

- Contractor shall thoroughly read all specifications and thoroughly review all construction documents prior to commencement of abatement activities.
- Contractor shall note that abatement operations associated with the mechanical renovations for the South Tower Residence Hall will be phased over two (2) summers. Phase A shall be completed during the summer of 2012 and will include abatement work in the basement, first floor and the central core areas of floors 2 through 18. Phase A will also include complete removal on the roof of the existing rolled shingle and associated flashing and mastics down to the original concrete deck. Phase B shall be conducted during the summer of 2013 and will include abatement work in the dormitory rooms and community rooms on floors 2 through 18.
- Contractor shall thoroughly review project plans and specifications to clarify the sequencing of abatement operations associated with the specific work tasks for both Phase A and Phase B abatement operations.
- All notes herein are not designated on the plans. All notes listed herein apply whether designated on the plan or not.
- Contractor shall coordinate with the GC which components of the existing two pipe fan coil system are to be removed along with TSI throughout the building and which will be abandoned in place at the completion of each phase of the abatement operations.
- Contractor shall note that piping and ductwork shown on abatement drawings are a general schematic indication of the layout of those systems and are not to be used for estimating quantities.
- Contractor is responsible for actual quantities associated with the abatement and bid shall consist of all costs to include labor, materials and equipment necessary to complete the required abatement. Contractor to refer to Abatement Specification Section 1.3.1 for estimated quantities for base bid.
- Contractor is to perform all penetrations and attachments to existing drywall throughout the building. Contractor is to coordinate locations with the GC to ensure all penetrations and attachments to the existing drywall are only performed as part of the asbestos abatement and only by personnel trained and certified to work with ACM.
- Contractor shall thoroughly clean areas where abatement is to occur prior to abatement operations.
- Contractor shall protect all existing utilities to include but not limited to the following: mechanical, electrical CCTV, access controls, plumbing and communications, and associated appurtenances within the limits of the abatement. The Contractor shall be responsible for all costs associated with the repair of these items if damaged during abatement activities.
- Prior to the removal of ceiling grid the Contractor shall temporarily support all items that rely upon the ceiling grid for support. The temporary support shall be adequate to prevent damage of items that are to remain.
- Light Bulbs: The Contractor shall remove all fluorescent bulbs within the limits of the abatement taking care not to break the bulbs unless noted otherwise. See electrical drawings for location and quantity of lights. Bulbs shall be bundled and turned over to the Owner for recycling. Contractor shall ensure that light fixtures are de-energized prior to commencement of this activity. See electrical drawings for location and quantity of lights.
- Fixture Ballast: The Contractor shall inspect the ballast(s) of all light fixtures to be removed. See electrical drawings for location and quantity of lights. All ballasts that DO NOT have "No PCB's" markings on them shall be assumed to contain PCBs and shall be transported and disposed of as hazardous waste. Contractor shall be responsible for compliance with all applicable regulations associated with removal, transport and disposal of ballast containing PCBs. Copies of all manifests shall be supplied to the Engineer.
