ADDENDUM NUMBER ONE 10/26/2018

PROJECT: TOWN OF POMARIA RECEREATION RENOVATIONS - 3606.1704

138 FOLK ST.

POMARIA, SC 29126

FROM: Johnson, Laschober & Associates, P.C.

1296 Broad Street Augusta, GA 30903 (706) 724-5756

To: All Bidders

The following clarifications, amendments, additions, revisions, changes and/or modifications shall take precedence over the plans and specifications for the above-named project and shall become part of the Contract Documents. Where any item called for in the specifications or indicated on the drawings is not supplemented hereby, the original requirements shall remain in effect. Where any original item is amended, voided or superseded hereby, the provision of such item not specifically amended, voided or superseded shall remain in effect. Failure to acknowledge this addendum in the Form of Bid will result in Bid being deemed non-responsive.

GENERAL INFORMATION:

- The PRE-BID meeting will be held at 138 Folk St, Pomaria, SC 29126 on October 30th, 2018 at 12:00 p.m., local time. This has been updated in Specification 001113, "Advertisements for Bids."
- Unit Price No. 5- Wood Flooring & Unit Price No. 6- 4" CONCRETE SLAB
 has been added. See Specification 011600, "Bidders Schedule" for
 details.
- 3. Asbestos Reports are included as part of the bid documents for reference. See Appendix "A", "B", and "C".
- 4. All contractors shall specify whether Alternates for the project are going to be a **DEDUCTION** or **ADDITION** to the BASE BID. See Specification 011600, "Bidders Schedule" for details.

- 5. All work on the project shall be completed in five months (153 calendar days). See Specification 011600, "Bidders Schedule" for details.
- 6. The **Door Hardware Schedule** appears on sheets A-701. Specification 08711, "Door Hardware" has been updated to reflect this.
- 7. Addition of Specification 017419, "Construction Waste Management and Disposal" has been added. See updated TOC and Spec for details.
- 8. Reference and requirements to comply w/ "Photographic Documentation" has been removed. See modifications to Specification 024119, "Closeout Procedures" for clarity.
- 9. The **Door Schedule** has been updated to reflect doors shown on the proposed plan. See drawings A-100 and A-701 for changes.
- 10. Timeframe for **Standing Seam Metal** substitutions to be submitted has been updated to **5 days before** the bid date. Specification 074113, "Standing Seam Roof Panel" has been updated to reflect this.
- 11. Work Restrictions (011000-1.8) have been updated and modified. See Specification 011000, "Summary" for all changes.
- 12. Placement of OCU-1 and OHP-1 will be in the grass area outside of the existing concrete flume. See M-101 & E-201 for details.

END OF ADDENDUM NUMBER ONE

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APPENDIX "C"
Abatement Specification for Removal of Asbestos-Containing Materials- S&ME Project No. 4261-18-106

SECTION 001113 - ADVERTISEMENT FOR BIDS

1.1 PROJECT INFORMATION

- A. Notice to Bidders: Qualified bidders may submit bids for project as described in this Document. Submit bids according to the Instructions to Bidders.
 - 1. Regulatory Requirements: Newberry County Procurement shall govern submittal, opening, and award of bids.
- B. Project Identification: Pomaria School Renovations
 - 1. Project Location: 138 Folk Street, Pomaria, SC 29126.
- C. Owner: **Town of Pomaria**.
 - 1. Owner's Representative: Crystal Waldrop, Purchasing Director, 1309 College Street, Post Office Box 156, Newberry S.C. 29108, Ph: (803) 321-2100
- D. Architect/Engineer: Watson Lee Dorn, III, AIA, Johnson, Laschober & Associates, P.C., 1296 Broad Street, Augusta, Georgia, Ph. (706)-724-5756
- E. Construction Manager: Barry Evans, Vice President, Cummings Corporation, 720 Lady St., Columbia, SC 29201, Ph: (803)-726-8568
- F. Project Description: Project consists of improvements to the existing Pomaria School Building to include new roof, new HVAC, new electrical, new ADA accessible toilet facilities and general facility upgrades including new ACT ceilings, painting and refinishing of existing hardwood floors.
- G. Construction Contract: Bids will be received for the following Work:
 - 1. General Contract (all trades) as described in the Construction Documents and Project Specifications.

1.2 BID SUBMITTAL AND OPENING

- A. Owner will receive sealed lump sum bids until the bid time and date at the location given below. Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner, and delivered as follows:
 - 1. Bid Date: **November 13th, 2018**.
 - 2. Bid Time: 1:00 p.m., local time.
 - 3. Location: Newberry County Courthouse Annex Conference Room, 1309 College Street, Newberry S.C. 29108
- B. Bids will be thereafter publicly opened and read aloud.

1.3 BID SECURITY

A. Bid security shall be submitted with each bid in the amount of **5** percent of the bid amount. No bids may be withdrawn for a period of **60** days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.

1.4 PREBID MEETING

- A. Pre-bid Meeting: A Pre-bid meeting for all bidders will be held at 138 Folk St, Pomaria, SC 29126 on October 30th, 2018 at 12:00 p.m., local time. Prospective prime bidders are encouraged to attend.
 - 1. Bidders' Questions: Architect will provide responses at Pre-bid conference to bidders' questions received up to **two** business days prior to conference.

1.5 DOCUMENTS

A. Online Procurement and Contracting Documents: Obtain access by contacting **Crystal Waldrop**. Online access will be provided to **all registered bidders and suppliers**.

1.6 TIME OF COMPLETION AND LIQUIDATED DAMAGES

A. Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time. Work is subject to liquidated damages in the amount of \$200/day past the anticipated construction time of five (5) months.

1.7 BIDDER'S QUALIFICATIONS

A. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work. A Performance Bond, separate Labor and Material Payment Bond, and Insurance in a form acceptable to Owner will be required of the successful Bidder.

END OF DOCUMENT 001113

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Project information.
- 2. Work covered by Contract Documents.
- 3. Phased construction.
- 4. Work by Owner.
- 5. Work under separate contracts.
- 6. Future work.
- 7. Purchase contracts.
- 8. Owner-furnished products.
- 9. Contractor-furnished, Owner-installed products.
- 10. Access to site.
- 11. Coordination with occupants.
- 12. Work restrictions.
- 13. Specification and drawing conventions.
- 14. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Town of Pomaria Recreation Center Renovations
 - 1. Project Location: 138 Folk Street, Pomaria, SC 29126
 - 2. Owner: Town of Pomaria
 - 3. Owner's Representative: Crystal Waldrop, Purchasing Director
 - 4. Project Manager: Cumming Corporation, Barry Evans, Vice-President
- B. Architect and Engineer: Johnson, Laschober & Associates, P.C. Watson Lee Dorn, III, AIA, Architect

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work is defined by the Contract Documents and consists of the following:

Project consists of improvements to the existing Pomaria School Building to include new roof, new HVAC, new electrical, new ADA accessible toilet facilities and general facility upgrades including new ACT ceilings, painting and refinishing of existing hardwood floors.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

1.5 WORK BY OWNER

A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

1.6 ACCESS TO SITE

- A. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to parking areas, detention pond and new construction areas. Existing facility parking areas will be off limits unless coordinated with the Owner.
 - 2. Limits: Limit site disturbance to the area identified as "Limits of Disturbance" as shown on the construction documents.
 - 3. Driveways, Walkways and Entrances: Keep driveways, parking areas, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - 4. Construction Parking and Laydown: Coordinate with the Owner. There is an adjacent lot that can be utilized for material laydown and construction personnel parking.

1.7 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will partial occupy site and adjacent building during portions of the construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.

- 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
- 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.8 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7 a.m. to 5 p.m., Monday through Friday, unless otherwise indicated.
 - 1. Weekend Hours: Coordinate with Owner prior to commencement.
 - 2. Early Morning Hours: Coordinate with Owner prior to commencement.
 - 3. Hours for Utility Shutdowns: Coordinate with Owner prior to commencement.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
 - 2. Obtain Architect's and Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Owner not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor-air intakes.
- F. Controlled Substances: Use of tobacco products and other controlled substances on Project site is **not** permitted.
- G. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 - 1. Maintain list of approved screened personnel with Owner's representative.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.10 MISCELLANEOUS PROVISIONS

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

COUNTY OF NEWBERRY Purchasing Department, Post Office Box 156, Newberry, SC 29108 Ph: (803) 321-2100 / Fax: (803) 321-2102

INVITATION FOR BIDS

BID NUMBER: 2018-20

OPENING DATE AND TIME: NOVEMBER 13TH, 2018 at 1:00pm

SUBMITTAL ADDRESS: Newberry County Courthouse Annex Conf. Room

1309 College Street, Newberry (Hand Delivered)

Post Office Box 156, Newberry SC 29108

(US Postal Service Delivered)

PROCUREMENT FOR: TOWN OF POMARIA RECREATION CENTER RENOVATIONS

POMARIA, SOUTH CAROLINA

Subject to the conditions, provisions and the enclosed specifications, sealed bids will be received at this office until the stated date and time and then publicly opened. Any bid received after the scheduled deadline, will be immediately disqualified. The County assumes no responsibility for the delivery of bids which are mailed. BID NUMBER MUST BE SHOWN ON THE OUTSIDE OF ENVELOPE.

DIRECT ALL INQUIRIES TO:

Crystal Waldrop, CPPB

Purchasing Director Post Office Box 156 Newberry SC 29108

NOTICE TO BIDDERS: Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this bid. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid. All amendments to and interpretations of this solicitation shall be in writing and issued by the Purchasing Director of the County. Newberry County shall not be legally bound by an amendment or interpretation that is not in writing.

INVITATION TO BID 015000 - 1

SECTION 011600 - BIDDERS SCHEDULE

COUNTY OF NEWBERRY

Purchasing Office, 1309 College Street, Post Office Box 156, Newberry S.C. 29108 Ph: (803) 321-2100 / Fax: (803) 321-2102

BIDDERS SCHEDULE					
BID N	UMBER:		2018-20		
OPEN	ING DATE AN	D TIME:	November 13, 2018 at	1:00pm	
	ING LOCATION	1309 Coll	County Courthouse Annex, ege Street , SC 29108	Conference Roon	1
1.1	CERTIFICA	ΓΙΟΝS AND BAS	E BID		
A.	examined the P Front-end Spec Associates (JLA conditions and and services, ir above-named	rocurement and Co cifications, and all A) and Architect's requirements of the acluding all schedu	rades) Contract: The undersign particular Requirements, Condinated Subsequent Addenda, as prepared to the Work, hereby agrees to furnished allowances, necessary to conto the requirements of the bid sum of:	tions of the Contract ared by Johnson I site, and being fam th all material, labor complete the constru	et, Drawings Laschober & iliar with al r, equipmen action of the
	1.		D	Oollars (\$).
В.	CONTRACTO	ication Section 012 OR NEEDS TO S ION FROM THE	PECIFY WHETHER ALTER	RNATES WILL B	E AN ADD
	1. Add/Ded	luct Alternate #1 –	Sandplast/Paint Breezeway	Dollars (\$)
	2. Add/Ded	luct Alternate #2 –	BARD Units for HVAC	Dollars (\$)
	3. Add//De	duct Alternate #3 –	Remove Flooring in Basement	Dollars (\$)
	4. Add/Ded	luct Alternate #4 –	Dehumidify Basement Area	Dollars (\$)
	5. Add/Ded	luct Alternate #5 –	New Sidewalk Installation	Dollars (\$)

undersigned Bidder acknowledges receipt of and use of the following Addenda in the aration of this Bid: Addendum No. 1, dated
Addendum No. 2, dated
Addendum No. 3, dated Addendum No. 4, dated
GUARANTEE - Bids shall be good for sixty (60) days from the date of submittal
undersigned Bidder agrees to execute a contract for this Work in the above amount and to sh surety as specified within [10] days after a written Notice of Award, if offered within [60] after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash ier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such re, in the following amount constituting five percent (5%) of the Base Bid amount above:
Dollars (\$).
e event Owner does not offer Notice of Award within the time limits stated above, Owner return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid (AIA Document A310).
JBCONTRACTORS AND SUPPLIERS
following companies shall execute subcontracts for the portions of the Work indicated:
Roofing Work: HVAC Work: Electrical Work:
i i i

TOWN OF POMARIA RECREATION CENTER RENOVATIONS POMARIA, SOUTH CAROLINA

09/2018 3606.1705

1.5 TIME OF COMPLETION

A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect and shall fully complete the Work within five months [153] calendar days.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid and are included in this document.
 - 1. Bid Form Supplement Alternates.
 - 2. Bid Form Supplement Allowances.
 - 3. Bid Form Supplement Bid Bond Form (AIA Document A310) or Cashier's check.

1.7	SCHEDULE OF UNIT PRICES
A.	Unit Price No. 1:
	Removal of unsatisfactory soil and replacement with satisfactory soil material, per cubic yard.
B.	Unit Price No. 2:
	Cutting and patching of 6" thick concrete Pavement with wire mesh per square foot.
C.	Unit Price No. 4:
	Installation of silt fencing per linear foot
D.	Unit Price No. 5:
	Wood flooring to included removing, replacing, sanding and finishing
E.	Unit Price No. 6:
	4" Concrete Slab (compacted subgrade, 4" porous fill, vapor barrier, welded wire fabric reinforcing)

1.8 CONTRACTOR'S LICENSE

A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Newberry, South Carolina, and that all fees, permits, etc., pursuant to submitting this proposal have/will been/be paid in full.

1	.9	SI	IRI	VIS	SIO	N	OF	BID
1	. /	.,,		VII.)	.) ()	1 1	()	\mathbf{p}

A. Respectfully submitted this <u>13th day of November</u>, <u>2018</u>.

CONTRACTOR:	SIGNATURE:
Name of Authorized Contact:	
Email Address:	
Address:	
Phone & Fax:	
FEIN:	
Contractor's SC License #:	

SECTION 017419 - CONSTRUCTION WASTE DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging nonhazardous demolition waste.
 - 2. Disposing of nonhazardous demolition and construction waste.

1.3 DEFINITIONS

- A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- D. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition and construction waste become property of Contractor.
- B. Mechanical units to be removed to be offered to owner.
- C. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

PART 2 - EXECUTION

2.1 WASTE HANDLING

- A. General: Provide handling, containers, storage, signage, transportation, and other items as required to implement waste removed during the entire duration of the Contract.
- B. Site Access and Temporary Controls: Conduct waste operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

2.2 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. General: Except for items or materials to be salvaged or recycled, remove waste materials and legally dispose of at designated spoil areas on Owner's property.
- C. Burning: Do not burn waste materials.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.

B. Related Requirements:

- 1. Section 017300 "Execution" for progress cleaning of Project site.
- 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
- 3. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
- 4. Section 017900 "Demonstration and Training" for requirements for instructing Owner's personnel.

1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
 - 5. Submit test/adjust/balance records.
 - 6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements.
 - 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 3. Complete startup and testing of systems and equipment.
 - 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."

- 6. Advise Owner of changeover in heat and other utilities.
- 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
- 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
- 9. Complete final cleaning requirements, including touchup painting.
- 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for final completion.

1.7 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment according to Section 012900 "Payment Procedures."
 - 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 - 4. Submit list of incomplete items in the following format:
 - a. MS Excel electronic file. Architect will return annotated file.
 - b. PDF electronic file. Architect will return annotated file.
 - c. Three paper copies. Architect will return two copies.

1.9 SUBMITTAL OF PROJECT WARRANTIES

- A. Contractor warrants the Project will be habitable and constructed in a good and workmanlike manner and free from defects in material and workmanship for a period of **one** year following the date of Substantial Completion. This warranty in no way affects the individual product warranties of specified products that extend past the first year as so noted in other sections of the specifications.
- B. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- C. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- D. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.

- 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural

- weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- h. Sweep concrete floors broom clean in unoccupied spaces.
- i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
- j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
- k. Remove labels that are not permanent.
- l. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
- m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- o. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
- p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
- q. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.
- D. Construction Waste Disposal: Comply with waste disposal requirements in Section 015000 "Temporary Facilities and Controls." Section 017419 "Construction Waste Management and Disposal."

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 - 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that that already show evidence of repair or restoration.

TOWN OF POMARIA RECREATION CENTER RENOVATIONS POMARIA, SOUTH CAROLINA

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- a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
- 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
- 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700



Asbestos & Lead-Based Paint Assessment Report Pomaria Elementary School Pomaria, South Carolina S&ME Project No. 4261-18-008

PREPARED FOR

Newberry County 1301 College Street Newberry, SC 29108 (803) 321-2100

PREPARED BY:

S&ME, Inc. 134 Suber Road Columbia, SC 29210 (803) 561-9024

February 9, 2018

ASSESSMENT PERFORMED BY

Owen Astwood, P.G. & Travis Knight, CHMM, CIEC SCDHEC Lic. #BI-00475 & BI-00885 Assessment date: January 23, 2018



February 9, 2018

Newberry County 1301 College Street Newberry, South Carolina 29108

Attention: Mr. Ervin West

ewest@newberrycounty.net

Reference: Asbestos & Lead-Based Paint Assessment

Pomaria Elementary School

138 Folk Street

Pomaria, South Carolina

S&ME Project No. 4261-18-008

Dear Mr. West:

S&ME, Inc. (S&ME) is pleased to provide the enclosed report detailing our limited asbestos and lead-based paint assessment at the referenced site. The purpose of the assessment was to identify, to the extent feasible, potential asbestos-containing materials (ACMs) and lead-based paint (LBP) associated with the structure which is scheduled for renovations. Our services were performed in general accordance with S&ME Proposal No. 42-1701439, dated December 12, 2017 and the Master Services Agreement between S&ME and Newberry County dated March 25, 2011. The following report includes the project background, sampling and analysis procedures, findings and results, and conclusions and recommendations as necessary.

