ADDENDUM NO. 5
FOR

TOWNSHIP OF WILLINGBORO
KENNEDY CENTER
RENOVATIONS TO SENIOR CENTER

BURLINGTON COUNTY, NEW JERSEY
BID NO. 8-2026

NOVEMBER 12, 2026

DATE: 11.12.26

William R. Long, P.E.
N.J. Professional Engineer
License No. GE33012

RICHARD A. ALAIMO ASSOCIATES
CONSULTING ENGINEERS
200 HIGH STREET, MOUNT HOLLY, NEW JERSEY 08060
(609) 267-8310
OUR FILE NO. M-0410-0011-000 (S3051)

ADDENDUM NO. 5

TOWNSHIP OF WILLINGBORO
KENNEDY CENTER
RENOVATIONS TO SENIOR CENTER
BID NO. 8-2026

TO: ALL PRIME BIDDERS OF RECORD

This Addendum forms a part of the Contract Documents and modifies the original Specifications dated September 2026, as-noted below. Acknowledge receipt of this Addendum by signing the Acknowledgment contained in the Proposal Forms on Page 00 41 00-11. Failure to do so may subject the bidder to disqualification.

I. PROJECT MANUAL

A. SECTION 00 41 00; PROPOSAL

1. **Delete** Page 00 41 00-2 and **add** new Pages 00 41 00-2, 2A, and 2B dated November 12, 2026, attached.

B. SECTION 08 71 00; HARDWARE

1. **Delete** subpart 3.07 and **add** new subpart 3.07 **to read** as follows:

"3.07 HARDWARE SCHEDULE (Provide aluminum diamond plate 6061-T6, ½" thick cut to fit inside frame in locations as indicated on Drawings.)

A. Hardware Set #1
Single Door – Exterior Exposure – Egress/Entry Function
Door: 122

Item	ANSI Finish	ANSI #
1½ Prs. Hinges	630	A5111, NRP
1 Exit Device	630	Type 3, Function 08
1 Closer	Norton 7500 SS or equivalent. Install closer parallel mount on push side	
Threshold	Alum	Pemko 2006 AT1
Door Sweep	Neoprene	Pemko #321CN
Door Gasket	Bronze	Pemko #S88D or equivalent
1 Kick Plate	630	J102

1 Drip Edge	Bronze	Pemko #216AV, or equivalent
Door Gasket	Bronze	Pemko #S88D, or equivalent

B. Hardware Set #2
Double Door – Exterior Exposure – Egress/Entry Function
Doors: 130-A, 130-B, 130-C, 143-3, 153-1, 153-2, 169-3, 170-A, 170-B, 170-C

Item	ANSI Finish	ANSI #
3 Prs. Hinges	630	A5111
2 Exit Device	630	Type 6, Function 08
1 Astragal	Color to Match Door/ Frame	Pemko 355 AV or equivalent
2 Closer	Norton 7500 SS or equivalent. Install closer parallel mount on push side	
1 Kick Plate	630	J102
1 Threshold	Alum	Pemko 2006AT
Door Gasket	Bronze	Pemko #S88D, or equivalent
2 Door Sweeps	Neoprene	Pemko #321CN

C. Hardware Set #3
Single Door – Toilet Room
Door: 144

Item	ANSI Finish	ANSI #
1½ Prs. Hinges	630	A5111
1 Lockset	626	F76A
1 Kick Plate	630	J102 6” x 2” LDW
1 Door Stop	630	L02251
1 Closer	Norton 7500 SS or equivalent. Install closer parallel mount on push side	

D. Hardware Set #4
Single Door – Office
Door: 126 B, 148-1, 148-2, 150, 154, 154 A, 155-1, 155-2, 162, 163, 164, 165, 167
¾ Hour Fire Rated Door: 151-1, 151-2

Item	ANSI Finish	ANSI #
1½ Prs. Hinges	630	A5111
1 Lockset	626	F75
1 Kick Plate	630	J102 6” x 2” LDW
1 Door Stop	630	L01371

E. Hardware Set #5
Single Door – Interior – Exit Device – egress/Passage
Door: 121-1,121-3, 145-1, 145-2, 156-1, 156-2, 168-1, 168-2

Item	ANSI Finish	ANSI #
1½ Prs. Hinges	630	A5111
1 Exit Device	630	Type 3 Function 15
1 Closer	Norton 7500 SS or equivalent. Install closer parallel mount on push side	
1 Kick Plate	630	J102 6” x 2” LDW
1 Door Stop	630	L01371

F. Hardware Set #6
Double Door – Interior – Egress/Entry Function
Doors: 143-1, 143-2, 152 A, 152 B, 169-1, 169-2

Item	ANSI Finish	ANSI #
3 Prs. Hinges	630	A5111
2 Exit Device	630	Type 6, Function 08
1 Astragal	Color to Match Door/ Frame	Pemko 355 AV or equivalent
2 Closer	Norton 7500 SS or equivalent. Install closer parallel mount on push side	
4 Kick Plate	630	J102
1 Threshold	Alum	Pemko 2006AT
Lockset	626	F07-Storeroom Lockset
Door Gasket	Bronze	Pemko #S88D, or equivalent
2 Door Sweeps	Neoprene	Pemko #321CN

G. Hardware Set #7

Double Door – Closet – Fire Rated
Doors: 121-2, 126 A

Item	ANSI Finish	ANSI #
3 Prs. Hinges	630	A5111
2 Kick Plates	630	J102
1 Astragal	Color to Match Door/ Frame	Pemko 355 AV or equivalent
1 Threshold	Alum	Pemko 2006AT
Lockset	--	--
Door Gasket	Bronze	Pemko #S88D, or equivalent

H. Hardware Set #8
Single Door – Closet
Door: 148 A

Item	ANSI Finish	ANSI #
1½ Prs. Hinges	630	A5111
1 Lockset	--	--
1 Kick Plate	630	J102 6" x 2" LDW
1 Door Stop	630	L01371

C. **APPENDIX B; ASBESTOS ABATEMENT SPECIFICATIONS**

1. Appendix B, Asbestos Abatement Specifications, is attached to this Addendum and is hereby incorporated into and made a part of the Contract Documents.

II. **CONTRACT DRAWINGS**

A. The following *Contract Drawings* require revision and reissuance of drawings. The reissued drawings are attached as part of this Addendum.

1. **Sheet D2 – Demolition Plan – Senior Center (Partial)**, dated August 2026, **Revised** November 12, 2026, attached.

2. **Sheet D3 – Demolition Plan – Senior Center (Partial)**, dated August 2026, **Revised** November 12, 2026, attached.

3. **Sheet A2 – Floor Plan – Senior Center**, dated August 2026, **Revised** November 12, 2026, attached.

4. **Sheet A3 – Floor Plan – Senior Center**, dated August 2026, **Revised** November 12, 2026, attached.

5. **Sheet A12 – Platform Lift Details**, dated August 2026, **Revised** November 12, 2026, attached.

6. **Sheet A16 – Storefront Details**, dated August 2026, **Revised** November 12, 2026, attached.

7. **Sheet A17 – Storefront Details**, dated August 2026, **Revised** November 12, 2026, attached.

8. **Sheet A18 – Storefront and Window Details**, dated August 2026, **Revised** November 12, 2026, attached.

9. **Sheet A19 – Door, Window and Storefront Schedule**, dated August 2026, **Revised** November 12, 2026, attached.

10. **Sheet A20 – Room Finish Schedule and Details** , dated August 2026, **Revised** November 12, 2026, attached.

11. **Sheet S1 – Overall Floor Plan**, dated August 2026, **Revised** November 6, 2026, attached.

12. **Sheet S2 – Room #145 Modifications**, dated August 2026, **Revised** November 6, 2026, attached.

13. **Sheet H1 – Partial First Floor Office and Lounge Area – HVAC – New Work**, dated August 2026, **Revised** November 12, 2026, attached.

14. **Sheet E0 – Electrical Key Plan and Notes**, dated August 2026, **Revised** November 11, 2026, attached.

15. **Sheet E1 – Electrical Floor Plans**, dated August 2026, **Revised** November 11, 2026, attached.

B. The following *Contract Drawings* are deleted in their entirety.

1. Sheet S3 – Room #168 Modifications

III. QUESTIONS AND RESPONSES

Q1. In the lounge/office area, most of the walls are CMU. There are new outlets shown on these walls. Should we plan to use surface mounted conduit, or cut open the CMU and recess the new electric?

Response: ***Receptacles to be furnished and installed in CMU walls and associated wiring shall be recessed within CMU walls. Contractor is responsible for means and methods in accordance with NEC and all other applicable codes.***

Q2. The Podcast Studio (Room 156) has (4) Type 8 windows and (2) Type 9 windows. There is no section cut for these windows, and they are not referenced in the window schedule or elevations on pages A16 & A19. Are these windows supposed to be storefront? If so, what are dimensions for these windows?

Response: ***Refer to details W1, W2 and W3 on drawing A16 for details, sections and sizes of windows.***

Q3. Elevations 9a, 9b, 10a & 10b indicate that the frame is to remain existing and to remove and install the glass and panels within the system. Are there site photos showing these elevations available? The entirety of the elevations may need to be replaced if the system is outdated.

Response: ***The photos of existing elevations of window system are attached below:***





Q4. There are only 2 hardware sets in spec section 08 71 00-15 & 16. Please specify which the hardware for doors 143-1, 143-2, 143-3, 152-A, 152-B, 153-1, 153-2, 169-1, 169-2, 169-3, 170-A, 170-B, 170-C, 170-D & 170-E.

Response: ***The hardware schedule described in Section 08 71 00, Hardware, has been revised as a part of Addendum No. 5***

Q5. The entirety of Door 122 may need to be replace. Plans state that the frame is to remain existing. Existing door frame may not be able to be prepped for a new door. Please specify the door hardware.

Response: ***Contractors are advised to retain existing frame as it is part of an existing two-story window wall system and replace the door with new. Door hardware is indicated in the revised hardware schedule in Section 08 71 00, Hardware.***

****END OF ADDENDUM NO. 5****

TOWNSHIP OF WILLINGBORO
KENNEDY CENTER
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BID NO. 8-2026

Item No.	Description	Unit Price	Total Price
1.	Mobilization. (See Section 00 22 00) LUMP SUM PRICE _____ Dollars and_____ Cents		$_____
2.	Demolition Work. LUMP SUM PRICE _____ Dollars and_____ Cents		$_____
3.	Abatement of hazardous materials including asbestos and lead as indicated in Appendix A and B, and in compliance with all regulations of applicable federal, state and local agencies. LUMP SUM PRICE _____ Dollars and_____ Cents		$_____

Item No.	Description	Unit Price	Total Price

Provide unit pricing for unforeseen works, if and where directed by OWNER and ARCHITECT/ENGINEER as described below:

3.1 Floor tile & associated mastic.

UNIT PRICE PER SQUARE YARD

_____ Dollars

and_____ Cents $_____

3.2 Terrazzo flooring within full containment work areas.

UNIT PRICE PER SQUARE YARD

_____ Dollars

and_____ Cents $_____

3.3 Cove base & glue/mastic within full containment work areas.

UNIT PRICE PER LINEAR FOOT

_____ Dollars

and_____ Cents $_____

3.4 Ceramic floor tile/mortar/grout/glue within full containment work area.

UNIT PRICE PER SQUARE YARD

_____ Dollars

and_____ Cents $_____

Item No.	Description	Unit Price	Total Price

3.5 CMU Block/mortar within full containment work area.

UNIT PRICE PER SQUARE YARD

_____ Dollars

and_____ Cents $_____

3.6 Non-friable floor tile & associated mastic.

UNIT PRICE PER SQUARE YARD

_____ Dollars

and_____ Cents $_____

3.7 Non-friable door-window wall caulk/glazing.

UNIT PRICE PER SQUARE YARD

_____ Dollars

and_____ Cents $_____

APPENDIX “B”

ASBESTOS ABATEMENT SPECIFICATIONS

NON-FRIABLE ASBESTOS ABATEMENT SPECIFICATION

Asbestos Abatement
Non-friable / Dust Control

Site Address:

Willingboro Senior Center

429 John F. Kennedy Way
Willingboro, NJ 08046

Project No. 26-7199

CLIENT:

Willingboro Township
1 Rev. Dr. Martin Luther King Jr. Drive
Willingboro, NJ 08046
Attn: Mr. Dwayne M Harris, DPA

DESIGNED BY:

AHERA Consultants INCORPORATED

DESIGN DATE:
November 2026

Reviewed and released by: John Smoyer
John Smoyer Project Designer # 11879
Approved and released by AHERA Consultants, Inc. ASCM # 0057

PO Box 385
Oceanville, NJ 08231-0385
Email: ahera@aherainc.com
Phone: 609.652.1833
Fax: 609.652.1140

Asbestos Abatement Specification
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Floor Plans / Drawings

SHEET	TITLE
ASB-01NF	Asbestos Abatement – Non-friable/Dust control

1.0 GENERAL REQUIREMENTS

1.1 The specification contained herein forms but a part of all sections of the entire project specification. The Contractor shall become familiar with all requirements and is bound by all terms and conditions contained in this specification.

1.2 The Contractors shall, before submitting their proposal be held responsible to have examined the premises so as to satisfy themselves as to the existing conditions of the premises and limitations under which the work shall have to be executed. No allowances shall subsequently be made on behalf of the Contractor by reason of any error or neglect on their part for having failed to follow the instructions given herein.

1.3 Any plans, reports, written instructions, or verbal instructions are for reference purpose only. The Contractors shall verify for themselves the total extent of the project. It is the Contractor's responsibility to review the written specification. No subsequent extras of compensation shall be provided due to failure of the Contractor to evaluate the total extent of the project or for errors in this specification.

1.4 Should the Contractor find any discrepancies in, or omissions from any document, or be in doubt as to their meaning, they shall issue all necessary clarifications by means of written correspondence. The Project Managers shall not be responsible for any oral instructions.

1.5 Each Contractor shall thoroughly examine and be familiar with the attached specification. The failure or omission of any Contractor to receive or examine documents or to fail to observe conditions existing there shall in no way relieve them from any obligation with respect to their bid.

1.6 The Contractors shall also examine the contents of this specification and assure themselves that all pages of the specifications are included in documents obtained for bidding purposes. Should the specifications be incomplete, or any of the bidders find any discrepancies in, or omissions from, any of the documents, or be in doubt as to their meaning, the Contractor shall notify in writing, referencing the project and project number, to AHERA Consultants, Inc.; P.O. Box 385; Oceanville, N.J. 08231.

1.7 The lack of such written notification by the Contractor will be construed as evidence that the specifications supplied him for bidding purposes are full and complete and shall preclude any subsequent claim to the contrary.

1.8 The Contractor shall hold the Owner, Alaimo Group and AHERA Consultants Inc. harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself/herself, his/her employees, or his/her subcontractors.

2.0 SCOPE OF WORK

2.1 All work under this contract shall be performed in strict accordance with the specifications. The Contractor shall furnish all labor, materials, supervision, services, insurances, licenses, and equipment necessary for the complete and total removal of asbestos containing materials (ACM) located at the site, viewed at the site visit, and described herein.

2.2 **The Scope of Work is to remove and dispose of asbestos floor tiles, mastics, door/window wall caulk/mortar/glazing from specific areas in the Willingboro Senior Center.**

2.3 TYPE OF REMOVAL: Asbestos removal work will be conducted utilizing non-friable removal procedures. Where Floor Tiles will be abated, it shall be in accordance with the RFCI's *Recommended Work Practices for the Removal of Resilient Floor Coverings* and the NJ Department of Health Contractors Guide for the Removal of Asbestos Containing Floor Tiles. The work area shall be properly contained, and negative air established prior

to any removal-taking place.

2.4 DECON CHAMBER: The remote decontamination chamber will be erected outside of work area(s) prior to any prep work or removal-taking place, if required.

2.5 Completion of Work and Liquidated Damages

2.6 The Contractor will be required to prosecute said work diligently, and subject to authorized adjustment, to complete the work in the **Willingboro Senior Center** within the established time frame.

2.7 **The effective start / completion date for the removal project shall be established by the Township.** Once established, the Contractor shall maintain sufficient personnel to ensure completion of the job within the allotted time frame. Work hours will be from 7:00 a.m. to 3:30 p.m. daily.

2.8 The following descriptions indicate those areas where bulk sampling has detected the presence of asbestos. The descriptions are included as part of the request for information only and to indicate the general locations where contaminated materials are to be found. The Contractor is to verify actual quantities of asbestos containing materials to be removed and disposed of.

2.9 The scope of work under this contract includes but is not limited to the following:

2.9.1 Willingboro Senior Center

NON-FRIABLE ABATEMENT				
LOCATIONS (See Plans)	**MATERIAL TO BE ABATED**	**AMOUNT**	**% ASBESTOS / TYPE**	**ABATEMENT METHOD**
Break Room - 165	Floor tile & associated mastic	370 SF	1.4-8.2% Chrysotile	Non-Friable – NJDHSS Waiver
Sensory - 148	Floor tile & associated mastic	992 SF	1.4-8.2% Chrysotile	Non-Friable – NJDHSS Waiver
Stair Hall – 130	Floor tile & associated mastic	570 SF	1.4-8.2% Chrysotile	Non-Friable – NJDHSS Waiver
Office - 148B	Floor tile & associated mastic	125 SF	1.4-8.2% Chrysotile	Non-Friable – NJDHSS Waiver
Computer Rm – 168	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	195 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Entrance - 2 170/169	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	375 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Corridor – 169	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	272 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Lounge – 152B	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	320 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Break Rm – 167	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	220 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Sensory – 148	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	220 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Lounge – 152A	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	320 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Corridor – 143	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	380 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Stair Hall – 130/143	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	300 x 2=600 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver
Conference Rm =- 145	Door-window wall Interior/exterior frame to brick caulk mortar joint & window glazing	220 SF	2-4% Chrysotile	Non-Friable – NJDHSS Waiver

OSHA Compliance Dust Control Methods		
LOCATIONS (See Plans)	**SUBJECT MATERIAL**	**CONTRACTOR ACTION**
Office - 164	Carpet/flooring mastic	OSHA Compliance - Dust Control Methods
Office – 165	Carpet/flooring mastic	OSHA Compliance - Dust Control Methods
Lounge – 152B	Carpet/flooring mastic	OSHA Compliance - Dust Control Methods
Hall – 156A	Carpet/flooring mastic	OSHA Compliance - Dust Control Methods
Podcast – 156	Carpet/flooring mastic	OSHA Compliance - Dust Control Methods
Lounge – 153	Carpet/flooring mastic	OSHA Compliance - Dust Control Methods
Kitchen – 121	VCT flooring mastic	OSHA Compliance - Dust Control Methods
Craft Suite – 126A-C	VCT flooring mastic	OSHA Compliance - Dust Control Methods
Activity – 127	VCT flooring mastic	OSHA Compliance - Dust Control Methods

2.10 ADDITIONAL REQUIREMENTS

2.10.1 "No Odor" mastic remover, "Bean-e-Doo" or equivalent only shall be used for mastic removal.

2.10.2 The contractor shall be responsible for following OSHA compliance - dust control methods when impacting or removing the flooring mastic from the concrete substrate surface in all areas where designated flooring or substrate concrete will be impacted by construction activities. This material tested less than (<) 1% Chrysotile by TEM, all OSHA guidelines shall be followed regarding materials found to contain <1% asbestos.

2.10.3 All flooring removals shall be conducted under non-friable procedures as required by this specification. All materials used shall be flame retardant as required by the Uniform Construction Code and this specification.

2.10.4 Where designated door/window wall components are to be removed, non-friable and component removal procedures shall be followed. Coordination with general contractor activities shall be adhered to.

2.10.5 Waste out will be conducted at the end of each work shift. Wet wiping of decontamination chamber will be accomplished every day at the end of the work shift once removal begins.

2.10.6 A lockable, closed container or transport vehicle shall be onsite, lined with one (1) layer of 6 mil. poly on the sides & floor and have asbestos warning sides on all four sides prior to any work taking place.

2.10.7 HEPA Air Filtration units will be utilized in all work areas and exhaust to the outside of the building.

2.10.8 Final air sampling for this project shall be accomplished utilizing T.E.M. analysis as required by AHERA regulations. If final air sampling should fail utilizing TEM analysis, contractor is responsible to pay the Township for the second set of TEM finals necessary to clear the project after re-cleaning has been accomplished.

2.10.9 Negative air shall be established, and the work area set up prior to any removal taking place. The contractor shall ensure that all smoke detectors / sensors are covered, and the fire detection system is placed on test prior to removal activities.

2.10.10 The contractors must be certified by the NJDHSS to conduct non-friable floor tile abatement, and a waiver must be obtained specifically for this project and be on site. Additionally, the Contractor shall hire a NJ Licensed Electrician to make the hook up for the heat machine(s), if heat machine(s) are used.

2.10.11 The contractors must follow the RFCI resilient floor covering guidelines for non-friable abatement, the NJDHSS guidelines for the non-friable removal of asbestos containing floor tiles, and this specification. In areas of conflict the most stringent will apply.

2.10.12 The contractor shall combine work areas for the purpose of final air testing as shown on the maps and description of areas.

