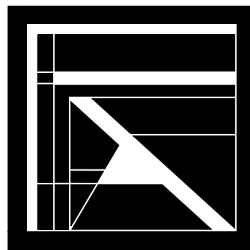


EXISTING DAVIE COUNTY HIGH SCHOOL

DEMOLITION PHASE 2

MOCKSVILLE, NORTH CAROLINA



PROJECT NO.
17-466

FULLER
ARCHITECTURE

DATE:
JANUARY 8, 2018
FOR DEMOLITION

EXISTING DAVIE COUNTY HIGH SCHOOL

MOCKSVILLE, NORTH CAROLINA

DEMOLITION PHASE 2



PROJECT NUMBER 17-466

JANUARY 8, 2018
FOR DEMOLITION

FULLER ARCHITECTURE, INC.
68 COURT SQUARE, SUITE 200
MOCKSVILLE, NORTH CAROLINA 27028
(336) 751-0400

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Sealed Single Prime bids for the **demolition** of the existing **Davie County High School** will be received by Davie County in the 2nd floor Commissioners Conference Room located in the Davie County Administration Building, 123 South Main Street, Mocksville, North Carolina until **4:00 p.m. on Monday, January 29, 2018**.

Sealed bids will be publicly opened after the **4:00 deadline on Monday, January 29, 2018** in the 2nd floor Commissioners Conference Room located in the Davie County Administration Building, 123 South Main Street, Mocksville, North Carolina. The work includes the demolition of select buildings on the Old Davie County High School campus by a Single Prime Contractor. The extent of the work is shown on the drawings & specified in the project manual.

The project consists of the demolition of selected buildings, asbestos removal, site components, utilities and grading. **The school is located at 1200 S Salisbury St, Mocksville, NC 27028.**

Bidding documents, drawings and specifications may be examined in the office of Fuller Architecture. Pdf's of the drawings and specifications will be made available to all bidders via email.

Each proposal must be accompanied by a Bid Deposit of cash, certified check or a fully executed Bid Bond payable to Davie County in an amount of five percent (5%) of the gross amount of the proposal executed in accordance with and conditioned as prescribed by North Carolina General Statute 143-8-129 as amended.

If the successful bidder fails to execute the contract within 30 days after the award or fails to give satisfactory surety as required by law, the above deposit will be retained by Davie County. All contractors are hereby notified that they must be properly licensed under the laws of North Carolina governing their trades.

A Payment and Performance Bond will be required each in the sum equal to 100% of the Contract Sum.

No Bidder may withdraw his bid within 30 days after the scheduled closing time for receipt of bids.

Bidders shall use complete sets of Bidding Documents in preparing Bids. Neither the Owner or the Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

The project is scheduled to begin demolition no later than Feb. 26th, 2018 and be substantially complete on or before June 15th, 2018. Liquidated damages of \$750/day will be imposed starting June 16th, 2018.

As part of the bidding process, a pre-bid meeting will be held for all interested bidders and vendors at **1:00 on Tuesday the 16th day of January 2018** under the front breezeway at the Old Davie County High School located at 1200 S. Salisbury Street, Mocksville, NC. A site visit will immediately follow. A follow up site visit will be made available for anyone interested at **1:00 on the 23rd day of January 2018**.

Contractors are hereby notified that Davie County has a verifiable ten (10) percent goal for the participation by minority businesses in the total value of work for which the contract is awarded in order to follow North Carolina G.S. 143-128. Minority percentages will not be the basis for selecting the low bidder. All minority businesses are encouraged to participate in bidding this project.

Davie County reserves the right to reject any or all bids and to waive non-material informalities.