This report is provided for the use of the client. Use of this report by any other parties will be at such party's sole risk and S&ME, Inc. disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the assessment and of the specific areas referenced.

We appreciate the opportunity to provide you with our industrial hygiene/environmental services. If you have any questions concerning this report, please call us at (803) 561-9024.

Sincerely,

S&ME, Inc.

Owen Astwood, P.G. Asbestos Building Inspector (SCDHEC Lic. No. BI-00475) Travis Knight, CHMM, CIEC Asbestos Building Inspector (SCDHEC Lic. No. BI-00885)

Senior Reviewed by Tom Behnke, P.G., CHMM

Pomaria, South Carolina S&ME Project No. 4261-18-008



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February 9, 2018

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♦ Executive Summary

S&ME conducted an asbestos and lead-based paint assessment of the Pomaria Elementary School located at 138 Folk Road in Pomaria, South Carolina on January 23, 2018. The building consists of a two story classroom building and an auditorium with a pitched, metal roof and an attached cafeteria with a flat roof. The adjoining cafeteria building was not included in the assessment. The purpose of the assessment was to identify asbestos-containing materials (ACMs) and lead-based paint coatings associated with the structure prior to renovations.

The subject school building is a one and two story metal and wood frame structure with masonry exterior. According to the sign in front of the building, it was built in approximately 1913. The basement level of the school building consists of six classrooms and two restrooms. The first floor of the building had reportedly been a gymnasium when the building was constructed. The first floor was renovated at some point in the past and now consists of five classrooms, a stage and an auditorium. The building contains approximately 13,149 square feet of interior space. The subject building was unoccupied at the time of the assessment. We understand that renovations are planned for the school building.

Asbestos

The asbestos assessment was performed in general accordance with the South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, *Standards of Performance for Asbestos Projects* effective May 27, 2011 and with the National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Asbestos Hazard Emergency Response Act (AHERA). The purpose of the assessment was to identify the presence and quantity of ACMs associated with the building prior to renovation activities.

The asbestos assessment included the bulk sampling and analysis of suspect ACMs from the subject building. The suspect materials identified in the building consist of three styles of vinyl floor tiles and floor tile mastic, pipe insulation, hard joint insulation, two styles of suspended ceiling tiles, drywall, drywall joint compound, plaster and skim coat, window glazing compound, and silver roofing sealant.

The Environmental Protection Agency (EPA) and SCDHEC define materials as asbestos-containing if an asbestos content of greater than one percent (>1%) is detected in a representative sample. *Asbestos, in concentrations greater than one percent, was identified as a result of the assessment.* Below is a summary of ACMs identified in the structure:

Table E-1 ACM Summary

Material	¹Material Location	² Type	Asbestos Type & Percent	³ Condition	⁴ Approx. Quantity
12-inch Tan vinyl floor tile & Black mastic	Basement hallway and northeast classroom in the basement (classroom #9)	Misc.	Chrysotile 5% & 2%	Damaged, NF ⁵	1,656 SF

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Material	¹Material Location	² Type	Asbestos Type & Percent	³ Condition	⁴ Approx. Quantity
9-inch Tan vinyl floor tile and Black mastic	Remaining basement classrooms (classrooms #6, 7, 8 &10)	Misc.	Chrysotile 5% & 5%	Damaged, NF ⁵	2,567 SF
9-inch Green vinyl floor tile and Black mastic	Restroom off the teacher's lounge in the basement	Misc.	Chrysotile 3% & 3%	Good, NF	60 SF
Pipe insulation	Steam pipes in the basement	TSI	Amosite 20% Chrysotile 15%	Good, F	590 LF
Pipe hard joint insulation	Steam pipes in the basement	TSI	Chrysotile 70%	Good, F	48 joints
2' x 2' Cementitious ceiling tiles	Stage	Misc.	Chrysotile 8%	Good, NF	558 SF
Drywall joint Walls throughout the 1st floor		Misc.	Chrysotile 2%	Good, F	10,500 SF
Laboratory bench top Northeast classroom on the first floor (classroom #1)		Misc.	Presumed	Good, NF	1 counter top (15 SF)

NF = Non-friable F = Friable

TSI = Thermal System Insulation

Lead-Based Paint

Painted surfaces throughout the interior and exterior of the subject building were considered suspect and analyzed for lead content. The coated surfaces exceeding the SCDHEC disposal criteria of 0.7 milligrams per square centimeter (mg/cm²) were considered lead-based paint for the purpose of this assessment. The below tested surfaces exceeded the 0.7 mg/cm² threshold.

Brown/orange metal lid on the brick structure by the western entrance to the building.

Destructive actions to paint containing detectable levels of lead (*e.g.* paint preparation, component removal, demolition, sanding, grinding, burning, etc.) may require the contractor to comply with the standards of the OSHA regulations 29 CFR 1926.62 (Lead in Construction), including but not limited to training, initial exposure monitoring, the use of personal protective equipment, and medical surveillance. The determination of OSHA

¹Refer to Appendix I for specific sample locations.

²Type: Misc. = Miscellaneous Surf. = Surfacing

³Cond = Condition: Good, Damaged or Significantly Damaged

⁴Quantities are approximate and should not be used for cost estimates or bidding purposes.

⁵The floor tiles and associated mastic are non-friable materials; however, due to their damaged state, they will be deemed friable in terms of abatement

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applicability is the responsibility of the contractor and dependent upon the paint condition and the planned treatment of the finishes.

This summary is for convenience only and should not be relied upon without first reading the full contents of this report, including appended materials.

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1.0 Introduction

Newberry County retained S&ME to conduct an asbestos and lead-based paint assessment of the Pomaria Elementary School building located at 138 Folk Road in Pomaria, South Carolina. The assessment was performed by Travis Knight, CHMM, CIEC and Owen Astwood, P.G. of S&ME on January 23, 2018. Mr. Knight and Mr. Astwood are Asbestos Building Inspectors licensed by the South Carolina Department of Health and Environmental Control (SCDHEC). An Asbestos-Containing Material (ACM) is defined by State and Federal regulations as a building material containing greater than one percent (>1%) of one of the six asbestos minerals regulated by the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA).

This asbestos and lead-based paint assessment was performed in general accordance with S&ME Proposal No. 42-1701439, dated December 12, 2017 and SCDHEC Regulation 61-86.1.

Demolition and renovation activities in public and commercial buildings are regulated by OSHA, EPA and SCDHEC. The EPA and SCDHEC require asbestos assessments, conducted by licensed individuals, prior to renovation and/or demolition projects. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and SCDHEC Regulation 61-86.1 require asbestos assessments, followed by the proper removal, and disposal of ACM that is affected by renovation or demolition. The identification of ACMs will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos. Identification of ACM is also required by OSHA 1926.1101. The EPA, OSHA and SCDHEC define ACM as materials containing greater than one (1) percent asbestos in a representative sample. However, OSHA also regulates materials containing less than or equal to one percent asbestos.

2.0 Asbestos Assessment

2.1 Purpose

The purpose of the asbestos assessment was to identify the presence and quantity of asbestos-containing materials associated with the interior and exterior of the subject building prior to renovation activities. The identification of ACMs will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos. Identification of ACMs also complies with Title 40 Code of the Federal Regulations, part 61, and State Regulation 61-86.1 enforced by the SCDHEC, along with Title 29 Code of Federal Regulations, part 1926 enforced by OSHA.

2.2 Site Description

The former school building is a two-story masonry structure with a brick exterior and a pitched metal roof. The building is approximately 13,149 square feet and was constructed in 1913. The building is divided into ten classrooms, restrooms and an auditorium with a stage. The walls throughout the basement are primarily painted plaster. The interior walls on the first floor are painted drywall. The ceilings are finished with a mixture of suspended ceiling tiles and cellulose tiles. The floors on the first floor are hard wood and the floors in the basement are finished with various vinyl floor tiles or ceramic tiles. Water damage is evident in the basement on

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the lower wooden trim. We understand the subject building is scheduled for renovations. The building was unoccupied at the time of the assessment.

It should be noted that the Cafeteria portion of the subject building <u>was not</u> included in the assessment. Additionally, the two rooms located under the exterior stairs at both ends of the building were locked and could not be included in the assessment. The crawlspace entrance by the western entrance to the basement was also locked and could not be included in the assessment.

The following sections describe the assessment procedures used, results of the suspect ACMs sampled and analyzed, and conclusions and recommendations regarding the subject site as related to ACMs.

2.3 Investigative Procedures and Analysis

A visual assessment of the referenced structure was performed to determine the homogeneous areas (HAs) of suspect ACMs. Based on EPA definitions used in the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, an HA of suspect asbestos-containing building material has the same color and texture and is thought to be installed within the same timeframe. S&ME assessed the interior and exterior of the building, including roofing materials for suspect ACMs, including thermal system insulation (TSI), surfacing materials, and miscellaneous materials. Significant destructive investigative techniques and sampling were not performed as part of this assessment. Consequently, the possibility exists that suspect materials were not detected in inaccessible areas such as flooring overlays, pipe chases, locked rooms, or wall voids or in areas deemed unsafe to enter by the asbestos inspectors. If additional suspect materials are discovered during future renovation or demolition activities, bulk samples should be collected and analyzed for asbestos content.

It should be noted that the Cafeteria portion of the subject building <u>was not</u> included in the assessment. Additionally, the two rooms located under the exterior stairs at both ends of the building were locked and could not be included in the assessment. The crawlspace entrance by the western entrance to the basement was also locked and could not be included in the assessment.

Suspect flooring materials identified in the building consist of two colors of nine-inch vinyl floor tiles, 12-inch vinyl floor tiles and associated mastics. Suspect surfacing materials consisted of plaster on the original walls and joint compound associated with the wall systems on the first floor. Identified suspect TSI consist of pipe insulation and hard joint insulation located on steam pipes in the basement. Additional suspect ACMs that were observed and sampled include two styles of suspended ceiling tiles, drywall, window glazing compound and silver roofing sealant.

A sampling strategy was developed to provide representative samples of suspect asbestos-containing materials in accordance with OSHA, SCDHEC and EPA. Bulk samples were then extracted from suspect ACMs and recorded on a chain of custody record and submitted to an asbestos laboratory. The samples were submitted to EMSL Analytical's laboratory in Pineville, North Carolina for analysis via the following methods.

Polarized Light Microscopy (PLM)

The suspect materials were analyzed by trained microscopists using PLM techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 Code of Federal Regulations, Chapter I (1-1-87 edition), Part 763, Subpart F-APPENDIX A. This method identifies asbestos mineral fibers based on six optical characteristics:

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morphology, birefringence, refractive index, extinction angle, sign of elongation and dispersion staining colors. The laboratory analysis reports the specific type of asbestos identified (there are six asbestos minerals) and the percentage of asbestos present.

Transmission Electron Microscopy (TEM)

In accordance with SCDHEC Regulation 61-86.1, Transmission Electron Microscopy (TEM) confirmation analysis is required to be performed on one sample of any non-friable organically bound material (NOB) that tests negative via PLM analysis. The TEM analysis was performed using EPA 600 Method in accordance with ASTM E2356.

Both the PLM and the TEM laboratories are accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology.

2.4 Assessment

Identified ACMs were assessed based on the observed condition (good, damaged or significantly damaged) and potential for disturbance. Identified ACMs were also categorized based on the EPA's NESHAP regulation categories. A friable ACM is classified as an ACM that can be crumbled to a powder by moderate hand pressure. A non-friable ACM is classified as either Category I or Category II non-friable ACM. Category I and Category II non-friable ACMs are distinguished from each other by their fiber release potential when damaged. Generally, Category I non-friable ACM, which by definition includes intact asbestos-containing roofing materials, gaskets, packing, and resilient floor coverings is less likely to become friable and release fibers in a damaged state. Category II non-friable ACM include all other non-friable ACMs excluding Category I that have a high probability of being rendered friable during removal activities or demolition. All friable ACM, Category I non-friable ACM that has become friable, Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations are considered to be a Regulated Asbestos-Containing Material (RACM).

2.5 Findings and Results

The asbestos assessment conducted on January 23, 2018 included the quantification and random bulk sampling of various suspect asbestos-containing materials located on the interior and exterior of the subject building. Of the representative materials sampled and analyzed during this assessment, asbestos in concentrations >1% was identified in the following materials summarized below. Photographs of general site conditions are presented in Appendix II.

Table 2-1 ACM Summary

Material	¹Material Location	² Type	Asbestos Type & Percent	³ Condition	⁴ Approx. Quantity
12-inch Tan vinyl floor tile & Black mastic	Basement hallway and northeast classroom in the basement (classroom #9)	Misc.	Chrysotile 5% & 2%	Damaged, NF ⁵	1,656 SF

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Material	¹Material Location	² Type	Asbestos Type & Percent	³ Condition	⁴ Approx. Quantity
9-inch Tan vinyl floor tile and Black mastic	Remaining basement classrooms (classrooms #6, 7, 8 &10)	Misc.	Chrysotile 5% & 5%	Damaged, NF ⁵	2,567 SF
9-inch Green vinyl floor tile and Black mastic	Restroom off the teacher's lounge in the basement	Misc.	Chrysotile 3% & 3%	Good, NF	60 SF
Pipe insulation	Steam pipes in the basement	TSI	Amosite 20% Chrysotile 15%	Good, F	590 LF
Pipe hard joint insulation	Steam pipes in the basement	TSI	Chrysotile 70%	Good, F	48 joints
2' x 2' Cementitious ceiling tiles	Stage	Misc.	Chrysotile 8%	Good, NF	558 SF
Drywall joint compound	Walls throughout the 1 st floor	Misc.	Chrysotile 2%	Good, F	10,500 SF
Laboratory bench top	Northeast classroom on the first floor (classroom #1)	Misc.	Presumed	Good, NF	1 counter top (15 SF)

NF = Non-friable F = Friable

A material with an asbestos content less than or equal to one percent is not classified as an ACM applicable to EPA and SCDHEC; however, trace levels of asbestos (less than one percent) in a material is subject to OSHA regulatory requirements in 29 CFR 1926.1101, to include, but not limited to, worker protection, using wet methods, proper clean-up, use of proper tools/equipment, engineering controls, etc.

In accordance with SCDHEC Regulation 61-86.1, TEM analysis was performed on one sample of each of the nonfriable, organically-bound (NOB) materials that displayed a result of no asbestos detected or less than 1% asbestos via PLM analysis. NOBs consist of materials such as vinyl floor tiles, vinyl baseboards and mastics. Please refer to Table I-I in Appendix I for more detail regarding which samples of NOB materials were submitted for TEM analysis. The TEM analysis confirmed that no asbestos is present in the samples that were analyzed at concentrations >1%.

Photographs of site conditions are provided in Appendix II. The laboratory reports are provided in Appendix IV.

February 9, 2018

SF = Square feet LF = Linear feet

¹Refer to Appendix I for specific sample locations.

Misc. = Miscellaneous Surf. = Surfacing ²Type:

TSI = Thermal System Insulation

³Cond = Condition: Good, Damaged or Significantly Damaged

⁴Quantities are approximate and should not be used for cost estimates or bidding purposes.

⁵The floor tiles and associated mastic are non-friable materials; however, due to their damaged state, they will be deemed friable in terms of abatement.

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3.0 Lead-Based Paint Assessment

3.1 Investigative Procedures

The lead-based paint assessment was conducted for compliance with the SCDHEC limit of 0.7 milligrams (mg) of lead per square centimeter (cm²) of painted surface for lead-based paint coated waste. SCDHEC, Health Division defines lead-based paint as a coating containing lead in quantities ≥0.7 mg/cm² (SCDHEC, Health Division definition #4-53-1320f). Any coated surfaces meeting or exceeding the SCDHEC limit of 0.7 mg/cm² were considered lead-based paint for the purpose of this assessment.

OSHA does not recognize a threshold level of lead for definition purposes, only the presence or absence of lead. The current OSHA regulations recognize an airborne action level of thirty micrograms of lead per cubic meter of air (30 μ g/m³) during an eight-hour day and a permissible exposure level of fifty micrograms per cubic meter (50 μ g/m³).

Representative covered building components and surfaces were analyzed utilizing a Niton XLp-300A X-Ray Fluorescence (XRF) spectrum analyzer (serial #95004). The suspect painted finishes were selected based on the color of the topcoat and the underlying paint layers and/or the substrate on which it was applied. The possibility exists that lead-based paint finishes are present in inaccessible areas not tested such as pipe chases, wall voids, etc.