- When removing existing light fixtures in areas to be abated the Contractor shall ensure that the light fixtures and associated circuits are de-energized. Upon confirmation that the light fixtures and associated circuits are de-energized the contractor shall cut the fixture whip at the light. All fixture whips shall be thoroughly cleaned of dirt and asbestos contamination and left in place. Contractor shall ensure that existing conduit and junction boxes are protected from damage and maintained in place for re-use during sub-back operations.
- Contractor shall remove existing suspended ceilings throughout the ground floor, first floor and typical repeating dormitory floors 2 through 18 to accommodate abatement work tasks. Floors 2 through 17 are to be removed while under containment. Existing perimeter tracking shall be maintained and left in place for re-use during sub-back operations.
- Prior to gross asbestos removal and wet removal activities the Contractor shall conduct localized removal of spray applied ceiling material in areas in and around electrical junction boxes. Upon completion of the localized removal, the Contractor shall cover the junction boxes with 6 mil poly to insure protection from contamination and damage from wet removal activities. Contractor shall insure that electrical junction boxes are de-energized prior to proceeding with abatement activities.
- Contractor shall contain all water/surfactants used during the abatement and insure that a breach does not occur in the containment that will allow contaminated liquids to seep through to the underlying floors below. Only low pressure airless sprayers washers will be allowed to abate difficult to access areas. Should a breach occur that allows liquids to escape from the containment, the Contractor shall stop work immediately and remedy the situation. The Contractor shall be responsible for all costs associated with cleaning up of contaminated liquids including cost associated with construction schedule delays.
- Temporary Power: The Contractor is responsible for providing all temporary power needed to perform the abatement. The temporary power provided by the Contractor shall be adequate to power the Engineer's air monitoring equipment utilized during abatement.
- Contractor shall remove 9"x9" floor tile and associated mastic along with vinyl baseboard throughout the main corridor of the basement and dispose of as ACM.
- All existing ductwork throughout the ground floor, first floor and typical repeating dormitory floors 2 through 18 is to be removed and disposed of as ACM. Contractor shall refer to Abatement Specifications - Section 1.3 - Scope of Work - Ground Level and First Floor, Item 2.
- All thermal systems insulation (TSI) both ACM and non-ACM shall be removed and disposed of as ACM throughout the ground floor, first floor and typical repeating dormitory floors 2 through 18. Mechanical piping associated with original two pipe fan coil system is to be removed in its entirety along with TSI. Contractor shall refer to Abatement Specifications - Section 1.3 - Scope of Work for specific abatement requirements.
- Main mechanical chase on all floors excluding the basement are contaminated and will require a friable abatement. Contractor shall refer to Abatement Specifications - Section 1.3 - Scope of Work - Item J PHASE A ABATEMENT ACTIVITIES, 2012 Chases for specific abatement requirements relative to chases. Materials to be removed from chases are as follows:
 - TSI - Heating and cooling lines
 - TSI - Mudded elbows and joints
 - TSI - Roof drain insulation in chases
 - TSI - Domestic water lines in chases
 Furthermore, the vertical and horizontal surfaces to include piping, metal ductwork, concrete floors and decking above and masonry walls throughout the chase shall be thoroughly cleaned or residual asbestos contamination, debris, and overspray from the original asbestos-containing spray applied textured ceiling material found throughout the building.