Existing Davie County High School Demolition – Phase 2
Project No. 17-466

00050-2
Invitation To Bid

END OF INVITATION TO BID

SECTION 00200

**SUPPLEMENTARY
INSTRUCTIONS TO BIDDERS**

SUMMARY

1.01 DOCUMENT INCLUDES

- A. Invitation
 - 1. Bid Submission
 - 2. Intent
 - 3. Work Identified in the Contract Documents
 - 4. Contract Time

- B. Bid Documents and Contract Documents
 - 1. Definitions
 - 2. Contract Documents Identification
 - 3. Availability
 - 4. Examination
 - 5. Inquiries/Addenda
 - 6. Product/Assembly/System Substitutions

- C. Site Assessment
 - 1. Site Examination
 - 2. Pre-bid Conference

- D. Bid Submission
 - 1. Bid Ineligibility
 - 2. Submission Procedure

- E. Bid Enclosures/Requirements
 - 1. Bid Form Requirements
 - 2. Bid Form Signature

- F. Offer Acceptance/Rejection
 - 1. Duration of Offer
 - A. Acceptance of Offer

1.02 RELATED DOCUMENTS

- A. Document 00350 - Bid Form.

- B. Document 00800 - Supplementary Conditions:
 - 1. Contract Time identification.
 - 2. Tax and duty rebate procedures.
 - 3. Tax exempt procedures.

INVITATION

2.01 BID SUBMISSION

- A. Sealed Single Prime bids for the **demolition** of the existing **Davie County High School – Phase 2** will be received by Davie County in the 2nd Floor Commissioners conference room in the Davie County Administration Building located at, 123 South Main Street, Mocksville, North Carolina until **4:00 p.m. on Monday, January 29, 2018**. Offers submitted after the above time shall be returned to the bidder unopened.

- B. Offers will be opened publicly immediately after the time for receipt of bids.
- C. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

2.02 INTENT

- A. The intent of this Bid request is to obtain an offer to perform work to complete the demolition of selected buildings and areas of the existing Davie County High School for a Stipulated Sum contract, in accordance with the Contract Documents.

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Work of this proposed Contract comprises demolition of selected buildings, site components, utilities and grading.

2.04 CONTRACT TIME

- A. The project is scheduled to begin demolition no later than Feb. 26th, 2018 and be substantially complete on or before June 15th, 2018. Liquidated damages of \$750/day will be imposed starting June 16th, 2018.

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

- A. Bid Documents: Contract Documents supplemented with Instructions to Bidders, Bid Form and Bid securities identified.
- B. Contract Documents: Defined in AIA A201 Article 1 including issued Addenda.
- C. Bid, Offer, or Bidding: Act of submitting an offer under seal.
- D. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

3.02 CONTRACT DOCUMENTS IDENTIFICATION

- A. The Contract Documents are identified as Project Numbers 17-466, as prepared by Fuller Architecture who is located at 68 Court Square, Suite 200, Mocksville, North Carolina 27028, and with contents as identified in the Project Manual.

3.03 AVAILABILITY

- A. All bidders will be provided a dropbox link to a shared folder with all bid documents.
- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

3.04 EXAMINATION

- A. Bid Documents may be viewed at the office of the Architect.
- B. Upon receipt of Bid Documents verify that documents are complete. Notify Architect should the documents be incomplete or missing.

- C. Immediately notify Architect upon finding discrepancies or omissions in the Bid Documents.

3.05 INQUIRIES/ADDENDA

- A. Direct questions in writing (email acceptable) to Dean Seaford, telephone (336) 751-0400, email at dean@fullerarchitecture.com.
- B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount. Addenda will be emailed and also placed in the dropbox.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing not less than 5 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

SITE ASSESSMENT

4.01 SITE EXAMINATION

- A. Examine the project site before submitting a bid.

4.02 PRE-BID CONFERENCE

- A. A Pre-Bid meeting will be held for all interested bidders and vendors at **1:00 on the 16th day of January 2018** under the front breezeway at the Old Davie County High School located at 1200 S. Salisbury Street, Mocksville, NC. A site visit will immediately follow. A follow up site visit will be made available for anyone interested at **1:00 on the 23rd day of January 2018**.
- B. All selected general contract bidders & subs are invited.
- C. Representatives of the Architect & Owner will be in attendance.
- D. Summarized minutes of this meeting will be circulated to attendees. Any changes to the Contract Documents will be in the form of an Addendum. Information relevant to the Bid Documents will be recorded in an Addendum, issued to Bid Document recipients.

BID SUBMISSION

5.01 SUBMISSION PROCEDURE

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit two copies of the executed offer on the Bid Forms provided, signed and sealed, clearly identified with bidder's name, project name and Owner's name on the outside.