3.0 PRE-CONSTRUCTION MEETING

3.1 The successful Bidder will attend a pre-construction meeting with representative(s) of the Owner along with personnel from the Asbestos Safety Control Monitoring firm (ASCM). The Contractor and supervisory personnel who will provide on-site direction of the abatement activities must attend. At this meeting the Contractor shall provide all submittals as required. In addition, he shall be prepared to provide detailed information concerning:

3.1.1 Progress Schedule
3.1.2 A plan for preparation of the work site
3.1.3 Description of protective clothing and approved respirators to be used.
3.1.4 Delineation of responsibility of work site isolation.
3.1.5 Explanation of decontamination sequence.
3.1.6 Description of all removal methods to be used.
3.1.7 Explanation of the handling of asbestos-contaminated waste.
3.1.8 Submit list of workers for job with state certifications.
3.1.9 Description of the final clean-up procedures to be used.
3.1.10 Description of emergency procedures to be followed in case of injury or fire.

This section must include evacuation procedures, source of medical assistance (name and phone number) and procedures to be used for access by medical personnel (examples: first aid squad and physician). NECESSARY EMERGENCY PROCEDURES SHALL TAKE PRIORITY OVER ALL OTHER REQUIREMENTS OF THIS SPECIFICATION.

3.2 The Asbestos Safety Control Monitor representative shall detail the testing to be done after removal. The procedure to be followed in the event their inspection shows specification deficiencies in the Contractor's performance should be reviewed.

3.3 Asbestos work shall not proceed until the Owner, Contractor, and Asbestos Safety Control Monitoring Firm agree on the details.

4.0 SITE DOCUMENTATION

4.1 The Contractor shall post the name, asbestos work permit number and signature of all workers to be permitted in the work area in a visible conspicuous place on the premises.

4.2 A valid official copy of the Contractor's license issued by the New Jersey Department of Labor shall be displayed at the work site.

4.3 The asbestos construction permit issued by the administrative authority is to be displayed at the job site. The Contractor prior to commencement of work will obtain these, if necessary, for this project.

4.4 One copy of the documentation required as per section 6.0 of this specification.

Additional documentation to be available at the job site shall include:

4.4.1 A sign in black letters greater than four inches (4") in height stating the following: "LICENSED BY THE STATE OF NEW JERSEY FOR ASBESTOS WORK" The sign shall be readily visible to the outdoors at the work site.

4.4.2 A list of emergency telephone numbers to include: the monitoring firm employed by the Building Owner, U.S.E.P.A., O.S.H.A., N.J.D.H.S.S., N.J.D.O.L., fire, police, local hospital, and emergency squad.

4.4.3 A list of the established work area emergency procedures posted in plain view. In case of an emergency, decontamination procedures shall not impede emergency procedures.

4.4.4 A daily log of all persons entering the work area, including all visitors. Non-employees of the Asbestos Contractor shall be required to sign an acceptable waiver form. The Project Manager shall approve the waiver form.

4.4.5 A daily log that shall include a record of start and stop times, any work area problems encountered, any corrective action, and estimated amounts of ACM waste generated. Also, to be kept with this log are the results of air monitoring.

4.4.6 Work schedules and updated progress charts depicting all phases of work and completion deadlines.

4.4.7 Copy of waste hauler's certificate and a copy of all landfill receipts.

5.0 CODE REQUIREMENTS

5.1 All work under this contract shall be accomplished in strict accordance with all applicable Federal, State, and Local regulations, standards and codes governing asbestos abatement and any other trade work done in conjunction with the abatement.

5.2 The most recent edition of any relevant regulation, standard, document or code shall be in effect. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized.

5.3 Copies of all standards, regulations, codes and other applicable documents, including this specification, shall be available at the job site.

5.4 Specific Requirements

5.4.1 Occupational Safety and Health Administration General Industry Standards (OSHA)

5.4.2 U.S. Department of Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants. (USEPA NESHAPS)

5.4.3 New Jersey Department of Environmental Protection, Solid Waste Disposal Regulations (NJDEP)

5.4.4 N.J.A.C. 23:5-Subchapter 8 "Asbestos Hazard Abatement Subcode" as amended. (Sub-8) should the material be rendered friable.

5.4.5 New Jersey Department of Health Chapter 120.

5.4.6 Rules and regulations of all other Jurisdictional Authorities.

5.4.7 Submit detailed product information including material safety data sheets (MSDS) on all materials and equipment proposed for asbestos abatement work on this project.

5.4.8 Resilient Floor covering institute guidelines for the removal of resilient floor coverings.

5.4.9 NJDHSS – A Contractor’s Guide for the non-friable removal of asbestos containing floor coverings.

6.0 NOTIFICATIONS / PERMITS

6.1 The Contractor shall notify the following agencies in writing ten (10) days prior to the start of asbestos removal project.

6.1.1 Supply a copy of the exemption notice to:
New Jersey Department of Health & Senior Services
CN 369
3635 Quakerbridge Road
Trenton, N.J. 08625-0369

6.2 Notification to the agencies above shall contain the following information:

6.2.1 Name and address of the Building Owner.
6.2.2 Name and address of the Contractor.

6.2.3 Address and description of the building, its uses, and amount of ACM present in square feet or linear feet as applicable.
6.2.4 Scheduled starting and completion dates for removal.
6.2.5 Name and address of the N.J. Department of Environmental Protection registered waste hauler and of the N.J.D.E.P. registered landfill where the asbestos will be deposited.
6.2.6 Name and address of the Asbestos Safety Monitoring Firm hired by the Building Owner.
6.2.7 Name and address of the OSHA Monitoring Firm to perform air monitoring on half of the Contractor's employees.

6.3 A notification of intent to dispose of asbestos shall be sent 10 days prior to actual disposal to the following:

6.3.1 New Jersey Department of Environmental Protection
Division of Waste Management
Bureau of Field Operations
840 Bear Tavern Road, CN414
Trenton, N.J. 08625

6.4 The notification shall include the following:

6.4.1 Name, address, and telephone number of the removal project.
6.4.2 Quantity and nature of the waste to be disposed of.
6.4.3 Name, address, and New Jersey Department of Environmental Protection registration number of the collector-hauler.
6.4.4 Name and address of the landfill at which disposal will occur.
6.4.5 Date and time of disposal.

The Contractor will obtain the necessary construction permit from the local Construction Code Official if applicable regarding this project.

7.0 WORK AREA PREPARATION

7.1 The work area is the location where non-friable abatement work occurs. It is a variable of the extent of work of the contract. It may be a portion of a room, a single room, or a complex of rooms.

7.2 General isolation of the work area from other parts of the building so as to prevent asbestos containing dust or debris from passing beyond the isolated areas in accordance with the NJDHSS Guideline.

7.3 Primary Seal / Critical Barriers

7.3.1 Completely separate the work area from other portions of the building and the outside by sheet plastic barriers at least six (6) mil. in thickness and fire rated.

7.3.2 Individually seal all ventilation openings (supply and exhaust), doorways, windows, skylights, convectors, floor drains and other openings into the work area with two (2) layers of polyethylene sheeting at least six (6) mil. in thickness and fire-rated taped securely in place. Maintain the seal until all work, including decontamination, is completed. Take care in sealing off lighting fixtures to avoid melting or burning of sheeting.

7.3.3 Polyethylene sheeting shall be used to isolate contaminated from uncontaminated areas. This polyethylene sheeting shall be replaced or repaired immediately if torn or damaged. One layer of polyethylene sheeting shall be required halfway up the walls to prevent damage to walls from mastic remover. Two layers of polyethylene sheeting shall also be used to seal open space between work areas and non-contaminated areas. ALL POLY USED ON THIS PROJECT SHALL BE FLAME RETARDANT AS SPECIFIED.

7.3.4 Clean housings and ducts of all dust / dirt material prior to erection of the primary seal / critical barrier polyethylene sheeting.

8.0 DECONTAMINATION UNIT

The Contractor shall provide an adequate decontamination unit (IF REQUIRED) in accordance with OSHA requirements and any and all state regulatory agencies.

9.0 PROTECTIVE CLOTHING AND EQUIPMENT

9.1 Listed below are materials, equipment, and tools generally used in asbestos removal operation. It is not inferred, however, that all materials listed are necessarily required in every asbestos removal project and in some instances, materials required to complete the work might not be listed. All equipment is to be supplied by the Contractor.

9.2 Protective clothing: Shall be fire retardant "Tyvek" (or approved equal) consisting of disposable full body coveralls, head covers, and boots as required by the most stringent OSHA standards applicable to the work. Eye protection, hard hats, and gloves shall be available.

9.3 Plastic Film: Provide a minimum, clear six (6) mil. thickness polyethylene and fire retardant. The plastic sheeting shall be taped securely in place or stapled or fastened by spray-on adhesives, glue beads, horizontal wood battens, or the equivalent.

9.4 Where work procedures are in view to the public, black or opaque six (6) mil. polyethylene shall be used.

9.5 Adhesives: Tape shall be high-quality tape (duct tape or approved equal) in 2" or 3" widths with an adhesive formulated to aggressively stick.

9.6 Support Structures: Constructed of Polyvinyl Chloride Pipes (P.V.C.), aluminum studs or wood studs.

9.7 Disposable Bags: Shall be six (6) mil. polyethylene bags of a sufficient size for the application. The bags shall be printed with letters of sufficient size and contrast to be readily visible and legible. The label shall state as a minimum:

Caution
Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

9.8 Signs: Provide caution signs (14" x 20") red background, lettered in black. It shall be displayed at all routes of access and all visual and physical barriers as follows as a minimum:

Legend	Notation
Danger	1" Sans Serif Gothic or Block
Asbestos	1" Sans Serif Gothic or Block
Cancer and Lung	3/4" Sans Serif Gothic or Block
Disease Hazard	
Authorized Personnel Only	1/2" Gothic
Respirators and Protective	1/4" Gothic
Clothing Are required in this area.	

The sign shall meet OSHA Standards 29 C.F.R. 1926.58

PO Box 385
Oceanville, NJ 08231-0385
PHONE: 609.652.1833
FAX: 609.652.1140
E-mail: ahera@aherainc.com

9.9 At all areas of direct access to the work area (decontamination unit, etc.), display signs (10" x 14") yellow background, lettered in black as follows:

Legend	Notation
No Food, Beverages or Tobacco Permitted	3/4" Block
All Persons Shall Don Protective Clothing (Coveralls) Before Entering the Work Area	3/4" Block
All Persons Shall Shower Immediately After Leaving Work Area and Before Entering the Changing Area.	3/4" Block

9.10 Amended water or removal encapsulant shall be approved for the particular type and concentration of asbestos dealt with in each circumstance by the Project Manager.

9.10.1 Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the material which equals or passes the wetting resulting from the use of one (1) ounce of a surfactant consisting of fifty percent (50%) polyethylene ester and fifty (50%) polyethylene ether mixed with five gallons of water.

9.11 Removal Encapsulant: Provide a penetrating type of encapsulant designed specifically for removal of asbestos containing material. Use a material that results in wetting of the asbestos containing material and retardation of fiber release during the disturbance of the material equal to or greater than that provided by amended water as described above.

9.11.1 Encapsulant: Tinted, which meets all fire and building codes.

9.12 Filters: Of sufficient quantity and type (HEPA, etc.) for use in respirators and other equipment requiring filters. Five-micron filters shall be utilized for water filtration if allowed by regulation or permit.

9.13 Cleaning materials are needed to maintain the specified standard of cleanliness. Use only the cleaning materials and equipment that are compatible with the surface being cleaned.

9.14 Respirator: Respirator protection shall be in accordance with OSHA Regulation 1926.58 and ANSI z88.2-1980. THERE SHALL BE NO EXCEPTIONS TO THESE REQUIREMENTS.

9.15 Air Filtering Equipment capable of filtering asbestos fibers.

9.16 HEPA Vacuum: High efficiency vacuum cleaners with special HEPA filtration to retain asbestos fibers. Also include capillary tube if utilizing the glove bag technique.

9.17 Decontamination System: Shall consist of lockers, showers with pump support, respirator storage, equipment storage, etc.

9.18 Shower Head and Controls: Provide a factory-made shower head producing a spray of water which can be adjusted for spray size and intensity. Feed shower with water mixed hot and cold supply line. Arrange so that control of water temperature, flow rate and shut off is from inside shower without outside aid.

9.19 Shower Stall: For wash down station provide leak tight shower enclosure with integrated drain pan fabricated from fiberglass or other durable waterproof material, approximately 3 'x 3' square with minimum 6' high side and back. Structurally support as necessary for stability. Connect drain to a reservoir, pump water from reservoir to a holding tank for disposal or add to asbestos waste.

9.20 Sump Pump: Provide totally submersible, waterproof sump pump with integral float switch. Provide unit sized to pump two times the flow capacity of all showers or hoses supplying water to the sump. Provide unit capable of pumping debris, sand, plaster, or other materials washed off during decontamination procedures without damage to mechanism of pump. Adjust pump so that a minimum of 3" remains between top of liquid and top of sump pan.

9.21 Lumber: Provide kiln dried lumber of any grade or species. (fire rated)

9.22 Scaffold: Provide all scaffolding and / or staging as necessary to accomplish the work of this contract.

9.23 Hand Tools: Hand tools of sufficient quantity to implement the work at hand and the work schedule submitted including ancillary materials (e.g. staples, nails, wire, etc.)

9.24 Spray Equipment: Spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure, volume, and having ample hose length to reach all areas where asbestos materials are being abated.

9.25 The Contractor shall have available sufficient inventory of these materials as set forth above and any other materials and equipment necessary to accomplish the job, protect the workers, and protect all authorized visitors to each facility.

9.26 In procuring all items in this work, it is the Contractor's responsibility to verify the detailed requirements of this guideline and all codes, standards, and regulations to verify that items procured for use in this work meet or exceed the specified requirements.

9.27 The Owner reserves the right to reject items incorporated into the work that fail to meet the requirements of this guideline or any applicable codes, standards or regulations.

9.28 "Approved equal" or "equal" shall mean as approved by the Owner / Owner's Representative only. They shall be the sole judge as to whether or not a substitute item is equal, and any item specified shall be submitted for approval.

10.0 RESPIRATORY PROTECTION

10.1 Respirators**:** The Contractor shall provide the required respirators and protective clothing to all workers and to all official representatives of the Owner, state, or other governmental entity, and the Asbestos Safety Monitor who may inspect the job site.

10.2 During preparation of the work site, Contractors may choose between three types of respiratory protection as specified. In order of increasing effectiveness, they are:

10.2.1 Half-face or full-face respirators equipped with dual cartridge air purifying, high-efficiency filters and certified by the National Institute of Occupational Safety and Health (NIOSH) for use in atmospheres containing asbestos.

10.2.2 Powered air purifying respirators certified by NIOSH for use in atmospheres containing asbestos.

10.2.3 Type "C" supplied-air respirators, either continuous flow or pressure demand class as certified by NIOSH.

NOTE: Respiratory protection must comply with the exposure limits described in OSHA 29 CFR 1910.1001 and OSHA 29 CFR 1926.58.

10.3 The Contractor shall require that each person entering the work area shall wear an approved respirator and protective clothing. <u>THERE SHALL BE NO EXCEPTIONS TO THE RULE.</u>

11.0 PROTECTION OF WORKERS AND SITE VISITORS

11.1 Contractor shall provide an adequate number of respirators, coveralls and filters to allow for at least three (3) changes per day. Sufficient HEPA cartridges for both half face air purifying and powered air purifying respirators shall be provided for workers to change during the work shift. The respirators shall be worn at all times when in the contaminated area. THERE SHALL BE NO EXCEPTIONS.

11.2 In accordance with NIOSH, OSHA, and ANSI regulations, the Contractor shall have a formal respirator use program that shall, at a minimum, consist of the following:

11.2.1 Established written standard operating procedures governing the selection and use of the respirators.

11.2.2 Select respirators on the basis of the hazards to which the worker is exposed.

11.2.3 Instruct and train the user in the proper use of respirators and their limitations.

11.2.4 Where practical, assign respirators to individual workers for their individual use. These shall be specifically fit tested.

11.2.5 Regularly clean and disinfect respirators (after each use).

11.2.6 Store respirators and filters in a convenient, clean and sanitary location.

11.2.7 Routinely inspect respirators during cleaning. Maintain appropriate surveillance of work area and degree of employee exposure of stress.

11.2.8 There shall be a regular inspection and evaluation procedure to determine the continued effectiveness of the program.

11.2.9 Do not assign workers to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment.

11.2.10 Shall have approved, accepted and recommended respirators.

11.3 The Contractor shall guarantee that all employees have participated and are currently participating in this respirator use program.

11.4 The Contractor shall provide full body protective clothing to workers and visitors, which shall be worn at all times when in the contaminated area.

11.5 Protective clothing shall be disposed of when leaving the contaminated area and a new set used upon return.

11.6 There shall be no smoking, eating, or drinking in any contaminated areas (shower room, equipment room, and work area). Persons found violating this specification shall be denied access to the work area for any reason.

12.0 EMERGENCY PRECAUTIONS

12.1 The Contractor shall prepare a contingency plan for emergencies including fire, accident, power failure, air pressure differential system failure, or any other event that may require modification or abridgment of decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.

12.2 The Contractor shall provide barricades and adequate protection to safely prevent passage of persons to the area of removal and prevent accidental entrance to the abatement area by any building occupants.

12.3 Before the Contractor starts actual abatement of asbestos material, the local fire department and ambulance

crews shall be notified as to the dangers of entering the work area. The Contractor shall make every effort to help these agencies and form plans of action should their personnel need to enter the contamination area.

12.4 First aid shall comply with the governing regulations and all recognized recommendations within the construction industry.

12.5 General, Except as otherwise indicated, submit special reports directly to Owner within one (1) day of occurrence requiring special report, with copy to the Owner's Representative, Project Manager and others affected by the occurrence. Special reports include unusual events and / or accidents.

13.0 AIR MONITORING AND INSPECTIONS

13.1 The Contractor shall pay a Testing Laboratory to conduct air sampling and analysis for its personnel in accordance with OSHA Regulation 1926.58.

13.2 The Testing Laboratory shall be a current proficient participant in the NIOSH AIHA/PAT Program for PCM analysis.

13.3 The Testing Laboratory shall perform its sampling and analysis in accordance with NIOSH method 7400.

13.4 For analysis by PCM the maximum turnaround time shall be 24 hours from sample collection through data reporting. Send the results of air test to the Contractor, and the ASCM.

13.5 For TEM analysis, laboratories shall participate in the NIST-NVLAP program. Maximum turnaround time shall be 72 hours from sample collection through data reporting.

13.6 Air sampling shall be conducted after completion of the project. Once the area has been found to be safe for re-entry by unprotected personnel, the barriers may be removed.

13.7 Post abatement sampling and analysis for an asbestos abatement project utilizing the non-friable technique and encapsulation shall be as follows:

13.7.1 One sample per 10,000 square feet of work area with a minimum of five samples shall be required. Samples collected within the affected work area may be analyzed by PCM to confirm completion of an asbestos abatement project using the methodology specified in NIOSH 7400.

13.7.2 For TEM analysis, the project shall be considered complete when the results of samples collected in the affected work area comply with 40 CFR 763.90 and Appendix A to Subpart E. Maximum turnaround time from sample collection through data reporting shall be 72 hours.

13.7.3 The project shall be considered complete when the results of samples collected in the affected work area show that the concentration of fibers for each of the five samples is less than or equal to 0.010 fibers per cubic centimeter of air for PCM or < 70 structures for TEM analysis.

13.8 AHERA CONSULTANTS INC. of Oceanville, N.J. represents the Owner as the Asbestos Safety Control Monitor (ASCM) for this project. As such, the ASCM will designate Certified Asbestos Safety Technicians (AST) to represent the ASCM during the abatement project.

13.9 The AST shall be on the job site at all times during the abatement work. Absolutely no abatement or preparation work shall occur without the presence of the AST.

13.10 The AST will conduct the following inspections:

13.10.1 Pre-Commencement Inspection

13.10.1.1 Notification to the ASCM shall be made by the Contractor to request a pre-commencement inspection in advance of the desired date. This inspection shall be requested each time another work area starts.

13.10.2 The AST shall ensure that:

13.10.2.1 The job site is properly prepared, and all containment measures are in place.

13.10.2.2 All workers present a valid work permit issued by the New Jersey Department of Labor.

13.10.2.3 Measures for the disposal of the removed asbestos materials are in place and conform to the applicable regulations.

13.10.2.4 The Contractor maintains a list of emergency telephone numbers at the job site that shall include the ASCM, fire, police, and emergency squad, local hospital and health officer New Jersey Department of Health, and New Jersey Department of Labor.

13.10.2.5 If all is in order, the AST shall issue a Notice to Proceed with asbestos removal in the field. If the job site is not in order, then any needed corrective actions must be taken before any work is to commence. Conditional approvals shall not be granted.

13.10.3 Progress Inspection

13.10.3.1 Primary responsibility for ensuring that the asbestos abatement work progresses in accordance with NJDHSS requirements is the abatement contractor's supervisor.

13.10.3.2 If at any time, the AST notes floor tile becoming friable, the Contractor shall be ordered to stop work and contain the material and area accordingly.

13.10.3.3 The AST shall ensure that:

13.10.3.3.1 The work site has been properly cleaned and is free of visible asbestos and asbestos containing material.

13.10.3.3.2 All removed asbestos has been properly placed in a locked secure container outside of the work area.

13.10.3.3.3 If all is in order, the AST shall conduct final air clearance monitoring of the work area.

14.0 NON-FRIABLE REMOVAL TECHNIQUES

14.1 Wet Methods, HEPA Vacuum, Prompt Cleanup/Disposal

14.1.1 This section outlines the procedures which are to be used in conducting non-friable removal of asbestos containing materials.

14.1.2 Any changes to these procedures shall be in writing from the ASCM.

14.1.3 All non-friable removal shall be conducted under a waiver from the NJ Department of Health. Copies of the ten-day notice and waiver request shall be provided to the ASCM prior to the start of work.

