project.

§ 7.4.2 The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

§ 7.4.3 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.

## ARTICLE 8 CONTRACTOR

### § 8.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 8.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

§ 8.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies or omissions discovered to the Owner and Architect.

### § 8.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

~~The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's~~ Asbestos Consultant's information a Contractor's construction schedule for the Work.

### § 8.3 SUPERVISION AND CONSTRUCTION PROCEDURES

§ 8.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work. Contractor shall provide Owner with lien waivers for all payments for work completed.

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§ 8.3.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect-Asbestos Consultant the names of subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any subcontractor or supplier to whom the Owner or Architect-Asbestos Consultant have made a timely and reasonable objection.

#### § 8.4 LABOR AND MATERIALS

§ 8.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work.

§ 8.4.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 8.4.3 The Contractor shall deliver, handle, store and install materials in accordance with manufacturers' instruction.

#### § 8.5 WARRANTY

The Contractor warrants to the Owner and Architect-Asbestos Consultant that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents.

§ 8.5.1 All warranties shall begin at the time of Substantial Completion

#### § 8.6 TAXES

The Contractor shall pay sales, consumer, use and similar taxes that are legally required when the Contract is executed.

#### § 8.7 PERMITS, FEES AND NOTICES

§ 8.7.1 The Contractor shall obtain and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work.

§ 8.7.2 The Contractor shall comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work ~~knowing it to be that~~ is contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for correction of such Work and shall bear the ~~attributable costs—costs, losses and expenses attributable to correction~~. The Contractor shall promptly notify the Architect-Asbestos Consultant in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules and regulations.

#### § 8.8 SUBMITTALS

The Contractor shall promptly review, approve in writing and submit to the Architect-Asbestos Consultant Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents. Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

#### § 8.9 USE OF SITE

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents and the Owner.

#### § 8.10 CUTTING AND PATCHING

The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

#### § 8.11 CLEANING UP

The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery and surplus material; and shall properly dispose of waste materials.

#### § 8.12 INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall ~~indemnify~~ ~~indemnify, defend~~ and hold harmless the Owner, ~~Architect, Architect's Asbestos Consultant, Asbestos Consultant's~~ consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, personal injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including loss of use resulting therefrom, but only to the extent caused by the negligent acts or omissions of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.

### ARTICLE 9 ASBESTOS CONSULTANT

#### ~~ARTICLE 9 ARCHITECT~~

§ 9.1 The ~~Architect~~ Asbestos Consultant will provide administration of the Contract as described in the Contract Documents. The ~~Architect~~ Asbestos Consultant will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 9.2 The ~~Architect~~ Asbestos Consultant will visit the site at intervals appropriate to the stage of construction to become ~~generally~~ familiar with the progress and quality of the Work.

§ 9.3 The ~~Architect~~ Asbestos Consultant will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. ~~The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.~~

§ 9.4 Based on the ~~Architect's~~ Asbestos Consultant's observations and evaluations of the Contractor's Applications for Payment, the ~~Architect~~ Asbestos Consultant will review and certify the amounts due the Contractor.

§ 9.5 The ~~Architect~~ Asbestos Consultant has authority to reject Work that does not conform to the Contract Documents.

§ 9.6 The ~~Architect~~ Asbestos Consultant will promptly review and approve or take appropriate action upon Contractor's submittals, such as shop drawings, product data, and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 9.7 The ~~Architect~~ Asbestos Consultant will promptly interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request from either the Owner or Contractor.

§ 9.8 Interpretations and decisions of the ~~Architect~~ Asbestos Consultant will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the ~~Architect~~ Asbestos Consultant will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

§ 9.9 ~~The Architect's duties, responsibilities and limits of authority as described in the Contract Documents shall not be changed without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.~~

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**ARTICLE 10 CHANGES IN THE WORK**

§ 10.1 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly in writing. ~~If the Owner and Contractor can not agree to a change in the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and profit.~~

§ 10.2 ~~The Architect-Asbestos Consultant~~ will have authority to order minor changes in the Work not involving changes in the Contract Sum or the Contract Time and not inconsistent with the intent of the Contract Documents. Such orders shall be in writing and shall be binding on the Owner and Contractor. The Contractor shall carry out such orders promptly.

§ 10.3 ~~If concealed or unknown physical conditions are encountered at the site that~~  
**DIFFERING SITE CONDITIONS**

**If the Contractor encounters conditions on the site defined below as Type A or Type B conditions, the Contractor shall immediately stop work in the affected area and, within 24 hours of encountering the Type A or Type B conditions, deliver written, signed notice to the Asbestos Consultant and to the Owner. The work in the affected area shall thereafter not resume except upon written direction from the Asbestos Consultant and the Owner to the Contractor.**

**If the work is stopped as required by the preceding paragraph, then so long as the Asbestos Consultant has determined that Type A or Type B conditions did exist, the Contract Time may be extended, at the discretion of the Owner, for an amount of time equal to the amount of work-stoppage time.**

**The differing conditions are defined as follows:**

**Type A – A condition which is at variance with the conditions indicated in the contract documents; or conditions which differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to equitable adjustment.**  
**the contract documents.**

**Type B – Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided in the contract documents.**

**ARTICLE 11 TIME**

§ 11.1 Time limits stated in the Contract Documents are of the essence of the Contract.

§ 11.2 If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable adjustment.

**ARTICLE 12 PAYMENTS AND COMPLETION**

**§ 12.1 CONTRACT SUM**

The Contract Sum stated in the Agreement, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

**§ 12.2 APPLICATIONS FOR PAYMENT**

§ 12.2.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the ~~Architect-Asbestos Consultant~~ an itemized Application for Payment for Work completed in accordance with the values stated in the Agreement. Such Application shall be supported by data substantiating the Contractor's right to

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payment as the Owner or ~~Architect-Asbestos Consultant~~ may reasonably require. Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in writing in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

§ 12.2.2 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner's interests.

### § 12.3 CERTIFICATES FOR PAYMENT

The ~~Architect-Asbestos Consultant~~ will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the ~~Architect-Asbestos Consultant~~ determines is properly due, or notify the Contractor and Owner in writing of the ~~Architect's Asbestos Consultant's~~ reasons for withholding certification in whole or in part.

### § 12.4 PROGRESS PAYMENTS

§ 12.4.1 After the ~~Architect-Asbestos Consultant~~ has issued a Certificate for Payment, the Owner shall make payment in the manner provided in the Contract Documents.

§ 12.4.2 The Contractor shall promptly pay each subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

§ 12.4.3 Neither the Owner nor the ~~Architect-Asbestos Consultant~~ shall have responsibility for payments to a subcontractor or supplier.

§ 12.4.4 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work that is not in accordance with the requirements of the Contract Documents.

### § 12.5 SUBSTANTIAL COMPLETION

§ 12.5.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 12.5.2 When the Work or designated portion thereof is substantially complete, the ~~Architect-Asbestos Consultant~~ will make an inspection to determine whether the Work is substantially complete. When the ~~Architect-Asbestos Consultant~~ determines that the Work is substantially complete the ~~Architect-Asbestos Consultant~~ shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish the responsibilities of the Owner and Contractor, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

### § 12.6 FINAL COMPLETION AND FINAL PAYMENT

§ 12.6.1 Upon receipt of a final Application for Payment, the ~~Architect-Asbestos Consultant~~ will inspect the Work. When the ~~Architect-Asbestos Consultant~~ finds the Work acceptable and the Contract fully performed, the ~~Architect-Asbestos Consultant~~ will promptly issue a final Certificate for Payment.

§ 12.6.2 Final payment shall not become due until the Contractor submits to the ~~Architect~~ Asbestos Consultant releases and waivers of liens, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests or encumbrances arising out of the Contract.

§ 12.6.3 Acceptance of final payment by the Contractor, a subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

#### ARTICLE 13 PROTECTION OF PERSONS AND PROPERTY

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury or loss to employees on the Work, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

#### ARTICLE 14 CORRECTION OF WORK

§ 14.1 The Contractor shall promptly correct Work rejected by the ~~Architect~~ Asbestos Consultant as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement and additional testing.

§ 14.2 In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of one year after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

§ 14.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

#### ARTICLE 15 MISCELLANEOUS PROVISIONS

##### § 15.1 ASSIGNMENT OF CONTRACT

Neither party to the Contract shall assign the Contract as a whole without written consent of the other.

##### § 15.2 TESTS AND INSPECTIONS

§ 15.2.1 At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

§ 15.2.2 If the ~~Architect~~ Asbestos Consultant requires additional testing, the Contractor shall may be requested to perform those tests.

§ 15.2.3 The Owner shall bear cost of tests, inspections or approvals that do not become requirements until after the Contract is executed.

### § 15.3 GOVERNING LAW

~~The Contract shall be governed by the law of the place where the Project is located. This Contract shall be governed by the Law of the State of Wisconsin. Any lawsuits related to or arising out of disputes under the Contract shall be commenced and tried in the Circuit Court of Waukesha County, Wisconsin, and the Owner and Contractor submit to the exclusive jurisdiction of the Circuit Court for such lawsuits.~~

## ARTICLE 16 TERMINATION OF THE CONTRACT

### § 16.1 TERMINATION BY THE CONTRACTOR

If the ~~Architect-Asbestos Consultant~~ fails to certify payment as provided in Section 12.3 for a period of 30 days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 12.4.1 for a period of 30 days, the Contractor may, upon seven additional days' written notice to the Owner and ~~Architect-Asbestos Consultant~~, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and ~~profit, profit thereon~~, and costs incurred by reason of such termination.

### § 16.2 TERMINATION BY THE OWNER FOR CAUSE

§ 16.2.1 The Owner may terminate the Contract if the Contractor

- .1 ~~repeatedly refuses or fails to supply enough properly skilled workers or proper materials;~~
- .2 fails to make payment to subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the subcontractors;
- .3 ~~persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or~~
- .4 is otherwise guilty of substantial breach of a provision of the Contract Documents.

§ 16.2.2 When any of the above reasons exist, the Owner, after consultation with the ~~Architect-Asbestos Consultant~~, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may

- .1 take possession of the site and of all materials thereon owned by the Contractor, and
- .2 finish the Work by whatever reasonable method the Owner may deem expedient.

§ 16.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

~~§ 16.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the cost to finish the work exceeds the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of the Contract.~~

### § 16.3 TERMINATION BY THE OWNER FOR CONVENIENCE

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

## ARTICLE 17 OTHER TERMS AND CONDITIONS

*(Insert any other terms or conditions below.)*

§ 17.1 The Contractor will comply with all applicable federal, state and local laws concerning discrimination. This includes not engaging in employment discrimination on the basis of age, race, creed, color, disability, marital status, sex, national origin ancestry, arrest record, conviction record, membership in the national guard or state defense force or any reserve component of the military forces of the United States or this state, or use or nonuse of lawful products off the employer's premises during nonworking hours.

§ 17.2 If requested, the Contractor shall provide Owner auditors access to and furnish them with information, records and reports regarding powers, duties, activities, organization, property, financial transactions and methods of operation, and any other information, records and reports that relate directly or indirectly to the services being rendered pursuant to this Agreement. The Contractor shall also provide access for the Owner auditors to inspect all

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property, equipment and facilities that are used or made use of by the Contractor in rendering its services pursuant to this Agreement. The provisions of this paragraph shall continue for a period of three years following completion of the services.

Any information, records and reports provided to or obtained by the Owner pursuant to the preceding paragraph, or which the Owner otherwise comes into possession of pursuant to this Agreement shall be subject to the provisions of Wisconsin's Public Records Law, including provisions regarding limitations upon access based upon trade secret information and state of federal restrictions.

§ 17.3 The Contractor agrees that it is an independent contractor with respect to the services provided pursuant to this Agreement. Nothing in this agreement shall be considered to create the relationship of employer and employee between the parties.

§ 17.4 One or more waivers by any party of any term of the contract will not be construed as a waiver of a subsequent breach of the same or any other term. The consent or approval given by any party with respect to any act by the other party requiring such consent or approval shall not be deemed to waive the need for further consent or approval of any subsequent similar act by such party

This Agreement entered into as of the day and year first written above.  
*(If required by law, insert cancellation period, disclosures or other warning statements above the signatures.)*

\_\_\_\_\_  
OWNER (Signature)

\_\_\_\_\_  
CONTRACTOR (Signature)

\_\_\_\_\_  
*(Printed name, title and address)*

\_\_\_\_\_  
*(Printed name, title and address)*

LICENSE NO.:  
JURISDICTION:

## **2.6 SUBMITTALS**

### **2.6.1 SUBMITTALS TO ACCOMPANY BID**

Submittals that must accompany bid are described within AIA A701-1997 Section 6.3.

- A. MSDS for mastic remover to be used by the Abatement Contractor

### **2.6.2 PRE-CONSTRUCTION SUBMITTALS**

Prior to commencement of work, the contractor shall submit the following:

- A. Copy of abatement notification sent to all appropriate State and or Federal Agencies.
- B. 100% Performance and Payment Bond. No letters of credit or certified checks will be accepted.

In addition, contractor shall have the following available for review by the owner or his representative:

- C. Project plan including project schedule, drawings showing isolation barriers, enclosure layout, decontamination systems, location of HEPA units, and proposed routing of waste through building and dumpster location.
- D. Names and telephone numbers of lead men on project including emergency phone numbers.
- E. Copies of notices to local police, fire, and emergency medical personnel.

### **2.6.3 DURING PROJECT SUBMITTALS**

The contractor shall have the following available for review by the owner, his representative, or authorized officials:

- A. Project progress reports detailing all abatement activities.
- B. Daily copies of work site entry logs with information on worker and visitor access and all other documentation as required by DHS 163. All documents must be in English.
- C. Copies of all air sample results conducted by the contractors air-sampling professional. Results of OSHA compliance monitoring must be available within 48 hours of sample collection.
- D. Daily logs documenting filter changes on respirators, HEPA vacuums, negative pressure ventilation units, and other engineering controls.
- E. Initial exposure assessment as per OSHA.
- F. Proof of EPA/State of Wisconsin Asbestos Worker and or Supervisor certification cards.

## 2.6.4 POST ABATEMENT SUBMITTALS

### FINAL PROJECT REPORT

Submit to **project designer**, one paper and one electronic copy of required AHERA project documentation. Report should include the following documentation:

1. Notice of Intent
2. Supervisor Certification
3. Worker Certifications
4. Daily Project Logs
5. Waste Manifests/Disposal Tickets (signed by landfill)
6. Written Certification That All Work Was Done in Complete Compliance with All Applicable Federal, State, and Local Regulations.
7. Written Certification That All Asbestos Containing Materials Specified for Removal Have Been Removed and Disposed of Properly.
8. Certification of Insurance naming owner.
9. Completed and signed final project documentation checklist and certification contained herein including certification of prevailing wage laws as applicable.

**10% of contract amount will be withheld until final project report is prepared as to specification, received by project designer, and approved.**

2.6.5

ASBESTOS ABATEMENT  
FINAL PROJECT DOCUMENTATION

EMC PROJECT #: 100258-05

PROJECT NAME: Waukesha County Courthouse –  
District Attorney Office – Phase II-III

CONTRACTOR NAME: \_\_\_\_\_

PROJECT START DATE: \_\_\_\_\_

PROJECT COMPLETION DATE: \_\_\_\_\_

- \_\_\_\_\_ Final, revised notice of intent
- \_\_\_\_\_ Worker, Supervisor State Certification Cards
- \_\_\_\_\_ Performance and Payment Bond (if required)
- \_\_\_\_\_ Daily Project Logs
- \_\_\_\_\_ Final Waste Manifest signed by landfill
- \_\_\_\_\_ Certificate of Insurance naming owner

I, hereby certify that all abatement work was done in complete compliance with all applicable Federal, State and Local Regulations including prevailing wage rate laws as applicable. I, certify that all replacement materials comply with Federal, State, and local codes. In addition, I certify that all specified ACM was abated and visually inspected by the contractor as per the specification and that the response action has been completed as per AHERA (when applicable). Finally, I certify that all ACM waste has been disposed of properly.