Attached in Appendix III is a summary of the paint readings analyzed by the XRF spectrum lead analyzer. The XRF summary provides the sample numbers, sample location, component, substrate, paint color, condition, and results.

3.2 Findings and Results

Coated surfaces throughout the interior and exterior of the subject structures were tested for the presence of lead-based paint. Coated surfaces meeting or exceeding the SCDHEC limit of 0.7 milligrams of lead per square centimeter (0.7 mg/cm²) were considered lead-based paint for the purpose of this assessment. The below tested surfaces exceeded the 0.7 mg/cm².

Brown/orange metal lid over the brick structure by the western entrance to the building (2.4 mg/cm²).

4.0 Conclusions and Recommendations

The asbestos and lead-based paint assessment conducted on the subject Pomaria Elementary building located at 138 Folk Road in Pomaria, South Carolina identified the presence of asbestos-containing materials and lead-based paint. Our findings and conclusions are summarized below.

Pomaria, South Carolina S&ME Project No. 4261-18-008



4.1 Asbestos Conclusions

The asbestos assessment identified the presence of asbestos-containing materials in the building as follows:

- 12-inch Tan vinyl floor tiles (5% chrysotile) and black mastic (2% chrysotile) located in the basement hallway and the northeast basement classroom Refer to Photograph 4. The asbestos-containing floor tiles and mastic are Category I non-friable materials in damaged condition. Approximately 1,656 square feet of floor tiles and floor tile mastic are estimated to be present. Due to their damaged state, the asbestos-containing floor tiles will have to be considered friable in terms of abatement.
- 9-inch Tan vinyl floor tiles (5% chrysotile) and associated black mastic (5% chrysotile) located in the remaining basement classrooms Refer to Photograph 5. The asbestos-containing vinyl floor tiles and associated black mastic are Category I non-friable materials in damaged condition. Approximately 2,567 square feet of the floor tiles and black mastic are estimated to be present. Due to their damaged state, the asbestos-containing floor tiles will have to be considered friable in terms of abatement.
- 9-inch Green vinyl floor tiles (3% chrysotile) and black floor tile mastic (3% chrysotile) located in the restroom off of the former teacher's lounge in the basement Refer to Photograph 6. The asbestoscontaining floor tiles and mastic are Category I non-friable materials in good condition. Approximately 60 square feet of floor tiles and mastic are estimated to be present.
- *Pipe insulation* (20% amosite, 15% chrysotile) located on steam pipes by the ceiling in the basement Refer to Photograph 7. The asbestos-containing pipe insulation is a friable material in good condition. Approximately 590 linear feet of TSI is estimated to be present.
- Hard joint insulation (70% chrysotile) located on the steam pipes by the ceiling in the basement Refer to Photograph 8. The asbestos-containing hard joints are a friable material in good condition.
 Approximately 48 hard joints are estimated to be present.
- 2-foot square cementitious ceiling panels (8% chrysotile) located in the suspended ceiling over the stage Refer to Photograph 9. The asbestos-containing ceiling tiles are a non-friable material in good condition. Approximately 558 square feet of ceiling tiles are estimated to be present.
- Drywall joint compound (2% chrysotile) associated with the drywall wall systems on the first floor. The asbestos-containing joint compound and associated drywall walls are friable materials in good condition. Approximately 10,500 square feet of drywall walls are estimated to be present on the first floor.
- A black laboratory counter top was observed in the northeast classroom on the first floor Refer to Photograph 10. The counter top is suspect for containing asbestos; however, it was not sampled in order to prevent the surface from being damaged. Consequently, the laboratory counter top is presumed to contain asbestos.

S&ME recommends proper removal and disposal of the ACMs by a licensed asbestos abatement contractor, prior to activities that may disturb an ACM. State and Federal regulations should be carefully considered in order to verify compliance before any actions are initiated that may disturb an ACM. If additional suspect ACMs not included in this report are discovered and will be disturbed by the renovation/demolition activities, bulk samples must be collected by a licensed asbestos inspector and analyzed for asbestos content, prior to disturbance of the suspect material(s).

Asbestos removal requires written notification to SCDHEC, specific removal procedures, proper transportation, and disposal per state and federal regulations. The identification and proper removal of ACM prior to demolition or

Pomaria, South Carolina S&ME Project No. 4261-18-008



renovation will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos. If ACMs are managed in place, OSHA requirements apply to employees that may contact or disturb ACMs, including maintenance and custodial workers.

In accordance with SCDHEC Regulation 61-86.1, project air monitoring must be performed by a SCDHEC licensed air sampler in conjunction with the removal of regulated asbestos materials (e.g. friable materials or non-friable materials rendered friable) that exceed the classification of a Small Project or are not regulated exterior removals. SCDHEC also requires a written project design when 3,000 square feet (or greater) of regulated ACMs are removed from a structure.

4.2 Lead-Based Paint Conclusions

The following coatings exceed the SCDHEC 0.7 mg/cm² limit for lead-based paint:

• Brown/orange metal cover over the brick structure by the western entrance to the building – (2.4 mg/cm²). Refer to Photograph 12.

The client is advised that OSHA does not recognize a threshold level of lead for definition purposes, only the presence or absence of lead. Consequently, the OSHA regulations governing worker protection for lead-based paint may apply to work practices including the disturbance of paint systems with detectable levels of lead. Destructive actions (sanding, burning, demolition, component removal, paint preparation) to the lead-containing paint surfaces will require the contractor comply with the standards of OSHA, including but not limited to initial exposure monitoring, the use of personal protective equipment, and medical surveillance.

SCDHEC Regulation 61-107.19 permits demolition materials painted with lead-based paint (≥ 0.7 mg/cm²) to be disposed in a permitted Class Two (C&D) or Class Three Subtitle D, Municipal Solid Waste (MSW) landfill.

Accumulations of paint waste (chips, dust, or flakes) must be tested by the Toxicity Characteristic Leaching Procedure (TCLP) to determine if the waste is classified as hazardous, which requires disposal in a Subtitle C (hazardous waste) landfill. Lead waste, at a minimum, must be disposed in a Class Two or Three landfill.

5.0 Limitations

This report is provided for the sole use of the Client. Use of this report by any other parties will be at such party's sole risk, and S&ME disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the sampling period and of the specific areas referenced. Under no circumstances is this report to be used as a bidding document, or as a project design or specification for removal of ACM.

S&ME performed the services in accordance with generally accepted practices of reputable environmental consultants undertaking similar studies at the same time and in the same geographical area. S&ME has endeavored to meet this standard of care. No other warranty, expressed or implied, is intended or made with respect to this report or S&ME's services. Users of this report should consider the scope and limitations related to

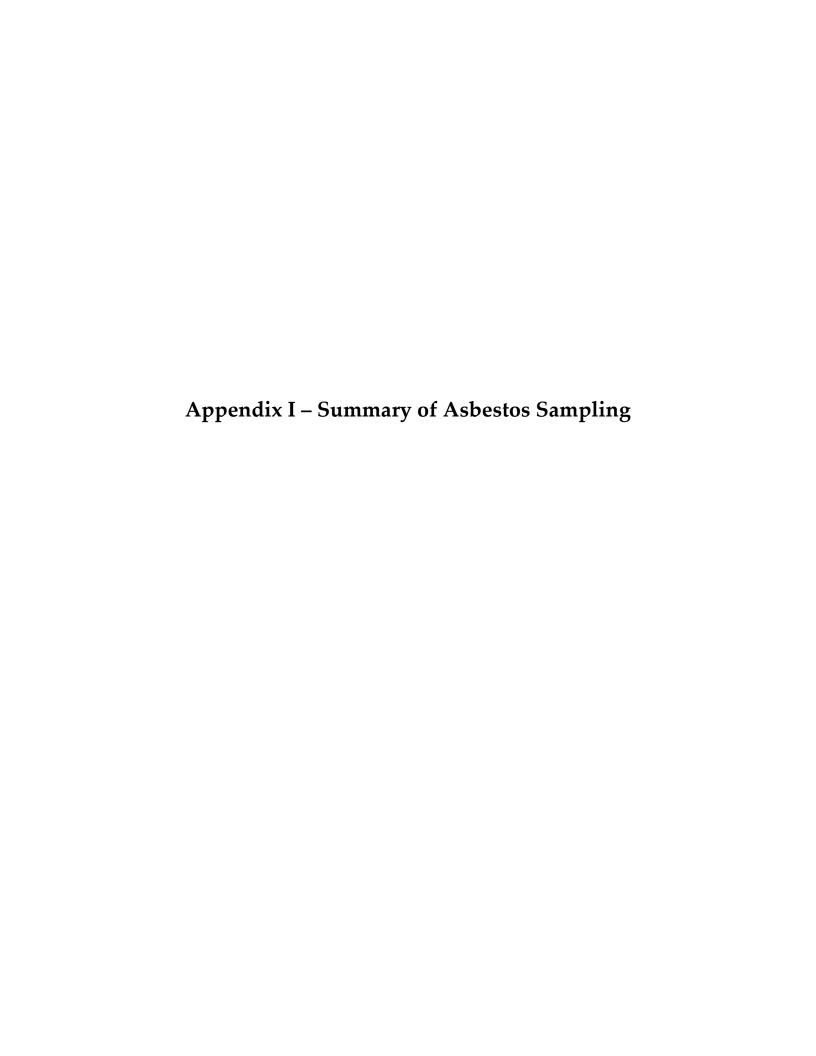
Pomaria, South Carolina S&ME Project No. 4261-18-008



these services when developing opinions as to risks associated with the site. Additional limitations to our survey are as follows:

- Significant destructive sampling was not performed during the asbestos assessment. Additional suspect ACMs may be present in inaccessible locations such as in wall voids, pipe chases or flooring overlays. Consequently, if additional suspect materials are discovered during future renovation or demolition activities, bulk samples must be collected and analyzed for asbestos content.
- Portions of the subject building are finished with a suspended ceiling. Our assessment included observations above the ceiling in random locations; however, the complete removal of the ceiling and grid would be necessary to account for any additional suspect ACMs that may be present.
- The adjoining cafeteria building was not included in the assessment, at the direction of the client.
- Rooms located under the exterior stairs on the east and west ends of the building were locked and could
 not be included in the assessment.
- A wooden door to a crawlspace under the western exterior stairs was locked and the area could not be included in the assessment.
- The presence of additional asbestos-containing pipe insulation behind walls, in pipe chases or above the ceiling cannot be ruled out.





Project Name:	Pomaria Elementary School	Project Number:	4261-18-008
Location:	Pomaria, South Carolina	Sampling Date(s):	January 23, 2018

Table I-I – Summary of Asbestos Sampling

HOMOGENEOUS AREA

SAMPLE DATA

HA Area	Material Description	Material Location	Quantity	¹Cat (F/I/II)	² Type	³ Condition / Potential for Disturbance	Sample Number	Sample Location	Percent and Type Asbestos
		Basement hallway					FT-1	Hallway	Tile – 3% Chrysotile Mastic – 2% Chrysotile
FT1	Tan 12" vinyl floor tiles and black mastic	and northeast basement classroom	1,656 SF	I	Misc.	Damaged/ High	FT-2	Hallway	Tile – 5% Chrysotile
		(classroom #9)							Mastic – 2% Chrysotile
						⁴FT-3	Classroom #9	Positive Stop Positive Stop	
						FT-4			Tile – 3% Chrysotile
	Tan 9" vinyl floor	Basement nvl floor classrooms					FT-4	Classroom #6	Mastic – 2% Chrysotile
FT2	tiles with black	(classrooms #6, 7, 8	2,567 SF	I	Misc.	Damaged/			Felt - NAD
	mastic and underlying felt	astic and & 10, felt not	_		High			Tile – 5% Chrysotile	
		#10)					FT-5	Classroom #7	Mastic – 2% Chrysotile
									Felt - NAD

NAD = No Asbestos Detected NA = Not Applicable SF = Square feet LF = Linear feet CF = Cubic Feet

 1 Category: F = Friable I = Category I, Non-Friable II= Category II, Non-Friable 2 Type; Misc. = Miscellaneous Surf. = Surfacing TSI = Thermal System Insulation

³Condition: Good, Damaged or Significantly Damaged Accessible during renovation or demolition with Potential for Disturbance; Low or High

⁴Sample analyzed by TEM

Project Name:	Pomaria Elementary School	Project Number:	4261-18-008
Location:	Pomaria, South Carolina	Sampling Date(s):	January 23, 2018

HOMOGENEOUS AREA

SAMPLE DATA

HA Area	Material Description	Material Location	Quantity	¹Cat (F/I/II)	² Type	³ Condition / Potential for Disturbance	Sample Number	Sample Location	Percent and Type Asbestos
FT2	Tan 9" vinyl floor tiles with black mastic and	Basement classrooms (classrooms #6, 7, 8 & 10, felt not	2,567 SF	I	Misc.	Damaged/ High	⁴FT-6	Classroom #8	Positive Stop Positive Stop
	underlying felt	present in classroom #10)							Felt - NAD
							Teacher's loun		Tile – 2% Chrysotile
		Teacher's lounge restroom in		I	Misc.	Good/ Low	FT-7	restroom	Mastic – 2% Chrysotile
FT3	Green 9" vinyl floor tiles and		60 SF					Teacher's lounge	Tile – 3% Chrysotile
	black mastic	basement					FT-8	restroom	Mastic – 3% Chrysotile
							⁴FT-9	Teacher's lounge	Positive Stop
							11.5	restroom	Positive Stop
							DI 1	December hallows	Skim coat – NAD
PL	Plaster	er Original walls 13,000 SF NA Surf. NA/NA	PL-1	Basement hallway	Rough coat – NAD				
			PL-2	Teacher's lounge	Skim coat – NAD				

 1 Category: F = Friable I = Category I, Non-Friable II= Category II, Non-Friable 2 Type; Misc. = Miscellaneous Surf. = Surfacing TSI = Thermal System Insulation

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Project Name:	Pomaria Elementary School	Project Number:	4261-18-008
Location:	Pomaria, South Carolina	Sampling Date(s):	January 23, 2018

HOMOGENEOUS AREA

SAMPLE DATA

HA Area	Material Description	Material Location	Quantity	¹Cat (F/I/II)	² Type	³ Condition / Potential for Disturbance	Sample Number	Sample Location	Percent and Type Asbestos						
													PL-2	Teacher's lounge	Rough coat – NAD
							PL-3	Southwest basement	Skim coat – NAD						
							PL-3	classroom	Rough coat – NAD						
				PL-4	Northwest basement	Skim coat – NAD									
					classroom	Rough coat – NAD									
PL	Plaster	Original walls throughout 13,000 SF NA S	13,000 SF	NA	Surf.	NA/NA	DI E	1st flagge March sharing all	Skim coat – NAD						
							PL-5	1 st floor - West stairwell	Rough coat – NAD						
								1 st floor – northwest	Skim coat – NAD						
							PL-6	classroom	Rough coat – NAD						
					PL-7	1 st floor – northeast	Skim coat – NAD								
							classroom	Rough coat – NAD							

 1 Category: F = Friable I = Category I, Non-Friable II= Category II, Non-Friable 2 Type; Misc. = Miscellaneous Surf. = Surfacing TSI = Thermal System Insulation

³Condition: Good, Damaged or Significantly Damaged Accessible during renovation or demolition with Potential for Disturbance; Low or High

⁴Sample analyzed by TEM

Project Name:	Pomaria Elementary School	Project Number:	4261-18-008
Location:	Pomaria, South Carolina	Sampling Date(s):	January 23, 2018

HOMOGENEOUS AREA

SAMPLE DATA

HA Area	Material Description	Material Location	Quantity	¹Cat (F/I/II)	² Type	³ Condition / Potential for Disturbance	Sample Number	Sample Location	Percent and Type Asbestos
	2/ 4/ 4						CT-1	Basement hallway	NAD
CT1	2' x 4' Acoustic ceiling tile	Basement hallway	1,079 SF	NA	Misc.	NA/NA	CT-2	Basement hallway	NAD
	ceiling the						CT-3	Basement hallway	NAD
							TSI-1	Classroom #9	20% Amosite 15% Chrysotile
TSI1	Pipe insulation	Basement, piping by ceiling	590 LF	F	TSI Good/Low TS	TSI-2	Classroom #10	20% Amosite 15% Chrysotile	
				TSI-3	Hallway, above ceiling	5% Amosite 20% Chrysotile			
							HJ-1	Classroom #9	70% Chrysotile
TSI2	Hard joint insulation	Basement, piping by ceiling	48 Joints	F	TSI	Good/Low	HJ-2	Classroom #9	70% Chrysotile
	msdiation	Cenning					HJ-3	Classroom #10	60% Chrysotile
							WG-1	Classroom #9, exterior	NAD
WG	Window glazing compound	Interior and exterior windows	43 Windows	NA	Misc.	NA/NA	WG-2	Classroom #9, exterior	NAD
	Compound	Willdows	WITIGOWS			⁴ WG-3	Classroom #10, exterior	NAD	
	2′ x 2′						CT-4	Stage ceiling	8% Chrysotile
CT2	Cementitious	Stage ceiling	558 SF	п	Misc.	Good/Low	CT-5	Stage ceiling	8% Chrysotile
	ceiling tile				CT-6	Stage ceiling	8% Chrysotile		

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³Condition: Good, Damaged or Significantly Damaged Accessible during renovation or demolition with Potential for Disturbance; Low or High

⁴Sample analyzed by TEM

Project Name:	Pomaria Elementary School	Project Number:	4261-18-008
Location:	Pomaria, South Carolina	Sampling Date(s):	January 23, 2018

HOMOGENEOUS AREA

SAMPLE DATA

HA Area	Material Description	Material Location	Quantity	¹Cat (F/I/II)	² Type	³ Condition / Potential for Disturbance	Sample Number	Sample Location	Percent and Type Asbestos
							DW-1	Classroom #2 closet	NAD
DW	Drywall	Interior walls on the 1st floor	10,500 SF	NA	Misc.	sc. NA/NA	DW-2	Hall closet	NAD
		1 11001					DW-3	Classroom #3 closet	NAD
				F	Surf.		JC-1	Classrooom#2, north wall	2% Chrysotile
		Walls on the 1 st				. Good/Low	JC-2	Classroom #1, north wall	2% Chrysotile
							JC-3	Classroom #3, south wall	2% Chrysotile
JC	Drywall joint compound		10,500 SF				JC-4	Hallway corner	2% Chrysotile
	Compound						JC-5	Classroom #4, south wall	2% Chrysotile
							JC-6 Hallway corner		2% Chrysotile
							JC-7	West stairs	2% Chrysotile
				NA		sc. NA/NA	RS-1	Auditorium roof	NAD
RS	Silver roofing sealant	Pitched metal roof	6,000 SF		Misc.		RS-2	Auditorium roof	NAD
							⁴ RS-3	Auditorium roof	NAD

NAD = No Asbestos Detected NA = Not Applicable SF = Square feet LF = Linear feet CF = Cubic Feet

 1 Category: F = Friable I = Category I, Non-Friable II= Category II, Non-Friable 2 Type; Misc. = Miscellaneous Surf. = Surfacing TSI = Thermal System Insulation

³Condition: Good, Damaged or Significantly Damaged Accessible during renovation or demolition with Potential for Disturbance; Low or High

⁴Sample analyzed by TEM

Abbreviations and Hazard Assessment Key

In accordance with the EPA and SCDHEC, a confirmed ACM is assigned a hazard assessment based on its present condition and potential for disturbance. The hazard assessment is used as a tool for prioritization in remedial actions regarding any identified ACM(s). The following key exhibits the criteria that compose the hazard assessment.