14.1.3.1 Removal of vinyl and asphalt flooring, flooring mastic/glue materials, caulks/glazings shall be conducted in a non-friable method in accordance with the Resilient Floor Covering Institutes recommended procedures. In accordance with OSHA, Class II Work: HEPA Vacuuming, Wet Methods, No Dry Sweeping, No Sanding, Dry Heat Removal, Intact Removal, if possible. Chipping may be done in negative-pressure enclosure only under full containment. Reference should be made to the NJ Department of Health & Senior Services "A Contractor's Guide for the Non-Friable Removal of Asbestos Containing Floor Tiles".

14.1.3.2 Removal of door/window walls shall be removed intact. All asbestos containing and asbestos contaminated materials should be sufficiently saturated to prevent emission of airborne fibers. The amended water or removal encapsulant shall be sprayed for as long and as often (before, during, and after removal) as necessary in order to ensure that the asbestos material is adequately wetted throughout. Intact removal, if possible, and cut nail heads with flat sharp instruments.

14.1.3.3 Removal of transite piping shall be conducted under non-friable procedures as outlined in this section. However, all tie-ins connected to existing transite lines shall be conducted under a tented enclosure utilizing HEPA equipped wet cutting saw to minimize dust.

14.1.4 A fine, low-pressure spray of amended water or removal encapsulate shall be applied to prevent disturbances preceding removal. The use of high revolutions per minute (R.P.M.) power equipment, pressure washers, or hydro-blasters is not acceptable.

14.1.5 Asbestos containing material shall be manually removed in-tact (with minimal breakage) and placed in six mil poly, double wrapped, and labeled. (Caution shall be taken not to damage the base material). Cutting, abraded, or breaking prohibited.

14.1.6 In all cases, the asbestos containing materials shall be handled carefully and deliberately to minimize breakage. If breakage occurs the material should be heavily wet and area cleaned.

14.2 OSHA Compliance

14.2.1 When materials identified as containing <1% asbestos are to be impacted, compliance with the following standards are to be adhered to:

14.2.1.1 29 CFR 1926.1101(g)(1)(ii), which requires: wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii)2 of this section;

14.2.1.2 29 CFR 1926.1101(g)(1)(iii), which requires: prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)3 of this section apply;

14.2.1.3 29 CFR 1926.1101(g)(3)(i), which prohibits: high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA filtered exhaust air;

14.2.1.4 29 CFR 1926.1101(g)(3)(ii), which prohibits: compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air; and

14.2.1.5 29 CFR 1926.1101(g)(3)(iv), which prohibits: employee rotation as a means of reducing employee exposure to asbestos

15.0 REMOVAL AND DISPOSAL OF ASBESTOS CONTAMINATED WASTE

15.1 **Removal of Waste**

15.1.1 All routes through uncontaminated portions of the building, including hallways, elevators, stairways, etc. to be used for the transportation of contaminated wastes to the storage area, shall be approved by the ASCM. All waste shall be transported through the building in sealed decontaminated containers.

15.1.2 All contaminated waste shall be removed from the work area at the end of each work shift or at a time scheduled with the ASCM. At no time shall random removal of contaminated waste from the work area be allowed.

15.1.3 The container / truck used for the storage of contaminated waste outside the building shall be an enclosed dumpster. The dumpster shall have a solid metal roof and solid metal door with padlock. The size of the dumpster shall be sufficient to handle the amount of waste to be generated. The location of the dumpster shall be agreed to by the Contractor, ASCM, and the Owner. The cost of the dumpster, the transportation of the contaminated waste and the proper disposal of thereof, shall be borne solely by the Contractor.

15.1.4 No materials shall be thrown from the windows or doors of buildings. Building waste systems **SHALL NOT** be used to remove asbestos contaminated waste.

15.2 **Disposal of Waste**

15.2.1 Notification of intent to dispose of asbestos shall be sent to the New Jersey Department of Environmental Protection at least ten (10) days prior to actual disposal. In some cases, the landfill operator may have to be notified as well.

15.2.2 The notification shall include the following information:

15.2.2.1 Name, address, and telephone number of the removal project;

15.2.2.2 Quantity and nature of the waste to be disposed;

15.2.2.3 Name, address, and New Jersey Department of Environmental Protection registration number of the collector-handler.

15.2.2.4 Name, address of the landfill at which disposal will occur;

15.2.2.5 Date and time of disposal;

15.2.2.6 A copy of any written notification required by 40 CFR 61.146 and 61.155.

15.2.3 All asbestos waste materials destined for disposal in New Jersey shall be wet and packaged in permanently sealed, leak tight containers (such as 6 mil. plastic bags, double bagged with visible labels) in accordance with 40 CFR Part 61, Subpart M of the USEPA, 29 CFR 1926 of OSHA and 49 CFR - Parts 100-199 of the US DOT Hazardous Waste Handling regulations before it can be legally transported and disposed of in New Jersey. No hauling of loose asbestos is permitted.

15.2.4 The waste hauler must possess a valid solid waste transporter registration issued by the New Jersey Department of Environmental Protection. A licensed solid waste transporter shall be a commercial collector / hauler or shall be the removal company if they are so registered.

15.2.5 Asbestos waste can be hauled in dumpster containers provided the load is comprised of only asbestos in bags and does not contain any other waste or asbestos containing waste which could compromise the integrity of the permanent containers.

15.2.6 If rough surfaces or other materials are present in the load, which could potentially puncture the permanent containers, then those containers shall be enclosed in temporary fiber or steel drums during loading, transport and unloading operations. In addition, asbestos wastes shall not be loaded into or hauled in vehicles containing compacting devices.

15.2.7 Asbestos waste that is properly packaged is classified as Waste ID #27, non-hazardous industrial waste, shall be disposed of at a landfill which is registered by the New Jersey Department of Environmental Protection in conformance with the following:

15.2.7.1 The landfill used must be registered by the New Jersey Department of Environmental Protection to accept Waste ID #27.

15.2.7.2 The specific landfill facility chosen must be one designated by the New Jersey Department of Environmental Protection and the recipient facility for the community in which the removal project is located.

15.2.7.3 The Contractor and / or Hauler shall get approval from the landfill of its intent to dispose of asbestos waste. Disposal shall also be in accordance with the landfill requirements.

15.2.7.4 4. The Waste Hauler shall not transfer, take out, or add any waste during transportation to the approved landfill, nor shall they make any unnecessary stops along the way.

15.2.8 The Contractor shall provide at the completion of the project, a manifest or dump ticket, duly executed by the Contractor, transporter and disposal facility. The manifest shall be all-inclusive describing volume of materials, dates of transport, and date of disposal, of all contaminated waste from the job site.

16.0 FINAL REPORT

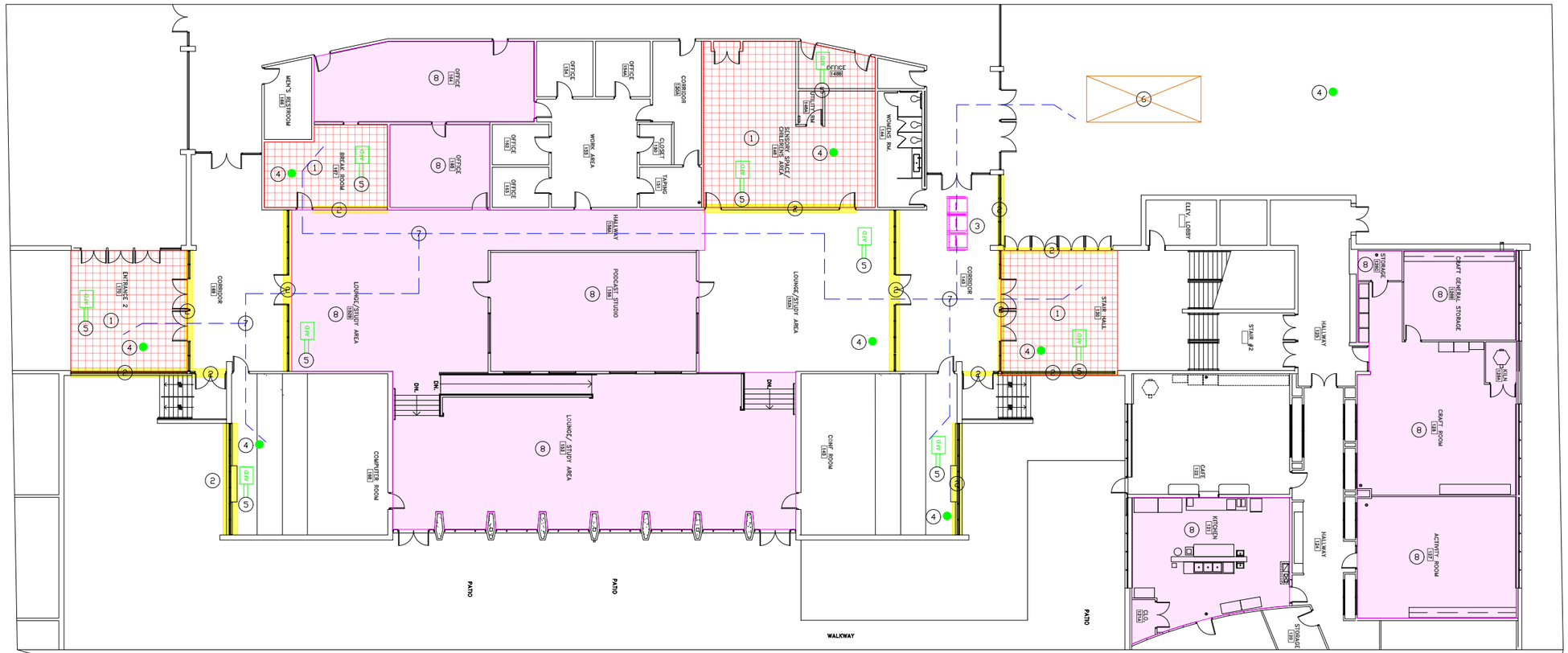
16.1 Upon satisfactory completion of all asbestos removal work and of all tests, the Asbestos Safety Control Monitor shall submit a written Certificate of Completion and final air results to the Owner to maintain as a permanent record of the activities.

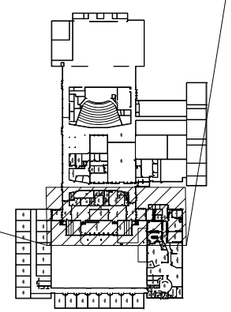
17.0 APPENDIXES

16.2 All appendixes to this specification will become part of the requirements under the specifications. Contractor will be responsible for obtaining and having copies of the following documents on site for construction. All work must be performed in accordance with the following documents at all times:

16.2.1 RFCI - Recommended Work Practices for the Removal of Resilient Floor Coverings

16.2.2 NJDHSS – New Jersey Department of Health & Senior Services - Contractors Guide for the Removal of Asbestos Containing Floor Tiles.





AHERA Consultants INCORPORATED

1		NON-FRIABLE FLOOR TILE & MASTIC ABATEMENT
2		NON-FRIABLE DOOR/WINDOW WALL COMPONENT REMOVAL
3		PERSONAL & WASTE/ DECONTAMINATION CHAMBER
4		AIR SAMPLE LOCATION
5	AFD	AIR FILTRATION DEVICE / EXHAUST ROUTE
6		WASTE DUMPSTER
7		
8		<1% DUST CONTROL AREAS

Firm Name and Address

AHERA CONSULTANTS INC.
PO BOX 385
OCEANVILLE, NJ 08231
VOICE: 609.652.1833
FAX: 609.652.1140
E-MAIL: AHERA@COMCAST.NET

Project Name and Address

WILLINGBORO SENIOR CENTER
429 JOHN F KENNEDY WAY
WILLINGBORO, NJ 08046

ASBESTOS ABATEMENT
NON-FRIABLE / DUST CONTROL

Project 26-7199	Sheet ASB-01NF
Date NOVEMBER, 2026	
Scale NTS	

WSC 11/6/2026 JOHNSMOYER

Recommended Work Practices for Removal of Resilient Floor Coverings

Supersedes Recommended Work Practices Published in August 2004





JANUARY 2018





RFCi
Resilient Floor Covering Institute

115 Broad Street, Suite 201, LaGrange, GA 30240 | phone: 706.882.3833
fax: 706.882.3880 | www.rfci.com

RFCI
Resilient Floor Covering Institute

Recommended Work Practices for Removal of Resilient Floor Coverings

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive.

These products may contain asbestos fibers and/or crystalline silica.

Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm.

Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.

Similarly, absent testing data or objective evidence that work with the product will **not** result in exposures to crystalline silica greater than allowed by applicable regulations, protection may be required.

RFCI's Recommended Work Practices for Removal of Resilient Floor Coverings are a defined set of instructions addressed to the task of removing all resilient floor covering structures.

January 2018

IN CANADA

The Recommended Work Practices for the Removal of Resilient Floor Covering Materials are intended for use in the United States. The work practices for the removal of in-place resilient floor coverings and associated adhesives described in this publication have not been reviewed with either National or Provincial officials in Canada to determine their applicability when asbestos-containing or assumed to be asbestos-containing resilient floor covering materials are encountered .
These work practices are recommended when removing resilient floor covering and its associated adhesives that have been determined not to be asbestos-containing.

To determine what are acceptable work practices and the associated requirements for the removal of resilient floor covering that is assumed to contain asbestos or has been determined to contain asbestos, you should contact your local or provincial officials.

As an alternative to the removal of any in-place resilient floor covering materials, refer to page 10 (Alternative to Removal of Existing Resilient Floor Coverings).

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NOTICE

Various Federal, State and local government agencies have regulations governing the removal of in-place asbestos-containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable regulations.

This booklet replaces all prior editions of the RFCI and Armstrong Recommended Work Practices Publications. Please note that these recommended work practices are subject to change as new practices are incorporated. It is your responsibility to determine that the recommended work practices you use are those in effect.

Important Information for Installers of Resilient Floor Coverings Concerning Existing Resilient Floor Covering Structures

- Vinyl asbestos tile and asphalt tile contain asbestos fibers, as did some asphaltic "cutback" adhesives and the backings of many sheet vinyl floorings and lining felts. The presence of the asbestos in these products is not readily identifiable.

- While resilient floor covering products manufactured today do not contain asbestos, the asbestos used in the older products was encapsulated in the matrix of the product. The Environmental Protection Agency (EPA) recognizes that those products are non-friable (i.e. when dry cannot be crumbled, pulverized or reduced to powder by hand pressure) unless certain activities prohibited by the removal practices in this booklet occur.

- Unless positively certain that the product you intend to remove is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.

- RFCI's Recommended Work Practices are a defined set of instructions addressed to the task of removing all resilient floor covering structures whether or not they contain asbestos. When RFCI's Recommended Work Practices are followed, resilient floor covering structures that contain (or are presumed to contain) asbestos can be removed in a manner that will comply with the current Occupational Exposure to Asbestos Standard's Permissible Exposure Limits (PEL) issued by the Occupational Safety and Health Administration (OSHA).

- Numerous products, devices and techniques have been recently introduced and/or recommended for the removal of resilient floor covering st ructures. Before you use any practices other than those identified in this booklet for the removal of an in-place resilient floor-covering product that contains (or is presumed to contain) asbestos, you must determine that the practice meets all applicable regulations or standards including the OSHA standards for occupational exposure to asbestos and the EPA asbestos regulations. You must also determine that any materials used during the removal practice will be compatible with the new floor covering to be installed.

Mold and Mildew

Prior to removing an existing resilient floor following the **RFCI Recommended Work Practices for Removal of Resilient Floor Coverings** (unless state or local law requires other measures) or installing a new floor, if there are visible indica tions of mold or mildew or the presence of a strong musty odor in the area where resilient flooring is to be removed or installed, the source of the problem should be identified and corrected before proceeding with the flooring work. In virtually all situations, if there is a mold issue, there is or has been an excessive moisture issue. Visible signs of mold or mildew (such as discoloration) can indicate the presence of mold or mildew on the subfloor, on the underlayment, on the back of the flooring, and sometimes even on the floor surface. If mold or mildew is discovered during the removal or installation of resilient flooring, all flooring work should stop until the mold/mildew problem (and any related moisture problem) has been addressed. Before installing the new resilient flooring, make sure the underlayment and/or subfloor is allowed to thoroughly dry and that any residual effect of excessive moisture, mold, or structural damage has been corrected.

To deal with mold and mildew issues, you should refer to the U.S. Environmental Protection Agency (EPA) guidelines that address mold and mildew. Depending on the mold or mildew condition present, those remediation options range from cleanup measures using gloves and biocide to hiring a professional mold and mildew remediation contractor to address the condition. Remediation measures may require structural repairs such as replacing the underlayment and/or subfloor contaminated with mold and mildew as a result of prolonged exposure to moisture.

The EPA mold guidelines are contained in two publications "A Brief Guide to Mold, Moisture and Your Home" (EPA 402-K-02-003) and "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-01-001). Appendix B of the "Mold Reme diation in Schools and Commercial Buildings" publication describes potential health effects from exposure to mold, such as allergic and asthma reactions and irritation to eyes, skin, nose and throat. These publications can be located on EPA's website at www.epa.gov/iaq/molds

OSHA REQUIREMENTS

A. Asbestos

In August 1994, OSHA published revised asbestos standards which affect some of the operations described in this booklet. OSHA has determined that intact resilient floor covering materials can be removed under a "negative exposure assessment" in compliance with the revised standards by appropriately trained workers using the Recommended Work Practices.

- "Intact" is defined to mean that the asbestos-containing material has not crumbled, been pulverized, or otherwise deteriorated so that it is no longer likely to be bound with its matrix. The incidental breakage of flooring materials, or slicing of sheet vinyl floor covering with a sharp-edged instrument, during removal operations conducted in accordance with the Recommended Work Practices does not mean that the materials are not removed in an "intact" condition . OSHA has recognized that resilient floor covering materials are considered nonfriable if intact and generally do not emit airborne fibers unless subjected to sanding, sawing or other aggressive operations.

- Installers of resilient floor covering materials that plan to use the Recommended Work Practices outlined in this book to remove intact and nonfriable asbestos containing flooring materials are required to complete an 8-hour training program.

- Employers must designate a "competent person" with 4 hours of additional training to be responsible for the health and safety of the workers at the floor removal job site.

- OSHA has determined that the competent person can make a "negative exposure assessment" based upon data in the OSHA asbestos rulemaking record (including data from the Environ Reports) showing that use of the Recommended Work Practices during removal of intact flooring material consistently results in worker exposures below the levels permitted in the OSHA standards.

- Where other workers or persons may have access to the flooring removal worksite, the employer must establish a demarcated "regulated area" (e.g. using barrier tape or closing room doors to enclose a work area) and post warning signs.

- Workers who engage in the removal of asbestos-containing flooring materi als for more than 30 days per year (one hour or more per day) must receive medical su rveillance .

- Employers are required to maintain certain training and workplace and medical records.

OSHA REQUIREMENTS

B. Crystalline Silica

In March 2016, OSHA published a revised rule relating to occupational exposure to respirable crystalline silica which could affect some of the operations described in this booklet. In general, the revised rule established a new permissible exposure limit (PEL) of 50 ug/m^3 for respirable silica. The rule also requires exposure assessments, the use of exposure control methods, respiratory protection, medical surveillance, hazard communication information, and recordkeeping.

More specifically, the revised standard requires employers:

- to assess employee exposures to silica if exposures may be at or above an action level of 25 ug/m^3 (micrograms per cubic meter of air) when averaged over an eight hour day;
- to protect workers from respirable crystalline silica exposures above the permissible exposure limit of 50 ug/m^3, when averaged over an eight hour day;
- to limit worker access to areas where they could be exposed to crystalline silica above the PEL;
- to use dust controls to protect workers from exposures above the PEL, and where that is not possible, to provide respirators;
- to use feasible housekeeping methods that do not create airborne dust;
- to establish and implement a written exposure control plan that identifies tasks that involve exposure and protection methods; and
- to offer medical exams every three years for workers who are exposed at or above the action level for at least 30 days per year; and to provide certain training and maintain certain records.

Most provisions of the rule took effect on January 23, 2018, except that the medical surveillance provisions will become applicable on June 23, 2020.

EPA LEAD-BASED PAINT REQUIREMENTS

Effective July 6, 2010, EPA has established training, certification, and work practice requirements for paid renovation, repair, or remodeling work that disturbs more than 6 square feet of lead-based paint per room within a 30 day period in a home (e.g. single-family, apartments) or a facility occupied by children under age of 6 (e.g., daycare center, preschool) built prior to 1978. 40 C.F.R. § 745.80 et seq. In these pre-1978 facilities, it is assumed that any painted surfaces contain lead paint, unless EPA-approved testing is performed to show that the disturbed surfaces are lead-free.

The removal or installation of resilient flooring in these pre-1978 buildings may involve disturbing or removing molding, baseboards, or floors (e.g., wood) that have been painted with lead-based paint or cutting off the bottom of painted doors or molding to allow the new floors to fit. To determine whether more than 6 square feet in a room is disturbed, multiply the total length of the disturbed painted material by its height (both numbers in feet). For example, if a 4 inch high baseboard (1/3 foot) is being removed as part of an installation or removal, over 18 linear feet of this baseboard would have to be removed to trigger the rule (1/3 foot x 18 feet= 6 square feet). For more examples, see http:// www.epa.gov/lead/pubs/ rrp-faq.pdf.

If the rule is triggered the following training, certification, and work practices are required:

- Employees performing the work must have completed a lead-safe work practices training course of 8 hours in length approved by EPA, which training is valid for 5 years.