\_\_\_\_\_  
Authorized Representative of Abatement Contractor

\_\_\_\_\_  
Date



SECTION III  
CONTRACTOR STANDARDS

## SECTION III

## CONTRACTOR STANDARDS

### 3.1 CODES AND REGULATIONS

#### 3.1.1 GENERAL APPLICABILITY OF CODES, REGULATIONS AND STANDARDS

Except to the extent that more explicit or more stringent requirements are written directly into the project manual, all applicable codes, regulations, and standards have the same force and effect and shall be considered part of this project manual.

#### 3.1.2 FEDERAL REGULATIONS

Those, which govern asbestos abatement work or hauling and disposal of asbestos waste, include but are not limited to the following:

U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) including but not limited to:

##### Asbestos Regulations

Title 29, Part 1910, Section 1001 of the Code of Federal Regulations.

##### Respiratory Protection

Title 29, Part 1910, Section 134 of the Code of Federal Regulations.

##### Construction Industry

Title 29, Part 1926 of the Code of Federal Regulations.

##### Access to Employee Exposure and Medical Records

Title 29, Part 1910 Section 20 of the Code of Federal Regulations.

##### PCB Handling (If Applicable)

Title 40 CFR Part 761 of the Code of Federal Regulations.

##### Hazard Communication

Title 29, Part 1910, Section 1200 of the Code of Federal Regulations.

##### Specifications for Accident Prevention, Signs and Tags

Title 29, Part 1910, Section 145 of the Code of Federal Regulations.

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

Worker Protection Rule

40 CFR Part 763 Subpart G of the Code of Federal Regulations.

National Emission Standard for Hazardous Air Pollutants

Title 40, Part 61, Subparts A & M (Revised Subpart B and Part III, Dated November 20, 1990) of the Code of Federal Regulations.

Asbestos Hazard Emergency Response Act (AHERA)

Regulations 40 CFR Part 763.

U.S. Department of Transportation (DOT) including but not limited to:

Hazardous Substances: Final Rule

Regulations 49 CFR, Parts 171 and 172.

### 3.1.3 STATE AND LOCAL REGULATIONS

Abide by all State and local regulations, which apply to asbestos abatement work or hauling and disposal of asbestos waste materials.

State of Wisconsin Regulation  
Chapter HSS 159

State of Wisconsin Department of Natural Resources, Wisconsin Administrative Code, Chapter NR447.

### 3.1.4 STANDARDS

Those which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

American National Standard Institute (ANSI)

Fundamentals Governing the Design and Operation of Local Exhaust Systems, Publication Z9.2-79

Practices for Respiratory Protection Publication, Z88.2 - 80

### 3.1.5 NOTIFICATIONS

Contractor is responsible to send written notification to all Federal, State and local agencies requiring Notification for Asbestos Abatement/Demolition work.

### 3.2 LICENSES & QUALIFICATIONS OF ABATEMENT CONTRACTORS

- A. Abatement Contractors must be licensed as required by the State of Wisconsin in accordance with AHERA regulations for the purpose of removal, encapsulation, enclosure, demolition and maintenance of structures or components covered by or composed of asbestos-containing materials.
- B. Abatement Contractor has access to all necessary equipment and has organizational capacity and technical competence necessary to enable performance of the work properly and expeditiously.
- C. The Asbestos Abatement Contractor shall have adequate equipment to properly perform the work. These items shall include, but are not limited to the following:
  - 1. Respiratory protection equipment.
  - 2. HEPA vacuum equipment.
  - 3. Spray equipment for amended water and encapsulant.
  - 4. HEPA negative air units.
  - 5. Portable generators and lighting.
  - 6. Shower unit and water filtration equipment.
  - 7. Power washer for cleaning porous substrate.
  - 8. Vehicle for transportation of asbestos-containing material to landfill.
- D. Contractor shall maintain evidence of the following training requirements for employees that will be assigned to this project:
  - 1. At least one firm principal and the job foreman, which shall be on site during the abatement work, shall have successfully completed a (5) day training course in the practices and procedures for asbestos control conducted by the Georgia Institute of Technology entitled: "Supervision of Asbestos Abatement Projects", or other equivalent programs. Thus, this person must be an OSHA competent person or received equivalent training.
  - 2. Abatement Contractor's employees, including foremen, supervisors, and other company personnel or agents who may be exposed to airborne asbestos fibers or who may be responsible for any aspects of abatement activities, have successfully completed the "Worker Asbestos Abatement Training" course sponsored by the Wisconsin Department of Health and Social Services (DHSS), or an equivalent course recognized by DHSS.
- E. Contractor shall maintain evidence of each individual's respirator training and fit test along with their medical surveillance that will be assigned to this project.

- F. Contractor shall maintain names and copies of each individual's state certification card that will be assigned to this project.

SECTION IV  
PROJECT SUMMARY

## SECTION IV

## PROJECT SUMMARY

### 4.1 PROJECT SUMMARY- WAUKESHA COUNTY DISTRICT ATTORNEY OFFICE ASBESTOS ABATEMENT PROJECT-PHASE II AND PHASE III-WAUKESHA COUNTY CAPITAL PROJECT # 201001A

Building: Waukesha County Courthouse  
515 W. Moreland Blvd.  
Waukesha, WI 53188

County of Facility  
being Demolished/  
Renovated: Waukesha

Date(s) of  
Construction: 1959

Approximate  
Square Footage: 147,000

Number of Levels  
including Basement: Four

Inspector Name: William A. Freeman

Inspector Number: AII-01284

Date of Inspection: April 26, 2010 and May 4, 2010

Waukesha County  
Contact: Ms. Leslie Williams  
Waukesha County Dept. of Parks and Land Use  
515 W. Moreland Blvd., Room AC260  
Waukesha, WI 53188  
Phone: 262-896-8300

Consultant: Environmental Management Consulting, Inc.  
W7748 County Highway V  
Lake Mills, WI 53551-9643  
Contact: Mr. William A. Freeman  
(920) 648-6343

## 4.2 SCOPE OF WORK

### DISTRICT ATTORNEY OFFICE – PHASE II, AREA 1

|                             |  |
|-----------------------------|--|
| Containment Set Up Start:   | Tuesday, November 23, 2010             |
| Abatement Date:             | Friday, December 3, 2010 after 5:00 PM |
| Completion of Removal Date: | Tuesday, December 7, 2010              |
| Air Monitoring Date:        | Wednesday, December 8, 2010            |
| Final Tear Down Date:       | Wednesday, December 8, 2010            |

| <u>Room/Area</u> | <u>Asbestos<br/>Containing Material to be Removed</u>          | <u>Approx. Amount</u>   |
|------------------|--|-------------------------|
| Phase II Area    | 1' x 1' Ceiling tile Grid Adhesive at Perimeter Grid           | ---                     |
| Phase II Area    | Floor Tile & Mastics under Carpet                              | 3,500 Sq. Ft.           |
| Phase II Area    | TSI Fittings including All Mud & Black Tar on Fiberglass Lines | Remove per Unit Pricing |
| Phase II Area    | TSI Pipe Wrap Cardboard & Air Cell                             | Remove per Unit Pricing |
| Phase II Area    | Fiberglass Duct Insulation & Drip Pans with Black Tar          | 300 Sq. Ft.             |

#### NOTES:

- All floor tile and mastic must be containerized in sealed, leak tight containers for disposal in a closed top dumpster. If chemical is used to remove the mastic, it must be "no odor" approved by owner. An MSDS for the chemical must be submitted with Bids.
- Electrical raceways and outlets are present in floor. When removing the mastic, these items must be taped off and/or covered with towels to prevent mastic from leaking inside. The mastic next to the raceways and outlets must be removed by hand during final cleaning of edges.
- All negative air machines shall be ducted outdoors via a plywood/2x4 secured opening. Carbon filters will be placed inside the negative air machines to alleviate odors
- After the negative air ducting exits the building, it will be trunked up the exterior of the building to extend above the roof. Rigid wire trunking will be used on the exterior exhaust truck.
- Decontamination suite must be located inside Phase II with no interference with the adjacent hallway. Contractor may remove a small area of carpet and tile non-friable to accommodate the area for the decontamination suite.



- All perimeter ceiling tile grid is glued to the wall with asbestos containing glue. If residual glue is present, it must be scraped clean from the wall.
- The carpet cannot be removed until after the negative pressure containment has been established and the ceiling tile work is complete.
- The abatement contractor must score the paint and drywall above the baseboards prior to removing them to prevent damage to the paint or wall materials.
- The abatement contractor is responsible for all damages caused by the abatement contractor's employees or work practices.
- The abatement contractor will remove any duct insulation adhesives
- The abatement contractor will start setting up the containment and place the area under negative pressure on Tuesday, November 23, 2010. Any porous, non-washable wall surfaces will be covered with poly otherwise six foot splash guards are acceptable. The general contractor will remove the ceiling tile inside the negative pressure containment prior to the start of abatement. Prep work such as setting up the decontamination suite and hanging splash guards can resume on Friday, December 3, 2010. Floor tile and mastic removal work will start on Friday, December 3, 2010 after 5:00 PM. All mastic removal must be completed by Sunday, December 5, 2010 at 5:00 PM to allow any odors to dissipate overnight. The removal of the TSI materials and duct insulation can take place on Monday, December 6, 2010 and Tuesday, December 7, 2010 between the hours of 5:00 PM and 6:30 AM. Since the flooring will have already been abated, drop cloths must be used.
- The General Contractor will perform gross debris clean-up after ceiling tile removal.
- The contractor shall offer a cost under Alternate Bid No. 2 to maintain critical barriers and negative pressure throughout the entire reconstruction process. This shall include weekly site visits to secure all critical barriers and change pre-filters or HEPA filters as needed.
- Quantities of materials to be removed on a unit price basis must be verified by EMC and the Abatement Contractor prior to removal.

## DISTRICT ATTORNEY OFFICE – PHASE II, AREA 2

Start Date: Friday, December 3, 2010, After 5:00PM

Completion of Removal Date: Sunday, December 5, 2010

Air Monitoring Date: Sunday, December 5, 2010

Final Tear Down Date: Sunday, December 5, 2010

| <u>Room/Area</u> | <u>Asbestos Containing Material to be Removed</u>              | <u>Approx. Amount</u>   |
|------------------|--|-------------------------|
| Phase II, Area 2 | Fiberglass Duct Insulation with Black Tar                      | Remove per Unit Pricing |
| Phase II, Area 2 | TSI Fittings including All Mud & Black Tar on Fiberglass Lines | Remove per Unit Pricing |
| Phase II, Area 2 | TSI Pipe Insulation Cardboard & Aircell                        | Remove per Unit Pricing |

### NOTES:

- Not all of the TSI Fittings, TSI Insulation or duct insulation will be removed from the corridor. Exact materials to be abated will be marked by the General Contractor..
- Any adhesives found below the duct insulation must be removed. If this removal requires chemicals, they must be pre-approved by the owner prior to work beginning.
- The ceiling tile will be removed by the general contractor prior to the start of abatement. Not all of the ceiling tile will be removed, only the tiles along the walls will be removed.
- All negative air machines shall be ducted outdoors via a plywood/2x4 secured opening.
- The abatement contractor is responsible for any damages caused by their employees or work practices.
- The quantities of materials to be removed will be verified by EMC and the Abatement Contractor prior to removal.

## DISTRICT ATTORNEY OFFICE – PHASE III, AREA 1

Start Date: Tentative Spring 2011  
Completion of Removal Date: Tentative Spring 2011  
Air Monitoring Date: Tentative Spring 2011  
Final Tear Down Date: Tentative Spring 2011

| <u>Room/Area</u> | <u>Asbestos<br/>Containing Material to be Removed</u>          | <u>Approx. Amount</u>   |
|------------------|--|-------------------------|
| Phase III Area 1 | Fiberglass Duct Insulation & Drip Pans with Black Tar          | 300 Sq. Ft.             |
| Phase III Area 1 | 1' x 1' Ceiling tile Grid Adhesive at Perimeter Grid           | ---                     |
| Phase III Area 1 | Floor Tile & Mastics under Carpet                              | 3,750 Sq. Ft.           |
| Phase III Area 1 | TSI Fittings including All Mud & Black Tar on Fiberglass Lines | Remove per Unit Pricing |
| Phase III Area 1 | TSI Pipe Wrap Cardboard & Air Cell                             | Remove per Unit Pricing |

### NOTES:

- All floor tile and mastic must be containerized in sealed, leak tight containers for disposal in a closed top dumpster. If chemical is used to remove the mastic, it must be “no odor” approved by the owner. An MSDS for the chemical must be submitted with Bids.
- Electrical raceways and outlets are present in floor. When removing the mastic, these items must be taped off and/or covered with towels to prevent mastic from leaking inside. The mastic next to the raceways and outlets must be removed by hand during final cleaning of edges.
- All negative air machines shall be ducted outdoors via a plywood/2x4 secured opening. Carbon filters will be placed inside the negative air machines to alleviate odors
- Negative air machines must be exhausted out the south end of this area.
- Ceiling tile grid and TSI removal must be conducted prior to flooring removal.
- Decontamination suite must be located inside Phase III with no interference with the adjacent hallway. Contractor may remove a small area of carpet and tile non-friable to accommodate the area for the decontamination suite.
- All perimeter ceiling tile grid is glued to the wall with asbestos containing glue. If residual glue is present, it must be scraped clean from the wall.
- The abatement contractor must score the paint above the baseboards prior to removing them to prevent damage to the paint or the wall materials.

- The abatement contractor is responsible for all damages caused by the abatement contractor's employees or work practices.
- The abatement contractor will remove any adhesives found below the duct insulation.
- The general contractor will remove the ceiling tile prior to the start of abatement. This work will take place inside a negative pressure containment that has been set up by the abatement contractor.
- The General Contractor will perform gross debris clean-up after ceiling tile removal.
- The schedule for removal will be similar to that outlined in the notes for Phase II.
- The carpet cannot be removed until after the negative pressure containment has been established and the ceiling tile removal work is complete.
- Selective demolition of CMU walls may be required to access fittings inside the restroom pipe chase.
- The contractor shall offer a cost under Alternate Bid No. 2 to maintain critical barriers and negative pressure throughout the entire reconstruction process. This shall include weekly site visits to secure all critical barriers and change pre-filters or HEPA filters as needed.
- Quantities of materials to be removed on a unit price basis must be verified by EMC and the Abatement Contractor prior to removal.