- 9"x9" Floor Tile and Associated mastic to be removed
- Black Mastic on HVAC Fiber Board Insulation. Ductwork to be removed in its entirety.
- Thermal System Insulation (TSI). (Schematic only. Not for estimating purposes)
- Chase Area to be Abated

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SOUTH TOWER
MECHANICAL RENOVATIONS
 UNIVERSITY OF SOUTH CAROLINA
 STATE PROJECT NUMBER H27-6082-NA
 BID DOCUMENTS

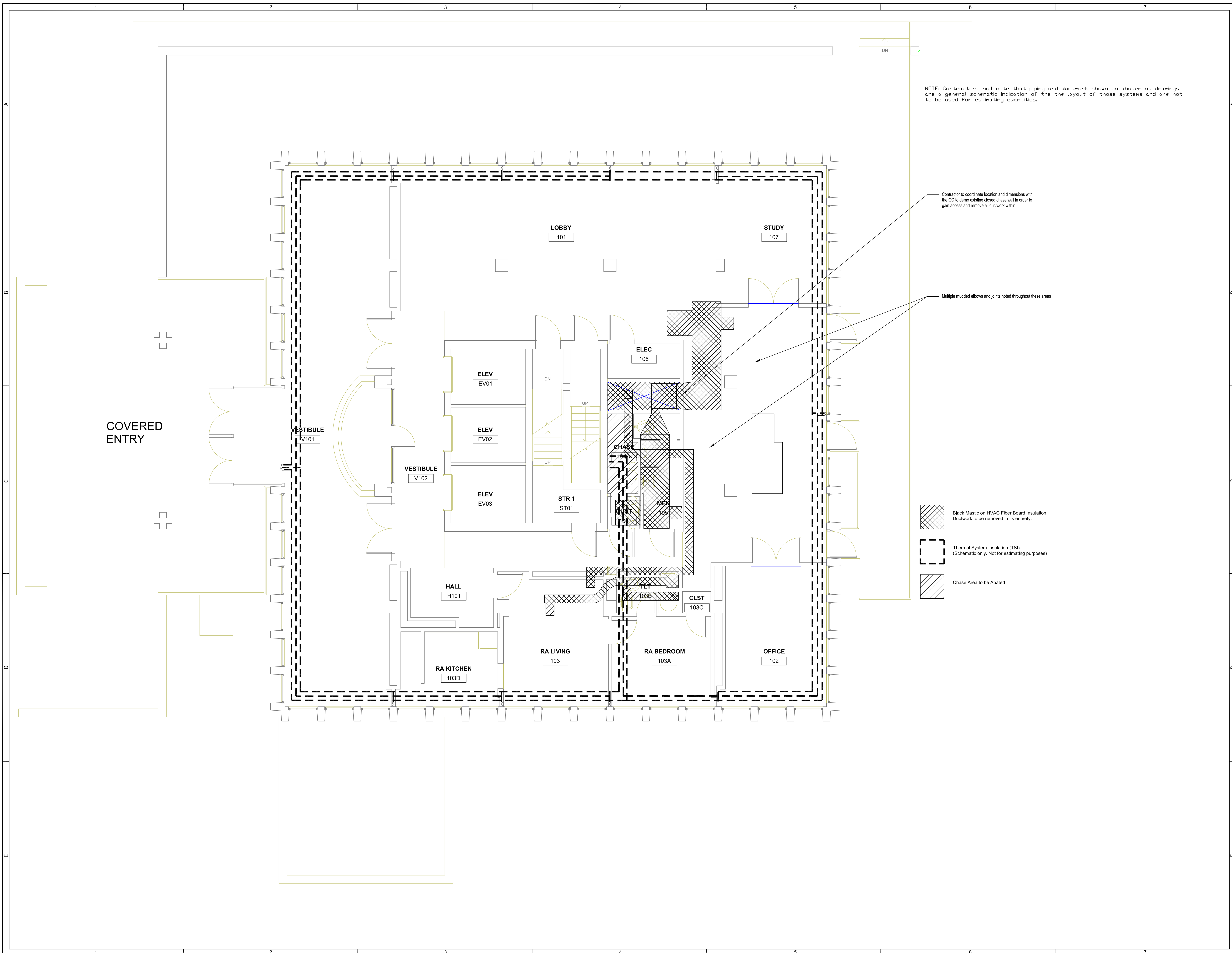
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ASBESTOS ABATEMENT PLAN
GROUND FLOOR