- The firm performing the work must be lead-safe certified by EPA, which requires the submission of an application and fee to EPA. The application fee is typically $300 for a five year certification and it may take up to 90 days to process the application. The application procedures for each state can be found at the link in the paragraph above.

- Before beginning work, your firm must: (1) notify the residents of the affected homes or the parents of the affected children by providing the EPA Renovate Right pamphlet (http://www.epa.gov/lead/pubs/renovaterightbrochure.pdf); and (2) must maintain its notification records for 3 years.

- Your firm and employees must use lead-safe work practices, including posting warning signs; isolating the work area with plastic sheeting or other materials; removing or covering furniture; cleaning and inspecting the worksite when the work is finished; and disposing of any waste in a safe manner.

Some states operate their own lead-based paint programs and may have more stringent requirements than the EPA rule. See http://www.epa.gov/lead/pubs/renovation.htm#states for a list of states with their own rules.

GENERAL RULES FOR REMOVAL OF RESILIENT FLOOR COVERING

When following the Recommended Work Practices there are several general rules to follow:

Never sand, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize any resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive to remove them from the floor. See "Warning Statement" on page one.

- Unless positively certain the product you intend to remove is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content.
- Removal of existing floor covering should be considered the last alternative.
- Use a vacuum equipped with HEPA filter, disposable dust bag, and metal floor attachment (no brush).
- All sheet floor removals must be done using detergent solution.
- All felt scraping must be done wet.
- Prior to removal, all tile must be wetted (except in cases where heat will be applied).
- Do not dry sweep.
- Material removed must be placed in heavy-duty impermeable bags at least 6 mils thick or in a leak-tight container, properly labeled and disposed of in an authorized landfill.

ALTERNATIVES TO REMOVAL OF EXISTING RESILENT FLOOR COVERINGS

Removal of the in-place resilient floor should be considered the final alternative. It is preferred you leave the existing resilient floor covering in place and go over the top (single flooring layer only) with the new floor.

Alternatives to the removal of an existing resilient floor over approved subfloors are:

- Installing directly over a single layer of approved existing resilient flooring.
- Filling the embossing of the in-place resilient flooring with embossing leveler before installation (residential use only).
- Covering existing resilient flooring on an approved suspended wood subfloor with a recommended wood underlayment.

When you plan to install a new resilient sheet or tile floor covering over an existing resilient floor covering, follow the installation instructions published by the manufacturer. Those instructions will tell you what must be done to the existing surface before the new resilient floor covering can be installed. Remove wax and other finishes by wet stripping only.

Contact a local established floorcovering dealer for additional information.

REMOVAL OF RESILIENT SHEET FLOORING

Supplies and Tools

- Safety glasses and gloves
- Stiff-bladed wall or floor scraper
- Utility or hook knife
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bag and metal floor attachment (no brush)
- Hand-held tank sprayer
- Large-size heavy-duty impermeable trash bags (at least 6 mils thick) or closed leak-tight containers with ties, tape, or string to tie the bags shut, and appropriate labels stating, for example "Caution- Contains Asbestos. Avoid Opening or Breaking Bag or Container. Breathing Asbestos is Hazardous to Your Health". It may also be appropriate to include in the label a warning regarding the presence of crystalline silica.
- A liquid dishwashing detergent which is stated to contain anionic, nonionic and amphoteric surfactant s. Mix this specified liquid dishwashing detergent with water to make a dilute solution (16 oz. specified liquid dishwashing detergent in one gallon of water)
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required



REMOVAL OF FULLY-ADHERED RESILIENT SHEET FLOORING

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.
- Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment

- Make a series of parallel slices 4" to 8" apart through the top layer of the flooring and about halfway through the backing, parallel to the wall, for the entire floor.

WARNING 

Resilient flooring becomes slippery when wet with the specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area.

- Wear layer removal: One worker starts at the end of the room farthest from the entrance door and pries up the corner of the strip, separating the backing from the wear layer. As the strip is being removed, another worker sprays a constant mist of the specified liquid dishwashing detergent solution into the delamination nip point to minimize any airborne dust particles. When done properly, the felt remaining on the floor and on the back of the strip will be thoroughly wet. Do only one three strip area at a time. Stand on the remaining floor covering or clean floor (to the extent feasible, minimize standing on the felt). The sliced strips should be peeled from the backing by pulling or rolling around a core which will control the stripping angle to create a uniform tension (some resilient flooring wear layers may not be readily strippable and may require wet-scraping). Tie or tape the removed material securely and place in the heavy-duty impermeable trash bag or closed leak-tight container for disposal.

- Remove and dispose of each succeeding strip in the above manner. Minimize walking on the exposed felt to the extent feasible. Worker footwear must be cleaned or removed before leaving work area. Close full bags tightly, and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Occasionally, parts of the top or inner layer will stick to the backing. This can often be eliminated by peeling in the opposite direction. The stiff-bladed scraper may aid in the removal or peeling of these layers.

- Wet-scraping residual felt :
    (1) After three strips of flooring material are removed, any residual felt must be wet scraped. Thoroughly wet the residual felt with the specified liquid dishwashing detergent solution. Wait a few minutes to allow the specified liquid dishwashing detergent solution to soak into the felt.

    (2) Stand on the remaining floor covering to the extent feasible (not the felt) and use the stiff bladed scraper to scrape up the wet felt.

    (3) Rewet the felt if the specified liquid dishwashing detergent solution has not completely penetrated, if drying occurs, or if dry felt is exposed during scraping. Pick up the scrapings while still wet as they are removed from the floor and place in a heavy-duty impermeable trash bag or leak-tight container. Wet-scrape all felt from this floor area before proceeding further.



PRECAUTION:
Excessive moisture can cause permanent damage to wood underlayments. It is the installer's responsibility to use the correct amount of specified liquid dishwashing detergent solution to prevent underlayment damage. A floor that has been wet-scraped must be allowed to dry before installing any new resilient flooring.

(4) When this floor area has been cleaned free of felt, vacuum with HEPA vacuum cleaner with the metal floor attachment. Position the vacuum cleaner so that the discharge air does not blow on the area being cleaned.

(5) Repeat the above on the next series of strips.

(6) Repeat this operation until the felt has been removed from the whole floor. Close full bags tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Bag or Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

(7) When the entire floor has been removed, let it dry and vacuum with HEPA vacuum cleaner with the metal floor attachment. Position the vacuum cleaner so that the discharge air does not blow on the area being cleaned.

(8) After vacuuming, used HEPA filters and cleaner bags should be removed according to the manufacturer's instructions and placed in a heavy-duty impermeable trash bag or leaktight container with an appropriate label stating, for example "Caution-Contains Asbestos Avoid Opening or Breaking Bag or Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag securely for disposal. Dispose in an approved landfill only.

(9) The floor is now ready to have a new resilient floor covering installed. Follow the manufacturer's installation instructions.

REMOVAL OF UNADHERED (LOOSE-LAY) OR PERIPHERALLY-ADHERED RESILIENT SHEET FLOORING

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.
- Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment

- If flooring is unadhered, start at the end of the room farthest from the entrance doorway and slice a strip 18" wide in the unadhered flooring. One worker removes the sliced strip while another worker sprays the specified liquid dishwashing detergent solution directly into the separation nip point. Minimize standing on the exposed subfloor during the removal process to the extent feasible.

CAUTION 

Resilient flooring becomes slippery when wet with specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area. Standing on a new sheet of plywood or non-slip surface while working is recommended.

- Roll the wet strip tightly and tie or tape securely so it will not unroll. Place it in a heavy-duty, impermeable trash bag or closed leak-tight container big enough to accommodate several rolls for disposal.

Use this method for nonbonded areas of peripherally-adhered floors. To remove bonded areas, follow instructions under "Removal of Fully-Adhered Resilient Sheet Flooring."

- Clean the exposed floor with a HEPA vacuum cleaner with the metal floor attachment. Position the vacuum cleaner so that the discharge air does not blow on the area being cleaned.

- Repeat the above, slicing, rolling and disposing of one strip at a time and cleaning the newly exposed area immediately until the entire floor covering has been removed. Let the floor dry, then vacuum with a HEPA vacuum cleaner using metal floor attachment.

- After vacuuming, used HEPA filters and cleaner bags should be removed according to manufacturer's instructions and placed in a heavy-duty impermeable trash bag or leak-tight container with an appropriate label stating, for example "Caution-Contains Asbestos . Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health:" It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bags or leak-tight container securely for disposal. Dispose in an approved landfill only.

- The floor is now ready for installation of new floor covering using the manufacturer's installation instructions.

REMOVAL OF RESILIENT TILE

Supplies and Tools

- Safety glasses and gloves
- Short or long-handled scraper (DO NOT USE SPUD BAR OR MECHANICAL CHIPPER)
- Hammer
- Commercial-type hand-held hot-air gun or a radiant heat source such as an infrared machine
- Large size, heavy-duty labeled, impermeable trash bags with minimum 6 mil thickness (or closed leak-tight containers), with ties, tape or string to tie shut, and tags for labeling
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bag and metal floor attachment (no brush)
- Hand-held tank sprayer
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required



REMOVAL PROCEDURE

WARNING

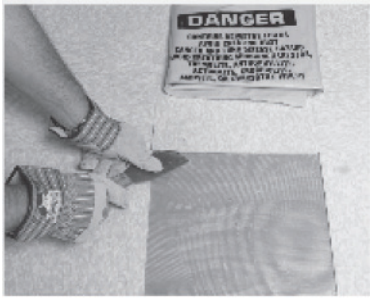
Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area. Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment.
- Floor tiles must be wetted (misted with hand sprayer) before actual removal begins (unless heat will be used to remove tile s).

WARNING

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Those areas normally exposed to heavy foot traffic patterns usually have tiles adhered the tightest. In starting the tile removal process, select those areas which receive the least traffic. Try to remove individual tiles in one piece although some breakage of tiles is unavoidable.
- Start the removal by carefully wedging a short or long handled scraper in the seam of two adjoining tiles and gradually forcing the edge of one of the tiles up and away from the floor. Continue to force the balance of the tile up by working the scraper beneath the tile and exerting both a forward pressure and a twisting action on the blade to promote release of the tile from the adhesive and the floor.



- After the tiles are removed, place them, without further breakage, in a heavy-duty impermeable trash bag or closed leak-tight container which will be used for disposal. Removed tiles can be placed in empty tile cartons first and then placed in the heavy-duty impermeable trash bag. To prevent tearing of the heavy-duty impermeable trash bag, place only one full carton of removed tile in a bag.

- With the removal of the first tile, accessibility of other tiles is imp roved. Force the scraper under the exposed edge of another tile, and continue to exert a prying, twisting force to the scraper as it is moved under the tile until the tile releases from the floor. Remove and dispose of each tile in the manner described above.

- Minimize walking on the exposed adhesive to the extent feasible. Worker footwear must be cleaned or removed before leaving work area. Close full bags tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Some tiles will release quite easily while others require varying degrees of force. Where the adhesive is spread heavily or the tile is bonded tightly, it may prove easier to force the scraper under the tightly adhered areas by striking the scraper handle with a hammer, using blows of moderate force while maintaining the scraper at a 25° to 30° angle to the floor.

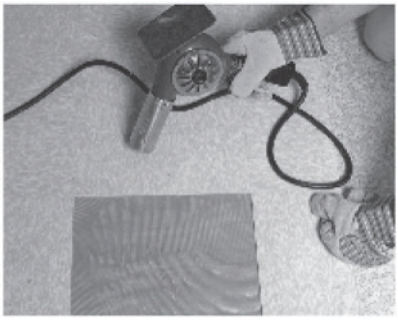


CAUTION

Wear safety glasses when using this procedure.

- If you encounter areas where even the above methods will not remove the tiles, the removal procedure can be simplified by thoroughly heating the tiles with a hot air gun or a radiant heat source until the heat penetrates through the tile and softens the adhesive.

- Alternatively, without first prying up floor tiles using a scraper, a heat source like a hot air gun or infrared heat machine can be used to apply heat to the floor tiles and then the tiles may be removed by hand or by using a scraper. (Wetting the tiles is not required for this alternative removal method). When using this procedure, walking on exposed adhesive may be unavoidable. Worker footwear must be cleaned or removed before leaving the work area.

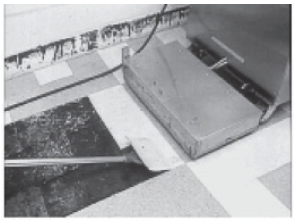


CAUTION

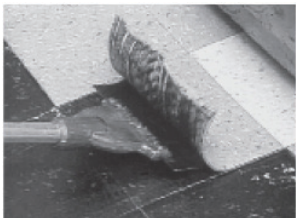
Handle the hot-air gun or radiant heat source carefully to avoid burn injury. Do not handle the heated tiles or adhesive without suitable glove protection. Do not use a blowtorch or open flame. Use caution not to burn or char tiles. Work area must be adequately ventilated.











- When using an infrared heat machine, follow manufacturer's instructions.

- After tiles are removed, place them in a heavy-duty impermeable trash bag or other closed leak-tight container without further breakage. Removed tiles can be placed in empty tile cartons first and then placed in the heavy duty impermeable trash bag s. To prevent tearing of the heavy-duty impermeable trash bag, place only one full carton of removed tile in a bag.

- Close the full bags of removed tile tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution- Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- See Section 5, "Removal of Residual Adhesives" for proper treatment of remaining adhesive.

REMOVAL OF RESIDUAL ADHESIVE

The removal of latex based adhesives commonly used with vinyl sheet floors and some tiles can be accomplished by wetting the adhesive residue (which will soften the adhesive) and scraping. Do not use an excessive amount of water which can damage wood subfloors. The treatment of residual asphaltic "cutback" adhesive, which is covered in this section, is dependent upon the type of new resilient floor covering material to be installed and the type of subfloor. Recommendations for the treatment of residual asphaltic "cutback" adhesive are shown on pages 21 through 26.

NOTE

There are commercial adhesive removal products containing solvents that are effective in removing cutback or emulsion adhesives and comply with OSHA requirements (e.g. flashpoint greater than 140° F). These products may be used for adhesive removal; however, they may leave a solvent residue within the subfloor that can adversely affect the new adhesive or floor covering. Thus, the warranties provided by the manufacturers of new floor covering materials will not cover instances where subfloor conditions damage their products or affect their installation.

The use of asbestos encapsulants or bridging materials over asphaltic adhesive is not recommended as those products may affect the bonding properties of the new adhesive. The application of asphaltic "cutback" adhesives, if recommended by the replacement flooring manufacture, has been demonstrated to be a suitable adhesive when applied over existing cutback adhesive. The use of any new adhesive must be consistent with the installation recommendations of the replacement-flooring manufacturer.

Supplies and Tools

- Safety glasses and gloves
- Stiff-bladed wall or floor scraper
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bag and metal floor attachment (no brush)
- Large-size, heavy-duty, impermeable trash bags (or closed leak-tight containers) with ties, tape, or string to tie the bags shut, and tags for labeling.
- Slip-resistant shoes or rubber boots
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required
- Hand-held sprayer

- A liquid dishwashing detergent which is stated to contain anionic, nonionic and amphoteric surfactants. Mix this specified liquid dishwashing detergent with water to make a dilute solution (1 oz. of the specified liquid dishwashing detergent to one gallon of water)

- Floor machine fitted with 3M black floor pad (or equivalent)

- Removal solution-e.g. "mop on, mop off, no machine scrub," tripping solution See note on page 23 regarding use of other solutions

- Water-absorbent material



RESIDUAL ASPHALTIC "CUTBACK" ADHESIVE

CONCRETE SUBFLOOR			WOOD UNDERLAYMENT SUBFLOOR	
New Material to Be Installed	Removal of Residual Adhesive	Alternative to Removal	Removal of Residual Adhesive	Alternative to Removal
Resilient floor tile to be installed using cutback adhesive.	Residual adhesive must be wet-scraped so that no ridges or puddles are evident and what remains is a thin, smooth film. See wet-scraping of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	The use of a cutback adhesive over wood underlayment subfloor is not recommended.	The use of a cutback adhesive over wood underlayment subfloor is not recommended
Resilient floor tile to be installed using an adhesive other than cutback adhesive.	Residual adhesive must be wet-scraped so that no ridges or puddles are evident and what remains is a thin, smooth film. See wet-scraping of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	Complete removal of Wood Underlayment. See Complete Removal of Wood Underlayment Under Existing Tile.	Covering residual asphaltic "cutback" adhesive on an approved wood subfloor with a recommended wood underlayment.[2] When installing this new wood underlayment, felt or polyethylene sheeting may be placed over the residual adhesive to prevent a cracking or tacky sound when walking on the floor.
Any vinyl-backed sheet flooring	100% of the residual adhesive must be removed from the area to be covered. See removal of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	Complete removal of Wood Underlayment. See Complete Removal of Wood Underlayment Under Existing Tile	Covering residual asphaltic "cutback" adhesive on an approved wood subfloor with a recommended wood underlayment.[2] When installing this new wood underlayment, felt or polyethylene sheeting may be placed over the residual adhesive to prevent a cracking or tacky sound when walking on the floor.
Felt-backed sheet flooring.	Enough of the residual adhesive must be removed so that 80% to 100% of the original substrate of the overall area is exposed.[1] See removal of residual adhesive.	Application of a cementitious underlayment that is approved by the underlayment manufacturer for use over residual asphaltic "cutback" adhesive.[2]	Complete removal of Wood Underlayment. See Complete Removal of Wood Underlayment Under Existing Tile	Covering residual asphaltic "cutback" adhesive on an approved wood subfloor with a recommended wood underlayment.[2] When installing this new wood underlayment, felt or polyethylene sheeting may be placed over the residual adhesive to prevent a cracking or tacky sound when walking on the floor.

[1] Amount of adhesive which must be removed varies. Check with manufacturer of replacement felt-backed sheet flooring for requirements.

[1]All warranties and/or guarantees concerning underlayment's performance rest with the underlayment manufacturer and not with the resilient floor covering manufacturer.

WET-SCRAPING RESIDUAL ADHESIVE

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

If new resilient floor tile is to be installed over a concrete subfloor using an asphaltic adhesive, the residual asphaltic "cutback" adhesive must be left so that no ridges or puddles are evident and what remains is a thin, smooth film. This can be accomplished by wet-scraping the residual adhesive.

Wet-Scraping residual asphaltic "cutback" adhesive:

- Moisten an area with water mixed with the specified liquid dishwashing detergent (1 oz. specified liquid dishwashing detergent to one gallon of water) to aid in wetting the adhesive. Make sure that the area stays moist. Wet-scrape with a stiff-bladed wall or floor scraper removing ridges and any loose adhesive. Make sure the adhesive is kept wet.
- Place loosened adhesive residue into a heavy-duty impermeable trash bag or leak-tight container with an appropriate label stating, for example: "Caution -Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag securely for disposal. Dispose in an approved landfill only.
- Wet vacuum standing water with the HEPA vacuum cleaner.
- Continue above steps until what remains of the residual asphaltic "cutback" adhesive is a thin, smooth film.
- Clean the entire floor with the HEPA vacuum cleaner using the metal floor attachment.
- After vacuuming, used HEPA filters and cleaner bags should be removed according to manufacturer's instructions and placed in a heavy-duty, imperme able trash bag or leak tight container with an appropriate label stating, for example: "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bags or containers securely for disposal. Dispose in an approved landfill only.



COMPLETE REMOVAL OF ASPHALTIC "CUTBACK" ADHESIVE

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining fell, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

REMOVAL METHOD

- Start in corner of the room farthest from the entrance door. Apply the removal solution (e.g. "mop on, mop off, no machine scrub," stripping solution) by using a hand sprayer or mop over an area of residual adhesive so that the adhesive in this area always remains wet during its removal. Allow the area to soak for 5-10 minutes. Remove the adhesive using a floor machine equipped with a 3M black floor pad (or equivalent), ensuring that the floor is kept wet in the area where the machine is operating.

WARNING 

Electrical shock hazard exists. Use a ground fault circuit interrupter for any electrical connections of equipment used in a wet environment.

- Occasionally push away the adhesive slurry from the subfloor with a wall or floor scraper or squeegee to check for complete removal. Continue to use the floor machine, equipped with black pad, in the same area until the concrete subfloor is cleaned to the degree necessary for the new floor installation.

- Adhesive around the edge of the room and in areas that were missed or difficult to reach with the machine can be removed with a hand-held piece of the black floor pad using the above procedures.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Wet HEPA vacuum the adhesive slurry. When the HEPA vacuum is full, place commercially suitable water absorbent into the HEPA container until the adhesive slurry is absorbed. An absorbent material may be used on the slurry to absorb the adhesive residue. Place the adhesive waste from the HEPA vacuum or floor into heavy-duty, impermeable bags or leak-tight containers with an appropriate label stating, for example "Caution-Contains Asbestos Avoid Creating Dust. Avoid Opening or Breaking Container. Breathing Asbestos May Cause Bodily Harm." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag securely for disposal. Dispose in an approved landfill only.

- Rinse floor area with clean water using a hand sprayer or mop. Worker footwear should also be cleaned and rinsed.

- Wet-vacuum standing water with HEPA vacuum cleaner.

- Continue above steps until the entire room is complete.

- Allow subfloor to dry and vacuum with a HEPA vacuum with metal floor attachment.

- Minimize walking on the wet adhesive to the extent feasible. Worker footwear must be cleaned or removed before leaving the work area.