## DISTRICT ATTORNEY OFFICE – PHASE III, AREA 2

Start Date: Tentative Spring 2011  
Completion of Removal Date: Tentative Spring 2011  
Air Monitoring Date: Tentative Spring 2011  
Final Tear Down Date: Tentative Spring 2011

All work shall be conducted during a weekend

| <u>Room/Area</u> | <u>Asbestos Containing Material to be Removed</u>    | <u>Approx. Amount</u> |
|------------------|--|-----------------------|
| Phase III Area 2 | Fiberglass Duct Insulation with Black Tar            | 100 Sq. Ft.           |
| Phase III Area 2 | 1' x 1' Ceiling tile Grid Adhesive at Perimeter Grid | ---                   |
| Phase III Area 2 | Floor Tile & Mastics                                 | 256 Sq. Ft.           |

### NOTES:

- All floor tile and mastic must be containerized in sealed, leak tight containers for disposal in a closed top dumpster. If chemical is used to remove the mastic, it must be “no odor” approved by the owner. An MSDS for the chemical must be submitted with the Bids.
- Electrical raceways and outlets are present in floor. When removing the mastic, these items must be taped off and/or covered with towels to prevent mastic from leaking inside. The mastic next to the raceways and outlets must be removed by hand during final cleaning of edges.
- All negative air machines shall be ducted outdoors via a plywood/2x4 secured opening. Carbon filters will be placed inside the negative air machines to alleviate odors
- Ceiling tile grid and TSI removal must be conducted prior to flooring removal.
- All perimeter ceiling tile grid is glued to the wall with asbestos containing glue. If residual glue is present, it must be scraped clean from the wall.
- The abatement contractor must score the paint above the baseboards prior to removing them to prevent damage to the paint or the wall materials.
- The abatement contractor will remove any adhesives found below the duct insulation.
- The general contractor will remove the ceiling tile prior to the start of abatement. Set up of a negative pressure containment for this work will not be required in this area.
- The abatement contractor is responsible for all damages caused by the abatement contractor’s employees or work practices.
- The contractor shall offer a cost under Alternate Bid No. 2 to maintain critical barriers and negative pressure throughout the entire reconstruction process. This shall include site visits to secure all critical barriers and change pre-filters or HEPA filters as needed.

**DISTRICT ATTORNEY OFFICE – PHASE III, AREA 3**

Start Date: Tentative Spring 2011  
Completion of Removal Date: Tentative Spring 2011  
Air Monitoring Date: Tentative Spring 2011  
Final Tear Down Date: Tentative Spring 2011

All work shall be conducted on a weekend

| <u>Room/Area</u> | <u>Asbestos<br/>Containing Material to be Removed</u> | <u>Approx. Amount</u> |
|------------------|---|-----------------------|
| Phase III Area 3 | 1' x 1' Ceiling tile Grid Adhesive at Perimeter Grid  | ---                   |
| Phase III Area 3 | Floor Tile & Mastics                                  | 68 Sq. Ft.            |

**NOTES:**

- All floor tile and mastic must be containerized in sealed, leak tight containers for disposal in a closed top dumpster. If chemical is used to remove the mastic, it must be “no odor” approved by the owner.
- Electrical raceways and outlets are present in floor. When removing the mastic, these items must be taped off and/or covered with towels to prevent mastic from leaking inside. The mastic next to the raceways and outlets must be removed by hand during final cleaning of edges.
- All negative air machines shall be ducted outdoors via a plywood/2x4 secured opening. Carbon filters will be placed inside the negative air machines to alleviate odors
- All perimeter ceiling tile grid is glued to the wall with asbestos containing glue. If residual glue is present, it must be scraped clean from the wall.
- The abatement contractor must score the paint above the baseboards prior to removing them to prevent damage to the paint or the wall materials.
- The general contractor will remove the ceiling tile prior to the start of abatement. Set up of a negative pressure containment for this work will not be necessary.
- The abatement contractor is responsible for all damages caused by the abatement contractor’s employees or work practices.
- The abatement contractor will remove any adhesives found below the duct insulation.
- The contractor shall offer a cost under Alternate Bid No. 2 to maintain critical barriers and negative pressure throughout the entire reconstruction process. This shall include site visits to secure all critical barriers and change pre-filters or HEPA filters as needed.

## **4.3 SPECIFIC REQUIREMENTS**

### **A. MOVEABLE FURNITURE**

All moveable furniture will be moved out of the abatement area by the Waukesha County before the project begins.

### **B. BASEBOARDS**

All vinyl baseboards located in an area where floor tile removal will take place will be removed, and disposed of by the contractor. Ceramic baseboards will remain.

### **C. AIR MONITORING**

Air monitoring details are outlined within Section VIII of this project manual. The abatement contractor is responsible for his own OSHA compliance monitoring. These sample results must be visibly posted near the decontamination chamber within 48 hours of sample collection.

The contractor should also be aware that he will be responsible for the costs of additional air sampling deemed necessary because of a failed clearance test. Final clearance testing will be conducted per AHERA protocol.

### **D. MATERIAL AMOUNTS**

All material amounts listed in this project manual should be considered estimations and should not be used for bidding purposes. Each contractor is encouraged to verify all material amounts prior to submitting a bid.

### **E. DAMAGES**

Any damage caused to Waukesha County property by the abatement contractor or an agent of the abatement contractor will be repaired or replaced by the abatement contractor.

### **F. TIME FRAMES**

This project has a time frame for completion. This schedule must be met. All schedules are clearly stated in section 4.2 "Scope of Work". A substantial penalty fee will be assessed for work not completed within the work schedule.

### **G. MASTIC REMOVAL**

No shot blasting will be allowed for mastic removal unless a project specific letter from the Wisconsin DNR is obtained by the Contractor and submitted to the owner's representative prior to beginning removal. Owner reserves right to reject shot blasting under any circumstance.

## H. FLOORING - REGULATED VERSUS NON-REGULATED

As per US EPA determination, the use of any mechanical means to assist in the removal of floor tile or mastic renders the material friable and thereby regulated. This includes, but not limited to mechanical chipping of floor tile as well as the use of a mechanical buffer when conducting mastic removal.

If the contractor elects to use any mechanical means in any part of the process, work shall be deemed as regulated and filed as such on required DNR notifications.

In addition, the use of any mechanical means will require final TEM air clearance as per AHERA.

Contractor shall follow work methods specifically outlined in this manual. No deviations from methods outlined will be allowed without prior written approval.

If contractor chooses to deviate, the contractor shall be responsible for all additional costs and regulatory ramifications.

## I. EXTERIOR WINDOW AND DOOR FRAME REMOVAL

When removing window and/or door frames with asbestos containing caulk/glaze from the exterior of the building, a critical barrier will be constructed on the interior side of the windows or doors consisting of 2 layers of 6-mil poly. This critical barrier will be reinforced using 2" x 4" wood framing. A regulated area will be established on the exterior using caution tape. The majority of the removal activities will take place outside of the building inside the regulated area. Enough room should be left between the critical barrier and the window or door frames for workers to assist with the removal from the interior. Drop cloths must be used on both the interior and exterior. The area will be cleaned in accordance with Section 7.1 of this manual. Suits and respirators must be worn by workers performing the removal work. Visual inspections will be conducted by EMC prior to teardown.

## J. INTERIOR WINDOW AND DOOR FRAME REMOVAL

When removing window and/or door frames from the interior of a building with asbestos containing caulk/glaze, a regulated area will be established with caution tape. Non-friable removal methods will be utilized. Suits and respirators must be worn by workers performing the removal work. If the project manager assesses the caulk around the frames and doors is friable, then a negative pressure containment is necessary.

## 4.4 SUMMARY OF ACCEPTABLE REMOVAL PROCEDURES

- A. OSHA Regulations - Contractor shall be responsible for all applicable OSHA health and safety regulations.
- B. HVAC Isolation - Isolate or shut down HVAC system throughout the work area.
- C. Pre-cleaning – Pre-clean all surfaces throughout the work area utilizing HEPA Vacuums and wet wiping.



- D. Decontamination Suite - Construct a three chamber decontamination suite with two airlocks at the entrance to each containment area.
- E. Critical Barriers - Establish the containment area as a critical barrier enclosure by constructing critical barriers over all accessible openings, all wall attachments, all remaining casework or any other item that is not a cleanable wall surface. Critical barriers must be constructed of 6-mil polyethylene sheeting. Double poly barriers or the equivalent must be utilized for the following areas: any HVAC equipment, ductwork or diffuser, any barriers that separate the contained area from a non-contained area. Any critical barriers constructed across a corridor or open building space must be reinforced by 2" x 4" wood framing.
- F. Negative Pressure - Negative air pressure will be established throughout the enclosure area sufficiently enough to allow for a minimum of four complete air exchanges per hour. This negative pressure must be supplied by negative pressure ventilation units equipped with HEPA filtration and operated in accordance with ANSI 29.2 - 79. Each location where HEPA filtration is exhausted to the outside must be reinforced with 2" x 4" wood framing and plywood.
- G. Wall and Floor Poly – If mechanical means are used for removal, full poly walls will be required for the project.  
Floor Tile and Mastic Removal – Single poly walls will be established throughout the containment area. The height of the wall will be sufficient to protect from splashing chemical solvent. Floor poly will be required for any areas where flooring will not be removed.  
Glovebag Removal – Single poly walls will be established in any locations where glovebag removal will be completed within three feet of the wall. Floor poly will be required as a drop cloth below all glovebag areas.  
Surfacing Material and TSI (Gross Removal) – Double poly walls and floors will be established throughout the containment area.
- H. Containment Integrity – Contractor must check entire containment area for breeches and make any necessary corrections.
- I. Pre-Abatement Visual Inspection – A final Pre-Abatement Visual Inspection will be conducted by the Project Manager/Industrial Hygienist. This inspection must be successfully passed before any removal may take place.
- J. Removal - All specified removal will be completed utilizing methods outlined in Section VII of this manual.  
  
Additional Note Floor Tile Removal: Care shall be utilized as to not damage the concrete floor. No shot blasting will be allowed without prior project specific approval from the Wisconsin DNR.
- K. Cleaning - Once all specified materials are removed, the entire enclosure area will be properly cleaned in accordance with Section 7.1 of this manual.

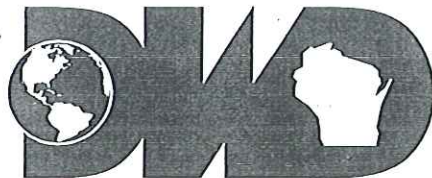
Additional Note Floor Tile Removal: Following mastic removal, all floors shall be cleaned with a neutralizing agent and then rinsed with a clear, hot water. No pine-cleaning agents shall be utilized for this purpose.

- L. Visual Inspection - Contractor's competent person will conduct a final visual inspection to confirm that all specified ACM was abated, all visible debris has been properly cleaned and the response action has been completed as per AHERA.
- M. Encapsulation - Once final visual inspection is successfully passed, encapsulation will be applied in accordance with Section 7.1 of this manual.
- N. Poly Removal - All remaining poly walls and floors will be removed. All critical barriers will remain in place.
- O. Final Clean - Final clean will be conducted utilizing procedures outlined in Section 7.1.
- P. Clearance Air Sampling - Once Final Visual Inspection is successfully completed, a sufficient settling period will be allowed. Clearance air sampling will then be conducted by the Air Sampling Professional in strict accordance with 40 CFR Part 763.
- Q. Waste Disposal – Unless otherwise specified, all asbestos containing materials abated shall be properly containerized as regulated asbestos waste and landfilled in an approved asbestos landfill. Contractor shall provide signed manifest of such disposal to owner upon completion of the project.
- R. Final Tear Down – Contractor shall fully clean all surfaces on final tear down. Care should be exercised as not to damage building materials. All residual tape marks, mastic, cleaning agents, etc. must be fully removed to owner's satisfaction.

**4.5**

**PREVAILING WAGE RATES**

Jim Doyle  
Governor  
Roberta Gassman  
Secretary  
Jennifer A. Ortiz  
Division Administrator



EQUAL RIGHTS DIVISION  
201 East Washington Avenue, Room A300  
P.O. Box 8928  
Madison, WI 53708  
Telephone: (608) 266-6860  
Fax: (608) 267-4592  
TTY: (608) 264-8752  
<http://www.dwd.state.wi.us/>

State of Wisconsin  
Department of Workforce Development

DEPARTMENTAL ORDER

JAVIER RAMOS, FACILITIES SUPERVISOR  
COUNTY OF WAUKESHA  
515 W. MORELAND BLVD  
WAUKESHA, WI 53188

RE: WAUKESHA COUNTY DISTRICT ATTORNEY OFFICE REMODEL  
CITY OF WAUKESHA, COUNTY OF WAUKESHA, WI  
Determination No. 201001225 Project No. 201001

The application which you filed or was filed on your behalf, by the person copied below, for a prevailing wage rate determination applicable to the above-referenced project has been received.

A survey was conducted to determine the prevailing wage rate for the trade(s) or occupation(s) needed to complete the project. The findings of the survey are set forth in the enclosed determination.

If you believe that the wage rate for any trade or occupation does not accurately reflect the prevailing wage rate in the city, village or town in which the project is located, you have the right to request the department to conduct an administrative review regarding such wage rate.

Your request must be made, in writing, within 30 days from the date indicated below and at least 10 days before the date a construction contract(s) is to be awarded or negotiated. Your request must also include wage rate information on at least three (3) similar projects located in the city, village or town where the proposed project is located on which some work was performed by the contested trade(s) or occupation(s) during the current survey period and which was previously considered by the department in issuing the enclosed determination. See s. DWD 290.10 of the Wisconsin Administrative Code and either s. 66.0903 (3)(br) or s. 103.49 (3)(c), Stats. for a complete explanation of the administrative review process.

Now, therefore, it is hereby ORDERED that the prevailing wage rates set forth in the enclosed determination shall only be applicable to the above referenced project. This ORDER shall be deemed a FINAL ORDER of this department unless a timely request for an administrative review is filed with the department or a construction contract(s) is not awarded or negotiated before the determination's expiration date.

DATED

3/24/2010

Enclosures

FOR THE DEPARTMENT

A handwritten signature in dark ink, appearing to read 'Dave Newman', is written over a horizontal line.

Dave Newman, Investigator  
Labor Standards Bureau  
Construction Wage Standards Section  
(608) 266-2832

cc: JOSEPH R. VERTZ, DESIGN ASSOCIATE  
FISCHER-FISCHER-THEIS, INC  
S22 W22660 BROADWAY  
WAUKESHA, WI 53186



## PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin  
Department of Workforce Development  
Pursuant to s. 66.0903, Stats.  
Issued On: 3/24/2010

DETERMINATION NUMBER: 201001225

EXPIRATION DATE: Prime Contracts MUST Be Awarded Or Negotiated On Or Before 12/31/2010. If NOT, You MUST Reapply.

DESCRIPTION OF PROJECT: WAUKESHA COUNTY DISTRICT ATTORNEY OFFICE REMODEL  
PROJECT NO: 201001

LOCATION OF PROJECT: CITY OF WAUKESHA, COUNTY OF WAUKESHA, WI

CONTRACTING AGENCY: COUNTY OF WAUKESHA

**CLASSIFICATION:** Contractors are required to call the Department of Workforce Development if there are any questions regarding the proper trade or classification to be used for any worker on a public works project.

**OVERTIME:** Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

**FUTURE INCREASE:** If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

**PREMIUM PAY:** If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

**SUBJOURNEY:** Wage rates may be available for some of the classifications indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer that desires to use any subjourney classification on this project MUST request the applicable wage rate from this department PRIOR to the date such classification is used on this project. Form ERD-10880 is available for this purpose.