AB1.01



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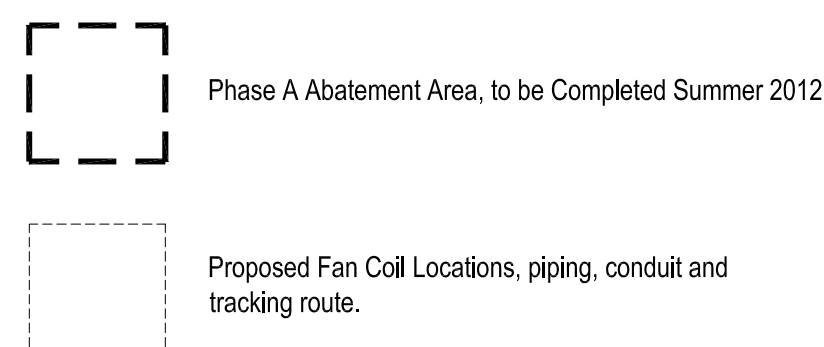
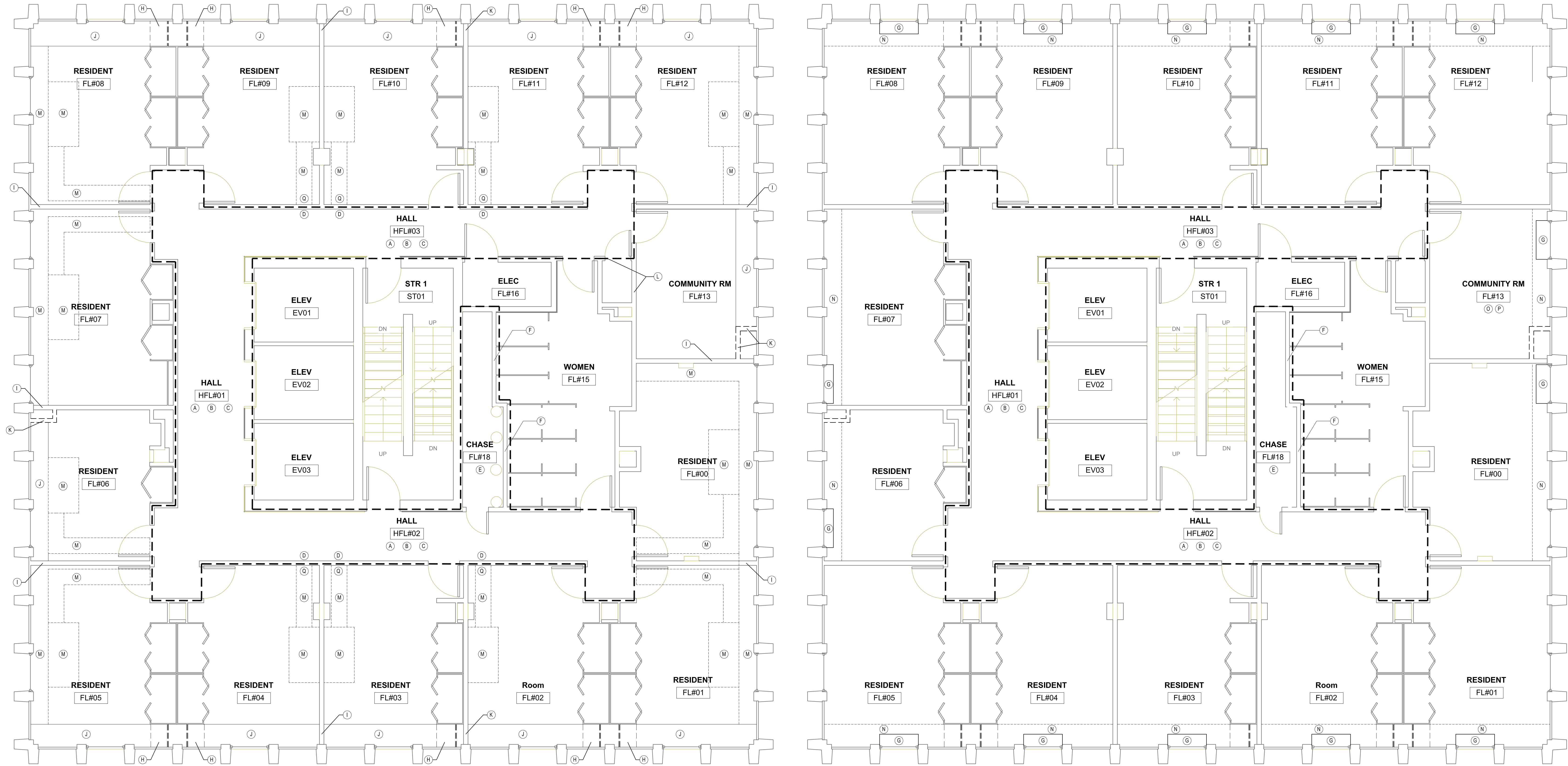
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SHEET TITLE:
ASBESTOS ABATEMENT PLAN
FIRST FLOOR