COMPLETE REMOVAL OF WOOD UNDERLAYMENT

Supplies and Tools

- Safety glasses and gloves
- Chisel
- Hammer or mallet
- Short and long-handled pry bars
- Utility or hook knife
- Stiff-bladed wall or floor scraper
- Large-size, heavy-duty, impermeable trash bags (or leak-tight container) with ties, tape, or string to tie the bag shut and tag for labeling
- Tank-type High Efficiency Particulate Air (HEPA) wet/dry vacuum cleaner with disposable dust bags and metal floor attachment (no brush)
- Hand sprayer
- A liquid dishwashing detergent which is stated to contain anionic, nonionic and amphoteric surfactants
- 6-mil polyethylene sheeting
- Duct tape
- Ground fault circuit interrupter for electrical connection of the HEPA vacuum and any other electrical connections required
- For tile removal only-Commercial-type, handheld, hot-air gun or a radiant heat source such as infrared machine



COMPLETE REMOVAL OF WOOD UNDERLAYMENT {SUBFLOOR) UNDER EXISTING SHEET FLOORING

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.
- Remove any binding strips or other restrictive moldings from doorways, walls, etc.
- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.
- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment

WARNING

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Starting at the doorway or a floor ventilation vent, locate a joint in an underlayment board.
- Slice a strip of flooring 4 to 8 inches wide centered over the underlayment joint in the panel to be removed. Slice through the top and inner layers of flooring and about halfway through the backing. Continue this procedure for all underlayment joints over the entire floor.

CAUTION

Resilient flooring becomes slippery when wet with specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area.

- One worker pries up the corner of a strip, separating the backing from the wear layer. As the strip is being removed, another worker sprays a constant mist of the specified liquid dishwashing detergent solution into the delamination nip point to minimize any airborne dust particle s. When done properly, the felt remaining on the floor and on the back of the strip will be thoroughly wet. Stand on the remaining floor covering or clean floor (do not stand on the felt).

The sliced strips should be peeled from the backing by pulling or rolling around a core which will control the stripping angle to create a uniform tension (some resilient flooring wear layers may not be readily strippable and may require wet-scraping). Tie or tape the removed material securely and place in a heavy-duty, impermeable, trash bag or closed leak tight container for disposal.

- Remove and dispose of each succeeding strip in the above manner. Minimize walking on the exposed felt to the extent feasible. Worker footwear must be cleaned or removed before leaving work area. Close full bags tightly, and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health:" It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Occasionally, parts of the top or inner layer will stick to the backing. This can often be eliminated by peeling in the opposite direction. The stiff bladed scraper may aid in the removal or peeling of these layers.

WARNING 

Do not sand, dry sweep, dry scrape, drill, saw, beadblast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- Remove all furniture and appliances from the work area.

- Remove any binding strips or other restrictive moldings from doorways, walls, etc.

- Prepare the specified liquid dishwashing detergent solution (16 oz. of specified liquid dishwashing detergent to one gallon of water) and pour into a hand sprayer.

- Before removal begins, vacuum the entire floor using a HEPA vacuum with a metal floor attachment

- Wet-scraping residual felt-follow instructions for wet-scraping residual felt on Page 12.

- For procedures for removing wood underlayment boards see Page 32.

COMPLETE REMOVAL OF WOOD UNDERLAYMENT {SUBFLOOR) UNDER EXISTING TILE FLOORING

- Before removal begins, the entire floor is vacuumed using a HEPA vacuum with a metal floor attachment.

WARNING 

Electrical shock hazard exists. Use a ground fault interrupter for any electrical connections of equipment used in a wet environment.

- Floor tiles must be wetted (misted with hand sprayer) before actual removal begins (unless heat will be used to remove tiles).

WARNING 

Resilient flooring becomes slippery when wet with the specified liquid dishwashing detergent solution. Use caution to contain the solution in the immediate work area.

- Starting at the doorway or a floor ventilation vent, locate a joint in an underlayment board.

- Start the removal of the tile at the underlayment joint by carefully wedging the scraper in the seam of two adjoining tiles and gradually forcing the edge of one of the tiles up and away from the floor. Do not intentionally break off pieces of the tile, but continue to force the balance of the tile up by working the scraper beneath the tile and exerting both a forward pressure and a twisting action of the blade to promote release of the tile from the adhesive and the floor. Continue to remove tiles in this manner at all underlayment joints until all board joints are exposed.

- After the tiles are removed place them, without further breakage into smaller pieces, in a heavy-duty impermeable trash bag or closed leak-tight container which will be used for disposal. Removed tiles can be placed in empty tile cartons first and then placed in heavy-duty, impermeable, trash bags. To prevent tearing of the heavy-duty, impermeable, trash bag, place only one full carton of removed tile in a bag.

- With the removal of the first tile, accessibility of the other tiles is improved. Force the scraper under the exposed edge of another tile, and continue to exert a prying, twisting force to the scraper as it is moved under the tile until the tile releases from the underlayment. Remove and dispose of each tile in the manner above. Minimize walking on the exposed adhesive to the extent feasible. Worker footwear must be cleaned or removed before leaving area. Close full bags or leak-tight container tightly and seal securely for disposal. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to

include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- Some tiles will release quite easily while others require varying degrees of force. Where the adhesive is spread heavily or the tile is bonded tightly, it may prove easier to force the scraper through the tightly adhered areas by striking the scraper handle with a hammer, using blows of moderate force while maintaining the scraper at a 25° to 30° angle to the floor.

- If you encounter areas where even the above methods will not remove the tiles, the removal procedure can be simplified by thoroughly heating the tiles with a hot-air gun or a radiant heat source until the heat penetrates through the tile and softens the adhesive.

- When using automated infrared heating machines, follow the manufacturer's instructions.

WARNING 

Handle the hot-air gun or radiant heat source carefully to avoid burn injury. Do not handle the heated tiles or adhesive without suitable glove protection. Do not use a blowtorch or open flame. Use caution not to burn or char tiles. Work area must be adequately ventilated.

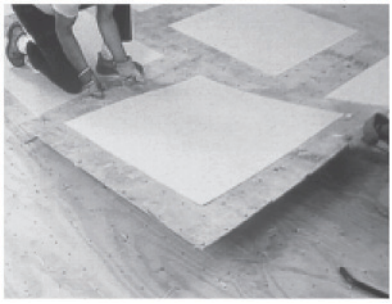
REMOVAL OF WOOD UNDERLAYMENT BOARDS

WARNING

Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or other adhesive. See "Warning Statement" on page one.

- After all felt from sheet flooring has been wetscraped or tiles removed from the underlayment joints, drive a chisel, using a hammer or mallet, between the underlayment board and the subfloor. Use the chisel to pry up the underlayment enough to insert a pry bar and remove the chisel. Slowly and carefully use pry bars to pry up the underlayment board a little at a time until the board is completely loose and can be removed.

- Caution must be used to avoid breaking the underlayment board. The underlay ment board should be removed in one piece. If the underlayment board breaks, slice through the sheet resilient flooring at the break and spray any exposed felt with the specified liquid dishwashing detergent solution. Allow the specified liquid dishwashing detergent solution to penetrate for a few minutes, then continue lifting the broken underlayment. In the case of a broken underlayment board with tile adhered, wet (mist) the broken tile and carefully remove any loose pieces.



- Wear heavy gloves and be careful of wood splinters and fasteners sticking out of the back of the underlayment. Each underlayment board (or piece of board) should be removed from the work area as soon as it has been pried up to avoid injuries (such as stepping on a nail). Fasteners protruding from removed board should be flattened with a hammer. Place removed underlayment boards on skids with the nails pointing downward. Wrap skid with 6-mil polyethylene plastic sheeting and secure with duct tape. Identify with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Dispose in an approved landfill only.

- If the underlayment panel extends under cabinets or wall partitions, it will be necessary to slice through the flooring with a knife as close to the vertical surface as possible. Deeply score the panel. This should allow for removal.

- After each panel has been removed, pull out any nails or fasteners still in the subfloor.

- A chisel is not needed to start the removal of boards after the first board has been removed. Simply work the pry bar under the exposed edge of the next board.

- When removal of the underlayment under the existing floor is complete, thoroughly check the exposed subfloor. Rena ii loose areas and reset any "popped" nails or fasteners.

- Vacuum up any residue using the HEPA vacuum cleaner with the metal floor attachment.

- After vacuuming, used HEPA filters and cleaner bags should be removed according to the manufacturer's instructions and placed in a heavy-duty, impermeable, trash bag or leak-tight container with an appropriate label stating, for example "Caution-Contains Asbestos. Avoid Opening or Breaking Container. Breathing Asbestos is Hazardous to Your Health." It may also be appropriate to include in the label a warning regarding the presence of crystalline silica. Close and seal the trash bag or container securely for disposal. Dispose in an approved landfill only.

- Prepare the subfloor by installing new underlayment and or floor covering according to the manufacturer's installation instructions.

115 Broad Street, Suite 201
LaGrange, GA 30240
706.882.3833

January 2018

This book replaces all prior editions of the RFCI and Armstrong Recommended Work Practices publications . Future editions of these work practices may be issued to replace this publication .

RFCi
Resilient Floor Covering Institute

Removing Vinyl Asbestos Tile in New Jersey



A Contractor's Guide for the Non-friable Removal of Vinyl Asbestos Floor Tiles

Information Includes:

- General requirements for VAT removal
- Requirements for removing VAT covered by carpeting
- General recommendations

NJ Department of Health
Consumer, Environmental & Occupational Health Service
Environmental & Occupational Health Assessment Program
PO Box 369
Trenton, NJ 08625-0369

Phone: 609-826-4950
Fax: 609-826-4975

Revised *12/2025*

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Contractor Information for Non-Friable Asbestos Work Activities

Notification of Non-Friable Asbestos Work Activities

Purpose



The purpose of this document is to provide guidance and establish minimum work-practice requirements for the removal of non-friable vinyl asbestos floor tiles (VAT). This document will establish the following:

- Procedures which document contractor competence and the qualifications of individuals who perform the removal.
- Removal procedures which reduce occupational and environmental exposures to airborne asbestos fibers.
- Procedures for the submission and review of exemption requests and contractor filing of pre-removal notifications.

Background

N.J.A.C. 8:60, *Asbestos Licenses and Permits*, allows certain asbestos removal activities to be exempted, providing certain requirements are met. One activity which can be exempted from the permit and licensing requirements is the removal of vinyl asbestos floor tiles (VAT). To qualify for an exemption, contractors must comply with the guidance provided in this document.

How to Begin

Prior to performing any exempted activities, a contractor must initially submit a completed *Contractor Information for Non-Friable Asbestos Work Activities—Exemption Request* form to the DOH. DOH staff will verify that all of the information provided is accurate.

Following is a list of items required to be submitted:

- Method of Removal—Contractors must indicate the method of removal and sign a statement that those methods will be adhered to during the removal of the VAT. Currently, the only removal method recognized by the DOH is the Resilient Floor Covering Institute's (RFCI's) *Recommended Work Practices for the Removal of Resilient Floor Coverings*.

How to Begin (cont'd)



- Employee Training—Evidence that employee's have been trained by the manufacturer on any specialized equipment to be used (such us a radiant heat machine), must be provided.

- OSHA Training—Must provide evidence of completion of a training course which complies with the OSHA Asbestos Standard, 29 CFR part 1926-1101, sections (k)(9)(iv) and (o)(4)(i) for Class II operations. This documentation must be submitted for each employee who will be removing the VAT. If a contractor is not in compliance with these requirements, the matter will be referred to OSHA for further investigation.

> ***NOTE:*** The use of historical data as prepared by the RFCI through a study performed by the Environ Corporation, may be used to satisfy the OSHA requirements for the initial negative exposure assessment. In granting an exemption, as specified under N.J.A.C. 8:60, the DOH will accept this data. However, the contractor must ensure that the conditions during the removal are consistent with the conditions specified in the RFCI document. If work site conditions will differ from those specified by RFCI, the contractor must provide current exposure data which is relevant to the conditions under which the work will be performed.

Removal Guidelines

The following steps must be followed prior to and during a VAT removal:

1. Heat must be used, following the RFCI recommended work practices for removal and clean-up.
2. The contractor must follow work practices which limit tile breakage during work. When tiles begin to break frequently (more than once every so often), removal activities must cease.
3. Contractors must have the scope of work on the job site at all times during the work.

> ***NOTE:*** "Intact" means that the VAT has not crumbled, been pulverized, or has deteriorated to such a degree that asbestos fibers are no longer bound in the matrix of the tile. Incidental breakage of VAT during a removal operation, which is being conducted in accordance with RFCI guidelines, does not mean the material is not being removed intact.

Removal Guidelines (cont'd)



4. Contractors must generally isolate the work area by posting notices and placing demarcation barriers between any building occupants and the work area.

5. All HVAC vents must be sealed with poly.

6. All building occupants not involved in the removal of the VAT must be restricted from entering the work area.

7. All movable objects must be moved out of the work area.

8. All horizontal surfaces must be wet wiped and then vacuumed with a vacuum cleaner equipped with a High Efficiency Particulate Air (HEPA) filter. The vacuum cleaner must be made for this purpose as household vacuum cleaners equipped with a HEPA filter are not adequate.

9. Contractors must comply with all applicable state and federal regulations regarding the transport and disposal of asbestos containing materials.

Removal of VAT Covered by Carpeting



The removal of VAT, which is covered by carpeting, is not addressed in the RFCI work practices. Therefore, the following requirements should be followed when carpet covered VAT is removed:

1. Thoroughly saturate the carpeting prior to beginning the removal of the carpeting.
2. Cut the carpeting into manageable strips using a razor knife.
3. Firmly pull the carpeting up while continually misting both sides of the carpet.
4. Any tiles which remain attached to the carpeting should be removed and bagged, or the entire strip of carpeting should be bagged as ACM.
5. For the removal of tiles remaining on the floor, follow the RFCI work practices.
6. All debris, carpet, and tiles must be disposed of in accordance with any applicable federal and/or state regulations.

General Recommendations

Following are some general recommendations to consider when planning a VAT removal:

- Work should be performed during a time when there are no or very few occupants in the building.
- All horizontal surfaces should be covered with poly or another non-permeable disposable barrier.
- HEPA filtration units should be used and vented outside the building, when feasible.
- Transmission Electron Microscopy (TEM) air testing should be performed at the completion of the job to ensure the area is safe for re-occupancy.

DOH Oversight

A *Notification of Non-Friable Asbestos Work Activities* form must be submitted 10 days in advance of the beginning of the job. Should an emergency arise which requires the material to be removed sooner than 10 days, a written justification from the building owner must accompany the form. Below are the forms that need to be completed:

Notification of Non-Friable Asbestos Work Activities:

http://www.state.nj.us/health/forms/ceoh-2.pdf

Contractor Information for Non-Friable Asbestos Work Activities Exemption Request (only needs to be submitted with initial notification)**:**

http://www.state.nj.us/health/forms/ceoh-4.pdf

Field inspections will be conducted to evaluate compliance with the guidelines outlined and referenced in this document. The DOH has the responsibility to ensure that building occupants are not at significant risk or potentially at risk as a result of the work practices employed by the contractor. Therefore, the contractor may be directed to alter their work practices to ensure the safety of the building occupants. The DOH reserves the right to rescind any exemption approval granted to a contractor to perform exempted activities.

Situations may arise when these requirements and recommendations may not be applicable. If the contractor desires to seek relief from any of the requirements specified herein, a written request must be forwarded to the DOH. The request shall identify the situation which may not conform to the work practices specified and what alternate work practices will be utilized. Written requests should be forwarded to the following address or fax number:

New Jersey Department of Health
Consumer, Environmental & Occupational Health Service
Environmental & Occupational Health Assessment Program
PO Box 369
Trenton, NJ 08625-0369

email: iep.program@doh.nj.gov

Fax: 609-826-4975

For more information you may contact the DOH at 609-826-4950.

OCCUPIED ASBESTOS ABATEMENT SPECIFICATION

Asbestos Abatement Phasing
Occupied Full Containment
NJAC 5:23 Subchapter-8

Site Address:

Willingboro Senior Center

429 John F. Kennedy Way
Willingboro, NJ 08046

Project No. 26-7199

CLIENT:

Willingboro Township
1 Rev. Dr. Martin Luther King Jr. Drive
Willingboro, NJ 08046
Attn: Mr. Dwayne M Harris, DPA

DESIGNED BY:

AHERA Consultants INCORPORATED

DESIGN DATE:
November 2026

Reviewed and released by: John Smoyer
John Smoyer Project Designer # 11879
Approved and released by AHERA Consultants, Inc. ASCM # 0057

PO Box 385
Oceanville, NJ 08231-0385
Email: ahera@aherainc.com
Phone: 609.652.1833
Fax: 609.652.1140

Asbestos Abatement Specification
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Floor Plans / Drawings

SHEET	TITLE
ASB-01SM	Site Map
ASB-01FC	Asbestos Abatement Phasing - Occupied full containment NJAC 5:23 Subchapter-8

1.0 GENERAL REQUIREMENTS

1.1 The specification contained herein forms but a part of all sections of the entire project specification. The Contractor shall become familiar with all requirements and is bound by all terms and conditions contained in this specification.

1.2 The Contractor shall, before submitting their proposal is held responsible to have examined the premises so as to be satisfied as to the existing conditions of the premises and limitations under which the work shall have to be executed. No allowances shall subsequently be made on behalf of the Contractor by reason of any error or neglect on their part for having failed to follow the instructions given herein.

1.3 Any plans, reports, written instructions or verbal instructions are for reference purpose only. The Contractor shall verify the total extent of the project. It is the Contractor's responsibility to review the written specification. No subsequent extras of compensation shall be provided due to failure of the Contractor to evaluate the total extent of the project or for errors in this specification.

1.4 Should the Contractor find any discrepancies in, or omissions from any document, or be in doubt as to their meaning, they shall issue all necessary clarifications by means of written correspondence. The Project Managers shall not be responsible for any oral instructions.

1.5 Each Contractor shall thoroughly examine and be familiar with the attached specification. The failure or omission of any Contractor to receive or examine documents or to fail to observe conditions existing there shall in no way relieve them from any obligation with respect to their bid.

1.6 The Contractors shall also examine the contents of this specification and assure themselves that all pages of the specifications are included in documents obtained for bidding purposes. Should the specifications be incomplete, or any of the bidders find any discrepancies in, or omissions from, any of the documents, or be in doubt as to their meaning, the Contractor shall notify in writing, referencing the project and project number, to AHERA Consultants, Inc.; P.O. Box 385 Oceanville, New Jersey 08231-0385.

1.7 The lack of such written notification by the Contractor will be construed as evidence that the specifications supplied for bidding purposes are full and complete and shall preclude any subsequent claim to the contrary.

1.8 The Contractor shall hold the Owner, Alaimo Group and AHERA Consultants Inc. harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself/herself, his/her employees, or his/her subcontractors.

2.0 SCOPE OF WORK

2.1 All work under this contract shall be performed in strict accordance with the specifications. The Contractor shall furnish all labor, materials, supervision, services, insurances, licenses, and equipment necessary for the complete and total removal of the asbestos containing materials (ACM) located at the sites, viewed at the site visit, and described herein.

2.1.1 The Scope of Work is to remove and dispose of all designated asbestos containing/contaminated materials (ACM) within the Willingboro Senior Center in Willingboro, NJ as listed in Item 2.3 of this section.

2.1.2 TYPE OF REMOVAL: Asbestos removal work will be accomplished in an **occupied** building utilizing Full Containment abatement procedures.

2.1.3 DECON CHAMBER: A decontamination chamber will be erected in the areas indicated on the map and connected directly to each containment area. All decontamination chambers must be fully operational prior to any removal-taking place. **All materials used must be fire rated.**

2.1.4 OCCUPANT INFORMATION: All abatement work will be conducted under **occupied** conditions.

2.2 The approximate start/finish dates and times for this project will be as follows: The hours of work will be from 7:00 am until 3:30 pm. with start & completion established by the Township. Once established, the Contractor shall maintain sufficient personnel to ensure completion of the job within the allotted time frame.

2.3 The following description indicates those areas where bulk sampling has detected the presence of asbestos. The descriptions are included as part of the request for information only and to indicate the general locations where contaminated materials are to be found. The Contractor is to verify actual quantities of asbestos containing materials to be removed and disposed of.

2.4 The scope of work under this contract includes but is not limited to the following:

Willingboro Senior Center

PHASE-1				
LOCATIONS (See Plans)	**MATERIAL TO BE ABATED**	**AMOUNT**	**% ASBESTOS / TYPE**	**ABATEMENT METHOD**
Room - 168 - Computer Room	Floor tile & associated mastic	1,024 SF	1.4-8.2% Chrysotile	Full Containment
Corridor - 169/Lounge-Study-152B	Terrazzo spot flooring	80 SF	6.9% Chrysotile	Full Containment

PHASE-2				
LOCATIONS (See Plans)	**MATERIAL TO BE ABATED**	**AMOUNT**	**% ASBESTOS / TYPE**	**ABATEMENT METHOD**
Corridor - 150A	Floor tile & associated mastic Cove base glue/mastic	160 SF 80 LF	1.4-8.2% Chrysotile 2% Chrysotile	Full Containment
Closet - 150	Floor tile & associated mastic Cove base glue/mastic	96 SF 40 LF	1.4-8.2% Chrysotile 2% Chrysotile	Full Containment
Taping - 151	Floor tile & associated mastic Cove base glue/mastic	96 SF 40 LF	1.4-8.2% Chrysotile 2% Chrysotile	Full Containment
Offices - 154 & 154A	Floor tile & associated mastic Cove base glue/mastic	242 SF 110 LF	1.4-8.2% Chrysotile 2% Chrysotile	Full Containment
Work Area - 155	Floor tile & associated mastic Cove base glue/mastic	252 SF 140 LF	1.4-8.2% Chrysotile 2% Chrysotile	Full Containment
Offices - 162 & 163	Floor tile & associated mastic Cove base glue/mastic	176 SF 80 LF	1.4-8.2% Chrysotile 2% Chrysotile	Full Containment

PHASE-3				
LOCATIONS (See Plans)	**MATERIAL TO BE ABATED**	**AMOUNT**	**% ASBESTOS / TYPE**	**ABATEMENT METHOD**
Conf. Room - 145	Floor tile & associated mastic	1,065 SF	1.4-8.2% Chrysotile	Full Containment
Women's Room - 144	Ceramic floor tile/mortar/grout/glue Select CMU Block/mortar	210 SF 40 SF	2% Chrysotile <1% Chrysotile	Full Containment
Corridor - 143	Terrazzo spot flooring	63+ SF	6.9% Chrysotile	Full Containment

2.5 ADDITIONAL REQUIREMENTS

2.5.1 For each phase of work; Once *Notice to Proceed* with abatement is issued by the Asbestos safety technician, the abatement contractor shall remove and properly dispose of all cross contaminated carpet, cove base and/or plywood flooring that is associated with the ACM floor tiles & associated mastic.