### BUILDING OR HEAVY CONSTRUCTION

Includes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

Fringe Benefits Must Be Paid On All Hours Worked

| <u>TRADE OR OCCUPATION</u>   | <u>HOURLY<br/>BASIC RATE<br/>OF PAY</u> | <u>HOURLY<br/>FRINGE<br/>BENEFITS</u> | <u>TOTAL</u> |
|--|---|---------------------------------------|--------------|
|  | \$                                      | \$                                    | \$           |
| Acoustic Ceiling Tile Installer  | 30.52                                   | 16.50                                 | 47.02        |
| Boilermaker  | 33.64                                   | 19.27                                 | 52.91        |
| Bricklayer, Blocklayer or Stonemason<br>Future Increase(s): Add \$1.95 6/07/2010; Add \$1.95 6/06/2011 | 34.58                                   | 14.92                                 | 49.50        |
| Cabinet Installer  | 32.64                                   | 13.65                                 | 46.29        |
| Carpenter<br>Future Increase(s): Add \$2.60/hr on 5/31/2010; Add \$2.65/hr on 6/6/2011.                | 31.38                                   | 16.11                                 | 47.49        |
| Carpet Layer or Soft Floor Coverer   | 30.52                                   | 14.41                                 | 44.93        |
| Cement Finisher  | 28.82                                   | 13.98                                 | 42.80        |
| Drywall Taper or Finisher  | 28.17                                   | 15.39                                 | 43.56        |



| <b>Fringe Benefits Must Be Paid On <u>All Hours Worked</u></b>   |   |                                       |              |
|--|---|---------------------------------------|--------------|
| <u>TRADE OR OCCUPATION</u>   | <u>HOURLY<br/>BASIC RATE<br/>OF PAY</u> | <u>HOURLY<br/>FRINGE<br/>BENEFITS</u> | <u>TOTAL</u> |
|  | \$                                      | \$                                    | \$           |
| Future Increase(s): Add \$2.00/hr on 6/1/2010; Add \$2.10/hr on 6/1/2011; Add \$2.20/hr on 6/1/2012  |   |                                       |              |
| Electrician  | 31.10                                   | 20.39                                 | 51.49        |
| Elevator Constructor   | 39.23                                   | 19.11                                 | 58.34        |
| Fence Erector  | 24.50                                   | 3.00                                  | 27.50        |
| Fire Sprinkler Fitter  | 36.27                                   | 15.38                                 | 51.65        |
| Glazier  | 31.35                                   | 14.84                                 | 46.19        |
| Future Increase(s): Add \$2.00/hr on 6/1/2010; Add \$2.10/hr on 6/1/2011; Add \$2.15/hr on 6/1/2012.   |   |                                       |              |
| Heat or Frost Insulator  | 31.63                                   | 18.26                                 | 49.89        |
| Insulator (Batt or Blown)  | 19.37                                   | 15.43                                 | 34.80        |
| Ironworker   | 30.51                                   | 20.59                                 | 51.10        |
| Future Increase(s): Add \$2/hr on 6/7/2010; Add \$2/hr on 6/6/2011.  |   |                                       |              |
| Lather   | 30.52                                   | 14.47                                 | 44.99        |
| Line Constructor (Electrical)  | 35.26                                   | 15.59                                 | 50.85        |
| Marble Finisher  | 27.66                                   | 14.92                                 | 42.58        |
| Future Increase(s): Add \$1.78 on 6/1/2010; Add \$1.78 on 6/1/2011   |   |                                       |              |
| Marble Mason   | 34.58                                   | 14.92                                 | 49.50        |
| Future Increase(s): Add \$1.95 on 6/1/2010   |   |                                       |              |
| Metal Building Erector   | 20.00                                   | 2.11                                  | 22.11        |
| Millwright   | 27.92                                   | 19.21                                 | 47.13        |
| Overhead Door Installer  | 25.94                                   | 13.63                                 | 39.57        |
| Painter  | 27.82                                   | 15.39                                 | 43.21        |
| Future Increase(s): Add \$2.00/hr on 6/1/2010; Add \$2.10/hr on 6/1/2011; Add \$2.20/hr on 6/1/2012.   |   |                                       |              |
| Premium Pay: Add \$.20/hr for paperhanging; Add \$.35/hr for bridge, iron and drywall; Add \$.75/hr for spraying and sandblasting; Add \$.60/hr for EIFS work; Add \$1.00/hr for lead based paint removal. |   |                                       |              |
| Pavement Marking Operator  | 23.46                                   | 9.45                                  | 32.91        |
| Piledriver   | 27.25                                   | 19.51                                 | 46.76        |
| Pipeline Fuser or Welder (Gas or Utility)  | 42.27                                   | 18.00                                 | 60.27        |
| Plasterer  | 29.31                                   | 15.78                                 | 45.09        |
| Future Increase(s): Add \$2.25 5/31/2010; Add \$2.40; 5/30/2011  |   |                                       |              |
| Premium Pay: Swing stage work shall be paid \$0.40 per hour in addition to regular rate  |   |                                       |              |
| Plumber  | 35.93                                   | 15.66                                 | 51.59        |
| Future Increase(s): Add \$1.45/hr on 5/31/10; Add \$1.40/hr on 11/28/10.   |   |                                       |              |
| Refrigeration Mechanic   | 35.81                                   | 17.24                                 | 53.05        |
| Future Increase(s): Add \$1.45/hr on 5/30/10; Add \$1.40/hr on 11/29/10.   |   |                                       |              |
| Roofer or Waterproofer   | 28.85                                   | 13.60                                 | 42.45        |
| Sheet Metal Worker   | 36.60                                   | 15.43                                 | 52.03        |
| Steamfitter  | 35.81                                   | 17.24                                 | 53.05        |
| Future Increase(s): Add \$1.45/hr on 5/30/10; Add \$1.40/hr on 11/29/10.   |   |                                       |              |
| Teledata Technician or Installer   | 24.09                                   | 14.48                                 | 38.57        |
| Temperature Control Installer  | 31.43                                   | 13.56                                 | 44.99        |
| Terrazzo Finisher  | 25.50                                   | 4.21                                  | 29.71        |
| Terrazzo Mechanic  | 31.16                                   | 15.98                                 | 47.14        |
| Tile Finisher  | 23.96                                   | 15.80                                 | 39.76        |
| Tile Setter  | 29.95                                   | 15.80                                 | 45.75        |
| Tuckpointer, Caulker or Cleaner  | 33.35                                   | 14.47                                 | 47.82        |

**Fringe Benefits Must Be Paid On All Hours Worked**

| <u>TRADE OR OCCUPATION</u>                                       | <u>HOURLY BASIC RATE OF PAY</u> | <u>HOURLY FRINGE BENEFITS</u> | <u>TOTAL</u> |
|--|---------------------------------|-------------------------------|--------------|
|  | \$                              | \$                            | \$           |
| -----  |                                 |                               |              |
| Future Increase(s): Add \$1.95 06/07/2010; Add \$1.95 06/06/2011 |                                 |                               |              |
| Underwater Diver (Except on Great Lakes)                         | 33.00                           | 13.26                         | 46.26        |
| Well Driller or Pump Installer                                   | 24.22                           | 14.27                         | 38.49        |
| Siding Installer   | 34.60                           | 14.63                         | 49.23        |
| Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY     | 26.35                           | 12.39                         | 38.74        |
| Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY      | 35.87                           | 14.61                         | 50.48        |
| Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY           | 16.50                           | 8.50                          | 25.00        |
| Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY           | 22.47                           | 11.78                         | 34.25        |
| Groundman - ELECTRICAL LINE CONSTRUCTION ONLY                    | 31.11                           | 15.39                         | 46.50        |

**TRUCK DRIVERS**

|   |       |       |       |
|---|-------|-------|-------|
| Single Axle or Two Axle   | 26.62 | 17.81 | 44.43 |
| Three or More Axle  | 18.00 | 6.61  | 24.61 |
| Articulated, Euclid, Dumptor, Off Road Material Hauler                    | 31.32 | 16.05 | 47.37 |
| -----   |       |       |       |
| Future Increase(s): Add \$1.70/hr on 6/1/2010; Add \$1.85/hr on 6/1/2011. |       |       |       |
| Pavement Marking Vehicle  | 19.25 | 10.84 | 30.09 |
| Truck Mechanic  | 18.00 | 6.61  | 24.61 |

**LABORERS**

|  |       |       |       |
|--|-------|-------|-------|
| General Laborer  | 26.22 | 13.91 | 40.13 |
| -----  |       |       |       |
| Future Increase(s): Add \$2.05/hr on 6/1/2010; Add \$2.25/hr on 6/1/2011.  |       |       |       |
| Premium Pay: Add \$.11 for mortar mixer, fork lift operator, air and electric equipment and power buggy operators; Add \$.22 for jackhammer operator, certified welder, gunite machineman. |       |       |       |
| Asbestos Abatement Worker  | 21.35 | 4.43  | 25.78 |
| Landscaper   | 15.75 | 3.80  | 19.55 |
| Gas or Utility Pipeline Laborer (Other Than Sewer and Water)   | 18.84 | 13.83 | 32.67 |
| Fiber Optic Laborer (Outside, Other Than Concrete Encased)   | 21.49 | 3.11  | 24.60 |
| Railroad Track Laborer   | 22.41 | 9.36  | 31.77 |

**HEAVY EQUIPMENT OPERATORS  
SITE PREPARATION, UTILITY AND LANDSCAPING WORK ONLY**

|   |       |       |       |
|---|-------|-------|-------|
| Crane; Backhoe (Track Type); Tractor or Truck Mounted Hydraulic Backhoe; Gradall (Cruz-Aire Type); Mechanic or Welder; Bulldozer or Endloader; Grader or Motor Patrol; Scraper (Self Propelled or Tractor Drawn) 5cu yards or more capacity; Power Subgrader; Asphalt Milling Machine; Boring Machine (Horizontal, Vertical or Directional); Air Track, Rotary or Percussion Drilling Machine; Trencher; Post Hole Digger or Driver; Tug or Launch (not performing work on the Great Lakes) | 31.32 | 16.05 | 47.37 |
| -----   |       |       |       |
| Future Increase(s): Add \$1.70/hr on 6/1/2010; Add \$1.85/hr on 6/1/2011.   |       |       |       |
| Farm or Industrial Type Tractor; Greaser; Compactor (Self-Propelled); Broom or Sweeper; Environmental Burner  | 31.32 | 16.05 | 47.37 |
| -----   |       |       |       |
| Future Increase(s): Add \$1.70/hr on 6/1/2010; Add \$1.85/hr on 6/1/2011.   |       |       |       |
| Crusher, Screening or Wash Plant; Air Compressor (400 CFM or Over); Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine;  | 18.00 | 1.00  | 19.00 |



**Fringe Benefits Must Be Paid On All Hours Worked**

| <u>TRADE OR OCCUPATION</u>   | <u>HOURLY<br/>BASIC RATE<br/>OF PAY</u> | <u>HOURLY<br/>FRINGE<br/>BENEFITS</u> | <u>TOTAL</u> |
|--|---|---------------------------------------|--------------|
|  | \$                                      | \$                                    | \$           |
| Skid Steer Loader (With or Without Attachments); Skid Rig; Stump Chipper; Mulcher; Vibratory Hammer or Extractor   |   |                                       |              |
| <b>HEAVY EQUIPMENT OPERATORS<br/>EXCLUDING SITE PREPARATION, UTILITY, PAVING AND LANDSCAPING WORK</b>  |   |                                       |              |
| Crane, Tower Crane or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons; Crane, Tower Crane or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Feet or Over<br>Future Increase(s): Add \$2.10/hr on 6/1/10; Add \$2.10/hr on 6/1/11<br>Premium Pay: Crane Operators with CCO certification add \$.50/hr. Cranes with boom length over 200 ft. not exceeding 300 ft. OR lifting capacity over 200 ton not exceeding 300 ton add \$.50/hr. Over 300 ton OR 300 ft. add \$.01/hr. per foot OR ton whichever is greater.   | 36.56                                   | 17.50                                 | 54.06        |
| Crane, Tower Crane or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under; Crane, Tower Crane or Derrick, With Boom, Leads and/or Jib Lengths Measuring 175 Feet or Under; Backhoe (Track Type) Having a Mfr.'s Rated Capacity of 130,000 Lbs. or Over; Traveling Crane (Bridge Type); Caisson Rig; Pile Driver; Dredge (Not Performing Work on the Great Lakes)<br>Future Increase(s): Add \$2.10/hr on 6/1/10; Add \$2.10/hr on 6/1/2011<br>Premium Pay: Crane Operators with CCO certification add \$.50/hr. Cranes with boom length over 200 ft. not exceeding 300 ft. OR lifting capacity over 200 ton not exceeding 300 ton add \$.50/hr. Over 300 ton OR 300 ft. add \$.01/hr. per foot OR ton whichever is greater.   | 36.06                                   | 17.50                                 | 53.56        |
| Crane (Go-Devil Type) or Truck Mounted Hydraulic Crane (10 Tons or Under); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs.; Tractor or Truck Mounted Hydraulic Backhoe; Gradall (Cruz-Aire Type); Mechanic or Welder; Bulldozer or Endloader; Grader or Motor Patrol; Scraper (Self Propelled or Tractor Drawn) 5 cu yards or more capacity; Concrete Pump, Grout Pump or Concrete Conveyor (Rotec or Bidwell Type); Concrete Breaker (Manual or Remote); Concrete Batch Plant; Power Subgrader; Concrete Spreader; Concrete Paver; Concrete Grinder or Planing Machine; Concrete Conveyor System; Concrete Slipform Placer; Curb and Gutter Machine; Roller (Over 5 Ton); Shouldering Machine; Boring Machine (Horizontal, Vertical or Directional); Air Track, Rotary or Percussion Drilling Machine; Straddle Carrier or Travel Lift; Forklift (Machinery Moving or Steel Erection); Manhoist or Elevator; Material or Stack Hoist; Trencher; Sideboom; Hydro-Blaster (10,000 PSI or Over); Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment<br>Future Increase(s): Add \$1.70/hr on 6/1/2010; Add \$1.85/hr on 6/1/2011. | 31.32                                   | 16.05                                 | 47.37        |
| Farm or Industrial Type Tractor; Greaser; Compactor (Self-Propelled); Concrete Saw (Vermeer Type); Concrete Bump Cutter or Grooving Machine; Tining or Curing Machine; Roller (5 Tons or Under); Broom or Sweeper; Hoist (Tugger); Environmental Burner  | 27.82                                   | 16.28                                 | 44.10        |
| Crusher, Screening or Wash Plant; Air, Electric or Hydraulic Jacking System; Air Compressor (400 CFM or Over); Generator (150 KW or Over); Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Skid Steer Loader (With or Without Attachments); Robotic Tool Carrier (With or Without Attachments); Skid Rig; Stump Chipper; Mulcher; Vibratory Hammer or Extractor   | 17.00                                   | 13.03                                 | 30.03        |
| Oiler; Forklift  | 26.94                                   | 17.04                                 | 43.98        |



**Fringe Benefits Must Be Paid On All Hours Worked**

| <u>TRADE OR OCCUPATION</u>  | <u>HOURLY<br/>BASIC RATE<br/>OF PAY</u> | <u>HOURLY<br/>FRINGE<br/>BENEFITS</u> | <u>TOTAL</u> |
|---|---|---------------------------------------|--------------|
|   | \$                                      | \$                                    | \$           |
| Gas or Utility Pipeline, Except Sewer and Water (Primary Equipment)       | 32.71                                   | 18.53                                 | 51.24        |
| Gas or Utility Pipeline, Except Sewer and Water (Secondary Equipment)     | 29.06                                   | 16.40                                 | 45.46        |
| Future Increase(s): Add \$1.60/hr on 6/1/2010; Add \$1.60/hr on 6/1/2011. |   |                                       |              |
| Fiber Optic Cable Equipment   | 37.05                                   | 3.69                                  | 40.74        |

This document **MUST BE POSTED** by the **CONTRACTING AGENCY** in at least one conspicuous and easily accessible place **on the site of the project**. A local governmental unit may post this document at the place normally used to post public notices if there is no common site on the project. This document **MUST** remain posted during the entire time any worker is employed on the project and **MUST** be physically incorporated into the specifications and all contracts and most subcontracts. If you have any questions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call (608) 266-2832.

**The following statutory provisions apply to local governmental unit public works projects and are set forth below pursuant to the requirements of s. 66.0903 (8), Stats.**

Each contractor, subcontractor or agent thereof performing work on a project that is subject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person described in sub. (4) and an accurate record of the number of hours worked by each of those persons and the actual wages paid therefor.