Present Condition

F = Friable G = Good (Very localized limited damage)

NF = Non-friable D = Damaged (Damage of less than 10% distributed and less than 25% localized)

SD = Significantly Damaged (Damage equal to or greater than 10% distributed, 25%

localized)

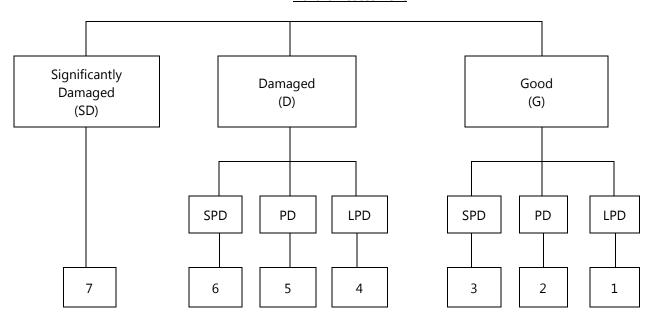
Potential for Future Disturbance

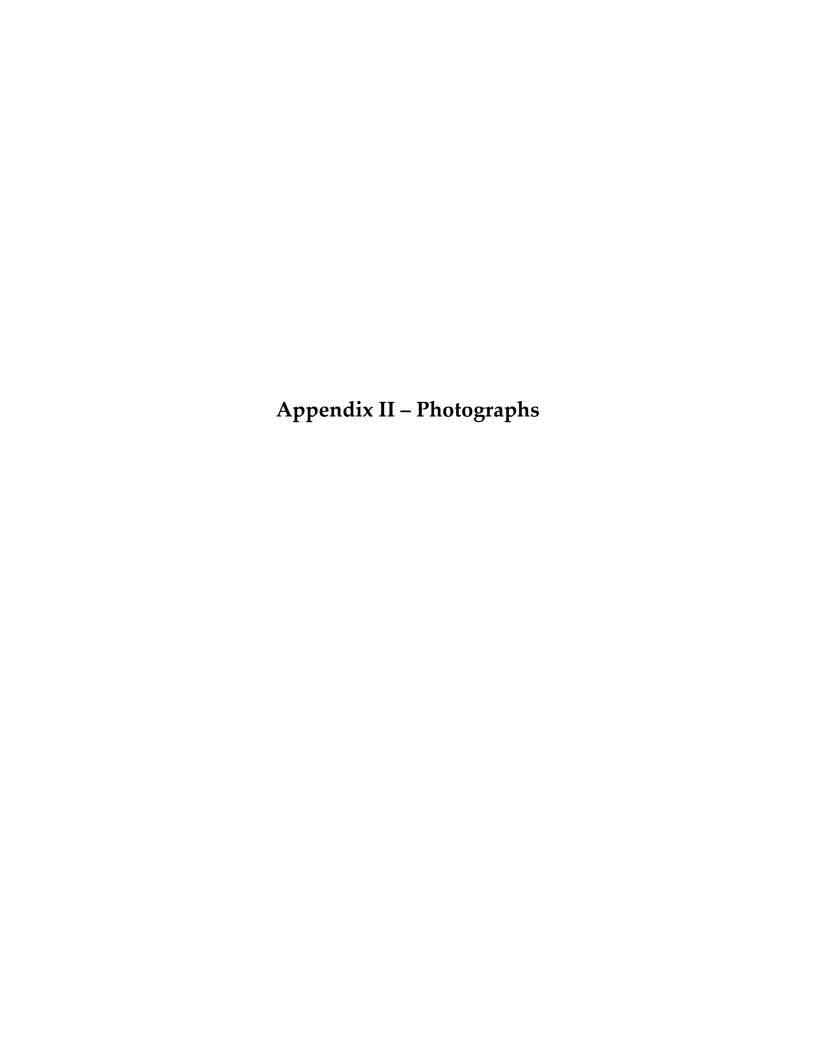
LPD = Low Potential for Disturbance (Contact, Vibration, and Air Erosion all of Low Concern)

PD = Potential for Disturbance (Contact, Vibration, or Air Erosion of Moderate Concern)

SPD = Significant Potential for Disturbance (Contact, Vibration, or Air Erosion of High Concern)

Hazard Assessment







General view of the subject building. The cafeteria building in the foreground with the flat roof was not included in the assessment.



The door to the crawlspace under the western exterior stairs was locked and could not be included in the assessment.



The doors under the exterior stairs on both ends of the building were locked and could not be included in the assessment.



The 12-inch tan vinyl floor tiles and associated black mastic in the basement hallway tested positive for asbestos (5% & 2% chrysotile). The floor tiles are considered to be damaged.





The tan 9-inch vinyl floor tiles and associated black mastic located in the basement classrooms lobby tested positive for asbestos (5% & 5% chrysotile).



The pipe insulation by the ceiling in the basement contains asbestos (20% amosite, 15% chrysotile).



The green 9-inch vinyl floor tiles and black mastic in the teacher's restroom in the basement tested positive for asbestos (3% & 3% chrysotile).

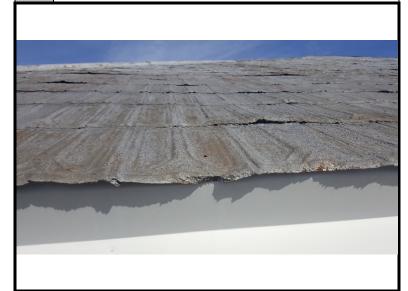


The hard joints in the basement piping contains 70% chrysotile.





The cementitious ceiling tiles over the stage tested positive for asbestos (8% chrysotile).



The silver sealant on the metal roof on the subject portion of the building tested negative for asbestos via PLM and TEM analysis.



The laboratory counter top in a classroom on the first floor was presumed to be asbestos-containing.



The metal cover on the brick structure by the western end of the building tested positive for lead-based paint (2.4 mg/cm²).



XRF LEAD-BASED PAINT READING SUMMARY TABLE

Serial PAINT #95004

Project No.: 4261-18-008
Site: Pomaria Elementary School

Date: January 23, 2018
Ranges (NEG<INC<POS): Device PCS



Reading Number	Floor/Area	Room	Feature	Substrate	Condition	Color	Result	XRF Reading (mg/cm²)
1			Shutter Calibrate					-
2			Calibrate					1.10
3			Calibrate					0.90
4			Calibrate					1.00
5	Basement	Hall	Door	Wood	Good	Blue	Negative	<lod< td=""></lod<>
6	Basement	Hall	Wall	Plaster	Poor	Blue	Negative	<lod< td=""></lod<>
7	Basement	Hall	Wall	Plaster	Poor	White	Negative	<lod< td=""></lod<>
8	Basement	Hall	Wall	Plaster	Poor	Yellow	Negative	<lod< td=""></lod<>
9	Basement	Hall	Door	Wood	Poor	Blue	Negative	<lod< td=""></lod<>
10	Basement	West classroom	Wall	Plaster	Poor	Blue	Negative	0.18
11	Basement	West classroom	Window frame	Wood	Poor	Blue	Negative	<lod< td=""></lod<>
12	Basement	West classroom	Cubby	Wood	Poor	White	Negative	<lod< td=""></lod<>
13	Basement	Northwest classroom	Wall	Plaster	Poor	Blue	Negative	<lod< td=""></lod<>
14	Basement	Northwest classroom	Window frame	Wood	Poor	Blue	Negative	<lod< td=""></lod<>
15	Basement	Northwest classroom	Baseboard	Wood	Poor	Dark blue	Negative	<lod< td=""></lod<>
16	Basement	Restroom	Wall	Concrete	Poor	White	Negative	<lod< td=""></lod<>
17	Basement	Restroom	Door	Wood	Poor	White	Negative	<lod< td=""></lod<>
18	Basement	Hall	Wall mural	Plaster	Poor	Red	Negative	0.28
19	Basement	Hall	Radiator	Metal	Poor	Blue	Negative	<lod< td=""></lod<>
20	Basement	Hall	Door	Wood	Poor	Blue	Negative	<lod< td=""></lod<>
21	Basement	Northeast classroom	Wall	Plaster	Poor	Green	Negative	<lod< td=""></lod<>
22	Basement	Northeast classroom	Baseboard	Wood	Poor	Green	Negative	<lod< td=""></lod<>
23	Basement	Stairwell	Wall	Plaster	Poor	Yellow	Negative	<lod< td=""></lod<>
24	Basement	Stairwell	Stairs	Wood	Poor	Brown	Negative	0.25
25	1st floor	Hall	Wall	Drywall	Good	Tan	Negative	<lod< td=""></lod<>
26	1st floor	Hall	Wall mural	Drywall	Good	Blue	Negative	<lod< td=""></lod<>
27	1st floor	Hall	Wall mural	Drywall	Good	Red	Negative	<lod< td=""></lod<>
28	1st floor	Hall	Wall mural	Drywall	Good	Yellow	Negative	<lod< td=""></lod<>
29	1st floor	Northeast classroom	Wall	Drywall	Good	White	Negative	<lod< td=""></lod<>
30	1st floor	Northeast classroom	Window sill	Wood	Good	White	Negative	<lod< td=""></lod<>
31	1st floor	Northeast classroom	Baseboard	Wood	Good	White	Negative	<lod< td=""></lod<>
32	1st floor	Northeast classroom	Door	Wood	Good	White	Negative	<lod< td=""></lod<>
33	1st floor	Auditorium	Stage half wall	Wood	Good	Tan	Negative	<lod< td=""></lod<>
34	1st floor	Auditorium	Wall	Plaster	Good	Tan	Negative	<lod< td=""></lod<>
35	1st floor	Auditorium	Window sill	Wood	Good	White	Negative	0.14
36	1st floor	Auditorium	Heater	Metal	Good	Tan	Negative	<lod< td=""></lod<>
37	1st floor	Auditorium	Baseboard	Wood	Good	White	Negative	<lod< td=""></lod<>
38	1st floor	Auditorium	Window sill	Wood	Good	White	Negative	<lod< td=""></lod<>
39	1st floor	Auditorium	Steps to stage	Wood	Poor	Green	Negative	<lod< td=""></lod<>
40	1st floor	Auditorium	Door to stage	Wood	Good	White	Negative	0.20
41	Exterior	West side	Stair rail	Metal	Poor	Black	Negative	<lod< td=""></lod<>
42	Exterior	West side	Crawlspace door	Wood	Poor	White	Negative	<lod< td=""></lod<>
43	Exterior	South side	Covering over window	Vinyl	Good	White	Negative	<lod< td=""></lod<>
44	Exterior	East side	Hand rail	Metal	Poor	Black	Negative	<lod< td=""></lod<>
45	Exterior	East side	Post	Wood	Good	White	Negative	<lod< td=""></lod<>
46	Basement	Hall	Beadborad ceiling	Wood	Good	White	Negative	<lod< td=""></lod<>
47	Exterior	Pump house	Cover	Metal	Poor	Brown/org	Positive	2.40
48			Post Calibrate					1.00
49			Post Calibrate					1.00
50			Post Calibrate					1.00

Appendix IV – Asbestos Bulk Sample Analysis Sheets and Chain of Custody Record



Project ID:

Phone: (803) 561-9024

Fax: (803) 561-9177

Received Date: 01/24/2018 10:20 AM
Analysis Date: 01/25/2018 - 01/26/2018

Collected Date: 01/23/2018

Project: Pomaria Elementary

S&ME, Inc.

134 Suber Rd.

Columbia, SC 29210

Attention: Owen Astwood

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbe	<u>stos</u>	<u>Asbestos</u>		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type		
FT-1-Floor Tile	Hallway - Tan 12" VCT w/ Black Mastic	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile		
FT-1-Mastic	Hallway - Tan 12" VCT w/ Black Mastic	Black Non-Fibrous		5% Ca Carbonate 93% Non-fibrous (Other)	2% Chrysotile		
411800562-0001A	VOT W/ Black Mastic	Homogeneous		33 / Non-librous (Citier)			
FT-2-Floor Tile	Hallway - Tan 12" VCT w/ Black Mastic	Tan Fibrous		30% Ca Carbonate 65% Non-fibrous (Other)	5% Chrysotile		
411800562-0002		Homogeneous					
FT-2-Mastic	Hallway - Tan 12" VCT w/ Black Mastic	Black Fibrous		98% Non-fibrous (Other)	2% Chrysotile		
411800562-0002A		Homogeneous -					
FT-4-Floor Tile 411800562-0003	Classrooms on S. Side #6 - 9" Tan VAT w/ Black Mastic & Felt	Tan Non-Fibrous Homogeneous		40% Ca Carbonate 55% Non-fibrous (Other)	5% Chrysotile		
FT-4-Mastic	Classrooms on S.	Black		5% Ca Carbonate	5% Chrysotile		
411800562-0003A	Side #6 - 9" Tan VAT w/ Black Mastic & Felt	Non-Fibrous Homogeneous		90% Non-fibrous (Other)	2,0 3111,000110		
FT-4-Felt	Classrooms on S. Side #6 - 9" Tan VAT	Black Non-Fibrous	60% Cellulose	40% Non-fibrous (Other)	None Detected		
411800562-0003B	w/ Black Mastic & Felt	Homogeneous					
FT-5-Floor Tile	Classrooms on S. Side #7 - 9" Tan VAT	Tan Fibrous		30% Ca Carbonate 65% Non-fibrous (Other)	5% Chrysotile		
411800562-0004	w/ Black Mastic & Felt	Homogeneous					
FT-5-Mastic	Classrooms on S. Side #7 - 9" Tan VAT	Black Fibrous		98% Non-fibrous (Other)	2% Chrysotile		
411800562-0004A	w/ Black Mastic & Felt	Homogeneous					
FT-5-Felt 411800562-0004B	Classrooms on S. Side #7 - 9" Tan VAT w/ Black Mastic & Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected		
		-		40% Ca Carbonate	20/ Chrysotile		
FT-7-Floor Tile 411800562-0005	Teacher's Lounge RR - 9" Green VAT w/ Black Mastic	Tan Non-Fibrous Homogeneous		58% Non-fibrous (Other)	2% Chrysotile		
FT-7-Mastic	Teacher's Lounge RR - 9" Green VAT w/	Black Non-Fibrous		98% Non-fibrous (Other)	2% Chrysotile		
411800562-0005A	Black Mastic	Homogeneous					
FT-8-Floor Tile	Teacher's Lounge RR - 9" Green VAT w/	Green Fibrous		30% Ca Carbonate 67% Non-fibrous (Other)	3% Chrysotile		
411800562-0006	Black Mastic	Homogeneous					
FT-8-Mastic	Teacher's Lounge RR - 9" Green VAT w/	Black Fibrous		97% Non-fibrous (Other)	3% Chrysotile		
411800562-0006A	Black Mastic	Homogeneous					
PL-1-Skim Coat	Hallway - Plaster & Skim Coat	White Non-Fibrous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected		
411800562-0007 PL-1-Rough Coat	Hallway - Plaster &	Homogeneous Gray		30% Quartz	None Detected		
411800562-0007A	Skim Coat	Non-Fibrous Homogeneous		70% Non-fibrous (Other)			