SHEET:
AB1.1

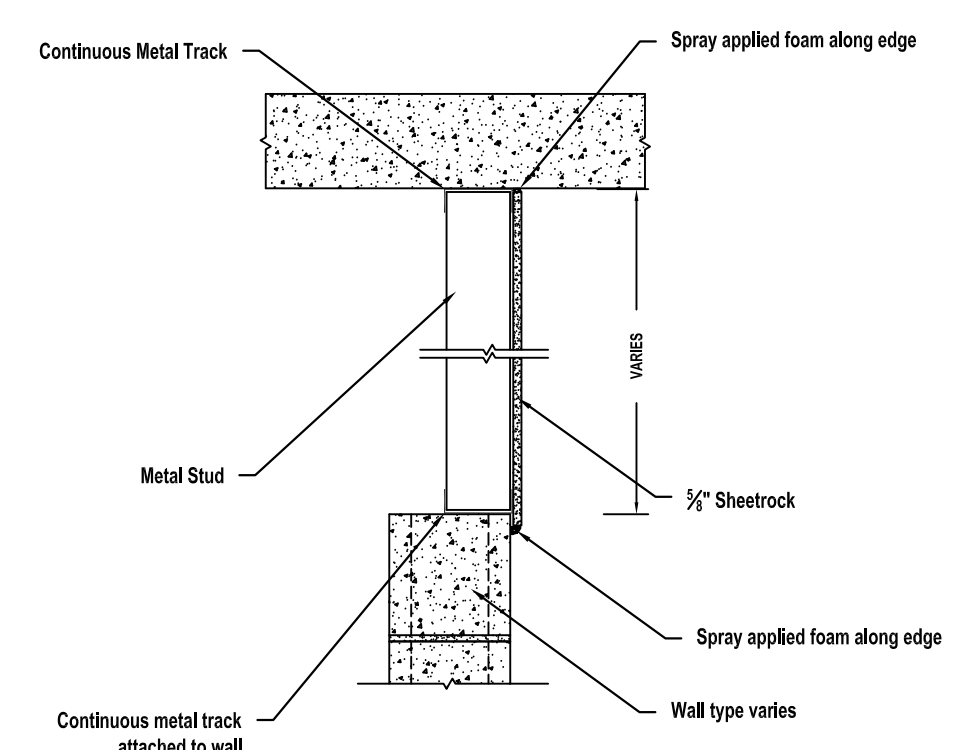


PHASE A ABATEMENT SUMMER 2012

- (A) All areas of the main corridors have residual ACM black mastic under existing non-ACM carpet (Est. 625 SF/Floor) and associated adhesive. Non-ACM 12"x12" floor tiles (Est. 150 SF/Floor) and associated adhesive are under the carpet in front of the elevators. Contractor shall remove as non-fragile all carpet, vinyl baseboard, floor tiles and associated adhesives throughout the main corridors and dispose of them as ACM. All residual ACM black mastic is to be completely abated down to concrete.
- (B) Contractor to remove existing suspended ceilings in corridors of the typical repeating dormitory floors 2 through 17 while under containment and disposed of as ACM. Existing perimeter tracking shall be maintained and left in place during the abatement operations. In areas requiring friable abatement the Contractor shall cover and protect perimeter tracking for re-use during put back operations Contractor will be responsible for repairs, replacement and installation of new perimeter tracking as require. GC will not be allowed to re-install new perimeter to existing drywall walls.
- (C) Contractor shall remove existing spray applied textured ceiling material throughout the corridors of floors 2 through 17. Textured ceilings are not present in 18th Floor corridors. Contractor shall remove texturing in a manner that does not cause damage to existing facilities (i.e. data, telephone and conduits). Texturing is to be removed up to and above these items. If textured ceiling material is to be left in inaccessible areas (i.e. above communications tracking), Contractor shall utilize a spray applied encapsulation to seal these materials in place to the satisfaction of the Owners Representative.
- (D) Contractor shall coordinate with the GC regarding the size and location for penetrations on corridor side of drywall around the perimeter walls of the corridors adjacent to the dormitory rooms on floors 2 through 18. Contractor shall not penetrate drywall on dormitory side of wall.
- (E) Contractor shall complete a friable abatement of main chase on all floors. Contractor shall remove the following from all chases on all floors:
 - All ACM and non-ACM TSI found throughout the chase
 - Gray Mud/Fire Stop at Floor and Ceiling Penetrations
 - TSI, Muddied Elbows and Joints on Mechanical Piping
 - TSI, Black Mastic on Joints of Pipe Insulation
 Furthermore, all vertical and horizontal surfaces to include piping, metal ductwork, concrete floors and decking above and masonry walls throughout these chases shall be thoroughly cleaned of residual asbestos contamination, debris, and overspray from the original asbestos-containing spray applied textured ceiling material found throughout the building.
- (F) Contractor shall construct a permanent vertical barrier between the chases and the area above the plaster bathroom ceilings on floors 2 through 18. Contractor will install metal stud and drywall walls on top of existing walls to segregate areas that may be contaminated with asbestos from the deteriorated ceilings etc. that are not to be abated from areas that are to be abated. The permanent barriers shall be constructed as detailed herein and shall be air tight. See detail for Permanent Barrier Wall this sheet.