Any contractor, subcontractor or agent thereof, who fails to pay the prevailing wage rate determined by the department under sub.(3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor determined under sub.(3), shall be liable to any affected employe in the amount of his or her unpaid wages or his or her unpaid overtime compensation and in an additional equal amount as liquidated damages. An action to recover the liability may be maintained in any court of competent jurisdiction by any employe for and in behalf of that employe and other employes similarly situated. No employe may be a party plaintiff to any such action unless the employe consents in writing to become such a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.





Consultant:

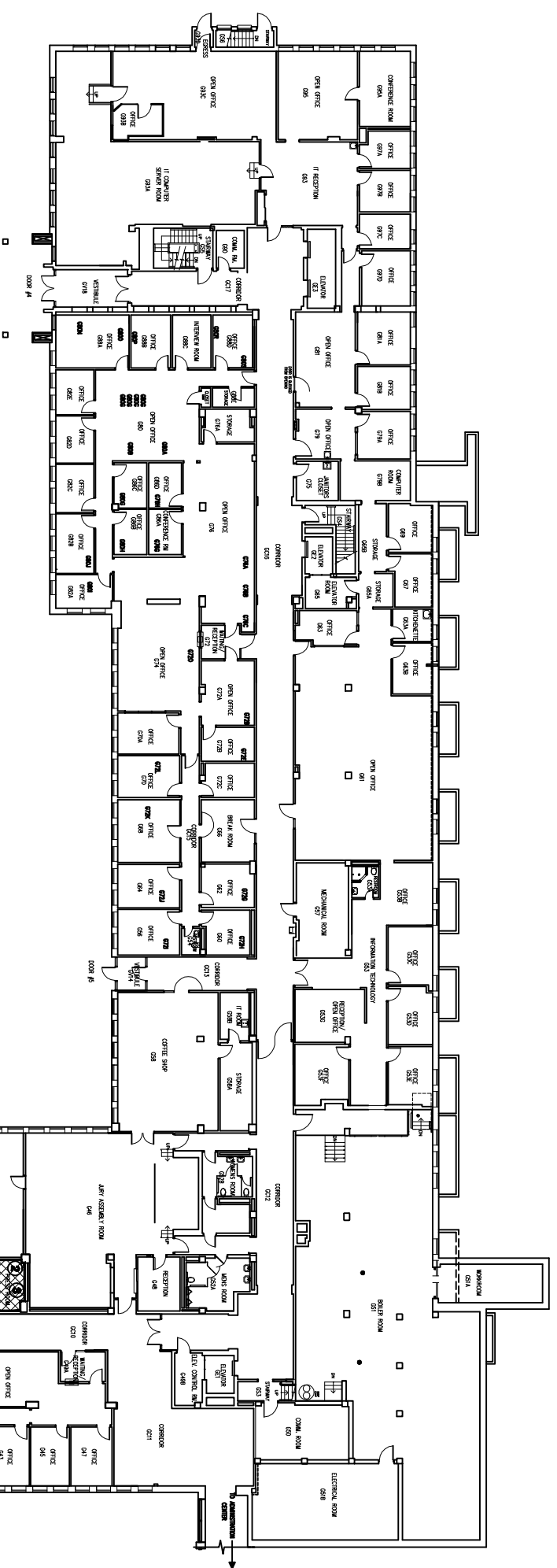
**WAUKESHA COUNTY  
 DEPARTMENT OF PUBLIC WORKS**

**Project Title:**  
 Waukesha County DA Office PD-PM  
 Asbestos Abatement - Spring 2011 - Phase III

**Project Location:**  
 515 W. Moreland Blvd.  
 Waukesha, WI 53188

**Sheet Title:**  
 GROUND FLOOR DA OFFICE PD-PM PHASE III - 100258-05

|                   |  |
|-------------------|--|
| Project Title:    | Waukesha County DA Office PD-PM                    |
| Project Location: | 515 W. Moreland Blvd.<br>Waukesha, WI 53188        |
| Sheet Title:      | GROUND FLOOR DA OFFICE PD-PM PHASE III - 100258-05 |
| Scale:            | 1/16" = 1'   |
| Graphic Scale:    | 0' 4" 8" 16'                                       |
| DSF Number:       | 100258-05  |
| Set Type:         | BD   |
| Date Issued:      | 09/17/2010   |
| Sheet Number:     | WA-2010-01   |



**GROUND FLOOR - ASBESTOS ABATEMENT PHASE III  
 WAUKESHA COUNTY COURTHOUSE**

**LEGEND**

|  |                   |
|--|-------------------|
|  | PHASE III, AREA 1 |
|  | PHASE III, AREA 2 |
|  | PHASE III, AREA 3 |

**PLAN NOTES**

- 1 REMOVE ALL ASBESTOS CONTAINING (AC) PIPE INSULATION PER UNIT PACKING THIS WILL INCLUDE ALL BLACK TAP FITTINGS AND BLACK TAP APPLIED TO FITTINGS FOR ENTIRE AREA.
- 2 REMOVE ALL AC MANTING FROM PERIMETER CEILING TILE GRID, IF REMOVAL PREVENT AFTER REMOVAL OF GRID, THE WALL MUST BE CLEANED.
- 3 REMOVE AC FLOOR TILE AND MANTING UNDER CARPET WITHIN A RESISTIVE PRESS ENCLOSURE.
- 4 REMOVE AC DUCT INSULATION AND ASSOCIATED ADHESIVER.

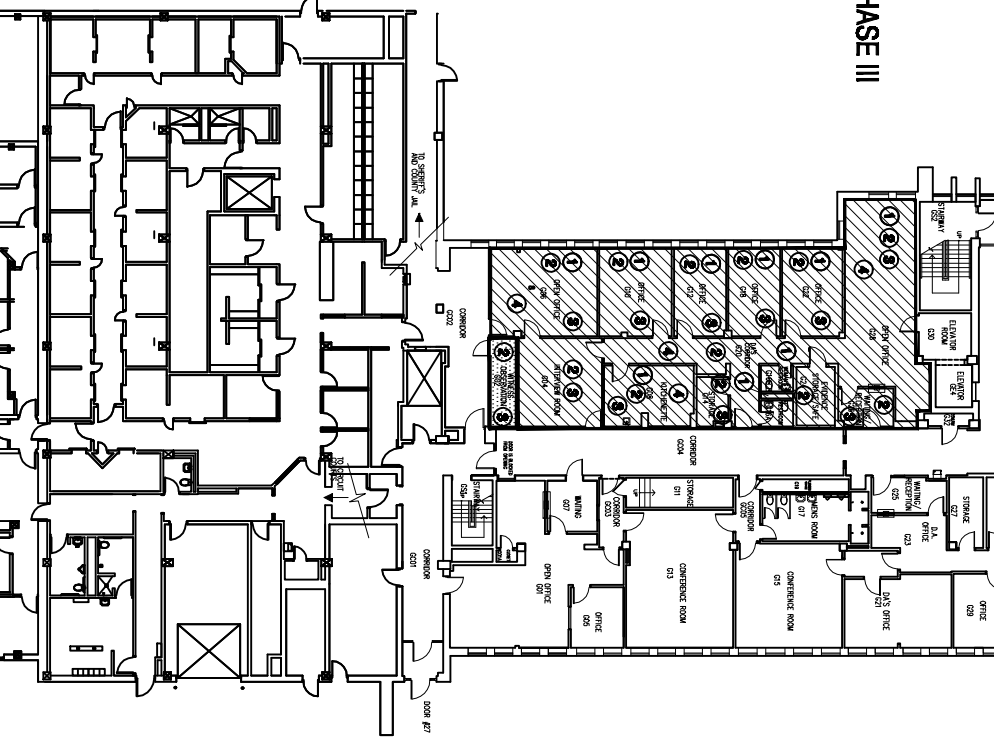
**GENERAL NOTES**

- A ANY FLOOR WHERE SOLVENT IS UTILIZED FOR MANTING REMOVAL, SHALL BE NEUTRALIZED WITH A DETERGENT AND HOT WATER RINSE.
- B ALL ABATEMENT WORK SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR.
- C CARPET - SOME OF THE FLOOR TILE SHOWN ON THESE PLANS IS COVERED WITH CARPET. THE CARPET IS CONSIDERED INCIDENTAL TO THE WORK AND WILL BE REMOVED BY THE ABATEMENT CONTRACTOR IF NECESSARY.
- D ADDITIONAL SELECTIVE DEMOLITION, NOT SHOWN ON PLANS, MAY BE REQUIRED FOR THE PROPER REMOVAL OF AC CEILING MATERIAL, PIPE INSULATION AND/OR FLOOR TILE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ABATEMENT WORK AND COMPLETED BY THE ABATEMENT CONTRACTOR.

**GENERAL NOTES**

- E ABATEMENT CONTRACTOR SHALL INVESTIGATE ALL UNUSUAL PIPE CHANGES, WALL CHANGES, ENCLOSED CEILING, AND OTHER ENCLOSED SPACES FOR ADDITIONAL AC INSULATION.
- F ISOLATION OF EXISTING UTILITIES FOR ASBESTOS ABATEMENT WORK SHALL BE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR.
- G UTILITY DISCONNECTS AND ISOLATION NECESSARY FOR ABATEMENT WORK WILL BE THE RESPONSIBILITY OF THE ABATEMENT CONTRACTOR.
- H EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND DISCREPANCIES REPORTED TO THE PROJECT DESIGNER PRIOR TO START OF WORK.
- I SOME WORK MAY BE REQUIRED TO BE CONDUCTED DURING SECOND SHIFT OR ON WEEKENDS. SEE SPEC FOR DETAILS.
- J ATTEMPTS TO IMPROVE BEHIND SURFACES WERE LIMITED TO MOVABLE SURFACES SUCH AS CEILING TILE, ELECTRICAL, SWITCHES/RECEPTACLE COVER PLATES, OR ACCESS PANELS. NON-DESTRUCTIVE SAMPLING TECHNIQUES (TO MAINTAIN MATERIALS INTEGRITY) WERE GENERALLY EMPLOYED.
- K QUANTITIES OF ASBESTOS CONTAINING MATERIAL (ACM) TO BE REMOVED ARE APPROXIMATE. ABATEMENT CONTRACTORS SHALL FIELD VERIFY ALL MATERIALS DESIGNATIONS AND QUANTITIES IDENTIFIED AND SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL ACM IN AREAS IDENTIFIED FOR REMOVAL.
- L ANY DEMOLITION/RENOVATION ACTIVITIES SHOULD COORDINATE WITH OSHA AND EPA REQUIREMENTS WORKER SAFETY REQUIREMENTS WHEN WORKING WITH LEAD BASED PAINT OR MATERIAL BEHIND LEAD ON MATERIAL CONTAMINATED WITH LEAD DURING RENOVATION/DEMOLITION ACTIVITIES. CONTRACTORS ATTENTION IS DIRECTED TO THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) IN GENERAL, AND PARTICULARLY TO 29 CFR 1910.1018 (LEAD STRONG) AND 1926.62 (LEAD EXPOSURE IN THE CONSTRUCTION INDUSTRY). SINCE THE STRUCTURE IS A PNEUMATIC STRUCTURE, THERE IS A POTENTIAL FOR LEAD BASED PAINT TO BE PRESENT.
- M ABATEMENT CONTRACTOR MAY BE REQUIRED TO SUPPLY TEMPORARY LIGHT DURING ABATEMENT PHASE.
- N REMOVAL OF EXISTING FURNITURE OR EQUIPMENT WILL BE CONDUCTED BY WAUKESHA COUNTY AND/OR GENERAL CONTRACTOR.
- O CURTAINING OVER FLOORS IS TO BE PROVIDED BY AS ABATEMENT CONTRACTOR.
- P ADJACENT FLOOR BELOW DUCT INSULATION ARE INCIDENTAL, AND MUST BE REMOVED FROM THE DUCT.

**PHASE III**



SECTION V

PERSONAL PROTECTION REQUIREMENTS

## **5.1 PERSONAL PROTECTION REQUIREMENTS - EMPLOYEE TRAINING**

- A. Prior to commencement of 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 this Section.
- B. 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 abatement and auxiliary purposes and to all supervisory personnel who may be involved in planning, execution or inspection of abatement projects.
- C. At a minimum all personnel involved in the project shall have received an EPA-approved four (4) day worker course in accordance with all new AHERA regulations and certified in the State of Wisconsin.
- D. In addition there shall be at least one person, on site at all times, with an EPA-approved five (5) day supervision course in accordance with all new AHERA regulations and certified in the State of Wisconsin.
- E. Training shall provide, at a minimum, information on the following topics:
  - 1. 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.
  - 2. The physical characteristics of asbestos including fiber size, aerodynamic properties, physical appearance and uses.
  - 3. Employee personal protective equipment including the types and 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 fitting tests), qualitative and quantitative 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 launderable clothing, non-skid shoes, gloves, eye protection and hard hats.
  - 4. Medical monitoring requirements for workers including required and recommended tests, reasons for medical monitoring and employee access to records.
  - 5. 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.
  - 6. Work practices for asbestos 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.
  - 7. 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.
  - 8. Special safety hazards that may be encountered including electrical hazards, air contaminants, wetting agents, encapsulant, materials from LEA's operation, fire and explosion hazards, scaffold and ladder hazards, slippery surfaces, confined spaces, heat stress and noise.

9. Workshops affording both supervisory personnel and abatement workers the opportunity to see (and experience) the construction of containment barriers and decontamination facilities.
  10. Supervisory personnel shall, in addition, receive training or contract specifications, liability insurance and bonding, legal considerations related to abatement, establishing respiratory protection medical surveillance programs, EPA, OSHA, and state recordkeeping requirements, and other topics as requested by the LEA/Project Designer.
- F. Training must be provided by individuals qualified by virtue of experience and education to discuss the topic areas in these specifications.
  - G. Training is to have occurred within twelve (12) months prior to the initiation of abatement activities.
  - H. Contractor must document training by providing date of training, training entity, course outline, and names and qualifications of trainers.
  - I. Special on-site training on equipment and procedures unique to this job shall be performed as required.
  - J. Training in emergency response and evacuation procedures unique to this job shall be provided.

## **5.2 PROTECTIVE CLOTHING**

- A. Disposable clothing including head, foot and full body protection shall be provided in sufficient quantities and adequate sizes for all workers and authorized visitors.
- B. Launderable clothing, if required, shall be provided in sufficient quantities and adequate sizes for all workers and authorized visitors.
- C. 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.

## **5.3 RESPIRATORY PROTECTION**

- A. All respiratory protection shall be provided to workers in accordance with the submitted written respiratory protection program, which includes all items in OSHA.
- B. Workers shall be provided with personally issued, individually identified (marked with waterproof designations) respirators.
- C. Respirators shall be selected that meet the requirements of OSHA.

### Alternatives:

- D. The use of engineering controls such as negative pressure ventilation units and HEPA vacuums and good work practices such as the wetting of asbestos-containing material prior to abatement (when applicable), misting the work area to help fibers settle out, removal in small sections, use of glovebags and proper cleanup and containerization all help to reduce airborne fiber levels in the work area.



A properly designed air monitoring program, implemented by a qualified air sampling professional and analytical laboratory, may support the use of respiratory protective devices that provide a lower factor of protection to the workers than air supplied respirators, for some abatement activities. Safety problems associated with the use of airline systems and time and financial constraints may be reduced through the use of alternative types of respiratory protection. It is imperative, however, that adequate air monitoring of fiber levels and well designed respiratory protection programs (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 for use during any asbestos abatement activities. 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).

#### Fit Testing:

- E. Workers must perform positive and negative air pressure fit tests 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.
- F. Workers shall be given a qualitative fit test in accordance with procedures detailed in the OSHA (29 1926.58, Appendix C, Qualitative Fit Test Protocols) for all respirators to be used on this abatement project. An appropriately administered quantitative fit test may be substituted for the qualitative fit test.
- G. No one wearing a full beard shall be permitted to don a respirator and enter the work area.
- H. Additional respirators (minimum two (2) of each type) and training on their donning and use must be available at the work site for authorized visitors who may be required to enter the work area.