2.5.2 Where designated sections of terrazzo flooring are to be abated and mechanical saw cutting is undertaken, continuous wet method shall be utilized. The saw must use a continuous water feed to suppress dust at the point of the cut. The materials must remain thoroughly wet throughout the entire removal and packaging process. Because wet sawing generates a wet cementitious slurry containing asbestos fibers, the water cannot simply be allowed to run. The contaminated slurry must be wet-vacuumed immediately using HEPA-rated vacuums and solidified or added to removed material and properly packaged and disposed.

2.5.3 In Phase 3, where designated sections of terrazzo flooring are to be abated, the Contractor shall expand the limits of removal as necessary to expose any suspected piping concealed beneath the terrazzo. The Contractor shall include the cost of this additional work in the base bid.

2.5.4 Where terrazzo flooring is disturbed, once Certificate of Completion of the abatement activities is issued and the Certificate of Approval is granted for re-occupancy, coordination with general contractor to secure the voids in floor areas where removal has occurred shall be temporarily or permanently infilled to comply with OSHA safety standards.

2.5.5 Abatement contractor shall be responsible for temporarily shoring up the remaining CMU Block wall where select sections of CMU are to be removed as per the scope of work.

2.5.6 The contractor' s electrician shall connect/disconnect the contractors GFCI panel to/from the owners' electrical source for this project.

2.5.7 The contractor will ensure compliance with any confined space requirements applicable to this project for his/her personnel.

2.5.8 The Building Owner shall notify building occupants in writing twenty (20) days prior to the commencement of the asbestos abatement project or obtain exemption from DCA.

2.5.9 The notification shall include relocation plans, entrances / exits that may be temporarily blocked and alternate routes to be used; name and telephone number of the Owner's Representative for the occupant to call in case of emergency or to answer any questions with regard to the project.

2.5.10 This notification shall accompany the construction permit application for asbestos abatement and shall be filed with the enforcing agency.

2.5.11 This notification shall be posted seven (7) days prior to the preparation of the work area, in visible locations for the benefit of the affected occupants, and in areas immediately adjacent to the work area or obtain exemption from DCA.

2.5.12 A written statement shall be signed by the ASCM denoting that an asbestos abatement will occur during building occupancy and verifying that the requirements outlined in 5:23-8.19 will be maintained. This statement shall accompany the construction permit application for the project and be filed with the enforcing agency. This statement shall include the areas to be occupied during abatement and the number of occupants.

2.5.13 All air sampling, isolation requirements, contingency plans, waste removal and engineering controls shall comply with Section 5:23-8.19 of the Asbestos Hazard Abatement Subcode (Subchapter-8).

2.5.14 Security shall be as follows: In high-risk areas, the Owner shall provide a 24-hour security guard to ensure protection against damage and vandalism in the work area.

2.5.15 All occupied area air samples shall start at the beginning of each work shift and every four hours afterwards. The samples shall be analyzed onsite within four hours of the start time by an A.A.R. registered Microscopist once the asbestos abatement project begins.

2.5.16 There will be two air samples running outside of the work area for every 10,000 square feet of occupied space. There will be one air sample run inside the work area as well.

2.5.17 The Contractor shall erect work area enclosures, establish negative air in each with a **.05** water column reading on the digital manometers which will be monitored 24 hours a day, have a fully functional decontamination chamber and lined dumpster onsite prior to any removal taking place.

2.5.18 The contractor shall provide a 24-hour manometer watch during removal phase to final clearance in all buildings with 24-hour occupant utilization to ensure pressure differential is maintained at 0.05 w.c. or greater. Otherwise, the contractor will need to ensure that .05 w.c. is re-established prior to re-occupancy.

2.5.19 Final air sampling in the Full Containment work area shall be accomplished utilizing TEM analysis.

2.5.20 All HEPA air filtration units will be exhausted to the outside of the building.

2.5.21 The Contractor shall have a fully functional personnel decontamination chamber, and a lockable, enclosed waste container or transport vehicle shall be onsite, lined with one (1) layer of 6-mil. poly on the sides & floor and have asbestos warning signs on all four sides prior to any work taking place.

2.5.22 Floor tile/mastic may remain under unit ventilator or built-in cabinetry. This material will be addressed separately.

3.0 PRE-CONSTRUCTION MEETING

3.1 The successful Bidder will attend a pre-construction meeting with representatives of the Owner and Owner's agents along with personnel from the Asbestos Safety Control Monitoring firm (ASCM). The Contractor and supervisory personnel who will provide onsite direction of the abatement activities must attend. At this meeting the Contractor shall provide all submittals as required. In addition, he shall be prepared to provide detailed information concerning:

3.1.1 Progress Schedule
3.1.2 A plan for preparation of work site
3.1.3 Description of protective clothing and approved respirators to be used.
3.1.4 Delineation of responsibility of worksite isolation.
3.1.5 Explanation of decontamination sequence.
3.1.6 Description of all removal methods to be used.
3.1.7 Explanation of the handling of asbestos-contaminated waste.
3.1.8 Submit list of workers for job with state certifications.
3.1.9 Description of the final clean-up procedures to be used.
3.1.10 Description of emergency procedures to be followed in case of injury or fire. This section must include evacuation procedures, source of medical assistance (name and phone number) and procedures to be used for access by medical personnel (examples: first aid squad & physician). NECESSARY EMERGENCY PROCEDURES SHALL TAKE PRIORITY OVER ALL OTHER REQUIREMENTS OF THIS SPECIFICATION.

3.2 The Asbestos Safety Control Monitor representative shall detail the testing to be done before, during, and after removal. The procedure to be followed in the event their inspection shows specification deficiencies or defects in the Contractor's performance should be reviewed.

3.3 Asbestos work shall not proceed until the Owner, Contractor, and Asbestos Safety Control Monitoring Firm agree on the details.

4.0 SITE DOCUMENTATION

4.1 The Contractor shall post the name, asbestos work permit number and signature of all workers to be permitted in the work area in a visible conspicuous place on the premises.

4.2 A valid official copy of the Contractor's license issued by the New Jersey Department of Labor shall be displayed at the work site.

4.3 The asbestos abatement permit issued by the administrative authority is to be displayed at the job site. The Contractor prior to commencement of work will obtain these.

4.4 One copy of the documentation required as per section 6.0 of this specification.

4.5 Additional documentation to be available at the job sites shall include:

4.5.1 A sign in black letters greater than four inches (4") in height stating the following "LICENSED BY THE STATE OF NEW JERSEY FOR ASBESTOS WORK" The sign shall be readily visible to the outdoors at the work site.

4.5.2 A list of emergency telephone numbers to include: the monitoring firm employed by the Building Owner, U.S.E.P.A., O.S.H.A., N.J.D.C.A, N.J.D.O.H., N.J.D.O.L., N.J.D.E.P., fire, police, local hospital, and emergency squad.

4.5.3 A list of the established work area emergency procedures posted in plain view. In case of an emergency, decontamination procedures shall not impede emergency procedures.

4.5.4 A daily log of all persons entering the work area, including all visitors. Non-employees of the Asbestos Contractor shall be required to sign an acceptable waiver form. The Project Manager shall approve the waiver form.

4.5.5 A daily log, which shall include a record of start and stop times, any work area problems encountered, any corrective action, and estimated amounts of ACM waste generated. Also, to be kept with this log are the results of air monitoring.

4.5.6 Work schedules and updated progress charts depicting all phases of work and completion deadlines.

4.5.7 Copy of waste hauler's certificate and a copy of all landfill receipts.

5.0 CODE REQUIREMENTS

5.1 All work under this contract shall be accomplished in strict accordance with all applicable federal, state and local regulations, standards and codes governing asbestos abatement and any other trade work done in conjunction with the abatement.

5.2 The most recent edition of any relevant regulation, standard, document or code shall be in effect. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized.

5.3 Copies of all standards, regulations, codes and other applicable documents, including this specification, shall be available at the job site.

5.4 Specific Requirements

5.4.1 Occupational Safety and Health Administration General Industry Standards (OSHA)

5.4.2 U.S. Department of Environmental Protection Agency - National Emission Standards for Hazardous Air Pollutants. (USEPA NESHAPS)

5.4.3 New Jersey Department of Environmental Protection, Solid Waste Disposal Regulations (NJDEP)

5.4.4 N.J.A.C. 5:23-Subchapter 8 "Asbestos Hazard Abatement Subcode" as amended. (Sub-8)

5.4.5 Rules and regulations of any other authority having jurisdiction.

5.4.6 Submit detailed product information including material safety data sheets (MSDS) on all materials and equipment proposed for asbestos abatement work on this project.

6.0 NOTIFICATIONS / PERMITS

6.1 The Contractor shall notify the following agencies in writing 10 days prior to the start of asbestos removal project.

6.1.1 USEPA
Asbestos NESHAPS Contact
Region II NESHAP
290 Broadway
New York, N.Y. 10007-1823

6.1.2 New Jersey Department of Community Affairs
Bureau of Code Services - Asbestos Safety Unit
101 South Broad Street & Front Streets – 4th Floor
P.O. Box 816
Trenton, N.J. 08625-0816

6.1.3 New Jersey Department of Health & Senior Services
Asbestos & Lead Unit
3635 Quakerbridge Road
P.O. Box 369
Trenton, N.J. 08625-0369

6.1.4 New Jersey Department of Labor
Bureau of Asbestos Control & Licensing
225 E. State Street
P.O. Box 392
Trenton, NJ 08625-0392

6.1.5 New Jersey Department of Education
Bureau of Facility Planning Services
225 W. State Street
Trenton, NJ 08625

6.2 Notification to the agencies above shall contain the following information:

6.2.1 Name and address of the Building Owner.
6.2.2 Name and address of the Contractor.
6.2.3 Address and description of the building, its uses, and amount of ACM present in square feet or linear feet as applicable.
6.2.4 Scheduled starting and completion dates for removal.
6.2.5 Name and address of the N.J. Department of Environmental Protection registered waste hauler and of the N.J.D.E.P. registered landfill where the asbestos will be deposited.
6.2.6 Name and address of the Asbestos Safety Monitoring Firm hired by the Building Owner.
6.2.7 Name and address of the OSHA Monitoring Firm to perform air monitoring on behalf of the Contractor's employees.

6.3 A notification of intent to dispose of asbestos shall be sent 10 days prior to actual disposal to the following:

6.3.1 New Jersey Department of Environmental Protection
Division of Waste Management
Bureau of Field Operations
840 Bear Tavern Road,
P.O. Box 414
Trenton, N.J. 08625-0414

6.4 The notification shall include the following:

6.4.1 Name, address, and telephone number of the removal project.
6.4.2 Quantity and nature of the waste to be disposed of.
6.4.3 Name, address, and New Jersey Department of Environmental Protection registration number of the collector-hauler.
6.4.4 Name and address of the landfill at which disposal will occur
6.4.5 Date and time of disposal.

6.5 The Contractor will obtain the necessary construction permits from the local Construction Code Official or Dept. of Community Affairs if applicable regarding this project.

7.0 WORK AREA PREPARATION

7.1 The work area is the location where asbestos abatement work occurs. It is a variable of the extent of work of the contract. It may be a portion of a room, a single room, or a complex of rooms. A "work area" is considered contaminated during work and shall be isolated from the balance of the building and decontaminated at the completion of the asbestos control work.

7.2 Post in clearly visible locations, caution/danger signs indication that asbestos work is being conducted and that unprotected people should not enter. Post signs on all entrances to the work area(s) and occupant sides of the separation barriers.

7.3 The Contractor shall arrange for the shutting down and sealing off of all electrical, heating, cooling, and ventilating or other air handling systems. Provide temporary power and lighting. Ensure safe installation (including ground faulting) of temporary power sources and equipment in compliance with all applicable electrical code requirements and OSHA requirements for temporary electrical systems.

7.4 However, if approved by the Asbestos Safety Control Monitor (ASCM) Project Manager, the lighting and the electrical receptacles in the work area may be used if these are properly protected by ground fault circuit interrupters and can be adequately cleaned following abatement.

7.5 Completely isolate the work area from other parts of the building so as to prevent asbestos containing dust or debris from passing beyond the isolated areas. Should the area beyond the work area(s) become contaminated with asbestos contaminated dust or debris as a consequence of the work, clean those areas in accordance with the procedures outlined in the final clean-up section of this specification. Perform all such required cleaning or decontamination at no additional cost to the Owner.

7.6 The Owner will provide water for construction purposes. Contractor shall connect to the existing system.

7.7 Employees of the Contractor and/or persons employed by the Building Owner who have successfully completed a maintenance / custodial / worker training course approved by the New Jersey Department of Health will clean and remove all uncontaminated removable objects from the work area before commencing work or completely cover with (2) layers of (6) mil. polyethylene sheeting securely adhered to in place with high-quality tape. Such equipment / objects shall be considered outside the work area unless the covering plastic or the seal is breached.

7.8 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.

7.9 Permit access to the work area only through the decontamination unit. All other means of access shall be closed and sealed off.

7.10 Primary Seal / Critical Barriers

7.10.1 Completely separate the work area from other portions of the building and the outside by sheet plastic barriers at least six (6) mil. in thickness.

7.10.2 Individually, seal all ventilation openings (supply and exhaust), lighting fixtures, doorways, windows, skylights, convectors, floor drains and other openings into the work area with two (2) layers of

polyethylene sheeting at least six (6) mil. in thickness taped securely in place. Maintain the seal until all work including decontamination is completed. Take care in sealing off lighting fixtures to avoid melting or burning of sheeting.

7.10.3 Fire Rated Polyethylene sheeting shall be used to isolate contaminated areas from uncontaminated areas. This polyethylene sheeting shall be replaced or repaired immediately if torn or damaged. One layer of polyethylene sheeting shall be required for walls and ceilings, and two layers of polyethylene sheeting shall be used to seal open space between work areas and non- contaminated areas and for floors.

7.10.4 In buildings required by the Uniform Construction Code to be of noncombustible construction, all materials used to construct separation barriers must meet the Uniform Construction Code, building sub code requirements for that building and all plastic used must be flame retardant.

7.10.5 Clean housings and ducts of all dust/dirt material prior to erection of the primary seal / critical barrier polyethylene sheeting.

7.10.6 Enclose work areas with two (2) layers of plastic sheeting on the floor and one (1) on the walls and ceiling (unless exempted by approved variance). Two (2) additional layers of wall & ceiling poly may be required for free standing /constructed work areas where existing walls & ceilings are not utilized to support polyethylene sheeting. 2X4 fire rated wood studs, PVC or metal framing shall be utilized for all free-standing constructed work areas to attach & support wall, ceiling & flooring poly. Integrity of the work area and maintenance of required pressure differential is of utmost importance for occupied abatement projects and will be strictly enforced.

7.10.7 For floor covering, two layers of six (6) mil. polyethylene sheeting shall be used. The first layer shall extend up the wall at least 12 inches. The second layer shall be extended up the sidewalls at least 24 inches. Sheeting shall be sized to minimize the number of seams necessary. No seams shall be located at the joints between walls and floors. As a minimum, no seam shall stop within 12 inches of a corner and sheeting shall overlap at least 12 inches between seams of adjacent layers.

7.10.8 Wall sheeting shall consist of one (1) layer of six (6) mil. polyethylene sheeting. It shall be installed to minimize joints and shall overlap floor sheeting by at least 18 inches. No seams shall be located at or within 12 inches of the corners. Plastic wall coverings shall be taped first to the upper most edge of the wall and shall hang straight down.

7.10.9 Separations barriers shall be constructed of 2 x 4 wood or metal framing with 16-inch centers covered with 1/2-inch plywood or sheetrock and have two layers of polyethylene sheeting on each side. All materials utilized shall be fire rated.

8.0 DECONTAMINATION UNIT

8.1 The Contractor shall provide an adequate decontamination unit consisting of a serial arrangement of rooms or spaces adjoining the work area or a decontamination trailer. Each space shall be clearly identified and separated from the others by plastic doors, acceptable air locks, or other arrangements designed to minimize fiber and air transfer as people pass between areas.

8.2 A minimum of two layers of six (6) mil. plastic sheeting shall be required for floors, walls and the ceiling for onsite constructed decontamination units. Air locks shall have at least three layers of six (6) mil. plastic sheeting.

Decontamination chamber doors shall be of sufficient height and width to enable replacement of equipment that may fail and safely carry an injured worker from the site without destruction of the work area. Such doors must be at least four (4) feet wide, and the distance between sets of flaps must be at least four (4) feet.

8.3 As an alternative to the use of polyethylene crossover sheet doors, any other suitable method to accomplish this end shall be acceptable, if the Asbestos Safety Control Monitor approves it. Alternative doors shall provide for adequate exiting in accordance with the building sub code of the Uniform Construction Code.

8.4 The decontamination unit shall consist of the following:

8.4.1 Clean Room: In this room people remove and leave all street clothes and put on clean disposable coveralls. Approved respirator protection equipment is also picked up in this area. No asbestos contaminated items are permitted in this room.

8.4.2 Shower Room: This is a separate room used for transit by cleanly dressed people entering the job site from the clean room and for showering by them after they have undressed in the equipment room. This is a contaminated area.

8.4.2.1 All water generated as a result of showering shall be disposed of as contaminated waste, or it shall be filtered using a five-micron filter and disposed of in the sanitary drain if allowed by local treatment works by regulation or as allowed by permit.

8.4.3 Equipment Room: Work equipment, footwear, and all other contaminated work clothing shall be stored here. This is also a change and transit room for people. All areas between the shower room and work area shall be considered part of the equipment room. This is a contaminated area.

8.5 Personnel Decontamination Unit

8.5.1 Clean Room

8.5.1.1 This room shall be provided for the purpose of changing into protective clothing. Should both females and males utilize the decontamination unit, a privacy screen of black or opaque polyethylene shall be utilized. In this room the worker leaves all street clothes and dresses in clean disposable coveralls. Respiratory protective equipment shall be donned in this area. No asbestos contaminated items shall be allowed to enter this room. Workers shall enter this room either from outside the structure dressed in street clothes, or naked from the showers.

8.5.1.2 The floor of the changing room shall be dry and clean at all times. Overflow water from shower shall not be allowed to wet floor in changing room.

8.5.1.3 Wet wipe all surfaces twice after each shift change with a disinfectant solution.

8.5.1.4 Provide a continuous supply of disposable bath towels.

8.5.1.5 Provide posted information for all emergency phone numbers and procedures

8.5.1.6 Provide storage lockers for employees.

8.5.2 Shower Room

8.5.2.1 This shall be a separate room used for transit by cleanly dressed workers entering the job from the clean room or by workers heading for the showers after undressing in the equipment room. This room shall be separated from the clean room and equipment room by flaps fabricated from three (3) layers of six (6) mil. polyethylene. A portable fully operational shower shall be provided.

8.5.2.2 Provide a continuous adequate supply of soap and maintain in sanitary condition.

8.5.2.3 Shower shall be arranged so that water from showering does not splash into the clean room.

8.5.2.4 Water shutoff and drain pump operation controls shall be arranged so a single individual can shower without assistance from either inside or outside the work area.

8.5.2.5 Provide adequate shower pan and shower unit.

8.5.3 Equipment Room

8.5.3.1 Work equipment, footwear, and additional contaminated work clothing shall be left here. This is a change and transit area for workers. This changing area shall be separated from the work area and the shower area in the same manner as the shower room.

8.5.4 Work Area

8.5.4.1 Polyethylene barriers should separate the work area from the equipment room. Wet wipe-clean all surfaces after each shift change.

8.5.5 Construction

8.5.5.1 The decontamination unit shall be constructed using polyethylene sheeting at least six (6) mil. in thickness, attached to existing building components or a temporary framework.

8.5.5.2 Doors fabricated from overlapping sheets shall separate rooms. Doors shall be a minimum of four (4) feet wide and a minimum of four (4) feet between sets of overlapping sheets. Sheets shall be weighted at bottoms as required so that they quickly close after being released. Arrows shall be put on sheets to indicate direction of overlap and/or travel.

8.5.5.3 As an alternative to the use of polyethylene crossover sheet doors, any other suitable method to accomplish this end shall be acceptable, if it is approved by the ASCM. Alternative doors shall provide for adequate exiting in accordance with the building sub code of the Uniform Construction Code.