PHASE B ABATEMENT SUMMER 2013

- (G) Contractor shall remove existing fan coil units and associated wood trim and blocking from all dormitory rooms and kitchens on floors 2 through 18 while under containment and dispose of them as ACM. Contractor shall remove all caulking from around perimeter of fan coil unit and dispose of as ACM.
- (H) Contractor shall remove existing drawer bank, mirror, back wood wall partition and associated chase utilities as noted on mechanical, plumbing and electrical drawings. Contractor shall protect adjacent casework and Transite curtain wall panel. Contractor shall dispose of all piping and associated insulation, both ACM and non-ACM TSI, as ACM.
- (I) Contractor shall cut a 20"x10" penetration through existing drywall partition wall while under containment to accommodate perimeter duct installation. Contractor shall coordinate with GC regarding actual penetration locations. All debris generated shall be disposed of as an ACM.
- (J) Contractor shall remove existing metal soffit while under containment. Contractor shall dispose of all piping and associated insulation, both ACM and non-ACM TSI found behind soffit, as an ACM.
- (K) Contractor shall remove existing drywall chase wall in its entirety from floor to ceiling and associated utilities as noted on mechanical, plumbing and electrical drawings while under containment. Contractor shall dispose of all debris, piping and associated insulation, both ACM and non-ACM TSI, as ACM.
- (L) Contractor shall cut a 12"x12" penetration through existing drywall partition wall while under containment to accommodate duct installation to main corridor. Contractor shall coordinate with GC regarding actual penetration locations. All debris generated shall be disposed of as ACM.
- (M) Spray Applied Textured Ceiling Material (dormitory rooms) - Contractor shall coordinate with the GC for targeted removal of textured ceiling material at locations laid out and designated by the GC. This removal is associated with the installation of bracketing mechanisms for proposed piping, fan coils and new metal soffits to be located in all dormitory rooms on typical repeating floors 2 through 17. Textured ceiling removal will be completed under full containment. All debris generated will be disposed of as ACM.
- (N) Contractor shall remove selective baseboard and associated adhesive and 9"x9" floor tile and associated mastic down to concrete deck around existing dormitory room fan coil units and vanities to the nearest full tile. Contractor shall coordinate with GC regarding actual stopping point for tile removal. All debris generated shall be disposed of as ACM.
- (O) Contractor shall remove sheet vinyl flooring and associated adhesive and the underlying layer of 9"x9" floor tile and associated mastic down to concrete deck throughout Community Room under containment. All debris generated shall be disposed of as an ACM.
- (P) Contractor shall completely remove all textured ceiling material throughout Community Room on typical repeating floors 2 through 17. Textured ceiling removal will be completed under full containment. All debris generated will be disposed of as ACM.
- (Q) Contractor shall coordinate with the GC regarding the size and location to complete penetrations on dormitory side of drywall around the perimeter walls adjacent to the corridors on floors 2 through 18. Contractor shall verify that seal placed on penetration completed during Phase A work is intact and shall not allow contamination to escape to the corridor side of wall.