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbes	<u>stos</u>	<u>Asbestos</u> % Type		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous			
PL-2-Skim Coat	Teacher's Lounge Entrance - Plaster &	White Non-Fibrous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected		
411800562-0008	Skim Coat	Homogeneous					
PL-2-Rough Coat	Teacher's Lounge Entrance - Plaster & Skim Coat	Gray Non-Fibrous		20% Quartz 5% Ca Carbonate	None Detected		
411800562-0008A		Homogeneous		75% Non-fibrous (Other)			
PL-3-Skim Coat 411800562-0009	SW Classroom - Plaster & Skim Coat	White Non-Fibrous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected		
	014.01	Homogeneous	40/ 0 # 1	2004 0 4	N. 5		
PL-3-Rough Coat 411800562-0009A	SW Classroom - Plaster & Skim Coat	Gray Non-Fibrous Homogeneous	1% Cellulose	20% Quartz 79% Non-fibrous (Other)	None Detected		
	NIM OL	-		50/ On Onthornata	Name Detected		
PL-4-Skim Coat 411800562-0010	NW Classroom - Plaster & Skim Coat	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected		
	NIM OL			000/ 0	Name Detected		
PL-4-Rough Coat 411800562-0010A	NW Classroom - Plaster & Skim Coat	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected		
PL-5-Skim Coat	1st Floor - Plaster &	White		10% Ca Carbonate	None Detected		
411800562-0011	Skim Coat	Non-Fibrous Homogeneous		90% Non-fibrous (Other)	None Detected		
	1st Floor - Plaster &	Gray		30% Quartz	None Detected		
PL-5-Rough Coat 411800562-0011A	Skim Coat	Non-Fibrous Homogeneous		8% Ca Carbonate 62% Non-fibrous (Other)	None Detected		
	1st Floor - Plaster &	White		8% Ca Carbonate	None Detected		
PL-6-Skim Coat	Skim Coat	Non-Fibrous Homogeneous		92% Non-fibrous (Other)	None Detected		
	1st Floor - Plaster &	-		30% Quartz	None Detected		
PL-6-Rough Coat	Skim Coat	Gray Non-Fibrous		8% Ca Carbonate	None Detected		
411800562-0012A	Simili Sout	Homogeneous		62% Non-fibrous (Other)			
PL-7-Skim Coat	1st Floor - Plaster &	White		8% Ca Carbonate	None Detected		
411800562-0013	Skim Coat	Non-Fibrous Homogeneous		92% Non-fibrous (Other)			
PL-7-Rough Coat	1st Floor - Plaster &	Gray		30% Quartz	None Detected		
411800562-0013A	Skim Coat	Non-Fibrous Homogeneous		8% Ca Carbonate 62% Non-fibrous (Other)			
 CT-1	Basement Hallway -	Gray/White	60% Cellulose	10% Perlite	None Detected		
	2'x4' Acoustic Ceiling	Fibrous	15% Min. Wool	15% Non-fibrous (Other)			
411800562-0014	Tile	Homogeneous					
CT-2	Basement Hallway - 2'x4' Acoustic Ceiling	Gray/White Fibrous	60% Cellulose 15% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected		
411800562-0015	Tile	Homogeneous					
CT-3	Basement Hallway - 2'x4' Acoustic Ceiling	Gray/White Fibrous	60% Cellulose 10% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected		
411800562-0016	Tile	Homogeneous					
TSI-1	Classroom #9 - Pipe TSI	White Fibrous		65% Non-fibrous (Other)	20% Amosite 15% Chrysotile		
411800562-0017		Homogeneous					
TSI-2	Classroom #10 - Pipe TSI	White Fibrous		65% Non-fibrous (Other)	20% Amosite 15% Chrysotile		
411800562-0018		Homogeneous					
TSI-3	Hallway - Pipe TSI	White Fibrous		75% Non-fibrous (Other)	5% Amosite 20% Chrysotile		
411800562-0019		Homogeneous					
HJ-1	Classroom #9 - Hard Joint Insulation	Gray Fibrous		30% Non-fibrous (Other)	70% Chrysotile		
411800562-0020		Homogeneous					

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbe	Non-Asbestos				
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type			
HJ-2	Classroom #9 - Hard Joint Insulation	Gray Fibrous		30% Non-fibrous (Other)	70% Chrysotile			
411800562-0021		Homogeneous						
HJ-3	Classroom #10 - Hard Joint Insulation	White Fibrous		40% Non-fibrous (Other)	60% Chrysotile			
11800562-0022		Homogeneous						
VG-1	Classroom #9 Ext. Window - Window	Brown/Tan Non-Fibrous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected			
11800562-0023	Glazing Compound	Homogeneous						
VG-2	Classroom #9 Ext. Window - Window	White Non-Fibrous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected			
11800562-0024	Glazing Compound	Homogeneous						
CT-4	Stage - 2'x2' Cem. Ceiling Tile	Gray/White Non-Fibrous		20% Ca Carbonate 72% Non-fibrous (Other)	8% Chrysotile			
11800562-0025		Homogeneous						
CT-5	Stage - 2'x2' Cem. Ceiling Tile	Gray/Tan/White Fibrous		10% Ca Carbonate 82% Non-fibrous (Other)	8% Chrysotile			
11800562-0026	01 5: 5: 5	Homogeneous		100/ 5 2	001 21			
CT-6	Stage - 2'x2' Cem. Ceiling Tile	Gray/Tan Fibrous		10% Ca Carbonate 82% Non-fibrous (Other)	8% Chrysotile			
	4 / 5 5 11	Homogeneous	400/ 0. 11. 1	2007 N. 51. (21)	N 5 / / /			
0W-1 11800562-0028	1st Floor - Drywall	Gray Fibrous	10% Cellulose	90% Non-fibrous (Other)	None Detected			
	Ast Flags - Daniell	Homogeneous	400/ 0-11-1	OOM New Shares (Others)	News Between			
0W-2 11800562-0029	1st Floor - Drywall	Gray Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected			
	4st Flags Dravell		OO/ Callulana	OOO/ Name Share (Others)	Name Detected			
0W-3 11800562-0030	1st Floor - Drywall	Gray Fibrous Homogeneous	8% Cellulose	92% Non-fibrous (Other)	None Detected			
	1st Floor - Joint	White		20% Ca Carbonate	2% Chrysotile			
C-1 11800562-0031	Compound	Non-Fibrous Homogeneous		78% Non-fibrous (Other)	2% Chrysothe			
IC-2	1st Floor - Joint	White		35% Ca Carbonate	2% Chrysotile			
11800562-0032	Compound	Non-Fibrous Homogeneous		63% Non-fibrous (Other)	270 Grifysotile			
IC-3	1st Floor - Joint	White		35% Ca Carbonate	2% Chrysotile			
11800562-0033	Compound	Non-Fibrous Homogeneous		63% Non-fibrous (Other)	270 01111,000110			
	1st Floor - Joint	White		25% Ca Carbonate	20/ Chrysotile			
11800562-0034	Compound	Non-Fibrous Homogeneous		73% Non-fibrous (Other)	2% Chrysotile			
IC-5	1st Floor - Joint	White		40% Ca Carbonate	2% Chrysotile			
-J	Compound	Fibrous		58% Non-fibrous (Other)	2 /0 OH ySOUILE			
11800562-0035	p	Homogeneous						
C-6	1st Floor - Joint Compound	White Fibrous		40% Ca Carbonate 58% Non-fibrous (Other)	2% Chrysotile			
111800562-0036		Homogeneous		· · ·				
IC-7	1st Floor - Joint Compound	White Fibrous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile			
11800562-0037		Homogeneous						
RS-1	Roof over Aud Silver Roofing Sealant	Black/Silver Non-Fibrous	1% Cellulose	99% Non-fibrous (Other)	None Detected			
411800562-0038		Homogeneous						
RS-2	Roof over Aud Silver Roofing Sealant	Silver Fibrous	<1% Cellulose	5% Ca Carbonate 95% Non-fibrous (Other)	None Detected			
411800562-0039		Homogeneous						



Project ID:

Analyst(s)

Anupriya Tyagi (24) Lacy Searcy (30) Lee Plumley, Laboratory Manager or Other Approved Signatory

Evan L Plumber

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Pineville, NC NVLAP Lab Code 200841-0, VA 3333 00312



Project ID:

(803) 561-9024 Phone: (803) 561-9177

Received Date: 01/24/2018 10:20 AM

Analysis Date: 01/29/2018 Collected Date: 01/23/2018

Fax:

Project: Pomaria Elementary

S&ME, Inc.

134 Suber Rd. Columbia, SC 29210

Attention: Owen Astwood

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
FT-6-Felt	Classrooms on S. Side #8	Black	100	None	No Asbestos Detected
411800562-0040	- 9" Tan VAT w/ Black Mastic & Felt	Fibrous			
		Homogeneous			
WG-3	Classroom #10 Ext.	Gray/Tan/White	100	None	No Asbestos Detected
411800562-0041	Window - Window Glazing	Non-Fibrous			
	Compound	Homogeneous			
RS-3	Roof over Aud Silver	Black/Silver	100	None	No Asbestos Detected
411800562-0042	Roofing Sealant	Non-Fibrous			
		Homogeneous			

Analyst(s) Derrick Young (3)

Lee Plumley, Laboratory Manager or other approved signatory

Evan L Plumber

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Pineville, NC

Initial report from: 01/30/2018 12:04:38

OrderID: 411800562



Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL Analytical, Inc. 10801 Southern Loop Blvd

Pineville, NC 28134
PHONE: (704) 525-2205
FAX: (704) 525-2382

			4	11800	356	1			1700.	(704) 525-2382
Company: S&ME, Inc.					EMSL-Bill to: ☑ Same ☐ Different If Bill to is Different note instructions in Comments**					
Street: 134					Third Party Billing requires written authorization from third party					
City: Colur	nbia		State/Province: SC	Z	ip/P	ostal Code	: 29210		Country: US	
Report To	(Name):	Owen Astwo	pod	Т	eler	hone #: 80	3-561-902	-	•	
	Email Address: oastwood@smeinc.com					±: 803-561			Purchase O	rder: 4261-18-008
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	an authorization form for this service. Analysis completed in acco						s and Conditi	ions locate	ed in the Analyt	
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8		COMMENTS / SPECIAL INSTRUCTIONS	K. C.		7 N.O.B.									
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Appendix V – Copy of SCDHEC Inspectors' Licenses



South Carolina Department of Health and Environmental Control

Asbestos License

Owen R. Astwood

SCDHEC ISSUED

Asbestos ID Card

Owen R Astwood

Expiration Date



CONSULTBI BI-00475 08/16/18 SUPERAHERA SA-01241 07/17/18 AIRSAMPLER AS-00226 07/17/18 CONSULTPD PD-00085 05/04/18



South Carolina Department of Health and Environmental Control

Asbestos License

Travis L. Knight

SCDHEC ISSUED

Asbestos ID Card

Travis Knight



CONSULTPD PD-00166 11/09/18 SUPERAHERA SA-01266 01/08/19 CONSULTBI BI-00885 01/09/19 AIRSAMPLER AS-00237 01/08/19

Expiration Date:



April 19, 2018

Newberry County 1301 College Street Newberry, South Carolina 29108

Attention: Mr. Ervin West

Reference: Addendum to Asbestos and Lead-Based Paint Report

Pomaria Elementary School
Pomaria, South Carolina
SSIME Brainst No. 4261, 18, 00

S&ME Project No. 4261-18-008

Dear Mr. West:

S&ME performed an asbestos and lead-based paint assessment of the former Pomaria Elementary School building on January 23, 2018. The findings of the assessment were reported in S&ME's report titled *Asbestos & Lead-Based Paint Assessment Report, Pomaria Elementary School* dated February 9, 2018.

The January 2018 assessment was limited due to locked doors located under the exterior stairs on both ends of the building and a locked crawlspace door which prevented these areas from being assessed. At the request of Newberry County, S&ME returned to the site on March 27, 2018. A representative of Newberry County opened the previously locked doors and these areas were assessed for the presence of suspect asbestos-containing materials (ACMs).

The doors under the stairs on both ends of the building were shown to lead to storage closets – refer to the attached Photographs 1 and 2. No suspect materials were observed in either closet.

The crawlspace door was shown to lead to small crawlspace under the exterior stairs which is also connected to the crawlspace under the cafeteria building – refer to Photograph 3. Suspect asbestos-containing tar paper was observed under the concrete slab for the stairs. This material was also observed in the crawlspace under the cafeteria building. The tar paper was sampled as part of the asbestos assessment of the cafeteria building. Transmission Electron Microscopy (TEM) analysis of one of the bulk samples of the tar paper reported the material contained <0.10% chrysotile asbestos. The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) define materials as asbestos-containing if an asbestos content of greater than one percent (>1%) is detected in a representative sample. However, OSHA also regulates materials containing less than or equal to one percent asbestos.

This report is provided for the use of the client. Use of this report by any other parties will be at such party's sole risk and S&ME, Inc. disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the assessment and of the specific areas referenced.



Addendum to Asbestos and Lead-Based Paint Report Pomaria Elementary School

Pomaria, South Carolina S&ME Project No. 4261-18-008

We appreciate the opportunity to provide you with our industrial hygiene/environmental services. If you have any questions concerning this report, please call us at (803) 561-9024.

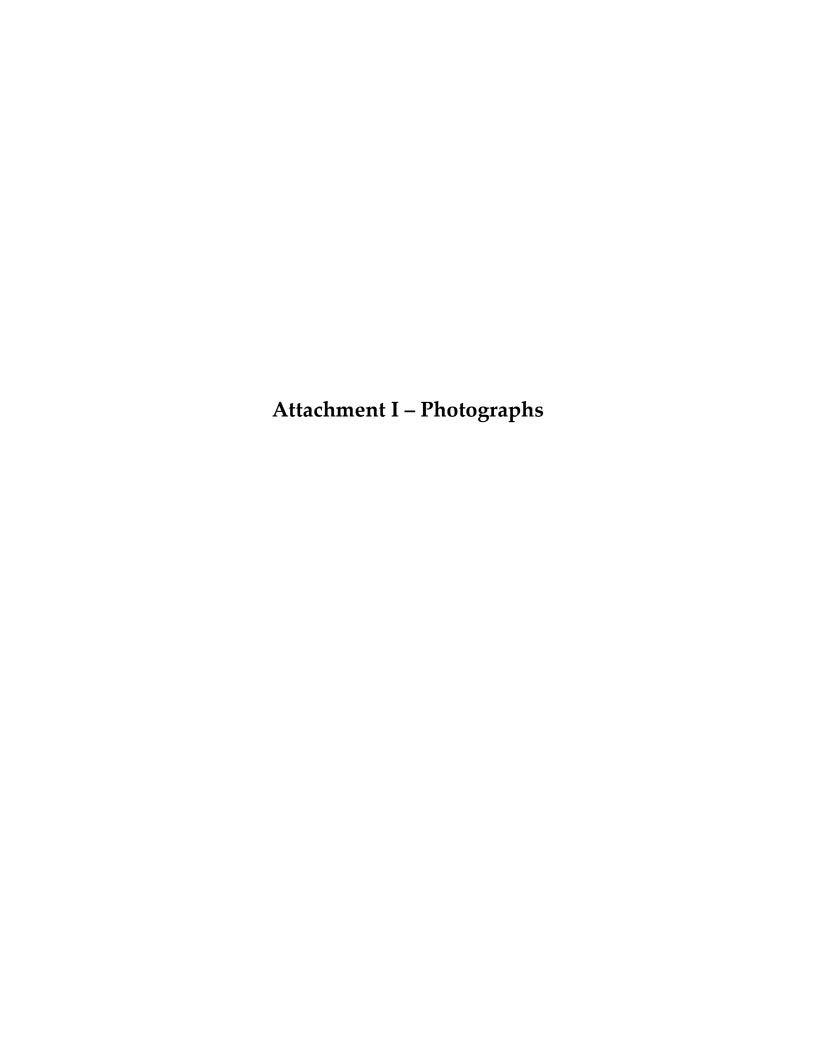
Sincerely,

S&ME, Inc.