8.5.5.4 If the decontamination unit is located within an area containing friable asbestos on overhead ceiling, ducts, piping, etc., the unit shall be provided with a minimum three-quarter (3/4) inch plywood ceiling with polyethylene sheeting at least six (6) mil. in thickness covering the top of the ceiling.

8.5.5.5 Where the decontamination unit is immediately adjacent to and within view of occupied areas, a visual barrier of opaque polyethylene sheeting at least six (6) mil. in thickness shall be provided so that worker privacy is maintained and work procedures are not visible. Where the decontamination unit is adjacent and accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. The barrier shall be covered with minimum three-quarter (3/4) inch plywood. Where the solid barrier is provided, sheeting need not be opaque.

8.5.5.6 Where the decontamination unit is constructed outside of a building yet adjoining the structure it shall be constructed of 2 x 4 framing on 16-inch centers. The outside walls, ceiling, and flooring will be covered with 3/4-inch plywood. One layer of six (6) mil. polyethylene sheeting will be placed on the exterior of the structure on top and sides. Interior surfaces of the decon unit will be lined with two (2) layers of six (6) mil. polyethylene on all surfaces as required by N.J.A.C. 5:23-8. A lockable door shall be provided to secure access to the decontamination and work areas inside. Integrity of decontamination units built outside of any structure is the responsibility of the Contractor. Construction requirements contained herein are minimum requirements.

8.5.6 Electrical

8.5.6.1 Provide sub-panel at changing room or a location approved by the Project Manager to accommodate all removal equipment. Power source for panel shall come directly from a building electrical panel. All electrical branch circuits in a decontamination unit, and particularly any pumps in shower room, shall be connected to ground fault circuit protection devices.

8.5.7 Decontamination Sequence

8.5.7.1 Entering the work area:

8.5.7.1.1 Workers enter the changing room and remove clothing, put on clean disposable overalls and respirator, and pass through the shower room into the equipment room.

8.5.7.1.2 Any additional clothing and equipment left in equipment room required by the worker is put on. These shall be treated as asbestos contaminated items.

8.5.7.1.3 Worker proceeds to work area.

8.5.8 Exiting the work area:

8.5.8.1 Before leaving the work area the worker shall remove all gross contamination and debris room overalls and feet.

8.5.8.2 The worker then proceeds to the equipment room and removes all clothing except respiratory protection equipment. Extra work clothing may be stored in contaminated end of the equipment room. Disposable coveralls are placed in a bag for disposal with other

material. All individuals leaving the work area shall follow decontamination procedures found in Section 8.0.

8.5.8.3 After showering, the worker moves to the changing room and dresses in either new coveralls for another entry or street clothes if leaving.

8.5.9 Cleaning of Decontamination Units

8.5.9.1 Debris and residue shall be cleaned from inside of decontamination units on a daily basis. Wet wipe or hose down all surfaces after each shift change. Clean debris from shower pans on a daily basis.

9.0 PROTECTIVE CLOTHING AND EQUIPMENT

9.1 Listed below are materials, equipment, and tools generally used in asbestos removal operations. It is not inferred, however, that all materials listed are necessarily required in every asbestos removal project and in some instances, materials required to complete the work may not be listed. All equipment is to be supplied by the Contractor.

9.2 Protective clothing: Shall be fire retardant "Tyvek" (or approved equal) consisting of disposable full body coveralls, head covers, and boots as required by the most stringent OSHA standards applicable to the work. Eye protection, hard hats, and gloves shall be available.

9.3 Plastic Film: Provide a minimum, clear six (6) mil. thickness polyethylene. The plastic sheeting shall be taped securely in place or stapled or fastened by spray-on adhesives, glue beads, horizontal wood battens, or the equivalent.

9.3.1 Walls - one (1) layer of six (6) mil. polyethylene.
9.3.2 Floors - two (2) layers of six-(6) mil polyethylene.
9.3.3 Ceiling - one (1) layer of six (6) mil. polyethylene.

9.4 Where work procedures are in view to the public, black or opaque six (6) mil. polyethylene shall be used.

9.5 Adhesives: Tape shall be high-quality tape (duct tape or approved equal) in 2" or 3" widths with an adhesive formulated to aggressively stick.

9.6 Glove bags: Shall be of six (6) mil. thickness fitted with long sleeve gloves, a tool pouch and two (2") inch opening used for water application.

9.7 Support Structures: Constructed of polyvinyl chloride pipes (P.V.C.) and/or aluminum or wood studs.

9.8 Disposable Bags: Shall be six (6) mil. polyethylene bags of a sufficient size for the application. The bags shall be printed with letters of sufficient size and contrast to being readily visible and legible. The label shall state as a minimum:

Caution
Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

9.9 Signs: Provide caution signs (14" x 20") red background, lettered in black. It shall be displayed at all routes of access and all visual and physical barrier as follows as a minimum:

Legend	Notation
Danger	1" Sans Serif Gothic or Block
Asbestos	1" Sans Serif Gothic or Block
Cancer and Lung Disease Hazard	3/4" Sans Serif Gothic or Block
Authorized Personnel Only	1/2" Gothic
Respirators and Protective Clothing Are Required In This Area.	1/4" Gothic

The sign shall meet OSHA Standards 29 C.F.R. 1926.58

9.10 At all areas of direct access to the work area (decontamination unit, etc.), display signs (10" x 14") yellow background, lettered in black as follows:

Legend	Notation
No Food, Beverages or Tobacco Permitted	3/4" Block
All Persons Shall Don Protective Clothing (Coveralls) Before Entering the Work Area	3/4" Block
All Persons Shall Shower Immediately After Leaving Work Area and Before Entering the Changing Area.	3/4" Block

9.11 Amended water or removal encapsulant shall be approved for the particular type and concentration of asbestos dealt with in each circumstance by the Project Manager.

9.11.1 Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the material which equals or passes the wetting resulting from the use of one (1) ounce of a surfactant consisting of fifty percent (50%) polyethylene ester and fifty (50%) polyoxethylene ether mixed with five gallons of water.

9.12 Removal Encapsulant: Provide a penetrating type of encapsulant designed specifically for removal of asbestos containing material. Use a material that results in wetting of the asbestos containing material and retardation of fiber release during the disturbance of the material equal to or greater than that provided by amended water as described above.

9.13 Encapsulant: Tinted, which meets all fire and building codes.

9.14 Filters: Of sufficient quantity and type (HEPA, etc.) for use in respirators and other equipment requiring filters. Five-micron filters shall be utilized for water filtration if allowed by regulation or permit.

9.15 Cleaning materials are needed to maintain the specified standard of cleanliness. Use only the cleaning materials and equipment that are compatible with the surface being cleaned.

9.16 Respirator: Respirator protection shall be in accordance with OSHA Regulation 1910.134 and ANSI z88.2-1980. THERE SHALL BE NO EXCEPTIONS TO THESE REQUIREMENTS.

9.17 Air filtering equipment capable of filtering asbestos fibers.

9.18 HEPA vacuum: High efficiency vacuum cleaners with special HEPA filtration to retain asbestos fibers. Also include capillary tube if utilizing the glove bag technique.

9.19 Decontamination System: Shall consist of lockers, showers with pump support, respirator storage, equipment storage, etc.

9.20 Shower Head and Controls: Provide a factory-made showerhead producing a spray of water that can be adjusted for spray size and intensity. Feed shower with water mixed hot and cold supply line. Arrange so that control of water temperature, flow rate and shut off is from inside shower without outside aid.

9.21 Shower Stall: For wash down station provide leak tight shower enclosure with integrated drain pan fabricated from fiberglass or other durable waterproof material, approximately 3' x 3' square with minimum 6' high side and back. Structurally support as necessary for stability. Connect drain to a reservoir, pump water from reservoir to a holding tank for disposal or add to asbestos waste.

9.22 Sump Pump: Provide totally submersible, waterproof sump pump with integral float switch. Provide unit sized to pump two times the flow capacity of all showers or hoses supplying water to the sump. Provide unit capable of pumping debris, sand, plaster, or other materials washed off during decontamination procedures without damage to mechanism of pump. Adjust pump so that a minimum of 3" remains between top of liquid and top of sump pan.

9.23 Lumber: Provide kiln dried lumber of any grade or species.

9.24 Scaffold: Provide all scaffolding and/or staging as necessary to accomplish the work of this contract.

9.25 Hand Tools: Hand tools of sufficient quantity to implement the work at hand and the work schedule submitted including ancillary materials (e.g. staples, nails, wire, etc.)

9.26 Spray Equipment: Spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure, volume, and having ample hose length to reach all areas of asbestos.

9.27 The Contractor shall have available sufficient inventory of these materials as set forth above and any other materials and equipment necessary to accomplish the job, protect the workers, and protect all authorized visitors to each facility.

9.28 In procuring all items in this work, it is the Contractor's responsibility to verify the detailed requirements of this guideline and all codes, standards, and regulations to verify that items procured for use in this work meet or exceed the specified requirements.

9.29 The Owner reserves the right to reject items incorporated into the work that fail to meet the requirements of this

guideline or any applicable codes, standards or regulations.

9.30 "Approved equal" or "equal" shall mean as approved by the Owner / Owner's Representative only. They shall be the sole judges as to whether or not a substitute item is equal, and any specified item shall be submitted for approval.

10.0 RESPIRATORY PROTECTION

10.1 Respirators: The Contractor shall provide the required respirators and protective clothing to all workers and to all official representatives of the Owner, state, or other governmental entity, and the Asbestos Safety Monitor who may inspect the job site.

10.2 During preparation of the work site, Contractors may choose between three types of respiratory protection as specified. In order of increasing effectiveness, they are:

10.2.1 Half-face or full-face respirators equipped with dual cartridge air purifying, high-efficiency filters and certified by the National Institute of Occupational Safety and Health (NIOSH) for use in atmospheres containing asbestos.

10.2.2 Powered air-purifying respirators certified by NIOSH for use in atmospheres containing asbestos.

10.2.3 Type "C" supplied-air respirators, either continuous flow or pressure demand class as certified by NIOSH.

10.3 NOTE: Respiratory protection must comply with the exposure limits described in OSHA 29 CFR 1910.1001 and OSHA 29 CFR 1910.134.

10.4 The Contractor shall require that each person entering the work area shall wear an approved respirator and protective clothing. THERE SHALL BE NO EXCEPTIONS TO THE RULE.

11.0 PROTECTION OF WORKERS AND SITE VISITORS

11.1 Contractor shall provide an adequate number of respirators, coveralls and filters to allow for at least three (3) changes per day. Sufficient HEPA cartridges for both half face air purifying and powered air purifying respirators shall be provided for workers to change during the work shift. The respirators shall be worn at all times when in the contaminated area. THERE SHALL BE NO EXCEPTIONS.

11.2 In accordance with NIOSH, OSHA, and ANSI regulations, the Contractor shall have a formal respirator use program that shall, at a minimum, consist of the following:

11.2.1 Established written standard operating procedures governing the selection and use of the respirators.
11.2.2 Select respirators on the basis of the hazards to which the worker is exposed.
11.2.3 Instruct and train the user in the proper use of respirators and their limitations.
11.2.4 Where practical, assign respirators to individual workers for their individual use. These shall be specifically fit tested.
11.2.5 Regularly clean and disinfect respirators (after each use).
11.2.6 Store respirators and filters in a convenient, clean and sanitary location.
11.2.7 Routinely inspect respirators during cleaning.
11.2.8 Maintain appropriate surveillance of work area and degree of employee exposure of stress.
11.2.9 There shall be a regular inspection and evaluation procedure to determine the continued effectiveness of the

program.

11.2.10 Do not assign workers to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment.

11.2.11 Shall have approved, accepted and recommended respirators.

11.3 The Contractor shall guarantee that all employees have participated and are currently participating in this respirator use program.

11.4 The Contractor shall provide full body protective clothing to workers and visitors, which shall be worn at all times when in the contaminated area.

11.5 Protective clothing shall be disposed of when leaving the contaminated area and a new set used upon return.

11.6 There shall be no smoking, eating, or drinking in any contaminated areas (shower room, equipment room, and work area). Persons found violating this specification shall be denied access to the work area for any reason.

12.0 PRESSURE DIFFERENTIAL SYSTEM (HEPA FILTERED)

12.1 The Contractor shall supply a number of HEPA filter equipped air filtration units capable of filtering asbestos fibers to 0.3 um at 99.97 percent efficiency and of sufficient quantity and capacity to cause a complete air change within the work area once every 15 minutes;

12.2 The exhaust capacity from the work area shall be sufficient to establish a pressure differential between the work area and all adjacent spaces greater than or equal to **0.05** inches w.c. for full containment in occupied buildings. Such equipment shall exhaust the filtered air so as to maintain a negative pressure inside the work area. Air shall flow in through the decontamination chamber and waste exit ports, and exhaust through the air filtration unit by means of flexible duct leading outside of the building. The air shall be monitored at the decon and all make-up air intakes

10.1.1 In addition to pressure differential as stated above, a smoke test shall be conducted to demonstrate that the work area has been isolated properly.

12.3 Digital manometers with continuous printout shall monitor pressure differential or other approved low pressure monitoring devices provided by the Contractor. The AST shall zero and level the gauges each time a reading is taken.

12.4 The air filtering equipment should be positioned at a maximum distance from the decontamination chamber. Airflow shall be sufficient to prevent escaping airborne fibers. Air filtration shall be in operation at all times.

12.5 To calculate total air flow requirement:

$$\text{Total cubic feet / min.} = \frac{\text{Volume of work area (in cubic feet)}}{\text{15 minutes}}$$

To calculate the number of units needed for the abatement:

$$\frac{\text{Total cubic feet / minute}}{\text{Capacity of unit in cubic feet / minute}}$$

NOTE: Add one additional unit as a backup in case of equipment failure or machine shutdown for filter changing.

12.6 Testing the System

12.6.1 Test the pressure differential system before any asbestos containing material is wet or removed. After the work area has been prepared, the decontamination facility is set up, and the air filtration unit(s) installed, start the unit(s) (one at a time). Demonstrate operation and testing of the pressure differential system to the Asbestos Safety Technician.

12.7 Demonstration of the pressure differential system shall include, but not be limited to the following:

12.7.1 Plastic barriers and sheeting move slightly towards the work area.

12.7.2 Curtain of decontamination units move slightly towards the work area.

12.7.3 There is noticeable movement of air through the decontamination unit. The AST shall use smoke tubes to verify air movement from clean room to shower room, and from equipment room to the work area.

12.7.4 The use of smoke tubes shall demonstrate a positive motion of air across all areas in which work is to be performed.

12.8 Use of System during Removal Operations.

12.8.1 Start the air filtration units before beginning work. After removal has begun, the units run continuously to maintain a constant pressure differential until decontamination of the work area is complete. The units shall not be turned off at the end of the work shift or when removal operations temporarily stop.

12.8.2 In occupied buildings, if the pressure differential drops below 0.05 inches w.c. the AST and the Contractor Supervisor shall investigate and evaluate the engineering controls to determine the source of the pressure loss, and the Contractor shall institute corrective action as required.

12.8.3 At the beginning of each work shift, and every four hours thereafter, and at the end of the Contractor's workday, the AST shall monitor pressure differential by digital manometer with continuous printout or other approved low pressure monitoring devices for each work area.

12.8.4 The pressure differential system shall not be shut down during encapsulating procedures, unless authorized by the Owner's Representative in writing.

12.8.5 Removal work shall start at a location farthest from the air filtration units and proceed toward them. If an electric power failure occurs, removal shall stop immediately and shall not resume until power is restored and the air filtration units are operating again.

12.8.6 At completion of removal work, the air filtration units shall be allowed to run in order to remove airborne fibers that may have been generated during wet removal and clean up and to purge the work area with clean make up air.

12.8.7 The contractor shall provide a 24-hour manometer watch during removal phase to final clearance in all buildings with 24-hour occupant utilization to ensure pressure differential is maintained at 0.05 w.c. or greater.

12.9 Dismantling the System

12.9.1 When a final inspection and the results of final air test indicate that the area has been decontaminated, the air filtration units may be removed from the work area. Before removal from the work area, the unit shall have the pre-filter removed and disposed of properly, and the intake to the machine shall be sealed with six (6) mil. polyethylene to prevent environmental contamination from the filters.

13.0 EMERGENCY PRECAUTIONS

13.1 The Contractor shall prepare a contingency plan for emergencies including fire, accident, power failure, air pressure differential system failure, or any other event that may require modification or abridgment of decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.

13.2 The Contractor shall provide barricades and adequate protection to safely prevent passage of unauthorized persons to the area of removal. Must prevent accidental entrance to the abatement area by any unauthorized persons.

13.3 Before the Contractor starts actual abatement of asbestos material, the local fire department and ambulance crews shall be notified as to the dangers of entering the work area. The Contractor shall make every effort to help these agencies and form plans of action should their personnel need to enter the contamination area.

13.4 First aid shall comply with the governing regulations and all recognized recommendations within the construction industry.

13.5 General: Except as otherwise indicated, submit special reports directly to Owner within one (1) day of occurrence requiring special report, with one copy sent to the Owner's Representative, Project Manager and others affected by occurrence. Special reports include unusual events and/or accidents.

13.6 Contingency Plan for pressure differential: If the pressure differential drops below 0.01 inches w.c., the following procedures shall be implemented:

13.6.1 The Contractor shall cease abatement activity in the work area.

13.6.2 The AST shall notify the Building Owner to evacuate the pressurized spaces.

13.6.3 Re-occupancy shall not be permitted in any area unless a pressure differential of 0.05 inches w.c. or greater is re-established.

13.6.4 If a pressure differential of 0.05 inches w.c. or greater is not re-established within 24 hours of the first reading below 0.01 inches w.c. then the building shall be evacuated.

13.7 Contingency Plan for air quality levels: If air levels exceed 0.010 f/cc, the following procedures shall be implemented:

13.7.1 The AST and Contractor Supervisor shall investigate and evaluate the engineering controls to determine the source of the high level.

13.7.2 An additional / second PCM air sample shall be taken at each place in which a high air level was obtained. If the additional sample is less than or equal to 0.010 f/cc the contingency plan is terminated. If the results of the sample is higher than 0.010 f/cc then the Contractor, in consultation with the A.S.C.M., shall choose to clean and retest the area or split the sample and analyze it by TEM analysis. If the result of the TEM analysis

exceeds 0.010 f/cc, then cleaning shall be undertaken.

13.7.3 Cleaning of affected areas and PCM air testing shall continue outside of the work area until the results in the areas is equal to or less than 0.010 f/cc by PCM or <70 structures per TEM.

13.8 Contingency Plan for power outages: If a power outage occurs during active abatement work, the building occupants shall be evacuated until air samples determine that the occupied spaces are safe, and power has been restored. If a power outage occurs when the building is unoccupied, occupancy will not be permitted until air samples determine that the spaces to be occupied are safe and power has been restored.

13.9 The Contractor shall ensure that the pressure differential is maintained around the clock until the project is completed. Pre-filters on all air filtration units shall be changed on a daily basis.

14.0 AIR MONITORING AND INSPECTIONS

14.1 The Contractor shall pay a Testing Laboratory to conduct air sampling and analysis for its personnel in accordance with OSHA Regulation 29 CFR 1926.

14.2 The Testing Laboratory shall be a current proficient participant in the NIOSH AIHA/PAT Program for PCM analysis.

14.3 The Testing Laboratory shall perform its sampling and analysis in accordance with NIOSH method 7400.

14.4 For analysis by PCM the maximum turnaround time shall be four (4) hours from sample collection through data reporting.

14.5 For TEM analysis, laboratories shall participate in the NIST-NVLAP program. Maximum turnaround time shall be 72 hours from sample collection through data reporting.

14.6 Air sampling while abatement is in progress shall comply with the following procedures:

14.6.1 A minimum of three (3) samples per eight (8) hour shift shall be collected (one at the beginning of each shift, one every four hours thereafter, and one at the end of the contractor's workday). At least one air sample per day inside the work area shall be collected and analyzed.

14.6.2 In addition to the requirements noted above, air samples shall be taken at the entrance to the work area and any other interior spaces from which make up air is drawn. Additional samples shall be taken for all areas such as stairwells, communication shafts, elevators, plenums, and/or ducts, which pass through the work area and which are in service.

14.6.3 Post removal air sampling shall employ aggressive air sampling methodology as follows: using propeller type fans and leaf blowers. Place fans in each room to be sampled so as to cause settled fibers to rise and enter the air. Prior to air monitoring, floors, ceilings, and walls shall be swept with the exhaust of a one-horsepower leaf blower. Fan air shall be directed towards the ceiling. One fan shall be used for each 10,000 cubic feet of work area.

14.6.4 The project shall be considered complete when the results of samples collected in the affected work area show that the concentration of fibers for each of the five samples is less than or equal to 0.010 fibers per cubic centimeter of air for either PCM or < 70 structures per TEM analysis. If the initial set of clearance samples

shows unacceptable levels, the contractor shall bear the cost for re-sampling in the affected area. Such payments will be deducted from the contractor invoice and re-directed to the consultant by the Township.

14.7 AHERA CONSULTANTS INC. of Oceanville, N.J. represents the Owner as the Asbestos Safety Control Monitor (ASCM) for this project. As such, the ASCM will designate Certified Asbestos Safety Technicians (AST) to represent the ASCM during the abatement project.

14.8 The AST shall be on the job site at all times during the abatement work. Absolutely no abatement or preparation work shall occur without the presence of the AST.

14.9 The AST will conduct five (5) specific inspections.

14.9.1 Pre-Commencement Inspection

14.9.1.1 Notification in writing to the ASCM shall be made by the Contractor to request a pre-commencement inspection at least 48 hours in advance of the desired date of inspection. This inspection shall be requested each time another work area starts. The pressure differential shall be **.05** w.c. at the pre-commencement for abatement to start.