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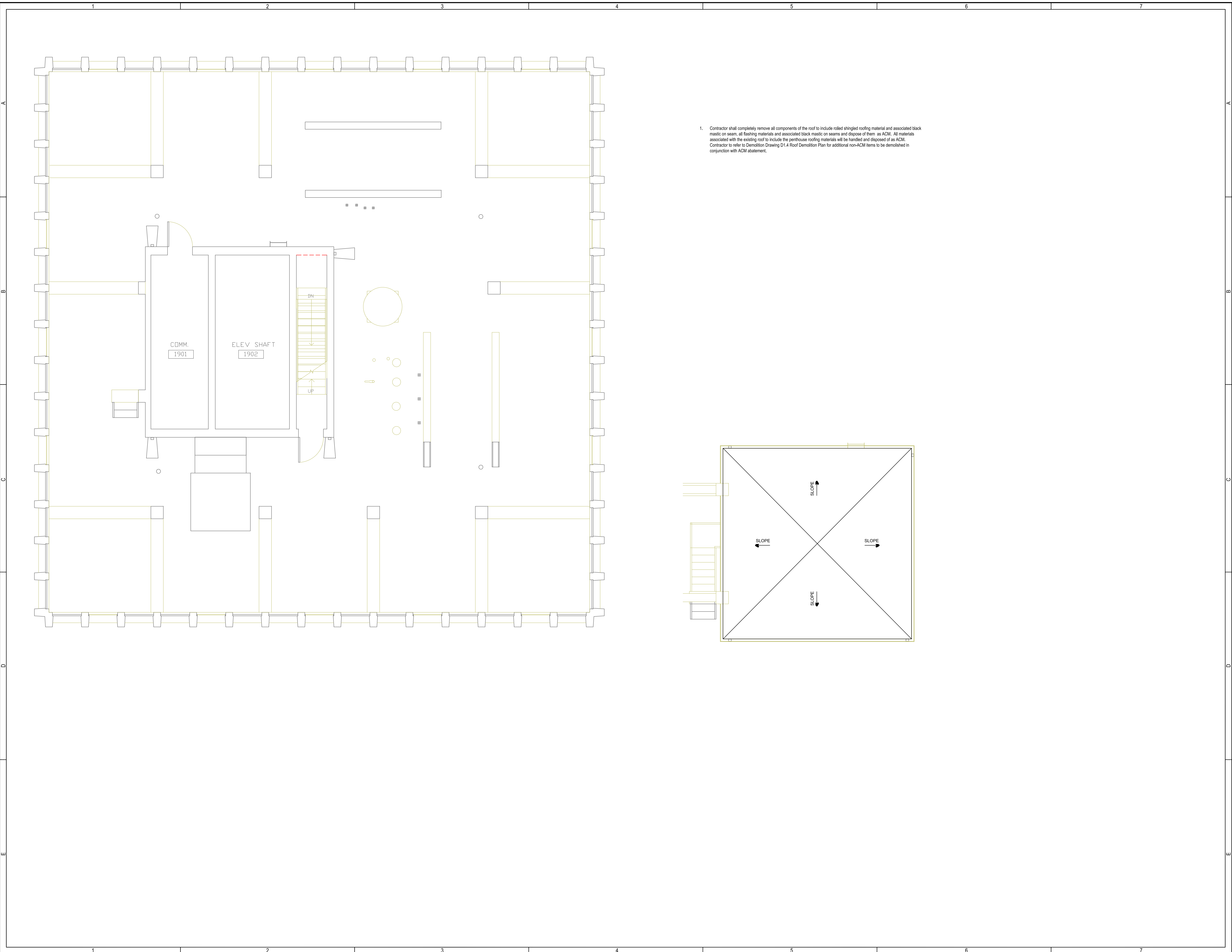
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ASBESTOS ABATEMENT PLAN
TYPICAL FLOORS 2 Thru 18

AB1.2



1. Contractor shall completely remove all components of the roof to include rolled shingled roofing material and associated black mastic on seam, all flashing materials and associated black mastic on seams and dispose of them as ACM. All materials associated with the existing roof to include the penthouse roofing materials will be handled and disposed of as ACM. Contractor to refer to Demolition Drawing D1.4 Roof Demolition Plan for additional non-ACM items to be demolished in conjunction with ACM abatement.

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AB1.4