5.02 BID INELIGIBILITY

- A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared unacceptable.
- B. Bid Forms, Appendices, and enclosures which are improperly prepared may, at the discretion of Owner, be declared unacceptable.

BID ENCLOSURES/REQUIREMENTS

6.01 BID FORM REQUIREMENTS

- A. Complete all requested information in the Bid Form.

6.02 FEES FOR CHANGES IN THE WORK

- A. Include the fees for overhead and profit on own Work and Work by subcontractors, identified in Document 00940 - Pricing of Construction Contract Change Orders.

6.03 BID FORM SIGNATURE

- A. The Bid Form shall be signed by the bidder, as follows:
 1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
 2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word "Partner" under each signature. Affix seal to each signature.
 3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the president and secretary of the company, or the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, must also be submitted with the Bid Form in the bid envelope.

OFFER ACCEPTANCE/REJECTION

7.01 DURATION OF OFFER

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of thirty (30) days after the bid closing date.

7.02 ACCEPTANCE OF OFFER

- A. Owner reserves the right to accept or reject any or all offers.
- B. After acceptance by Owner, Architect on behalf of Owner, will issue to the successful bidder, a written Notice To Proceed.

END OF INSTRUCTIONS TO BIDDERS

BID FORM

General Contract Work

ON: EXISTING DAVIE COUNTY HIGH SCHOOL DEMOLITION

FOR: DAVIE COUNTY

AT: 1200 S SALISBURY ST, MOCKSVILLE, NC 27028

DATE: _____

CONTRACTOR'S NAME _____

LICENSE NO. _____

The Undersigned, as Bidder, hereby declares that the only person or persons interested in this proposal as principal or principals or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into that this proposal is made without connection with any other person company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has carefully examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done, that he has examined the specifications for the work and contract documents relative thereto, and has read all special provisions furnished prior to the opening of bids; and he has satisfied himself as to the nature and location of the work, the general and local conditions, and all matters which may in any way affect the work or its performance and that as a result of such examination and investigation, he fully understands the intent and purpose of the documents and conditions of bidding. Claims for additional compensation and/or extensions of time because of the Contractor's failure to follow the foregoing procedure and to familiarize himself with the Contract Documents and all conditions which might affect the work will not be allowed.

The Bidder proposes and agrees if this proposal is accepted to contract with Davie County in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, and labor necessary to complete the demolition of the Existing Davie County High School – Phase 2 in full and complete accordance with the Contract Documents, to the full and entire satisfaction of the Owner and /or Architect-Engineer, with a definite understanding that no money will be allowed for extra work except as set forth in the Contract Documents for the sum of:

BASE BID: GENERAL CONTRACT –

_____ Dollars

(\$_____).

Note: Base Bid shall include all Federal, State and Local sales taxes and all other applicable taxes.

UNIT PRICES:

The following unit prices are submitted by the undersigned Bidder as a proposed basis for additive or deductive adjustment in the event contract changes in the Work are required involving items described. It is understood and agreed that unit prices are separately subject to acceptance by the Owner and that such prices are not part of the Contract except as accepted and entered in the Agreement. Unit prices shall include all fees, taxes, profit, overhead and similar items.

Unit Price for removal of asbestos containing material:

TSI JOINTS (PER JOINT) \$_____.

TSI STRAIGHT RUN (PER LINEAR FOOT) \$_____.

The Bidder acknowledges receipt of all Addenda as listed below and has taken them into account in preparation of his proposal.

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

The Bidder further proposes and agrees hereby to commence work under his contract on a date to be specified in a written order from the Owner and shall fully complete work thereunder as shown.

The Undersigned further agrees to sign a Contract for all work in the above amount, if offered within 30 days after receipt of Bids, and to furnish surety as specified, and upon failure to do so, agrees to forfeit to the Owner, attached cashiers, check, certified check or Bid Bond in the amount of

\$ _____ (5% of Base Bid)

Construction Time: _____ Calendar Days

PRINCIPAL SUB-BIDDERS: The undersigned further states that this bid is based on quotations received from the following subcontractors for the categories of work listed; he further agrees that if he is the successful Bidder, he will contract with the listed subcontractors for the performance of this work:

Demolition _____

Asbestos _____

MBE Participation: The following work will be executed by Minority Business Enterprises:

- _____
-
- _____
-
- _____
-
- _____
-

which includes _____ % of the total proposed cost of the work bid.