14.9.2 The AST shall ensure that:

14.9.2.1 The job site is properly prepared and all containment measures are in place.

14.9.2.2 All workers present a valid work permit issued by the New Jersey Department of Labor.

14.9.2.3 Measures for the disposal of the removed asbestos materials are in place and conform to the applicable regulations.

14.9.2.4 The Contractor maintains a list of emergency telephone numbers at the job site, which shall include the ASCM, fire, police, and emergency squad, local hospital and health officer, New Jersey Department of Labor, New Jersey Department of Health, and New Jersey Department of Community Affairs.

14.9.2.5 If all is in order, the AST shall issue a Notice to Proceed in the field. If the job site is not in order, then any needed corrective actions must be taken before any work is to commence. Conditional approvals shall not be granted.

14.9.3 Progress Inspection

14.9.3.1 Primary responsibility for ensuring that the asbestos abatement work progresses in accordance with N.J.A.C. 5:23-8 rest with the AST. The AST shall continuously be present to observe the progress of work and perform required test.

14.9.3.2 A series of smoke test shall be performed at the decontamination unit entrance / exit by the AST to ensure continuous pressure differential airflow into the work area. This test shall be performed before each work shift and every four (4) hours thereafter until the work stops.

14.9.3.3 The AST shall calculate, based on the actual available output (not the rated output) of the air

filtration units, the required number of air filtration units for each work area. This calculation shall be made whenever the volume of the work area changes. The AST will alert the Contractor of any discrepancies between the number of units required and those in operation within the work area. If the problems are identified and not corrected, the AST shall inform the administrative authority having jurisdiction.

14.9.3.4 A record shall be kept by the AST in a daily log of all on-site observations and required activities of the Contractor.

14.9.3.5 If the AST observes irregularities at any time, he shall direct corrective action as may be necessary. If the Contractor fails to take the corrective action required, or if the Contractor or any of their employees habitually and / or excessively violate the requirements of any regulation, then the AST shall inform the inspector from the administrative authority having jurisdiction who shall issue a Stop Work Order to the Contractor and have the work site secured until all violations are abated and assess a penalty of $500.00 which shall not be waived or settled for any reason.

14.9.4 Pre-Sealant Inspection

14.9.4.1 A pre-sealant inspection will be conducted by the AST before the sealant is applied. It is the Contractor's responsibility to request the pre-sealant inspection. If the pre-sealant inspection is acceptable, the AST will indicate the approval in writing.

14.9.5 Clean-Up Inspection

14.9.5.1 Notice for clean-up inspection shall be requested by the Contractor at least 48 hours in advance of the desired date of the inspection.

14.9.5.2 The clean-up inspection shall be conducted following the removal and bagging of the wall and floor poly and the wet wiping of the work area prior to final air testing. All critical barriers shall remain in place for final air testing.

14.9.5.3 The AST shall ensure that:

14.9.5.3.1 The work site has been properly cleaned and is free of visible asbestos and asbestos containing material.

14.9.5.3.2 All removed asbestos has been properly placed in a locked secure container outside of the work area.

14.9.5.3.3 If all is in order, the AST shall conduct final air clearance monitoring of the work area.

14.9.6 Final Inspection

14.9.6.1 Upon notice by the Contractor and at least 48 hours after the removal of the critical barriers, a final inspection shall be made to ensure the absence of any visible signs of asbestos containing materials and to ensure that asbestos contaminated waste has been properly removed from the job site.

14.9.6.2 All construction materials and equipment shall also be removed from the job site. All residual tape and/or spray glue shall be removed from the surfaces to which they were applied. All areas affected by the Contractor's work shall be returned to their original condition to the satisfaction of the Building Owner.

14.9.6.3 A Certificate of Completion will be issued by the ASCM at the conclusion of the project provided the results of all inspections and test are satisfactory.

14.9.7 Project review and inspection.

14.9.7.1 The Owner, Owner's Representatives, and representatives of agencies having lawful jurisdiction shall at all times have access to the work area whether work is in preparation or progress.

14.9.7.2 Throughout the removal and cleaning operations, monitoring for airborne asbestos fibers shall be conducted (on behalf of the Owner) to ensure that the Contractor is complying with all codes, regulations, ordinances, and requirements of this specification.

14.9.7.3 The AST shall take quality assurance samples at the job site and provide quality assurance inspections at no cost to the Contractor. The Contractor however shall be responsible for the added costs of the ASCM (cost of both the technician and additional samples) if the state re-occupancy testing fails the 0.010 f/cc clearance level for full containment removal, and / or if the agreed timetable for job completion is exceeded due to the Contractors negligence. (e.g. insufficient crew size, inadequate equipment / supplies, etc.)

14.9.7.4 Also, the Contractor shall provide air monitoring, independent of the AST, in order to determine OSHA regulations with regard to employee exposure to airborne asbestos fibers.

14.9.7.5 The AST shall have the full authority to direct the procedures of the Contractor and to stop the project until work practices are corrected in order to reduce the fiber concentrations to acceptable levels as prescribed by the requirements of this specification.

14.9.7.6 The AST on the project reserves the right to stop all removal operations if proper environmental, health, and safety precautions are not implemented and adhered to by the Contractor and their personnel. If work procedures are not in compliance with this specification a "STOP WORK ORDER" shall be issued to the Contractor by the AST or Project Manager. No work shall re-commence until authorized in writing by the Owner / Owner's Representative. Further non-compliance with these specifications or safety regulations shall be cause for cancellation of the contract by the Building Owner.

15.0 REMOVAL TECHNIQUES

15.1 Wet Removal

15.1.1 This section outlines the procedures which are to be used in the wet removal of all asbestos containing, and asbestos contaminated materials.

15.1.2 Any changes to these procedures shall be in writing from the ASCM.

15.1.3 All asbestos containing and asbestos contaminated materials should be sufficiently saturated to prevent emission of airborne fibers. The amended water or removal encapsulant shall be sprayed for as long and as often (before, during, and after removal) as necessary in order to ensure that the asbestos material is adequately wetted throughout.

15.1.4 A fine, low-pressure spray of amended water or removal encapsulant shall be applied to prevent disturbances preceding removal. The use of high revolutions per minute (R.P.M.) power equipment, pressure washers, or hydro-blasters is not acceptable.

15.1.5 As a method of organizing the asbestos removal work, workers shall begin working on the areas nearest to the decontamination unit and work towards the air filtration units.

15.1.6 Asbestos containing material shall be manually removed by scraping or cutting the saturated material from the base material. (Caution shall be taken not to damage the base material).

15.1.7 Removal of the asbestos material shall be done in small sections by two person teams, on staging platforms if needed. The wet material from each section shall be packed and sealed into labeled six (6) mil. plastic bags.

15.1.8 In all cases, the asbestos containing materials shall be handled carefully and deliberately. No asbestos is permitted to drop directly on to the floor. Any unnecessary agitation of the material is strictly prohibited.

15.1.9 Asbestos containing and asbestos contaminated materials located more than fifteen (15) feet above the floor shall be dropped into inclined chutes, or dropped onto scaffolding, or containerized at height for eventual disposal. Asbestos containing materials shall not be dropped off or thrown to the floor from fifteen feet or greater.

15.1.10 Operation shall be continuous so that once an area is started it will be worked on to the first wet wipe. The wet material from each section shall be packed and sealed into labeled six (6) mil. plastic bags and double bagged with visible labels prior to starting the next section. Water soaked fallen material shall be picked up while wet to prevent water loss due to evaporation.

15.1.11 Contaminated sharp materials with sharp edges shall be cut to size while adequately wet, placed in small cardboard boxes and double bagged, or singularly bagged and then placed in temporary fiber drums.

15.1.12 Bags and drums shall be marked with the label prescribed by Section 61.22 (C) of the E.P.A. regulations. The outside of all containers shall be wet wiped, or HEPA vacuumed before leaving the work area.

15.1.13 If at any time the airborne fiber level outside the isolated work area or the clean room of the decontamination unit rises above 0.010 f/cc level, the work shall stop immediately and clean up procedures will be used to reduce fiber level to less than 0.010 f/cc.

15.1.14 If any time the airborne level inside the isolated work area exceeds 0.1 f/cc (action level), the work shall stop immediately and air cleaning, wetting, and surface cleaning procedures will be necessary.

15.1.15 All free water in contaminated areas shall be retrieved and added to asbestos contaminated waste and / or placed in plastic lined leak tight drums and or solidified with an acceptable polymer or it shall be filtered using a five-micron filter and disposed of in the sanitary drain, if allowed by local treatment works by

regulation or as allowed by permit.

15.2 Encapsulations

15.2.1 After completion of cleaning of all surfaces in the work area and upon receiving a satisfactory pre-sealant inspection, the Contractor shall spray coat all dried exposed surfaces with a sealant. The color of this coat shall be separate and distinct for the underlying substrate. The surfaces to be coated shall include surfaces from which asbestos containing materials have been removed and polyethylene, which has been used to cover walls, floors and non-removable fixtures and equipment.

15.2.2 Two (2) coats of sealant as per Sub-chapter 8 shall be applied to the substrate after all asbestos containing material has been removed. Application shall be with an airless spray gun and shall be in strict accordance with the manufacturer's instructions.

15.2.3 With the encapsulation completed, the Contractor and the AST checking for uniformity of coverage shall make a visual inspection of the area.

16.0 REMOVAL AND DISPOSAL OF ACM WASTE

16.1 Removal of Waste

16.1.1 All routes through uncontaminated portions of the building, including hallways, elevators, stairways, etc., to be used for the transportation of contaminated wastes to the storage area shall be approved by the ASCM. All waste shall be transported through the building in sealed decontaminated containers. Bagging out of waste shall be conducted during minimal occupancy and an air sample run in the waste route throughout this procedure.

16.1.2 All contaminated waste shall be removed from the work area at the end of each work shift or at a time scheduled with the ASCM. At no time shall random removal of contaminated waste from the work area be allowed. The waste removal route should be separate and distinct from the normal route of travel us by building occupants. Waste removal shall occur during the time of least amount of building occupants. If the route of travel is to be used the following day by building occupants, air monitoring must be performed. If air level results exceed 0.010 f/cc, then the waste removal route must be wet wiped and HEPA vacuumed and re-tested until an acceptable air level is achieved prior to allowing occupancy of the area.

16.1.3 The container used for the storage of contaminated waste outside the building shall be an enclosed dumpster. The dumpster shall have a solid metal roof and solid metal door with padlock. The size of the dumpster shall be sufficient to handle the amount of waste to be generated. The location of the dumpster shall be agreed to by the Contractor, ASCM, and the Owner. The cost of the dumpster, the transportation of the contaminated waste and the proper disposal of thereof, shall be borne solely by the Contractor.

16.1.4 No materials shall be thrown from the windows or doors of buildings. Building waste systems SHALL NOT be used to remove asbestos contaminated waste.

16.2 Disposal of Waste

16.2.1 Notification of intent to dispose of asbestos shall be sent to the New Jersey Department of Environmental Protection at least 10 days prior to actual disposal. In some cases, the landfill operator may have to be notified as well.

16.2.2 The notification shall include the following information:

16.2.2.1 Name, address, and telephone number of the removal project;
16.2.2.2 Quantity and nature of the waste to be disposed;
16.2.2.3 Name, address, and New Jersey Department of Environmental Protection registration number of the collector-handler.
16.2.2.4 Name, address of the landfill at which disposal will occur;
16.2.2.5 Date and time of disposal;
16.2.2.6 A copy of any written notification required by 40 CFR 61.22 to 61.25.

16.2.3 All asbestos waste materials destined for disposal in New Jersey shall be wet and packaged in permanently sealed, leak tight containers (such as 6 mil. plastic bags, double bagged with visible labels) in accordance with 40 CFR 61.20-25 before it can be legally transported and disposed of in New Jersey. No hauling of loose asbestos is permitted.

16.2.4 The waste hauler must possess a valid solid waste transporter registration issued by the New Jersey Department of Environmental Protection. A licensed solid waste transporter shall be a commercial collector / hauler or shall be the removal company if they are so registered.

16.2.5 Asbestos waste can be hauled in dumpster containers provided the load is comprised of only asbestos in bags and does not contain any other waste or asbestos containing waste which could compromise the integrity of the permanent containers.

16.2.6 If rough surfaces or other materials are present in the load, which could potentially puncture the permanent containers, then those containers shall be enclosed in temporary fiber or steel drums during loading, transport and unloading operations. In addition, asbestos wastes shall not be loaded into or hauled in vehicles containing compacting devices.

16.2.7 Asbestos waste, which is properly packaged, is classified as Waste ID #27, non-hazardous industrial waste, shall be disposed of at a landfill which is registered by the New Jersey Department of Environmental Protection in conformance with the following:

16.2.7.2 The landfill used must be registered by the New Jersey Dept. of Environmental Protection to accept Waste ID #27.

16.2.7.3 The specific landfill facility chosen must be one designated by the New Jersey Department of Environmental Protection and the recipient facility for the community in which the removal project is located.

16.2.7.4 The Contractor and / or Hauler shall get approval from the landfill of its intent to dispose asbestos waste. Disposal shall also be in accordance with the landfill requirements.

16.2.7.5 The Hauler shall not transfer, take out or add any waste during transportation to the approved landfill, and shall not make unnecessary stops along the way.

16.2.8 The Contractor shall provide at the completion of the project, a manifest or dump ticket, duly executed by the Contractor, transporter and disposal facility. The manifest shall be all-inclusive describing volume of materials, dates of transport, and date of disposal, of all contaminated waste from the job site.

17.0 FINAL CLEAN-UP OF WORK AREA

17.1 Air filtration system shall continue to operate to provide air changes and pressure differential as specified. The work area is still considered to be a contaminated area and all procedures for working in a contaminated area such as protective clothing, respiratory protection, and decontamination shall be followed.

17.2 The entire work area including walls, floors, ductwork, ceilings, light fixtures, and other surfaces shall be completely and thoroughly cleaned via wet wiping with amended water and disposable cloths, along with HEPA vacuuming.

17.3 Plastic used to maintain critical barriers between work areas and clean areas such as those in doorways, windows and air vents shall be sprayed with a sealant but not removed until air monitoring is completed and satisfactory results have been obtained.

17.4 After completion of the cleaning operations the Contractor shall:

17.4.1 Notify the ASCM that a clean-up inspection can be performed to ensure all visible asbestos has been removed and the area is dust free.

17.4.2 Request final clearance air monitoring of the work area.

17.5 Air monitoring results must indicate asbestos concentrations of no more than 0.010 f/cc TEM for every 10,000 square feet of floor space contained by the critical barriers. These results must be achieved before critical barrier removal, and reconstruction activities may begin. If the test results show asbestos fiber concentrations above the acceptable criteria, then clean up shall be repeated until compliance is achieved by re-cleaning all surfaces using wet methods and operating HEPA equipped air filtration units to filter the air.

17.6 After the work area is found to be in compliance with the acceptance criteria, the Contractor shall perform the following tasks:

17.6.1 All critical barriers shall be unsealed and removed;
17.6.2 The inside of windows shall be washed;

17.6.3 Any walls, floors, trim, doors, furniture or other items damaged during the work shall be repaired and refinished to match existing material to the satisfaction of the Building Owner;

17.6.4 The Contractor shall make notice for final inspection to the ASCM.

18.0 FINAL REPORT

18.1 Upon satisfactory completion of all asbestos removal work and of all tests, the Asbestos Safety Control Monitor shall submit a written final report to the Owner within thirty (30) days of issuance of the Certificate of Completion. A copy of the final report shall be made available to the New Jersey Department of Community Affairs within ten (10) days of

written request. This report shall include copies of all records (charts, logs, air sampling results, records, air pressure differential measurements, etc.) documenting the day-by-day progress of work and related tests. This report shall be present in logical form, neatly bound, and properly titled, dated and signed. Any deviations from acceptable practice on the part of the Contractor, and any unsatisfactory test results reported during the course of the job, shall be included.

END OF SPECIFICATION



General Notes

LEGEND

AHERA Consultants INCORPORATED

No.	Revision/Issue	Date
	GROUND FLOOR	

Firm Name and Address

AHERA CONSULTANTS INC.
PO BOX 385
OCEANVILLE, NJ 08231
VOICE: 609.652.1833
FAX: 609.652.1140
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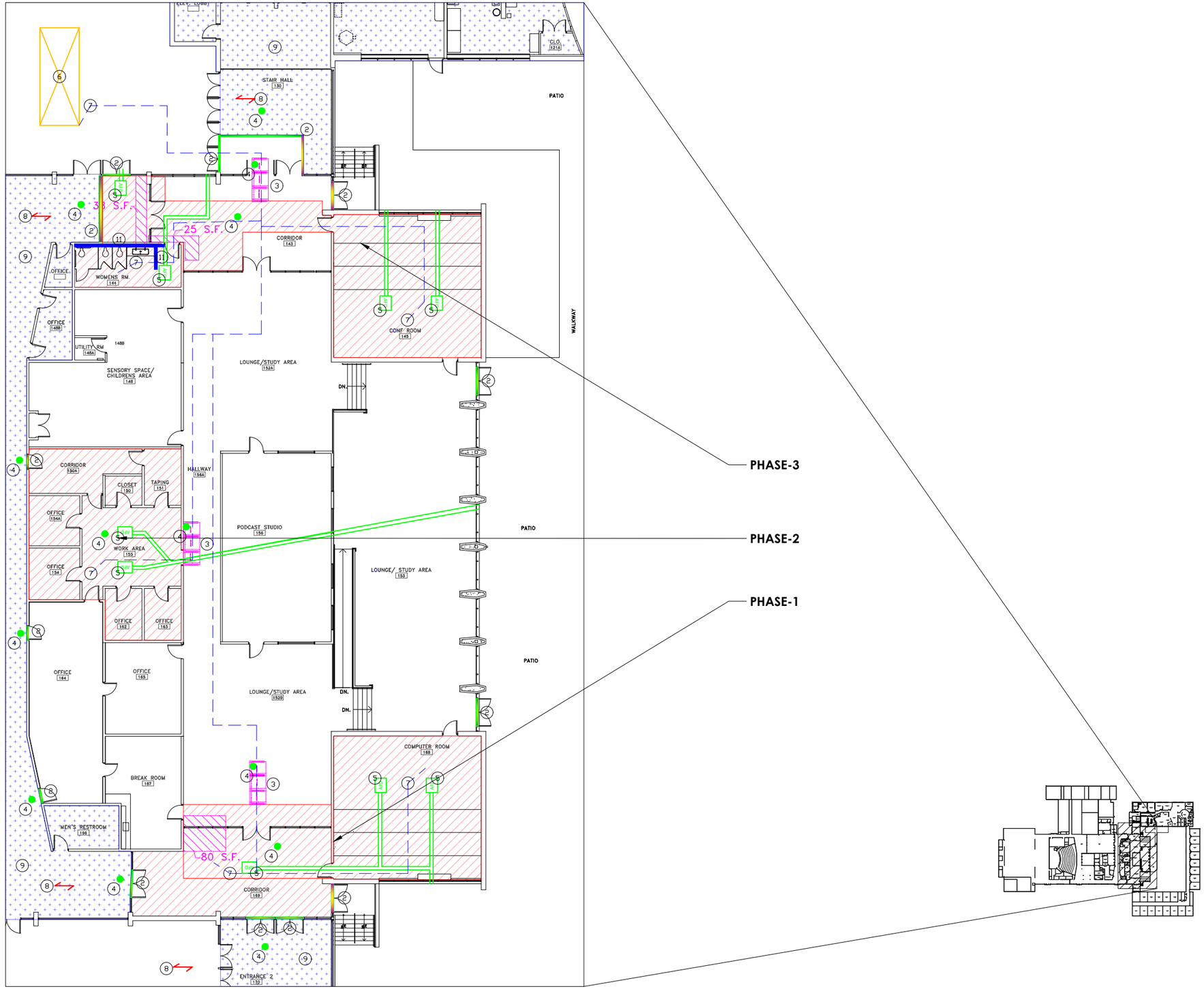
Project Name and Address

WILLINGBORO SENIOR CENTER
429 JOHN F KENNEDY WAY
WILLINGBORO, NJ 08046

SITE MAP

Project 26-7199	Sheet ASB-01SM
Date NOVEMBER, 2026	
Scale NTS	

JOHN SMOYER NOVEMBER 2026 WSC-SUB-8



General Notes

LEGEND

AHERA Consultants INCORPORATED

1		FULL CONTAINMENT WORK AREA
2		SEPARATION BARRIER
3		PERSONAL & WASTE/ DECONTAMINATION CHAMBER
4		AIR SAMPLE LOCATION
5	AFD	AIR FILTRATION DEVICE / EXHAUST ROUTE
6		WASTE DUMPSTER
7		ABATEMENT WORKER EGRESS WASTE ROUTE
8		OCCUPANT EGRESS
9		OCCUPIED AREA
10		TERRAZO SPOT ABATEMENT LOCATION
11		SPOT CMU BLOCK/MORTAR REMOVAL

GROUND FLOOR

No.	Revision/Issue	Date

Firm Name and Address

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ASBESTOS ABATEMENT PHASING
OCCUPIED FULL CONTAINMENT
NJAC 5:23 SUBCHAPTER-8

Project	Sheet
26-7199	ASB-01FC
Date: NOVEMBER, 2026	
Scale: NTS	

WSC-SUB-8
NOVEMBER 2026
JOHN SMOYER