Owen Astwood, P.G. Asbestos Building Inspector (SCDHEC Lic. No. BI-00475) Tom Behnke, P.G., CHMM Environmental Services Manager (SCDHEC Lic. No. MP-00004)

April 19, 2018 2

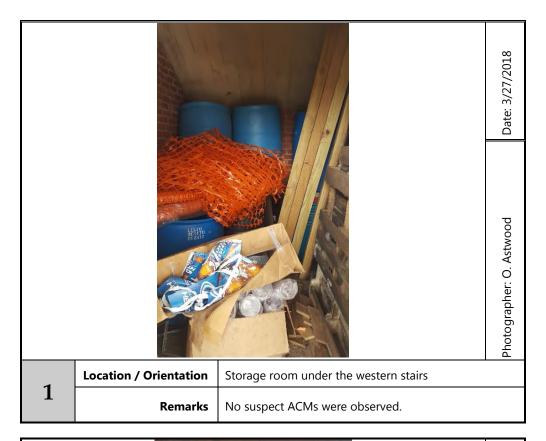


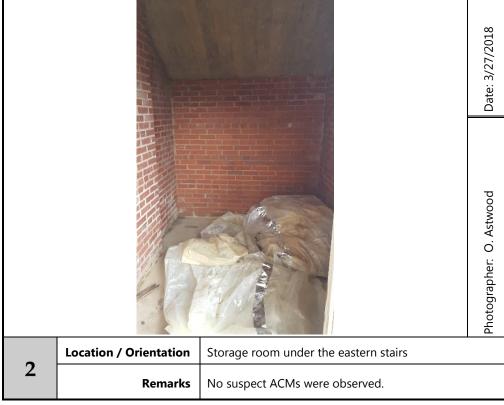


Addendum to Asbestos and Lead-Based Paint Report Pomaria Elementary School

Pomaria, South Carolina S&ME Project No. 4261-18-008





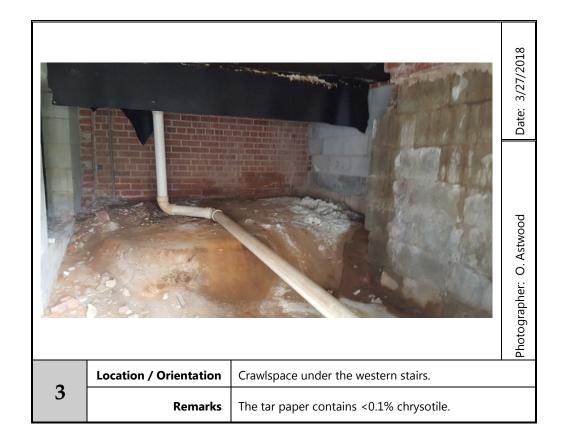


April 19, 2018 ii

Addendum to Asbestos and Lead-Based Paint Report Pomaria Elementary School

Pomaria, South Carolina S&ME Project No. 4261-18-008





April 19, 2018 ii



Abatement Specification for Removal of Asbestos-Containing Materials Pomaria Elementary School Pomaria, South Carolina S&ME Project No. 4261-18-106

PREPARED FOR

Newberry County 1309 College Street Newberry, SC 29108

PREPARED BY

S&ME, Inc. 134 Suber Road Columbia, SC 29210

August 2, 2018



August 2, 2018

Newberry County 1309 College Street Newberry, South Carolina 29108

Attention: Mr. Ervin West

ewest@newberrycounty.net

Reference: Abatement Specification for Removal of Asbestos-Containing Materials

Pomaria Elementary School

138 Folk Street

Pomaria, South Carolina

S&ME Project No. 4261-18-106

Dear Mr. West:

S&ME, Inc. (S&ME) is pleased to provide the enclosed asbestos abatement specifications for the referenced project. The abatement specification was produced in general accordance with S&ME Proposal No. 42-1800687, dated July 3, 2018, our Master Service Agreement with Newberry County dated March 25, 2011 and Newberry County Purchase Order #1967161. The specification addresses the abatement actions, personal protective equipment, and disposal of asbestos-containing materials (ACMs) related to the renovation of the subject building. We understand that the asbestos abatement work will be performed by an asbestos abatement contracted by Newberry County.

We appreciate the opportunity to provide you with our industrial hygiene services and we look forward to our continued association. If you have any questions or concerns, please call us at (803) 561-9024.

Sincerely,

S&ME, Inc.

Owen Astwood, P.G. Asbestos Project Designer SCDHEC License No. PD-00085

oastwood@smeinc.com

Em Al

Tom Behnke, P.G., CHMM Environmental Services Manager SCDHEC License No. PD-00061

tbehnke@smeinc.com

Pomaria, South Carolina S&ME Project No. 4261-18-106



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Pomaria, South Carolina S&ME Project No. 4261-18-106



Appendices

Appendix I – Drywall Location Figure

Pomaria, South Carolina S&ME Project No. 4261-18-106



1.0 General

This document is provided as guidance for the abatement and disposal of friable and non-friable asbestos-containing materials (ACMs), which will require proper removal, transportation and disposal, prior to the proposed renovation of the Pomaria Elementary School in Pomaria, South Carolina. This plan does not state all of the requirements of the applicable regulations and is only to be used to supplement those regulations. Asbestos activities shall be performed in accordance with applicable State and Federal regulations to include, but not limited, to 40 CFR 61, Subpart M; 29 CFR 1926.1101, and SCDHEC Regulation 61-86.1.

2.0 Background

The work described in this asbestos abatement specification is based upon information obtained and reported by S&ME, Inc. in our report titled *Asbestos & Lead-Based Paint Assessment Report – Pomaria Elementary School* dated February 9, 2018. The subject site is the unoccupied Pomaria Elementary School building located at 138 Folk Street in Pomaria, South Carolina. The subject school building is a one and two story metal and wood frame structure with masonry exterior. According to the sign in front of the building, it was built in approximately 1913. The basement level of the school building consists of six classrooms and two restrooms. The first floor of the building had reportedly been a gymnasium when the building was constructed. The first floor was later renovated and now consists of five classrooms, a stage and an auditorium. The building contains approximately 13,149 square feet of interior space. The building is scheduled for renovation. All of the friable and non-friable asbestos-containing materials identified that will be disturbed by the proposed renovations must be abated in accordance with State and Federal asbestos regulations.

2.1. The asbestos abatement contractor (Contractor) shall be licensed by the SCDHEC Asbestos Section to perform the appropriate asbestos abatement activities. The Contractor shall submit written notification for friable removal to the SCDHEC Asbestos Section regarding the quantity and type(s) of ACMs scheduled for removal, and obtain landfill approval to dispose the referenced ACMs. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State and local regulations pertaining to work practices, hauling, disposal, and protection of workers and visitors to the site. The Contractor shall hold the Owner and Owner's representatives harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

The following general conditions apply:

- 2.1.1 Contractor will perform a thorough assessment of the project site and present the owner with any questions that may arise.
- 2.1.2 A pre-construction meeting will be scheduled to discuss any questions that the contractor may have about which materials are to remain.
- 2.2. Asbestos activities shall be performed in accordance with applicable State and Federal regulations to include, but not limited to, 40 CFR 61, Subpart M; 40 CFR 763; 29 CFR 1926.1101, and SCDHEC Regulation 61-86.1.

Pomaria, South Carolina S&ME Project No. 4261-18-106



- 2.3. Only the owner, Newberry County, and the asbestos abatement contractor may rely upon this document. All terms and conditions of the referenced proposal and associated contracts and agreements shall apply.
- 2.4. This document applies to the abatement of asbestos-containing material (ACM) as described in Section 4.
- 2.5. Those specified in this section may rely upon this work for the specific project for which it was prepared. S&ME disclaims any liability for reliance on this work by others, or for any other project.
- 2.6. The Contractor shall assume full responsibility and liability for compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal, protection of workers, visitors to the site and persons occupying areas adjacent to the site. The Contractor shall hold the Owner and Owner's Representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees or his subcontractors.

3.0 Schedule

- 3.1. The start date for the asbestos abatement work is July 30, 2018. The project duration is expected to be approximately three weeks. All permits will be obtained by the abatement contractor prior to commencement of the work.
- 3.2. Abatement work will be performed during normal working hours, starting no earlier than 7:00 AM.
- 3.3. The abatement contractor shall notify S&ME at least three days in advance of work occurring on weekends, holidays or after hours.
- 3.4. Allow at least 2 hours for a visual inspection and 36-48 hours for clearance monitoring and analysis of each containment.

4.0 Scope of Work

In accordance with the Newberry County *Invitation for Bids No. 2019-8 Re-Bid* dated May 21, 2018, the following asbestos-containing materials are to be removed from the building:

Material	Material Location	¹Type	Asbestos Type & Percent	²Cond.	³ Approx. Quantity
12-inch Tan vinyl floor tile & Black mastic	Basement hallway and northeast classroom in the basement (classroom #9)	Misc.	Chrysotile 5% & 2%	Damaged, NF ⁴	1,660 SF
9-inch Tan vinyl floor tile & Black mastic	Remaining basement classrooms (classrooms #6, 7, 8 & 10)	Misc.	Chrysotile 5% & 5%	Damaged, NF ⁴	2,570 SF
9-inch Green vinyl floor tile & Black mastic	Restroom off the teacher's lounge in the basement	Misc.	Chrysotile 3% & 3%	Good, NF	60 SF

Pomaria, South Carolina S&ME Project No. 4261-18-106



Material	Material Location	¹Type	Asbestos Type & Percent	²Cond.	³ Approx. Quantity
Pipe insulation	Steam pipes in the basement	TSI	Amosite 20% Chrysotile 15%	Good, F	600 LF
Pipe hard joint insulation	Steam pipes in the basement	TSI	Chrysotile 70%	Good, F	48 joints
2' x 2' Cementitious ceiling tiles	Stage	Misc.	Chrysotile 8%	Good, NF	560 SF
Drywall joint compound	At proposed bathroom location on the 1 st floor (refer to attached location figure)	Misc.	Chrysotile 2%	Good, F	580 SF
Laboratory bench top	Northeast classroom on the first floor (classroom #1)	Misc.	Presumed	Good, NF	1 counter top (15 SF)

NF = Non-friable

5.0 Abatement Procedures

- 5.1. The removal of the approximately 4,230 square feet of damaged asbestos-containing vinyl floor tiles (12-inch and 9-inch) and associated mastic located in the basement shall be notified and performed as a friable (regulated) project, in accordance with the SCDHEC Regulation 61-86.1 Standards of Performance for Asbestos Projects.
- 5.2. Friable removal activities shall be conducted inside a negative pressure enclosure (NPE) in accordance with the SCDHEC regulations 61-86.1 to include, but not limited to, a five-stage decontamination unit consisting of an ample sized clean/changing room, airlock, shower with hot and cold running water, airlock, and equipment room. Each NPE shall have negative air filtration fitted with high efficiency particulate air (HEPA) filters, viewing port, waste load-out, critical barriers, pressure differential manometer, and maintain continuous negative air pressure to a minimum negative 0.02 (-0.02) inches of water. Refer to Section 9 of this plan for more details regarding the NPE.
- 5.3. Onsite air monitoring shall be performed by S&ME in accordance with the SCDHEC regulations during all phases of friable abatement, to include but not limited to pre-cleaning, containment preparations, gross removal, load-out of waste bags, fine cleaning, and prior to removal of containment. Air monitoring is addressed in Section 15 & 16 of this plan.

F = Friable

SF = Square feet

LF = Linear feet

¹Type: Misc. = Miscellaneous

Surf. = Surfacing

TSI = Thermal System Insulation

²Cond. = Condition: Good, Damaged or Significantly Damaged

³Quantities are approximate and should not be used for cost estimates or bidding purposes.

⁴The floor tiles and associated mastic are non-friable materials; however, due to their damaged state, they will be deemed friable in terms of abatement.

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5.4. The Contractor shall be solely responsible for compliance with 40 CFR 61, Subpart M, 29 CFR 1926.1101, SCDHEC Regulations 61-86.1 (*Standards of Performance for Asbestos Projects*), and this abatement specification. Personal protective measures for personnel shall comply with the Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101.

6.0 Abatement Control Areas

- 6.1. The work area or NPE shall be secured at the end of each shift so as to prevent entry into the work area.
- 6.2. An asbestos control area shall be established in the areas where asbestos is removed or otherwise disturbed, as required by SCDHEC and OSHA.
- 6.3. Asbestos danger signs in accordance with OSHA 29 CFR 1926.1101 shall be displayed at all approaches to the asbestos abatement areas.
- 6.4. Control boundaries shall be established with a minimum of red, "Asbestos Danger" barrier tape.

7.0 Abatement Control of Pollution

- 7.1. A visual inspection shall be conducted by S&ME, Inc. and the Contractor after gross removal of the asbestos-containing materials included herein.
- 7.2. Asbestos-containing material shall be placed in two 6-mil polyethylene bags or double wrapped in 6-mil polyethylene and appropriately labeled in accordance with the OSHA and EPA.

8.0 Personal Protective Equipment

- 8.1. Protective clothing:
 - 8.1.1. In the work area during asbestos abatement, disposable coveralls, including head covers, shall be worn at all times.
 - 8.1.2. In the work area during asbestos abatement, disposable booties shall be worn at all times.
- 8.2. Appropriate respiratory protection shall be used whenever workers enter the work area.
 - 8.2.1. Respirators shall not be left exposed when not in use; they shall be properly stored.
- 8.3. Appropriate hand and eye protection shall be used at all times while in the work area.
- 8.4. Used respirator filters and disposable coveralls shall be disposed of as asbestos-containing material.

9.0 Containment Measures for Gross Removal of Friable Asbestos-Containing Material

9.1. A critical containment for control of dust shall be erected prior to any disturbance of friable ACM or ACM that is to be removed as friable. The containment shall conform to the requirements of South

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- Carolina Department of Health and Environmental Control Regulation 61-86.1, Standards of Performance for Asbestos Projects.
- 9.2. All openings into the work area shall be covered with critical barriers.
- 9.3. Asbestos danger signs in accordance with OSHA 29 CFR 1926.1101 shall be displayed at all approaches to the asbestos abatement areas.
- 9.4. Individually seal all ventilation openings (supply and exhaust), doorways, convectors and other openings into the work area with at least two layers of polyethylene sheeting (minimum six mil in thickness) taped securely in place with duct tape. Maintain seal until all work, including Visual Inspection and Clearance Sampling, are completed. These are critical barriers.
- 9.5. The securing of all mechanical and electrical systems will be coordinated through the Building Owner or the building owner's representatives.
- 9.6. Critical barriers shall be constructed of two (2) separate layers of 6-mil polyethylene sheeting. The second layer shall overlap the first layer by at least two inches (2").
- 9.7. A primary barrier of 6-mil polyethylene covering shall be installed on all surfaces in the work area that are not to be disturbed.
- 9.8. Containments shall be smoke tested and inspected by the Contractor at least daily and the results recorded by the contractor's supervisor.
- 9.9. A decontamination unit and load-out shall be attached to the containment.

10.0 Ventilation for Containments

- 10.1. Sufficient High Efficiency Particulate Air (HEPA)-filtered exhaust units shall be provided to ensure a negative pressure of at least -0.02" H₂O and a minimum of four (4) air changes per hour.
 - 10.1.1. At minimum, one spare back-up HEPA exhaust unit shall be allotted per containment and present on the subject property in case of failure of an operating unit.
- 10.2. Air pressure shall be continuously monitored with manometers.
 - 10.2.1. The manometers shall have alarms set at 0.02" H₂O negative pressure.
- 10.3. Manometers shall be calibrated by the Contractor prior to the start of each work shift.
- 10.4. All exhausts shall be ducted to the outside of the building into an unoccupied area.

11.0 Decons and Load-Outs

- 11.1. The Decontamination Units will be constructed and shall consist of a serial arrangement of compartments separated by airlocks.
- 11.2. These units shall be: clean room, airlock, shower room, airlock and equipment room.
- 11.3. Doors shall be of the 3-layer, Z-flap design.

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- 11.4. All workers shall enter and exit the work area through the decontamination unit. They shall be required to shower thoroughly, in accordance with OSHA regulations prior to exit.
- 11.5. Instructions for proper decontamination shall be posted by the Contractor at the decontamination unit.
- 11.6. Load-outs shall consist of three compartments separated by 3-layer, Z-flap doors. The doors to the containment must remain closed when not in use. Propping or taping the Load-Out doors open is not permitted.
- 11.7. Waste shall be carried into compartment one by fully protected workers, bagged a second time or cleaned off and placed in the second compartment.
- 11.8. Workers wearing disposable protective clothing and a respirator shall remove the waste from the second compartment and place it in the third compartment, clean or bag it as necessary and then remove it to the appropriate waste storage container. The waste load out activities shall be performed after business hours and efforts will be made to avoid disruption to daily activities in the building.

12.0 Security

- 12.1. While asbestos abatement work is being performed, at least one worker shall remain outside the containment(s). He shall maintain security against unauthorized access to the asbestos abatement area.
- 12.2. Whenever an asbestos abatement area has not been cleared but is left unattended, access to the site shall be denied to unauthorized personnel by the use of locked doors or other similar means of securing the area. The Contractor shall construct "hard" barriers as necessary to restrict entry.
- 12.3. Waste containers if used shall be secured and locked within a fence sufficient to maintain security of the material or other secure enclosure or the waste container itself shall be closed and locked when not under observation. Unsecured open top or similar dumpsters/waste containers are not permitted. If used, the location of the asbestos waste dumpster shall be coordinated through the Building Owner and/or representative.