### **5.4 MEDICAL MONITORING**

- A. 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 abatement project. The purposes of a medical program, in addition to meeting the requirements of the law, are to document the state of health of workers including any pre-existing conditions for workmen's compensation and to determine work relatedness of disease as well as to ensure fitness for duty, particularly ability to wear a respirator.
- B. Smokers shall be made aware of the synergistic effects of cigarette smoking and asbestos exposure (50 times greater risk of contracting lung cancer). The medical monitoring program provides the appropriate setting to share this information. Employers should also be aware of the potential cost of this additional risk. Medical monitoring shall include at a minimum the requirements of OSHA 29 CFR 1926.58 as follows:
  - 1. A work/medical history to elicit symptomatology of respiratory disease.
  - 2. A chest x-ray (posterior-anterior, 14x13 inches) taken by a certified radiology technician and evaluated by a certified B-reader (physicians discretion).



3. A pulmonary function test, including forced vital capacity (FVC) and forced expiratory volume at one second (FEV 1), and FEV 1/FVC ration (administered by a NIOSH or A.T.S. certified Pulmonary Technician and interpreted and compared to standardized normals by a board certified Pulmonary Specialist. Where required, physical must be conducted by a licensed physician.
2. Employees should be given the 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 employees shall be required to wear and the work they will be required to perform as well as special workplace conditions such as high temperatures, high humidity, and chemical contaminants to which they may be exposed. Evaluations of groups of workers should take into consideration epidemiologic principles as suggested by the American Thoracic Society in their statement on the work relatedness of disease adopted in 1982).

SECTION VI  
PROJECT COORDINATION

## **6.1 EMERGENCY PROCEDURES**

- A. Emergency planning shall be developed prior to abatement initiation and agreed to by the Contractor, Owner and Asbestos Project Manager.
- 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 of emergency exits and emergency procedures.
- C. Emergency planning shall include written notification of police, fire and emergency medical personnel of planned abatement activities, work schedule and layout of work area, particularly barriers that may affect response capabilities.
- 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 enveloped and employee training in procedures shall be provided.
- E. Employees shall be trained in evacuation procedures in the event of workplace emergencies.
  - 1. 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 workplace to obtain proper medical treatment.
  - 2. For life-threatening injury or illness - worker decontamination shall take least priority after measures to stabilize the injured worker, remove him from the workplace and secure proper medical treatment.
- F. For any glovebag removal, a written contingency plan shall be available to the Asbestos Project Manager, which details how an accidental breaking of a glovebag will be cleaned up. Decontamination procedures of work area and workers, and any other pertinent information for the project.
- G. Emergency planning shall include provisions for respirator power failure, air line cuts, diaphragm collapse, etc.

## **6.2 PROJECT COORDINATION**

### **A. ASBESTOS PROJECT MANAGER**

- 1. Pre-Start Meeting
  - a. The successful Bidder may attend a pre-start job meeting. Attending this meeting will be representatives of the Owner and the testing/monitoring personnel (e.g., Asbestos Project Manager, Air Sampling Professional) who will actually participate in the Owner's testing/monitoring program.
  - b. The Contractor and supervisory personnel who will provide on-site direction of the 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 Section 2.2.6 (Bid Submittals). In addition, he shall be prepared to provide detailed information concerning:
  - 1. Preparation of work area.
  - 2. Personal protective equipment including respiratory protection and protective clothing.
  - 3. Employees who will participate in the project, including delineation of experience, training, and assigned responsibilities during the project.
  - 4. Decontamination procedures for personnel, work area and equipment.
  - 5. Abatement methods and procedures to be utilized.
  - 6. Required air monitoring procedures.
  - 7. Procedures for handling and disposing of waste materials.
  - 8. Procedure for final decontamination and cleanup.
  - 9. A sequence of work and performance schedule.
  - 10. Procedures for dealing with heat stress.
  - 11. Emergency procedures.
- 2. Pre-removal inspection: Removal work shall not commence until the containment is completely constructed, all decontamination areas and equipment are fully in place and operable, and the area has been inspected and approved by the Asbestos Project Manager.
- 3. Post-removal inspection: Upon completion of asbestos removal, containment shall remain in place, with air filtration systems running, until post-removal air monitoring limits are met as described in the specifications.

### **6.3 MATERIALS**

#### **A. GENERAL**

- 1. 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 damp surfaces and under cover sufficient enough to prevent damage or contamination. Replacement materials shall be stored outside of the work area until abatement is completed.
- 3. All equipment and materials shall be completely clean before being brought on site.

4. Polyethylene sheeting for walls and stationary objects shall be a minimum of 4-mil thick. For floors and all other uses, 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 Building Owner and selected to minimize damage to equipment and surfaces.

Method of attachment may include any combination of duct tape or other waterproof tape, furring strips, staples, nails, screws or other effective procedures capable of sealing adjacent sheets of polyethylene and capable of sealing polyethylene to dissimilar finished or unfinished surfaces under both wet and dry conditions (including the use of amended water). Spray glue may only be used where specified by the Project Manager.

6. Polyethylene sheeting utilized for worker decontamination enclosure shall be opaque white or black in color.
7. Disposal bags shall be of 6-mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.152 or OSHA Final Rules and Standards for 20 CFR Parts 1910.1001 and 1926.58 Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite as promulgated on June 20, 1986.
8. Disposal drums shall be metal or fiberboard with locking ring tops.
9. Stick-on labels per EPA or OSHA Final Rules and Standards for 29 CFR Parts 1910.1001 and 1926.58 Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite as promulgated on June 20, 1986 for disposal drums.
10. Warning signs as required by OSHA Final Rules and Standards for 29 CFR Parts 1910.1001 and 1926.58 Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite as promulgated on June 20, 1986.

## B. REMOVAL

1. Surfactant (wetting agent) shall be a 50/50 mixture of polyethylene 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. Encapsulation agent shall be:
  - a. U.S. Mineral: Cafco Bond Seal
  - b. Cable Coatings, No. 28 or 22P
  - c. Arpin Mfg.: Asbestite 2003

## 6.4 EQUIPMENT

### A. GENERAL (ALL ABATEMENT PROJECTS)

1. A sufficient quantity of negative pressure ventilation units equipped with HEPA filtration and operated in accordance with ANSI 29.2-79 (local exhaust ventilation requirement) and EPA guidance document EPA 560/5-85-024 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings Appendix J: Recommended Specifications and Operating Procedures For the Use of Negative Pressure Systems for Asbestos Abatement shall be utilized so as to provide one workplace air change every 15 minutes.

To calculate total air flow requirements:

$$\text{Total ft}^3/\text{min} = \frac{\text{Vol. of work area (in ft}^3\text{)}}{15 \text{ min.}}$$

To calculate the number of units needed for the abatement:

$$\text{Number of units needed} = \frac{[\text{Total ft}^3/\text{min}]}{[\text{Capacity of unit in ft}^3/\text{min}]}$$

If air-supplied respirators are utilized, estimate the volume of supplied air and add to workplace air volume when calculating ventilation requirements. For small enclosures and disposable, contained workspaces, HEPA filtered vacuum system may be utilized to maintain negative pressure.

2. Respirators - See Respiratory Protection Section.
3. Full body disposable protective clothing, including head, body and foot coverings consisting of material impenetrable by asbestos fibers (Tyvek™ or equivalent) shall be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing.
4. 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.
5. Non-skid footwear shall be provided to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
6. If launderable clothing is to be worn underneath disposable protective clothing, it shall be provided by the Contractor to all abatement workers. The Contractor shall inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of asbestos, and furnish a copy of the notice to the Asbestos Project Manager. Home laundry of contaminated clothing shall not be permitted. All clothing worn, which is not to be laundered by a commercial laundry following proper procedures, shall be disposed of as asbestos-containing material. (It is recommended that launderable clothing be a unique, specific color to enable it to be distinguished from general purpose blue, gray, or black coveralls, which are commonly worn).

Laundering must occur in accordance with OSHA Final Rules and Standards for 29 CFR Parts 1910.1001 and 1926.58 Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite as promulgated on June 20, 1986, however, it is preferable that the following procedures be utilized:

- a. Launderer's must be trained in proper techniques for handling asbestos-contaminated clothing and provided with personal protective equipment consisting of appropriate respirators and disposable clothing for use when needed.
  - b. Machines used for laundering asbestos-contaminated clothing shall be isolated and restricted for such use. Washers shall be equipped with filters to remove asbestos fibers from discharged water.
  - c. Dryers shall be isolated and restricted for use with asbestos-contaminated fabrics and have HEPA filtered exhaust. Machine maintenance shall be performed by protected individuals.
7. 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 flow rate of 2 gallons per minute for spraying amended water.
3. Rubber dustpans and rubber squeegees shall be provided for cleanup.
4. Brushes utilized for removing loose asbestos-containing materials shall have nylon or fiber bristles, not metal.
5. A sufficient supply of HEPA filter vacuum systems shall be available during cleanup.

SECTION VII  
ABATEMENT PROCEDURES



## **7.1 CONTAINED REMOVAL**

### **7.1.1 WORK AREA PREPARATION**

#### **A. ABATEMENT PREPARATION**

1. Have available on site a list containing the names, addresses, and telephone numbers of the Contractor, the Owner, the Asbestos Project Manager, the General Superintendent, the Air Sampling Professionals, the testing laboratory and any other personnel who may be required to assist during abatement activities (e.g., Safety Officer, Building Maintenance Supervisor, Energy Conservation Officer).
2. Have available on site a copy of the Project Manual, the EPA and OSHA regulations and any other applicable federal, state and local government regulations.
3. Have copy of Contractor's respiratory protection program available on site.
4. Post emergency procedures as described in 6.01.
5. Post caution signs meeting the specifications of OSHA Final Rules and Standards for 29 CFR Parts 1910.1001 as promulgated on August 10, 1996, at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels.
6. Shut down and lock out electric power to all work areas. Provide temporary power to all work areas. Provide temporary power and lighting. Insure 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.
7. Shut down and lock out all heating, cooling and air conditioning system (HVAC) components that are in, supply or pass through the work area.
8. Seal all intake and exhaust vents in the work area with tape and 6-mil polyethylene. 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.
9. The Contractor shall provide sanitary facilities for abatement personnel outside of the enclosed work area and maintain them in a clean and sanitary condition throughout the project.
10. The Owner will provide water for construction purposes. Contractor shall connect to existing Owner system.
11. Pre-clean all movable objects within the work area using HEPA filtered vacuums 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.
12. Pre-clean all fixed objects in the work area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate. Clean machinery behind grills or gratings. Clean wall, floor, and ceiling penetrations behind fixed items. After pre-cleaning, enclose fixed objects in 4-mil polyethylene sheeting and seal securely in place with duct tape.

13. 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.
14. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, 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 6-mil polyethylene sheeting and duct tape. Construct double barriers of plastic sheeting at all entrances and exits to the work area.
15. Cover floors in the work area with polyethylene sheeting.
  - a. Floor shall be covered with two layers of 6-mil (minimum) sheeting.
  - b. Plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers for 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. No seams shall be located at joints.
  - c. Floor sheeting shall extend at least 12" up the side walls of the work area.
  - d. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material. (Vinyl sheeting may be used for improved traction on floors.)
16. Cover walls in the work area with polyethylene sheeting.
  - a. Walls shall be covered with two layers of 4-mil polyethylene sheeting.
  - b. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least 6 feet.
  - c. 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.
  - d. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when negative pressure ventilation systems are utilized.

**B. WORKER DECONTAMINATION ENCLOSURE SYSTEMS**

1. Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area. These systems may consist of existing rooms outside of the work area, if the layout is appropriate, that can be enclosed in plastic 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.

2. Plans for construction, including materials and layout, shall be submitted as shop drawings and approved in writing by the Asbestos Project Manager prior to work initiation. Worker decontamination enclosure systems constructed at the worksite shall utilize 6-mil opaque black or white polyethylene sheeting or other acceptable materials for privacy. Detailed descriptions of portable, pre-fabricated units, if used, must be submitted for approval. Plans must include floor plan with dimensions, materials, size, thickness, plumbing and electrical utilities.
3. 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 airlocks.
4. 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 the Asbestos Project Manager may be utilized.

5. Access between any two rooms in the decontamination enclosure system shall be through an airlock with at least 6 feet separating each curtained doorway. Pathways into (from clean to contaminated) and out (from contaminated to clean) the work area shall be clearly designated.
6. Clean room shall be sized to adequately accommodate the work crew. Benches shall be provided as well as hooks for hanging up street clothes. Shelves for storing respirators shall also be provided in this area. Clean work clothes (if required under disposables), clean disposable clothing, replacement filters for respirators, towels and other necessary items shall be provided in adequate supply in 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 specifically designated) or as office space. Provide and post in the equipment room and the clean room, the decontamination and work procedures to be followed by all workers.
7. Shower room shall contain one or more showers as necessary to adequately accommodate workers. Each shower head shall be supplied with hot and cold water adjustable from inside the shower. The shower enclosure shall be constructed to ensure against leakage of any kind. An adequate supply of soap, shampoo and towels shall be supplied by the Contractor and be made 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 small pore sized is recommended to avoid rapid clogging of filtration system by large particles).

8. 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 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 system.

A drum lined with 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 workday.

C. WASTE TRANSFER AIRLOCK

1. The waste transfer 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. This airlock system shall consist of an airlock, a container staging area, and another airlock with access to outside the work area.
2. The waste transfer airlock shall be constructed in similar fashion to the worker decontamination enclosure system using similar materials and airlock and curtain doorway designs. This airlock system shall not be used to enter or exit the worksite, unless an emergency situation should arise.

D. EMERGENCY EXITS

1. Emergency exits shall be established and clearly marked with 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 airlock and/or other alternative exits satisfactory to fire officials.

E. ISOLATION OF THE WORK AREA FROM OCCUPIED AREAS OF THE BUILDING

1. The work area shall be separated from other areas of the building by the construction of airtight barriers.
2. Walls shall be constructed of wood and metal framing to support barriers in all openings larger than 4' x 8'.
3. A sheathing materials (plywood, drywall) of at least 3/8" thickness shall be applied to work side of barrier.
4. Cover both sides of partition with a double layer of 6-mil polyethylene sheeting with staggered joints and seal in place.
5. Caulk edges of partition at floor, ceiling, walls and fixtures to form an air tight seal.

F. WORK AREA MUST BE DESIGNATED AS A "NO SMOKING" AREA.

1. Appropriate warning signs must be posted in and around the work area in a language or pictorial representation understandable to employees.
2. Employees must warn abatement workers of the health risks associated with asbestos and smoking.
3. Employees must supply abatement workers with smoke cessation self-help material.

G. MAINTENANCE OF WORKPLACE BARRIERS AND WORKER DECONTAMINATION ENCLOSURE SYSTEMS

1. Following completion of the construction of all polyethylene barriers and decontamination system enclosures, allow overnight settling to insure that barriers will remain intact and secured to walls and fixtures before beginning actual abatement activities.
2. 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 abatement activities and following the completion of the day's abatement activities. Document inspections and observations in the daily project log.
3. Damage and defects in the enclosure system are to be repaired immediately upon discovery.
4. Use smoke tubes to test the effectiveness of the barrier system when directed by the Owner or representative of same.
5. At any time during the 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.
6. If air samples collected outside of the work area during abatement activities indicate airborne fiber concentrations greater than 0.1 f/cc or the pre-measured background levels (whichever is lower), work shall immediately stop for inspection and repair of barriers. Cleanup of surfaces outside of the work area using HEPA vacuums or wet cleaning techniques may be necessary.
7. Install and initiate operation of negative pressure ventilation equipment as needed to provide one air change in the work area every 15 minutes. 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.