General Contractor shall attach to this bid “State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts “ & “Identification of Minority Business Participation”.

The Bidder acknowledges receipt of all Addenda as listed below and has taken them into account in preparation of his proposal.

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

Addendum No. _____ dated _____.

(Name of Firm or Corporation making bid)

By:

Title: (Owner, Partner, or Corp. Pres. or Vice-Pres. Only)

WITNESS:

(Proprietorship or Partnership)

ATTEST:

BY: _____

TITLE: _____
(Corp. Sec, or Assist. Sec. Only)

(CORPORATE SEAL)

END OF SECTION



AIA[®] Document A401[™] – 2017

Standard Form of Agreement Between Contractor and Subcontractor

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

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

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

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

AIA Document A201[™]–2017, General Conditions of the Contract for Construction, is adopted in this document by reference.

The Contractor has made a contract for construction (hereinafter, the Prime Contract) dated:

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

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

The Prime Contract provides for the furnishing of labor, materials, equipment and services in connection with the construction of the Project. A copy of the Prime Contract, consisting of the Agreement Between Owner and Contractor (from which compensation amounts may be deleted) and the other Contract Documents enumerated therein, has been made available to the Subcontractor.

The Architect for the Project:
(Name, legal status, address and other information)

The Contractor and the Subcontractor agree as follows.

Init.

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8	THE WORK OF THIS SUBCONTRACT
9	DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
10	SUBCONTRACT SUM
11	PAYMENTS
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15	ENUMERATION OF SUBCONTRACT DOCUMENTS

ARTICLE 1 THE SUBCONTRACT DOCUMENTS

§ 1.1 The Subcontract Documents consist of (1) this Agreement; (2) the Prime Contract, consisting of the Agreement between the Owner and Contractor and the other Contract Documents enumerated therein; (3) Modifications to the Prime Contract, whether issued before or after the execution of this Agreement, in accordance with the provisions of Article 5; (4) other documents listed in Article 15 of this Agreement; and (5) Modifications to this Subcontract issued after execution of this Agreement, in accordance with the provisions of Article 5. These form the Subcontract, and are as fully a part of the Subcontract as if attached to this Agreement or repeated herein.

§ 1.2 The Subcontract Documents form the Subcontract for Construction. The Subcontract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Subcontract Documents, other than Modifications to the Prime Contract or Modifications to this Subcontract issued subsequent to the execution of this Agreement, appears in Article 15.

§ 1.3 Except to the extent of a conflict with a specific term or condition contained in the Subcontract Documents, the General Conditions governing this Subcontract shall be the AIA Document A201™–2017, General Conditions of the Contract for Construction.

§ 1.4 The Subcontract may be amended or modified only by a Modification to this Subcontract. A Modification to this Subcontract is a written amendment to this Agreement signed by both parties, or as otherwise described in, and in accordance with the provisions of, Article 5.

§ 1.5 The Subcontract Documents shall not be construed to create a contractual relationship of any kind (1) between the Architect and the Subcontractor, (2) between the Owner and the Subcontractor, or (3) between any persons or entities other than the Contractor and Subcontractor.

§ 1.6 The Contractor shall make the Subcontract Documents available to the Subcontractor prior to execution of this Agreement, and thereafter, upon request. The Contractor may charge the Subcontractor for the reasonable cost to reproduce the Subcontract Documents provided to the Subcontractor.