13.0 Work Practices

13.1. General

- 13.1.1. For friable removals, build and have decontamination unit operational before any workers enter work area to disturb ACM.
- 13.1.2. S&ME will inspect and accept the work area prior to start of asbestos removal.
- 13.1.3. Wet methods and HEPA-vacuuming shall be used to control generation of dust. Excess water from abatement activities shall be immediately collected from floor surfaces to prevent leaks and migration of asbestos-contaminated water outside of the abatement area.
- 13.1.4. Do not expose electrical systems to water.
- 13.1.5. Do not drop ACM to the floor.

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- 13.1.6. Maintain the work area free of accumulations of ACM dust and debris throughout the project.
- 13.1.7. Non-friable floor tile and mastic shall be abated using non-friable methods (i.e. heat machines and non-hazardous solvents).

14.0 Waste

- 14.1. All asbestos-containing waste shall be double-bagged.
- 14.2. Bags shall be of 6-mil polyethylene.
- 14.3. Bags shall have the required EPA generator, DOT and OSHA labels.
- 14.4. Sealed drums are an acceptable alternative to bagged waste.
- 14.5. Waste water, including shower water and any other water leaving the containment in a liquid state, shall be filtered through a minimum 5-micron filter and the filtered water may be disposed into the sanitary sewer, unless local regulations prohibit that method of disposal.
- 14.6. Temporary waste storage on site shall be lined with 6-mil polyethylene and locked when not loading. Open top dumpsters are not acceptable.
- 14.7. Waste shall be disposed of in a landfill permitted by SCDHEC to accept asbestos-containing waste.
- 14.8. The Owner's copy of the waste manifest shall be submitted with post-job submittals within 15 days after the end of the work. The end of the work is the end date on the asbestos abatement permit.
- 14.9. The Contractor shall submit a copy of the waste manifest to the South Carolina Department of Health and Environmental Control, Air Quality Division within one week after completion of the work.

15.0 Project Monitoring

- 15.1. The Owner shall provide for on-site monitoring.
- 15.2. A project monitor shall perform area air sampling for asbestos during abatement, as deemed necessary. Typically they shall be collected as follows:
 - 15.2.1. At least one air sample from inside the equipment room of the decontamination unit,
 - 15.2.2. At least one air sample at the HEPA exhaust but not in the direct air flow,
 - 15.2.3. At least one air sample at the entrance to the clean room, and
 - 15.2.4. At least one sample outside the work area, preferably near occupied areas and/or areas accessible to the public.
- 15.3. The air monitor shall check the manometer readings at least 4 times per 8-hour shift (5 times for a 10-hour shift and 6 times for a 12-hour shift). He/she shall record the manometer reading in the field notes and on a chart to remain at the jobsite for review by the contractor, owner, regulators, and other authorized parties.
- 15.4. The Contractor will cooperate with the project monitor, and should unsafe conditions be identified by the monitor, appropriate corrective actions, including stopping work, shall be instituted.

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- 15.5. The project monitor will not supervise the remediation work.
- 15.6. The Contractor shall be responsible for unsafe conditions that arise out of the work.
- 15.7. The on-site monitor is not responsible for collection of OSHA-required personal samples for the Contractor.

16.0 Clearance

- 16.1. S&ME will conduct a visual inspection and clearance monitoring for all regulated asbestos abatement work.
- 16.2. No clearance inspection or monitoring shall be conducted until all asbestos abatement inside a containment is complete.
- 16.3. No clearance monitoring shall be performed until the NPE is dry.
- 16.4. Clearance air samples will be collected from the basement containment for analysis by Transmission Electron Microscopy (TEM). The clearance criteria is less than or equal to 70 structures per square millimeter (s/mm²) per SCDHEC regulations.
- 16.5. Clearance air samples will be collected from the basement containment for analysis by TEM. The clearance criteria is less than or equal to 70 s/mm² per SCDHEC regulations.
- 16.6. The Contractor shall not remove critical barriers or discontinue HEPA ventilation until the work area is cleared.

17.0 Personal Samples

- 17.1. The Contractor shall collect and analyze personal samples as required by OSHA.
- 17.2. The results of personal sampling shall be posted at the job site within 2 days of receipt of results.
- 17.3. A copy of all personal sample results shall be included in the post-job submittal package.

18.0 Submittals

- 18.1. On-site documentation shall include:
 - 18.1.1. Properly completed State permit.
 - 18.1.2. A roster of workers and supervisors.
 - 18.1.3. A copy of each person's accreditations.
 - 18.1.4. A copy of each person's medical authorization to work with asbestos and wear a respirator.
 - 18.1.5. A copy of the Contractor's respiratory protection program, including the rationale and documentation for respirator selection on this job.
 - 18.1.6. SCDHEC landfill approval letter;

Pomaria, South Carolina S&ME Project No. 4261-18-106



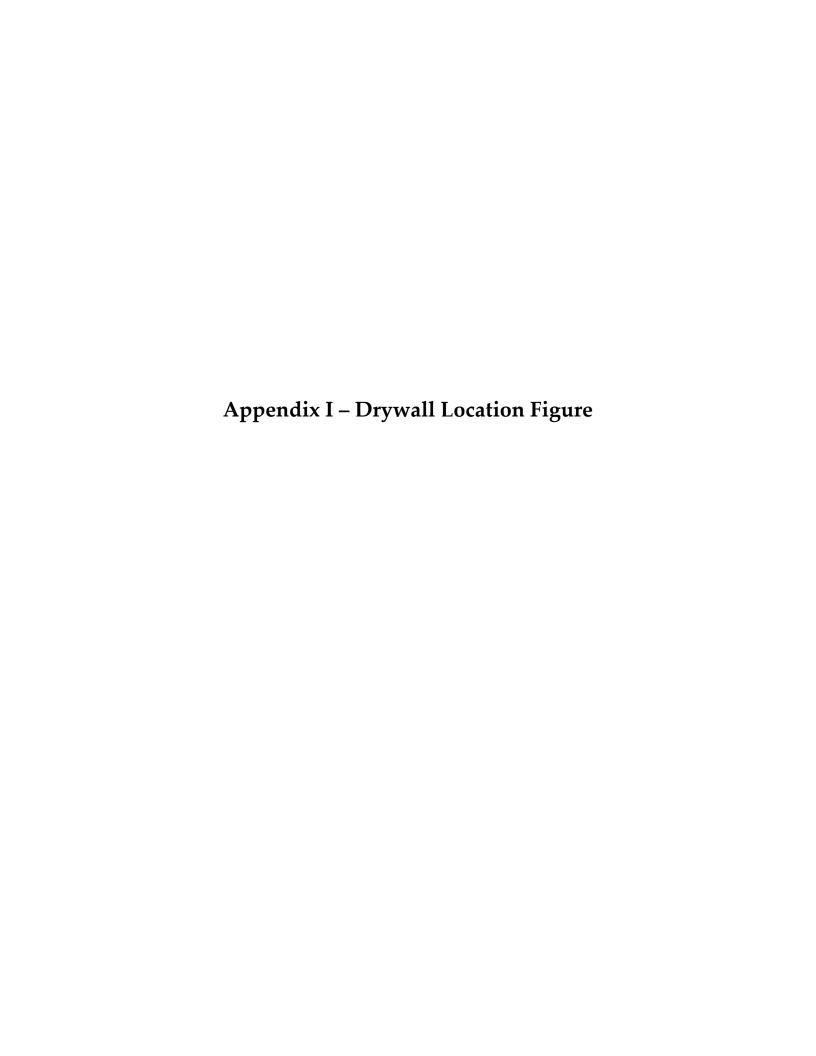
- 18.1.7. Medical and respiratory statement of compliance with 29 CFR 1910.134 and 1926.1101; and
- 18.1.8. Pollution Liability Insurance. Pollution liability insurance shall include abatement and transportation, shall be occurrence based, and written on a project basis with coverage of \$1,000,000 with a deductible of \$5,000 for any one occurrence. A project specific insurance certificate shall be provided listing Richland County School District One as Additional Insured.
- 18.1.9. A copy of the Contractor's hazard communication program, including:
 - 18.1.9.1. Safety Data Sheets for asbestos and all chemicals used on site.
 - 18.1.9.2. An inventory of chemicals on site.
- 18.2. Post-job submittals shall be submitted within 30 days of asbestos abatement completion (as shown on the latest revision of the permits) and shall include:
 - 18.2.1. Any additions or changes to the pre-job submittals.
 - 18.2.2. Waste manifests.
 - 18.2.3. Supervisor's log book documenting all required testing, inspections and significant events.

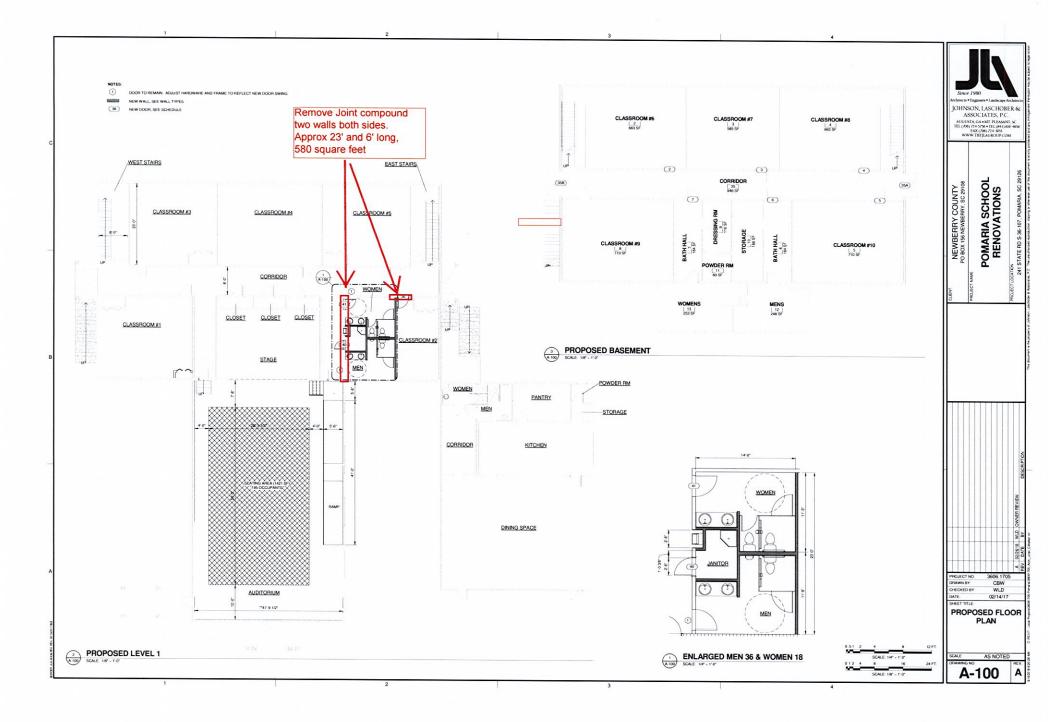
19.0 General

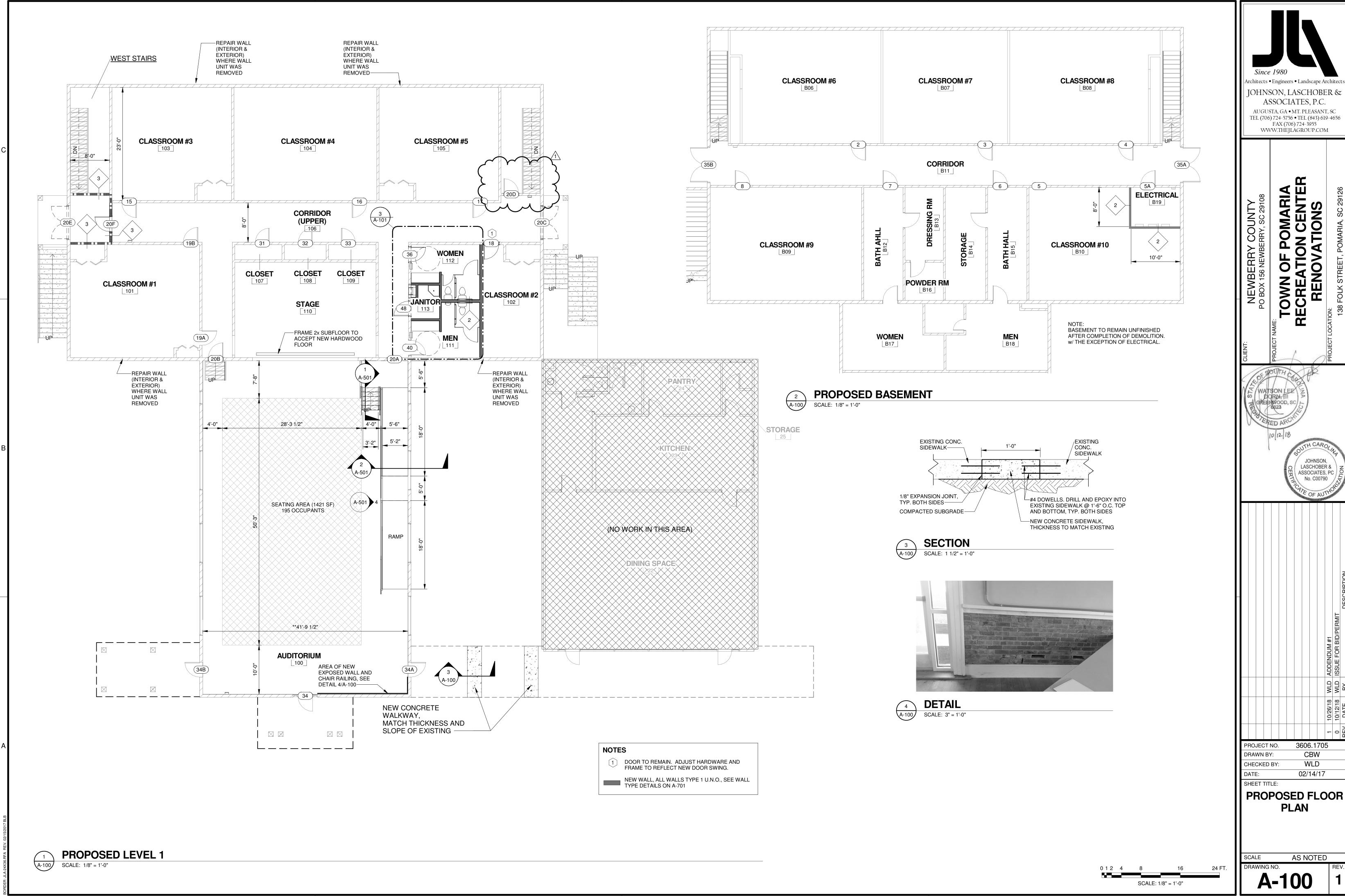
- 19.1. Contractor shall give <u>72 hour notice</u> to Building Owner and S&ME of any alternative work schedules (i.e. nights or weekends).
- 19.2. Contractor shall maintain a clean and safe work area. All unnecessary electrical and water sources shall be secured at the end of each work day.
- 19.3. Comply with all applicable Federal, State and Local regulations.