8. Install and initiate operation of pressure differential recorder to verify maintenance of pressure differential of .02 in H<sub>2</sub>O continuously in containment.
9. 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.
10. Clearly identify and maintain emergency and fire exits from the work area.

H. 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 completed and are satisfactory to the Owner.
4. All equipment for abatement, clean-up and disposal are on hand.
5. All worker training [and certification] is completed.
6. Approval has been received from the Asbestos Project Manager.

7.1.2 WORKPLACE ENTRY & EXIT PROCEDURES

A. PERSONNEL ENTRY AND EXIT

1. All workers and authorized personnel shall enter the work area through the worker decontamination enclosure system.
2. All personnel who enter the work area must sign the entry log located in the clean room, upon entry and exit.
3. All personnel, before entering the work area, shall read and be familiar with all posted regulations, personal protection requirements (including workplace entry and exit procedures) and emergency procedures. A sign-off sheet shall be used to acknowledge that these have been reviewed and understood by all personnel prior to entry.
4. All personnel shall proceed first to the clean room, remove all street clothes and appropriately don respiratory protection (as deemed adequate for the job conditions) and launderable and/or disposal 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 work area.
5. Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room and equipment room to the main work area.

6. 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.
7. Personnel shall proceed to equipment room where they remove all protective equipment except respirators. Deposit disposable (and launderable) clothing into appropriately labeled containers for disposal (and laundering).
8. Reusable, contaminated footwear shall be stored in the equipment room when not in use. Upon completion of abatement is shall be disposed of as asbestos-contaminated waste. (Rubber boots may be decontaminated at the completion of the abatement for reuse).
9. Still wearing respirators, personnel shall proceed to the shower area, clean the outside of the respirator and the exposed face area under running water prior to removal of respirator and shower and shampoo to remove residual asbestos contamination. Various types of respirators will require slight modification of these procedures. An air line respirator with HEPA filtered dis-connect protection may be disconnected in the equipment room and worn into the shower. A powered air-purifying respirator face piece will 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.
10. After showering and drying off proceed to the clean room and don clean disposable (and/or launderable) clothing if there will be later re-entry into the work area or street clothes if it is the end of the work shift.
11. These procedures shall be posted in the clean room and equipment room.

#### B. WASTE CONTAINER PASS-OUT PROCEDURES

1. Asbestos-contaminated waste that has been containerized shall be transported out of work area through the waste container pass-out or through the worker decontamination enclosure if a separate airlock has not been constructed.
2. Waste pass-out procedures shall utilize two teams of workers, and "inside" team and an "outside" team.
3. 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 airlock. No worker from the inside team shall further exit the work area through this airlock.
4. The outside team, wearing a different color protective clothing and appropriately assigned respirator shall enter the airlock from outside the work area, enclose the drums in clean, labeled 6-mil poly bags and remove them from the airlock to the outside. No worker from the outside team shall further enter the work area through this airlock.
5. The exit from this airlock shall be secured to prevent unauthorized entry.

### 7.1.3 ABATEMENT PROCEDURES

#### A. CONTAINED REMOVAL PROCEDURES

1. Clean and isolate the work area and construct worker decontamination system in accordance with Section 7.1.
2. Follow workplace entry and exit procedures of Section 7.2.
3. 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° F and amended water is subject to freezing, dry removal permits and procedures must be utilized. 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 by a 2-man team. Removed material shall 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 or dropped onto inclined chutes or scaffolding for subsequent collection and containerization.
6. Containers (6-mil poly bags or drums) shall be sealed when full. 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 goose-neck fashion. Do not seal bags with wire or cord. Bags may be placed in drums for tagging and 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 tips. Drums must be used when containing plaster lath.
7. Large components removed intact shall be wrapped in 2 layers of 6-mil poly sheeting secured with tape for transport to the land-fill.
8. Asbestos-containing waste with sharp edged components (e.g. nails, screws, metal lath, tin) will tear the poly bags and sheeting so 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 with a nylon brush, and sponged or cleaned by an approved equivalent method to remove all visible residue.
10. Clean-up shall proceed in accordance with the specifications.



11. After the work area has been rendered free of visible residues and inspected by the contractor's competent person, a thin coat of a satisfactory encapsulating agent shall be applied to all non-finish surfaces in the work area including structural members, and building components to seal in non-visible residue. NOTE: 1) High temperature components such as boilers and pipes may not permit the application of some encapsulant. 2) If insulation or acoustical materials are to be reapplied to the abated area, be certain that the encapsulant selected will permit good adhesion to the substrate. A small area should be tested before application. The Owner shall coordinate this work.

#### 7.1.4 CLEAN PROCEDURE - CONTAINED REMOVAL

- A. Remove and containerize all visible accumulation of asbestos-containing materials and asbestos-contaminated debris utilizing rubber dust pans and rubber squeegees to move materials around. Do not use metal shovels to pick up or move accumulated waste. Special care shall be taken to minimize damage to floor sheeting.
- B. Wet clean all surfaces in the work area using rags, mops, and sponges as appropriate.
- C. Remove all containerized waste from the work area and waste container pass-out airlock.
- D. The area must be inspected and approved by the contractor's competent person at this point.
- E. Encapsulate the areas from which asbestos has been removed.
- F. Remove the cleaned plastic sheeting from walls and floors. Windows, doors, HVAC system vent and all other opening shall remain sealed. The negative pressure ventilation units shall remain in continuous operation. Decontamination enclosure systems shall remain in place and be utilized.
- G. After cleaning the work area, wait at least 24 hours to allow fibers to settle and HEPA vacuum and wet clean all objects and surfaces in the work area again.
- H. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.
- I. 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 shall be repeated.
- J. Once the work area has passed the second visual inspection, clearance air monitoring will be conducted by the Asbestos Project Manager. The air in the work area shall be agitated during the air monitoring. If the acceptance air quality concentrations are met, barriers may be removed and properly disposed of. A final inspection shall be conducted by the contractor's competent person to assure that no contamination remains in the work area.
- K. All additional cleaning and testing required shall be provided at no cost to the Owner until the cleanup criteria has been met.
- L. The HEPA unit shall remain in operation until final clean check criteria has been met.

## 7.1.5 DISPOSAL

### A. 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 pre-arranged disposal location.
2. Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAP and applicable State and local guide-lines and regulations.
3. All dump receipts, trip tickets, transportation manifests or other documentation of disposal shall be delivered to the Building Owner for their records. A recommended recordkeeping format utilizes a chain of custody form which includes the names and addresses of the Building Owner, Contractor, pickup site, and disposal site, the estimated quantity of the asbestos waste and the type of containers used. The form should be signed by the Owner, Contractor, and the Disposal Site Operator as the responsibility of the material changes hands.

If a separate hauler is employed, his name, address, telephone number and signature should also appear on the form. All trucks used to transport asbestos waste must be marked with the DOT transport marking:

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4. Transportation to the landfill:
  - a. Once drums, bags, and wrapped components have been removed from the work area they shall be loaded into an enclosed truck for transportation.
  - b. 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.
  - c. The enclosed cargo area of the truck shall be free of debris and lined with 6-mil poly sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be overlapped and taped into place.
  - d. Drums shall be placed on level surfaces in the cargo area and packed tightly together to prevent shifting and tipping. Large structural components shall be secured to prevent shifting and bags placed on top. Do not throw containers into truck cargo area.
  - e. 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.
  - f. Any debris or residue observed on containers or surfaces outside the work area resulting from cleanup using HEPA filters vacuum equipment and/or wet methods as appropriate.

g. If dumpsters are used for asbestos waste disposal they shall have doors or tops that can be closed and locked. Un-bagged material shall not be placed in these containers nor shall they be used for non-asbestos waste. Bags shall be placed, not thrown, into these containers.

5. The Asbestos Project Manager reserves the right to accompany the transporter to the landfill.

B. DISPOSAL AT THE LANDFILL

1. Upon reaching the landfill, trucks shall 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.

4. Personnel off-loading containers at the disposal site shall wear protective equipment consisting of disposable head, body and foot protection and at a minimum, half-face piece, air-purifying, dual cartridge respirators equipped with high efficiency filters.

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. Poly sheeting shall be removed and discarded along with contaminated cleaning materials and protective clothing, 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.

7.1.6 RE-ESTABLISHMENT OF THE WORK AREA AND SYSTEMS

A. Re-establishment of the work area shall only occur following the completion of cleanup procedures and after clearance air monitoring has been performed and documented to the satisfaction of the Building Owner and Asbestos Project Manager.

B. Following satisfactory clearance of the work area, remaining poly barriers may be removed and disposed of as asbestos-contaminated waste.

C. Re-secure mounted objects removed from their former positions during area preparation activities.

D. Relocate objects that were removed to temporary locations back to their original positions.

E. Re-establish HVAC, mechanical and electrical systems in proper working order. Remove contaminated HVAC system filters and dispose of as asbestos-contaminated waste. Decontaminate filter assembly using HEPA vacuums and wet cleaning techniques. Install new filters in HVAC systems. Dispose of old filters.

F. Repair all areas of damage that occurred as a result of abatement activities.

## 7.2 GLOVEBAG REMOVAL

### 7.2.1 WORK AREA PREPARATION

#### A. ABATEMENT PREPARATION

1. Have available on site a list containing the names, addresses, and telephone numbers of the Contractor, the Owner, the Asbestos Project Manager, the General Superintendent, the Air Sampling Professionals, the testing laboratory and any other personnel who may be required to assist during abatement activities (e.g., Safety Officer, Building Maintenance Supervisor, Energy Conservation Officer).
2. Have available on site a copy of the Project Manual, the EPA and OSHA regulations and any other applicable federal, state and local government regulations.
3. Have copy of Contractor's respiratory protection program available on site.
4. Post emergency procedures as described in 6.01.
5. Post caution signs meeting the specifications of OSHA Final Rules and Standards for 29 CFR Parts 1910.1001 as promulgated on August 10, 1996, at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels.
6. Shut down and lock out electric power to all work areas. Provide temporary power to all work areas. Provide temporary power and lighting. Insure 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.
7. Shut down and lock out all heating, cooling and air conditioning system (HVAC) components that are in, supply or pass through the work area.
8. Seal all intake and exhaust vents in the work area with tape and 6-mil polyethylene. 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.
9. The Contractor shall provide sanitary facilities for abatement personnel outside of the enclosed work area and maintain them in a clean and sanitary condition throughout the project.
10. The Owner will provide water for construction purposes. Contractor shall connect to existing Owner system.
11. Pre-clean all movable objects within the work area using HEPA filtered vacuums 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.
12. Pre-clean all fixed objects in the work area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate. Clean machinery behind grills or gratings. Clean wall, floor, and ceiling penetrations behind fixed items.

13. 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.
14. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, 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 6-mil polyethylene sheeting and duct tape. Construct double barriers of plastic sheeting at all entrances and exits to the work area.
15. Cover floors in the work area with polyethylene sheeting.
  - a. Floor shall be covered with two layers of 6-mil (minimum) sheeting.
  - b. Floor sheeting shall extend at least 12" up the side walls of the work area.
  - c. Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material. (Vinyl sheeting may be used for improved traction on floors.)
16. Cover walls in the work area with polyethylene sheeting.
  - a. Walls shall be covered with one layer of 4-mil polyethylene sheeting.
  - b. 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.
  - c. Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when negative pressure ventilation systems are utilized.

## B. WORKER DECONTAMINATION ENCLOSURE SYSTEMS

1. Worker decontamination enclosure systems shall be provided at all locations where workers will enter or exit the work area. These systems may consist of existing rooms outside of the work area, if the layout is appropriate, that can be enclosed in plastic 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.
2. Plans for construction, including materials and layout, shall be submitted as shop drawings and approved in writing by the Asbestos Project Manager prior to work initiation. Worker decontamination enclosure systems constructed at the worksite shall utilize 6-mil opaque black or white polyethylene sheeting or other acceptable materials for privacy. Detailed descriptions of portable, pre-fabricated units, if used, must be submitted for approval. Plans must include floor plan with dimensions, materials, size, thickness, plumbing and electrical utilities.
3. 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 airlocks.

4. 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 the Asbestos Project Manager may be utilized.

5. Shower room shall contain one or more showers as necessary to adequately accommodate workers. Each shower head shall be supplied with hot and cold water adjustable from inside the shower. The shower enclosure shall be constructed to ensure against leakage of any kind. An adequate supply of soap, shampoo and towels shall be supplied by the Contractor and be made 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 small pore sized is recommended to avoid rapid clogging of filtration system by large particles).

6. 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 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 system.

A drum lined with 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 workday.

#### C. WASTE TRANSFER AIRLOCK

1. The waste transfer 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. This airlock system shall consist of an airlock, a container staging area, and another airlock with access to outside the work area.
2. The waste transfer airlock shall be constructed in similar fashion to the worker decontamination enclosure system using similar materials and airlock and curtain doorway designs. This airlock system shall not be used to enter or exit the worksite, unless an emergency situation should arise.

#### D. EMERGENCY EXITS

1. Emergency exits shall be established and clearly marked with 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 airlock and/or other alternative exits satisfactory to fire officials.

E. ISOLATION OF THE WORK AREA FROM OCCUPIED AREAS OF THE BUILDING

The work area shall be separated from other areas of the building by the construction of visual barriers.

F. WORK AREA MUST BE DESIGNATED AS A "NO SMOKING" area.

1. Appropriate warning signs must be posted in and around the work area in a language or pictorial representation understandable to employees.
2. Employees must warn abatement workers of the health risks associated with asbestos and smoking.
3. Employees must supply abatement workers with smoke cessation self-help material.

G. MAINTENANCE OF WORKPLACE BARRIERS AND WORKER DECONTAMINATION ENCLOSURE SYSTEMS

1. Following completion of the construction of all polyethylene barriers and decontamination system enclosures, allow overnight settling to insure that barriers will remain intact and secured to walls and fixtures before beginning actual abatement activities.
2. 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 abatement activities and following the completion of the day's abatement activities. Document inspections and observations in the daily project log.
3. Damage and defects in the enclosure system are to be repaired immediately upon discovery.
4. Use smoke tubes to test the effectiveness of the barrier system when directed by the Owner or representative of same.
5. At any time during the 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.
6. If air samples collected outside of the work area during abatement activities indicate airborne fiber concentrations greater than 0.1 f/cc or the pre-measured background levels (whichever is lower), work shall immediately stop for inspection and repair of barriers. Cleanup of surfaces outside of the work area using HEPA vacuums or wet cleaning techniques may be necessary.

7. Install and initiate operation of negative pressure ventilation equipment as needed to provide one air change in the work area every 15 minutes. 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.
8. 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.
9. Clearly identify and maintain emergency and fire exits from the work area.

H. 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 the Owner.
4. All equipment for abatement, clean-up and disposal are on hand.
5. All worker training [and certification] is completed.
6. Approval has been received from the Asbestos Project Manager.

7.2.2 WORKPLACE ENTRY & EXIT PROCEDURES

A. PERSONNEL ENTRY AND EXIT

1. All workers and authorized personnel shall enter the work area through the worker decontamination enclosure system.
2. All personnel who enter the work area must sign the entry log located in the clean room, upon entry and exit.
3. All personnel, before entering the work area, shall read and be familiar with all posted regulations, personal protection requirements (including workplace entry and exit procedures) and emergency procedures. A sign-off sheet shall be used to acknowledge that these have been reviewed and understood by all personnel prior to entry.