ARTICLE 2 MUTUAL RIGHTS AND RESPONSIBILITIES

The Contractor and Subcontractor shall be mutually bound by the terms of this Agreement and, to the extent that the provisions of AIA Document A201–2017 apply to this Agreement pursuant to Section 1.3 and provisions of the Prime Contract apply to the Work of the Subcontractor, the Contractor shall assume toward the Subcontractor all obligations and responsibilities that the Owner, under such documents, assumes toward the Contractor, and the Subcontractor shall assume toward the Contractor all obligations and responsibilities that the Contractor, under such documents, assumes toward the Owner and the Architect. The Contractor shall have the benefit of all rights, remedies, and redress against the Subcontractor that the Owner, under such documents, has against the Contractor, and the Subcontractor shall have the benefit of all rights, remedies, and redress against the Contractor that the Contractor, under such documents, has against the Owner, insofar as applicable to this Subcontract. Where a provision of such documents is inconsistent with a provision of this Agreement, this Agreement shall govern.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in this Agreement and is referred to throughout the Subcontract Documents as if singular in number. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all Project matters requiring the Contractor's approval or authorization. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall render decisions in a timely manner and in accordance with the Contractor's construction schedule.

§ 3.2 Services Provided by the Contractor

§ 3.2.1 The Contractor shall cooperate with the Subcontractor in scheduling and performing the Contractor's Work to avoid conflicts or interference in the Subcontractor's Work and shall review, and expedite written responses to, submittals made by the Subcontractor in accordance with Section 4.2.3 and Article 5. Promptly after execution of this Agreement, the Contractor shall provide the Subcontractor with copies of the Contractor's construction schedule and schedule of submittals, together with such additional scheduling details as will enable the Subcontractor to plan and perform the Subcontractor's Work properly. The Contractor shall promptly notify the Subcontractor of subsequent changes in the construction and submittal schedules and additional scheduling details.

§ 3.2.2 The Contractor shall provide suitable areas for storage of the Subcontractor's materials and equipment during the course of the Work. Except as previously agreed upon, additional costs to the Subcontractor resulting from relocation of such storage areas at the direction of the Contractor shall be reimbursed by the Contractor.

§ 3.3 Communications

§ 3.3.1 The Contractor shall promptly make available to the Subcontractor information, including information received from the Owner, that affects the performance of this Subcontract and that becomes available to the Contractor subsequent to execution of this Subcontract.

§ 3.3.2 The Contractor shall not give instructions or orders directly to the Subcontractor's employees or to the Subcontractor's Sub-subcontractors or suppliers unless such persons are designated as authorized representatives of the Subcontractor.

§ 3.3.3 The Contractor shall permit the Subcontractor to request information directly from the Architect regarding the percentages of completion and the amount certified on account of Work done by the Subcontractor.

§ 3.3.4 If hazardous materials or substances are being used on the site by the Contractor, a subcontractor, or anyone directly or indirectly employed by them (other than the Subcontractor), and they are a type of hazardous material or substance of which an employer is required by law to notify its employees, the Contractor shall, prior to delivery to the Project site or exposure of the Subcontractor's employees to such material or substance, give notice of the chemical composition thereof to the Subcontractor in sufficient detail and time to permit the Subcontractor's compliance with such laws.

§ 3.3.5 The Contractor shall promptly notify the Subcontractor of any fault or defect in the Work under this Subcontract or nonconformity with the Subcontract Documents.

§ 3.3.6 The Contractor shall furnish to the Subcontractor within 30 days after receipt of a written request, or earlier if so required by law, information necessary and relevant for the Subcontractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property, usually referred to as the site, on which the Project is located and the Owner's interest therein. If the Contractor does not have such information, the Contractor shall request the information from the Owner in accordance with Article 2 of AIA Document A201-2017 and promptly furnish the information received from the Owner to the Subcontractor.

§ 3.3.7 If the Contractor asserts a Claim against, or defends a Claim by, the Owner that relates to the Work of the Subcontractor, the Contractor shall promptly make available to the Subcontractor all information relating to the portion of the Claim that relates to the Work of the Subcontractor.

§ 3.4 Claims by the Contractor

§ 3.4.1 Liquidated damages, if provided for in the Prime Contract, shall be assessed against the Subcontractor only to the extent caused by the Subcontractor or any person or entity for whose acts the Subcontractor may be liable, and in no case for delays or causes arising outside the scope of this Subcontract.

§ 3.4.2 The Contractor's Claims for the costs of services or materials provided due to the Subcontractor's failure to execute the Work shall require

- .1 seven days' notice prior to the Contractor's providing services or materials, except in an emergency; and
- .2 written compilations to the Subcontractor of services and materials provided by the Contractor and charges for such services and materials no later than the fifteenth day of the month following the Contractor's providing such services or materials.