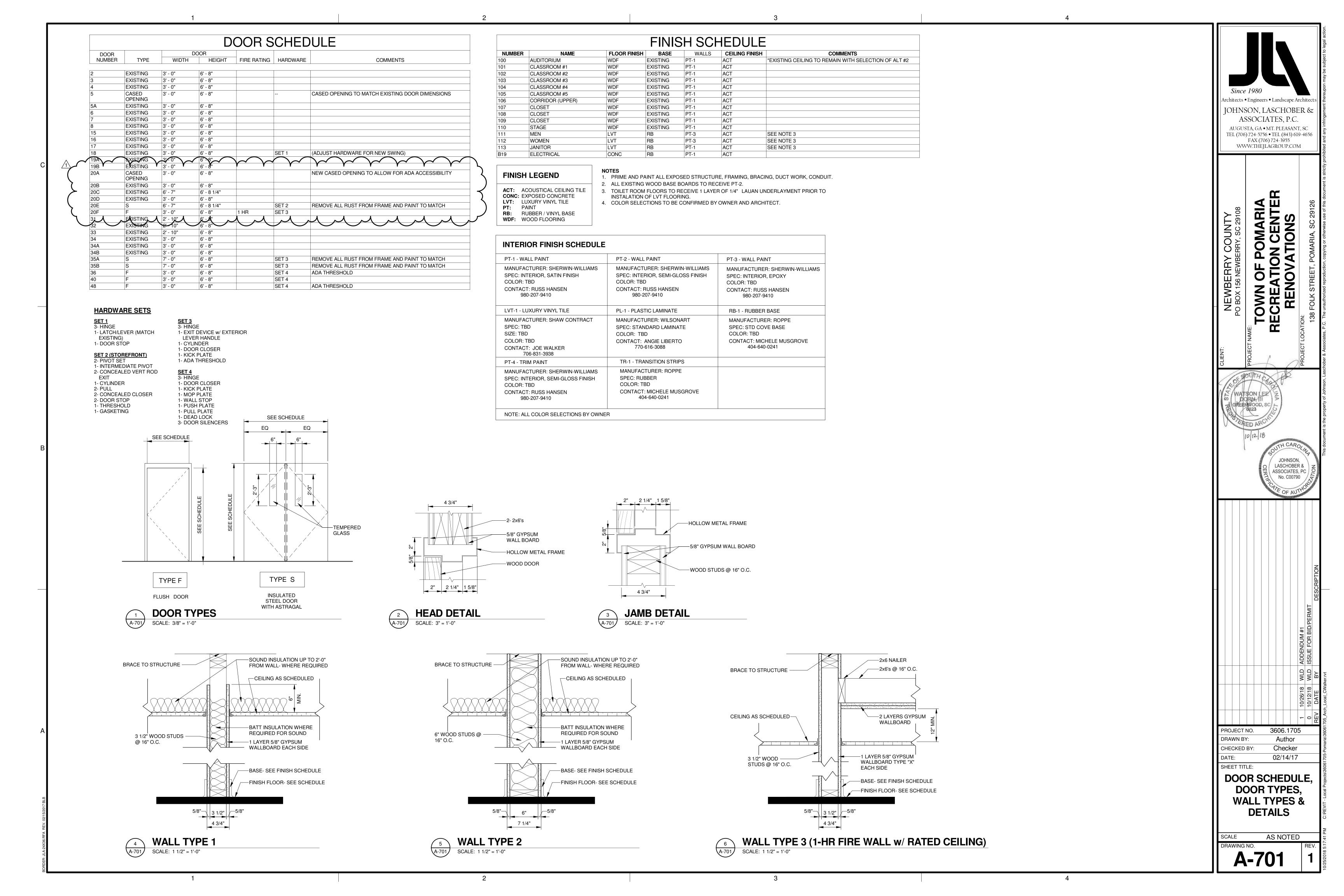
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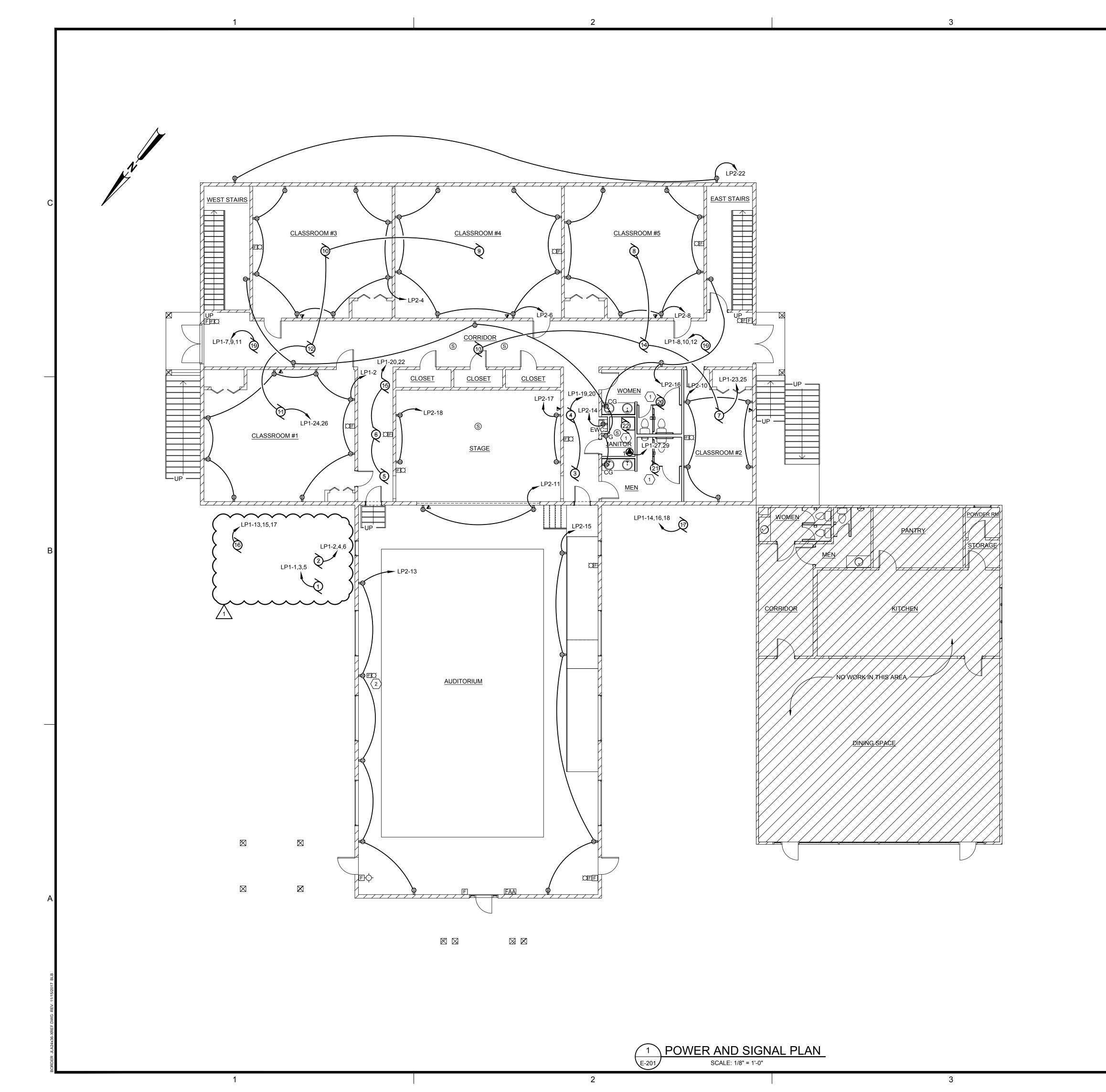












POWER AND SIGNAL PLAN KEYED NOTES:

 $\langle 1 \rangle$ INTERLOCK FAN WITH LIGHTS.

(2) CENTER ON WALL, INSTALL 80" A.F.F.

ALTERNATE #2 NOTES:

DELETE ALL ELECTRICAL ASSOCIATED WITH VRF SYSTEM IN ITS ENTIRETY, INCLUDING BREAKERS, DISCONNECTS, WIRING AND CONDUIT.

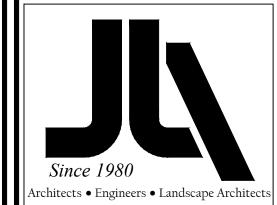
DELETE ALL ELECTRICAL ASSOCIATED WITH DOAS SYSTEM IN ITS ENTIRETY, INCLUDING BREAKERS, DISCONNECTS, WIRING AND CONDUIT.

PROVIDE AND INSTALL ELECTRICAL COMPONENTS FOR NINE (9) EXTERIOR, WALL-MOUNT, SELF-CONTAINED HEAT PUMPS AND ONE (1) SPLIT SYSTEM HEAT PUMP, AS FOLLOWS:

- CLASSROOM #1: ONE (1) WALL-MOUNT HEAT PUMP. PROVIDE 40A/3 POLE BREAKER IN PANEL LP1 WITH 3#6, #10G, 1"C. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.
- CLASSROOM #2: ONE (1) WALL-MOUNT HEAT PUMP. PROVIDE 40A/2 POLE BREAKER IN PANEL LP1 WITH 2#6, #10G, 1"C. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.
- CLASSROOM #3: ONE (1) WALL-MOUNT HEAT PUMP. PROVIDE 40A/2 POLE BREAKER IN PANEL LP1 WITH 2#6, #10G, 1"C. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.
- CLASSROOM #4: ONE (1) WALL-MOUNT HEAT PUMP. PROVIDE 40A/3 POLE BREAKER IN PANEL LP1 WITH 3#6, #10G, 1"C. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.
- CLASSROOM #5: ONE (1) WALL-MOUNT HEAT PUMP. PROVIDE 40A/2 POLE BREAKER IN PANEL LP1 WITH 2#6, #10G, 1"C. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.
- AUDITORIUM: FOUR (4) WALL-MOUNT HEAT PUMPS. PROVIDE 45A/3 POLE BREAKER IN PANEL LP1 WITH 3#6, #10G, 1"C. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.
- CORRIDOR/RESTROOM: ONE (1) SPLIT SYSTEM HEAT PUMP. PROVIDE 25A/2 POLE BREAKER IN PANEL LP1 WITH 2#8, #10G, 3/4"C FOR INDOOR UNIT. PROVIDE 25A/2 POLE BREAKER IN PANEL LP1 WITH 2#10, #10G, 3/4"C FOR OUTDOOR UNIT. PROVIDE LOCAL FUSIBLE DISCONNECT COORDINATED WITH MOTOR MOCP.

CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL EQUIPMENT LOCATIONS, EXTERIOR WALL PENETRATIONS AND EQUIPMENT SUPPORTS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID.

SEE MECHANICAL DRAWINGS FOR ALTERNATE #2 MECHANICAL.



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MARIA ENTER ONS

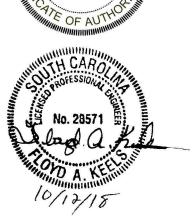
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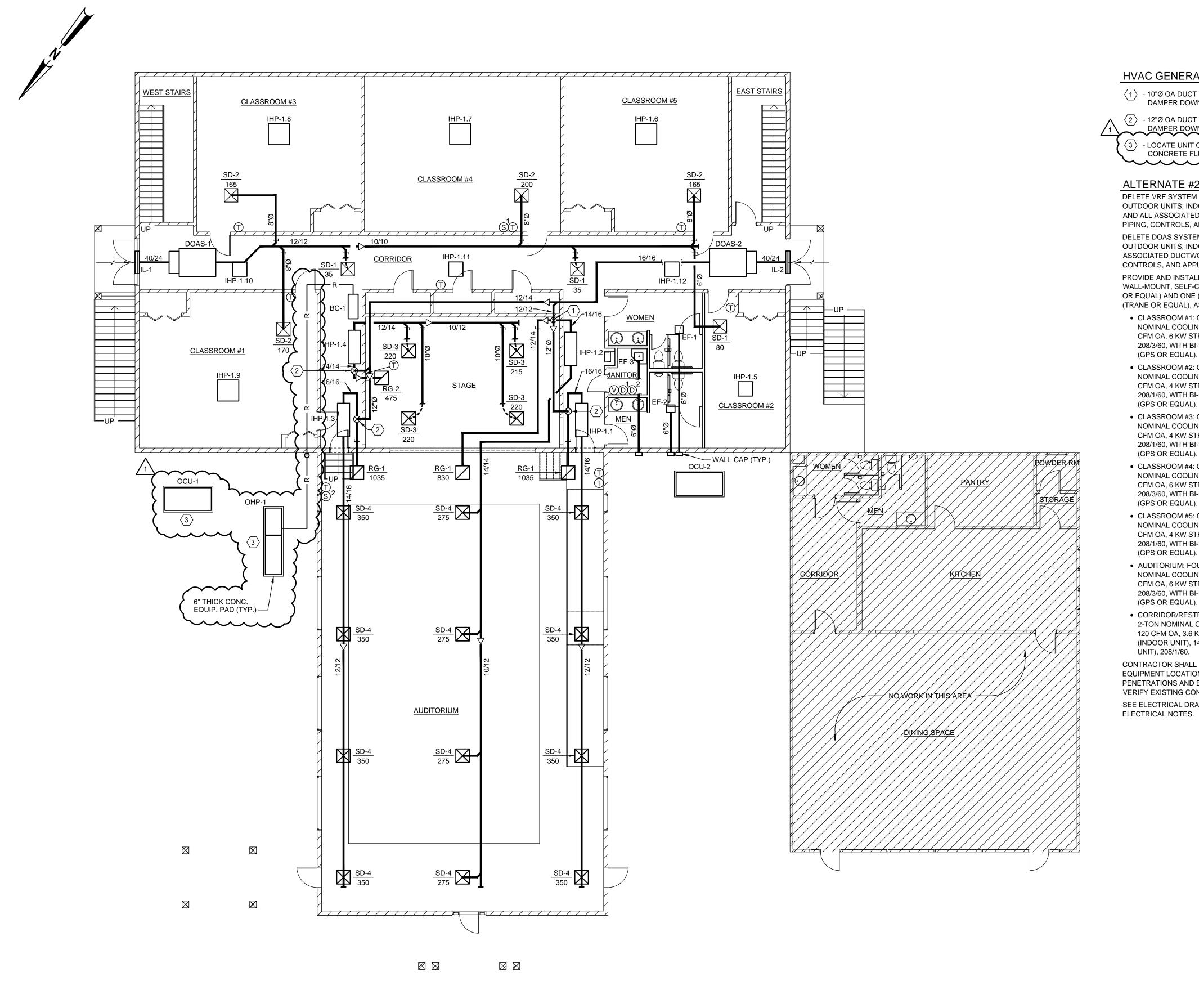
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POWER AND SIGNAL PLAN

ALE: 1/8" = 1'-0"

E-201

0 1 2 4 8 16 24 SCALE: 1/8" = 1'-0"



1 OVERALL LEVEL 1 HVAC PLAN

SCALE: 1/8" = 1'-0"

HVAC GENERAL NOTES:

- 10"Ø OA DUCT WITH MANUAL VOLUME DAMPER DOWN TO RA DUCTWORK.

2 - 12"Ø OA DUCT WITH MANUAL VOLUME

 $\boxed{3}$ - LOCATE UNIT OUTSIDE OF EXISTING CONCRETE FLUME. ~~~~

ALTERNATE #2 NOTES:

DELETE VRF SYSTEM IN ITS ENTIRETY, INCLUDING OUTDOOR UNITS, INDOOR UNITS, BC CONTROLLER, AND ALL ASSOCIATED DUCTWORK, DIFFUSERS, PIPING, CONTROLS, AND APPURTENANCES.

DELETE DOAS SYSTEM IN ITS ENTIRETY, INCLUDING OUTDOOR UNITS, INDOOR UNITS, LOUVERS, AND ALL ASSOCIATED DUCTWORK, DIFFUSERS, PIPING, CONTROLS, AND APPURTENANCES.

PROVIDE AND INSTALL NINE (9) EXTERIOR. WALL-MOUNT, SELF-CONTAINED HEAT PUMPS (BARD OR EQUAL) AND ONE (1) SPLIT SYSTEM HEAT PUMP (TRANE OR EQUAL), AS FOLLOWS:

- CLASSROOM #1: ONE (1) WALL-MOUNT, 2-TON NOMINAL COOLING CAPACITY, 800 CFM SA, 160 CFM OA, 6 KW STRIP HEAT, 35 MCA, 40 MOCP, 208/3/60, WITH BI-POLAR IONIZATION GENERATOR (GPS OR EQUAL).
- CLASSROOM #2: ONE (1) WALL-MOUNT, 1.5-TON NOMINAL COOLING CAPACITY, 600 CFM SA, 120 CFM OA, 4 KW STRIP HEAT, 37 MCA, 40 MOCP, 208/1/60, WITH BI-POLAR IONIZATION GENERATOR (GPS OR EQUAL).
- CLASSROOM #3: ONE (1) WALL-MOUNT, 1.5-TON NOMINAL COOLING CAPACITY, 600 CFM SA, 120 CFM OA, 4 KW STRIP HEAT, 37 MCA, 40 MOCP, 208/1/60, WITH BI-POLAR IONIZATION GENERATOR (GPS OR EQUAL).
- CLASSROOM #4: ONE (1) WALL-MOUNT, 2-TON NOMINAL COOLING CAPACITY, 800 CFM SA, 160 CFM OA, 6 KW STRIP HEAT, 35 MCA, 40 MOCP, 208/3/60, WITH BI-POLAR IONIZATION GENERATOR (GPS OR EQUAL).
- CLASSROOM #5: ONE (1) WALL-MOUNT, 1.5-TON NOMINAL COOLING CAPACITY, 600 CFM SA, 120 CFM OA, 4 KW STRIP HEAT, 37 MCA, 40 MOCP, 208/1/60, WITH BI-POLAR IONIZATION GENERATOR (GPS OR EQUAL).
- AUDITORIUM: FOUR (4) WALL-MOUNT, 3-TON NOMINAL COOLING CAPACITY, 1200 CFM SA, 240 CFM OA, 6 KW STRIP HEAT, 41 MCA, 45 MOCP, 208/3/60, WITH BI-POLAR IONIZATION GENERATOR (GPS OR EQUAL).
- CORRIDOR/RESTROOM: ONE (1) SPLIT SYSTEM, 2-TON NOMINAL COOLING CAPACITY, 800 CFM SA, 120 CFM OA, 3.6 KW STRIP HEAT, 25 MCA, 25 MOCP (INDOOR UNIT), 14 MCA, 25 MOCP (OUTDOOR UNIT), 208/1/60.

CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL EQUIPMENT LOCATIONS, EXTERIOR WALL PENETRATIONS AND EQUIPMENT SUPPORTS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID. SEE ELECTRICAL DRAWINGS FOR ALTERNATE #2

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LASCHOBER & ASSOCIATES, PC



PROJECT NO. 3606.1705 DRAWN BY : MNB CHECKED BY: CVW

02/14/2017 SHEET TITLE :

LEVEL 1 HVAC PLANS

AS NOTED

M-101

SCALE: 1/8" = 1'-0"