4. All personnel shall proceed first to the clean room, remove all street clothes and appropriately don respiratory protection (as deemed adequate for the job conditions) and launderable and/or disposal 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 work area.
5. Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room and equipment room to the main work area.
6. 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.
7. Personnel shall proceed to equipment room where they remove all protective equipment except respirators. Deposit disposable (and launderable) clothing into appropriately labeled containers for disposal (and laundering).
8. Reusable, contaminated footwear shall be stored in the equipment room when not in use. Upon completion of abatement is shall be disposed of as asbestos-contaminated waste. (Rubber boots may be decontaminated at the completion of the abatement for reuse).
9. Still wearing respirators, personnel shall proceed to the shower area, clean the outside of the respirator and the exposed face area under running water prior to removal of respirator and shower and shampoo to remove residual asbestos contamination. Various types of respirators will require slight modification of these procedures. An air line respirator with HEPA filtered dis-connect protection may be disconnected in the equipment room and worn into the shower. A powered air-purifying respirator face piece will 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.
10. After showering and drying off proceed to the clean room and don clean disposable (and/or launderable) clothing if there will be later re-entry into the work area or street clothes if it is the end of the work shift.
11. These procedures shall be posted in the clean room and equipment room.

#### B. WASTE CONTAINER PASS-OUT PROCEDURES

1. Asbestos-contaminated waste that has been containerized shall be transported out of work area through the waste container pass-out or through the worker decontamination enclosure if a separate airlock has not been constructed.
2. Waste pass-out procedures shall utilize two teams of workers, and "inside" team and an "outside" team.

3. 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 airlock. No worker from the inside team shall further exit the work area through this airlock.
4. The outside team, wearing a different color protective clothing and appropriately assigned respirator shall enter the airlock from outside the work area, enclose the drums in clean, labeled 6-mil poly bags and remove them from the airlock to the outside. No worker from the outside team shall further enter the work area through this airlock.
5. The exit from this airlock shall be secured to prevent unauthorized entry.

### 7.2.3 GLOVEBAG REMOVAL

#### A. AREA PREPARATION

1. Seal off room in which removal is being performed. Close all doors, windows, vents and other openings to the work area.
2. Post warning signs.
3. Shut down HVAC system and seal all openings.
4. All visible devices on the floor or other surfaces in the work area shall be cleaned up by wet methods.

#### B. SET UP

1. Set up full negative pressure enclosure with 3 stage decontamination system as specified in Section 7.2.
2. If an insulation on the pipe is severely damaged, either at or remote from the section of insulation being removed, wrap the entire length of pipe in poly and secure with duct tape spiraling the length.
3. Wrap one layer of duct tape around the pipe at each location where the bag will be attached.
4. Open the bag, place tools inside, wrap bag around pipe and seal the top with staples and duct tape.
5. Tape ends of bag to the pipe. When removing from vertical piping special care shall be taken to assure that the lower end of the bag is securely sealed against the pipe to prevent leakage.
6. Each bag shall be visually and/or smoke tube tested for air tightness by the Asbestos Project Manager prior to asbestos removal.
7. Tape the wand from the water sprayer to the water sleeve.

## C. REMOVAL

1. Remove pipe insulation with glovebags using a two man operation.
  - a. Cut the ends of the insulation and slit lengthwise. Constantly mist the asbestos materials with amended water during cutting and removal.
  - b. Spray all tools with water and place in pouch.
  - c. Remove insulation from pipe.
  - d. Scrub and wipe down exposed pipe.
  - e. Seal the exposed ends of insulation with encapsulant prior to detaching the bag.
  - f. Isolate tools in bag and seal off with duct tape.
  - g. Collapse bag using HEPA filtered vacuum.
  - h. Isolate tools in bag and seal off with duct tape.
  - i. Seal the bag with duct tape.
  - j. Slip a 6-mil disposal bag over the glove-bag. Remove tape, open top of glovebag, and fold down into the disposal bag.
  - k. Twist, seal and label the disposal bag.
  - l. Clean the bag with a damp cloth.
  - m. Dispose of all material, rags, brushes, etc. as asbestos-contaminated waste.
2. Where damaged insulation is laying on ceiling tiles or floor, all surfaces shall be HEPA vacuumed prior to starting removal procedures.

## D. WORKER DECONTAMINATION

1. Once removal or demolition work begins, all workers leaving the work area shall be decontaminated by having their outer suit thoroughly HEPA vacuumed. Any worker who has become contaminated shall be HEPA vacuumed then proceed immediately to the shower area, with respirator still on, and perform complete decontamination.

## E. EMERGENCY PROCEDURES

1. In the event of the glovebag rupturing, the device and shroud shall be immediately cleaned with wet cloths and HEPA vacuuming.
2. The broken bag shall be encased in a new bag and attached as specified above.

3. Workers contaminated by asbestos material shall be HEPA vacuumed and proceed immediately to the shower area with respirator on, and perform complete decontamination.

#### 7.2.4 CLEAN PROCEDURE - GLOVEBAG REMOVAL

- A. Wet clean all surfaces in the work area using rags, mops, and sponges as appropriate.
- B. Remove all containerized waste from the work area and waste container pass-out airlock.
- C. The area must be inspected and approved by the contractor's competent person at this point.
- D. Encapsulate the areas from which asbestos has been removed.
- E. Remove the cleaned plastic sheeting from walls and floors. Windows, doors, HVAC system vent and all other opening shall remain sealed. The negative pressure ventilation units shall remain in continuous operation. Decontamination enclosure systems shall remain in place and be utilized.
- F. Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence.
- G. Inspect the work area for visible residue. If any accumulation of residue is observed, it will be assumed to be asbestos and the cleaning cycle shall be repeated.
- H. Once the work area has passed the second visual inspection, clearance air monitoring will be conducted by the Asbestos Project Manager. The air in the work area shall be agitated during the air monitoring. If the acceptance air quality concentrations are met, barriers may be removed and properly disposed of. A final inspection shall be conducted by the Asbestos Project Manager to assure that no contamination remains in the work area.
- I. All additional cleaning and testing required shall be provided at no cost to the Owner until the cleanup criteria has been met.
- J. The HEPA unit shall remain in operation until final clean check criteria has been met.

#### 7.2.5 DISPOSAL

##### A. 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 pre-arranged disposal location.
2. Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAP and applicable State and local guide-lines and regulations.
3. All dump receipts, trip tickets, transportation manifests or other documentation of disposal shall be delivered to the Building Owner for their records. A recommended recordkeeping format utilizes a chain of custody form which includes the names and addresses of the Building Owner, Contractor, pickup site, and disposal site, the estimated quantity of the asbestos waste and the type of containers used. The form should be signed by the Owner, Contractor, and the Disposal Site Operator as the responsibility of the material changes hands.

If a separate hauler is employed, his name, address, telephone number and signature should also appear on the form. All trucks used to transport asbestos waste must be marked with the DOT transport marking:

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4. Transportation to the landfill:
  - a. Once drums, bags, and wrapped components have been removed from the work area they shall be loaded into an enclosed truck for transportation.
  - b. 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.
  - c. The enclosed cargo area of the truck shall be free of debris and lined with 6-mil poly sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be overlapped and taped into place.
  - d. Drums shall be placed on level surfaces in the cargo area and packed tightly together to prevent shifting and tipping. Large structural components shall be secured to prevent shifting and bags placed on top. Do not throw containers into truck cargo area.
  - e. 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.
  - f. Any debris or residue observed on containers or surfaces outside the work area resulting from cleanup using HEPA filters vacuum equipment and/or wet methods as appropriate.
  - g. If dumpsters are used for asbestos waste disposal they shall have doors or tops that can be closed and locked. Un-bagged material shall not be placed in these containers nor shall they be used for non-asbestos waste. Bags shall be placed, not thrown, into these containers.
5. The Asbestos Project Manager reserves the right to accompany the transporter to the landfill.

**B. DISPOSAL AT THE LANDFILL**

1. Upon reaching the landfill, trucks shall 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.

4. Personnel off-loading containers at the disposal site shall wear protective equipment consisting of disposable head, body and foot protection and at a minimum, half-face piece, air-purifying, dual cartridge respirators equipped with high efficiency filters.
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. Poly sheeting shall be removed and discarded along with contaminated cleaning materials and protective clothing, 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.

#### 7.2.6 RE-ESTABLISHMENT OF THE WORK AREA AND SYSTEMS

- A. Re-establishment of the work area shall only occur following the completion of cleanup procedures and after clearance air monitoring has been performed and documented to the satisfaction of the Building Owner and Asbestos Project Manager.
- B. Following satisfactory clearance of the work area, remaining poly barriers may be removed and disposed of as asbestos-contaminated waste.
- C. Re-secure mounted objects removed from their former positions during area preparation activities.
- D. Relocate objects that were removed to temporary locations back to their original positions.
- E. Re-establish HVAC, mechanical and electrical systems in proper working order. Remove contaminated HVAC system filters and dispose of as asbestos-contaminated waste. Decontaminate filter assembly using HEPA vacuums and wet cleaning techniques. Install new filters in HVAC systems. Dispose of old filters.
- F. Repair all areas of damage that occurred as a result of abatement activities.

SECTION VIII  
AIR MONITORING

**8.1 CONTRACTOR AIR MONITORING**

**A. EMPLOYEE EXPOSURE MONITORING**

1. The contractor shall be responsible for all personnel monitoring as required by law. Employee asbestos exposure levels shall be monitored during removal using the OSHA standards as guidelines.
  2. Analysis of breathing zone air samples taken by the contractor must be done in accordance with OSHA ORM procedures.
  3. Results should be posted on-site with 48 hours of sample collection.
- B. Contractor will also pay for any post abatement clearance samples and associated collection time that must be re-taken because of a failed clearance test.

**8.2 OWNER AIR MONITORING**

**A. COLLECTION OF PRE-ABATEMENT AND DURING ABATEMENT SAMPLES**

1. Corrective action must be taken when area sample results exceed the following levels.

| <u>Sample Type</u>                    | <u>Concentration (total f/cc)</u> |
|---------------------------------------|-----------------------------------|
| Outside Work Area                     | .01                               |
| Inside Work Area                      | .10                               |
| Worker Time Weighted Average Exposure | .10                               |

2. When fiber levels in excess of .01 f/cc are found outside the work area, the contractor may request, and shall pay for, analysis of the samples by Scanning Electron Microscopy (SEM) or Transmission Electron Microscopy (TEM) to determine whether actual asbestos fiber concentration is in excess of acceptable levels. If asbestos fiber concentration is found to be less than .005 s/mm<sup>2</sup>, work may continue.

**B. POST ABATEMENT CLEARANCE SAMPLES**

1. A minimum of 5 samples per each containment area will be collected. Minimum volume of air sampled will be 1200 liters of air for TEM and PCM analysis.
2. Samples shall be analyzed by Phase Contrast Microscopy or Transmission Electron Microscopy, depending on size and complexity of each containment area.
3. The area shall be considered clean if each sample meets clearance standards found in 40 CFR Part 763.
4. If samples are failed and need to be re-taken, contractor will pay for sample collection and analysis.



### **8.3**

#### **LABORATORY SERVICES**

- A. Laboratories utilized for analyzing air samples by Phase Contrast Microscopy (PCM) shall be satisfactory participants in the NIOSH Proficiency Analytical Testing (PAT). Laboratories must also have in place a quality control program in accordance with the NIOSH 7400 Standard Analysis Specification. Personnel conducting PCM analysis shall have successfully completed the NIOSH 582 course or equivalent training.
- B. Laboratories used for analyzing air samples by Transmission Electron Microscopy (TEM), or bulk samples by Polarized Light Microscopy (PLM), shall be satisfactory participants in the EPA Quality Assurance Program under AHERA in conjunction with the National Voluntary Laboratory Accreditation Program (NVLAP).
- C. All sample results must be made available to the project manager within 48 hours of sample collection.

SECTION IX  
TERMS AND DEFINITIONS

## 9.0 DEFINITIONS

**ABATEMENT** - Procedures to control fiber release from asbestos-containing materials. Includes removal, encapsulation, enclosure, repair, demolition and renovation activities.

**ACGIH** - American Conference of Governmental Industrial Hygienists, 6500 Glenway Avenue, Building D-5, Cincinnati, OH 45211.

**AIHA** - American Industrial Hygiene Association, 475 Wolf Ledges Parkway, Akron, OH 44311.

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

**AIR MONITORING** - The process of measuring the fiber content of a known volume of air collected during a specific period of time.

**AIR SAMPLING PROFESSIONAL** - The professional contracted or employed by the building owner to supervise and/or conduct air monitoring and analysis schemes.

**AMENDED WATER** - Water to which a surfactant has been added.

**ANSI** - American National Standards Institute, 1430 Broadway, New York, NY 10018.

**ASBESTOS** - The asbestiform varieties of serpentine (chrysotile), reibeckite (crocidolite), cummingtonite-grunerite (Amosite), Anthophyllite, Actinolite, and Tremolite.

**ASBESTOS-CONTAINING MATERIAL (ACM)** - Material composed of asbestos of any type and in an amount greater than a trace by weight, either alone or mixed with other fibrous or non-fibrous materials.

**ASBESTOS-CONTAINING WASTE MATERIAL** - Asbestos-containing material or asbestos contaminated objects requiring disposal.

**ASBESTOS PROJECT MANAGER** - An individual designated as the Owner's representative and responsible for overseeing the asbestos abatement project.

**ASTM** - American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

**AUTHORIZED VISITOR** - The building owner (and any designated representatives) and any representative of a regulation or any other agency having jurisdiction over the project.

**BUILDING OWNER** - The owner or his authorized representative.

**CERTIFIED INDUSTRIAL HYGIENIST (CIH)** - An industrial hygienist certified in comprehensive practice by the American Board of Industrial Hygiene.

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

**COMPLETE RESPONSE ACTION** - Process conducted by the contractor's competent person to ensure all specified ACM has been removed and cleaned completely to satisfy the requirements of the AHERA regulation.

**CONTRACTOR** - The individual and/or business with which the building owner arranges to perform the asbestos abatement.

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

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

**DEMOLITION** - The wrecking or taking of any load-supporting structural member of a facility together with any related handling operations.

**ENCAPSULANT** - A liquid material which can be applied to asbestos-containing material which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

**ENCAPSULATION** - The application of an encapsulant to asbestos-containing materials to control the release of asbestos fibers into the air.

**ENCLOSURE** - The construction of an air-tight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

**EPA** - Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460.

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

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

**FACILITY** - Any institutional, commercial or industrial structure, installation or building.

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

**FRIABLE ASBESTOS** - Asbestos-containing material which can be crumbled to dust, when dry, under hand pressure.

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

**HVAC** - Heating, ventilation, and air conditioning system.

**HEPA FILTERS** - A high efficiency particulate air filter capable of removing particles greater than 0.3 microns in diameter with 99.97% efficiency.

**HEPA VACUUMS** - A vacuum system equipped with HEPA filtration.

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

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

**NESHAPS** - The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).

**NIOSH** - National Institute for Occupational Safety and Health, CDC-NIOSH, Building J, N.E., Room 3007, Atlanta, GA 30333.

**NON-FRIABLE** – Material that is currently and will likely stay in a solid, intact state and will not likely release fibers from its matrix if disturbed.

**OSHA** - Occupational Safety and Health Administration, 200 Constitution Avenue, Washington, DC 20210.

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

**PCM** - Phase Contrast Microscopy.

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

**RENOVATION** - Altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.

**SHOWER ROOM** - A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold running water controllable at the shower tap and suitably arranged for complete showering during decontamination.

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

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

**STRUCTURAL MEMBER** - Any load-supporting member of a facility, such as beams and load-supporting walls or any non-load supporting member, such as ceilings and non-load supporting walls.

**SURFACTANT** - A chemical wetting agent added to water to improve penetration.

**TEM** - Transmission Electron Microscopy.

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

**WASTE TRANSFER AIRLOCK** - A decontamination system utilized for transferring containerized waste from inside to outside of the work area.

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

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

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