§ 3.5 Contractor's Remedies

If the Subcontractor defaults or neglects to carry out the Work in accordance with this Agreement and fails within five working days after receipt of notice from the Contractor to commence and continue correction of such default or neglect with diligence and promptness, the Contractor may, without prejudice to other remedies the Contractor may have, remedy such default or neglect and withhold, in accordance with Section 11.1.7.2, the reasonable cost thereof from current or future payments due the Subcontractor. If payments due to the Subcontractor are not sufficient to cover such amounts, the Subcontractor shall pay the difference to the Contractor.

ARTICLE 4 SUBCONTRACTOR

§ 4.1 General

The Subcontractor is the person or entity identified as such in this Agreement and is referred to throughout the Subcontract Documents as if singular in number. The Subcontractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Subcontractor shall designate in writing a representative who shall have express authority to act on the Subcontractor's behalf with respect to the Project. The term "Subcontractor" means the Subcontractor or the Subcontractor's authorized representative.

§ 4.2 Execution and Progress of the Work

§ 4.2.1 For all Work the Subcontractor intends to subcontract, the Subcontractor shall enter into written agreements with Sub-subcontractors performing portions of the Work of this Subcontract by which the Subcontractor and the Sub-subcontractor are mutually bound, to the extent of the Work to be performed by the Sub-subcontractor, assuming toward each other all obligations and responsibilities that the Contractor and Subcontractor assume toward each other and having the benefit of all rights, remedies and redress each against the other that the Contractor and Subcontractor have by virtue of the provisions of this Agreement.

§ 4.2.2 The Subcontractor shall supervise and direct the Subcontractor's Work, and shall cooperate with the Contractor in scheduling and performing the Subcontractor's Work to avoid conflict, delay in, or interference with the Work of the Contractor, other subcontractors, the Owner, or Separate Contractors.

§ 4.2.3 Submittals

§ 4.2.3.1 The Subcontractor shall submit Shop Drawings, Product Data, Samples, and similar submittals required by the Subcontract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Contractor or other subcontractors.

§ 4.2.3.2 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Subcontractor represents to the Contractor that the Subcontractor has (1) reviewed and approved them; (2) determined and verified materials, field measurements, and field construction criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Subcontract Documents.

§ 4.2.4 The Subcontractor shall furnish to the Contractor periodic progress reports on the Work of this Subcontract as mutually agreed, including information on the status of materials and equipment that may be in the course of preparation, manufacture, or transit.

§ 4.2.5 The Subcontractor agrees that the Contractor and the Architect each have the authority to reject Work of the Subcontractor that does not conform to the Prime Contract. The Architect's decisions on matters relating to aesthetic effect shall be final and binding on the Subcontractor if consistent with the intent expressed in the Prime Contract.

§ 4.2.6 The Subcontractor shall pay for all materials, equipment, and labor used in connection with the performance of this Subcontract through the period covered by previous payments received from the Contractor, and shall furnish satisfactory evidence, when requested by the Contractor, to verify compliance with the above requirements.

§ 4.2.7 The Subcontractor shall take necessary precautions to properly protect the work of the Contractor, Separate Contractors, and other subcontractors from damage caused by operations under this Subcontract.

§ 4.2.8 The Subcontractor shall cooperate with the Contractor, other subcontractors, the Owner, and Separate Contractors whose work might affect the Subcontractor's Work. The Subcontractor shall participate in the preparation of coordinated drawings in areas of congestion, if required by the Prime Contract, specifically noting and advising the Contractor of potential conflicts between the Work of the Subcontractor and that of the Contractor, other subcontractors, the Owner, or Separate Contractors.

§ 4.3 Permits, Fees, Notices, and Compliance with Laws

§ 4.3.1 The Subcontractor shall give notices and comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on performance of the Work of this Subcontract. The Subcontractor shall secure and pay for permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Subcontractor's Work, the furnishing of which is required of the Contractor by the Prime Contract.

§ 4.3.2 The Subcontractor shall comply with Federal, state, and local tax laws; social security acts; unemployment compensation acts; and workers' compensation acts, insofar as applicable to the performance of this Subcontract.

§ 4.4 Safety Precautions and Procedures

§ 4.4.1 The Subcontractor shall take reasonable safety precautions with respect to performance of this Subcontract. The Subcontractor shall comply with safety measures initiated by the Contractor and with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, for the safety of persons and property, in accordance with the requirements of the Prime Contract. The Subcontractor shall notify the Contractor within three days of an injury to an employee or agent of the Subcontractor which occurred at the site.

§ 4.4.2 If hazardous materials or substances are being used on the site by the Subcontractor, the Subcontractor's Sub-subcontractors, or anyone directly or indirectly employed by them, and they are a type of hazardous material or substance of which an employer is required by law to notify its employees, the Subcontractor shall, prior to delivery to the Project site or exposure of the Contractor, other subcontractors, and other employers on the site to such material or substance, give notice of the chemical composition thereof to the Contractor in sufficient detail and time to permit compliance with the laws by the Contractor, other subcontractors, and other employers on the site.

§ 4.4.3 If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a hazardous material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB),

encountered on the site by the Subcontractor, the Subcontractor shall, upon recognizing the condition, immediately stop Work in the affected area and promptly report the condition to the Contractor in writing. When the material or substance has been rendered harmless, the Subcontractor's Work in the affected area shall resume upon written agreement of the Contractor and Subcontractor. The Subcontract Time shall be extended appropriately and the Subcontract Sum shall be increased in the amount of the Subcontractor's reasonable additional costs of demobilization, delay, and remobilization, which adjustments shall be accomplished as provided in Article 5 of this Agreement.

§ 4.4.4 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Subcontractor, the Subcontractor's Sub-subcontractors, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 4.4.3 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 4.4.5 The Subcontractor shall reimburse the Contractor for the cost and expense the Contractor incurs (1) for remediation of a hazardous material or substance brought to the site and negligently handled by the Subcontractor or (2) where the Subcontractor fails to perform its obligations under Section 4.4.3, except to the extent that the cost and expense are due to the Contractor's fault or negligence.

§ 4.5 Cleaning Up

§ 4.5.1 The Subcontractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations performed under this Subcontract. The Subcontractor shall not be held responsible for conditions caused by other contractors or subcontractors.

§ 4.5.2 As provided under Section 3.4.2, if the Subcontractor fails to clean up as provided in the Subcontract Documents, the Contractor may charge the Subcontractor for the Subcontractor's appropriate share of cleanup costs.

§ 4.6 Warranty

§ 4.6.1 The Subcontractor warrants to the Owner, Architect, and Contractor that materials and equipment furnished under this Subcontract will be of good quality and new unless the Subcontract Documents require or permit otherwise. The Subcontractor further warrants that the Work will conform to the requirements of the Subcontract Documents and will be free from defects, except for those inherent in the quality of the Work the Subcontract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Subcontractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Subcontractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by the Architect and Contractor, the Subcontractor shall provide satisfactory evidence as to the kind and quality of materials and equipment furnished or to be furnished.

§ 4.6.2 All material, equipment, or other special warranties required by the Subcontract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with the Subcontract Documents.

§ 4.7 Indemnification

§ 4.7.1 To the fullest extent permitted by law, the Subcontractor shall indemnify and hold harmless the Owner, Contractor, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the Subcontractor's Work under this Subcontract, provided that any such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Subcontractor, the Subcontractor's Sub-subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 4.7.

§ 4.7.2 In claims against any person or entity indemnified under this Section 4.7 by an employee of the Subcontractor, the Subcontractor's Sub-subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 4.7.1 shall not be limited by a limitation on the amount or

type of damages, compensation or benefits payable by or for the Subcontractor, or the Subcontractor's Sub-subcontractors under workers' compensation acts, disability benefit acts, or other employee benefit acts.

§ 4.8 Remedies for Nonpayment

If the Contractor does not pay the Subcontractor through no fault of the Subcontractor, within seven days from the time payment should be made as provided in this Agreement, the Subcontractor may, without prejudice to any other available remedies, upon seven additional days' notice to the Contractor, stop the Work of this Subcontract until payment of the amount owing has been received. The Subcontract Sum shall, by appropriate Modification, be increased by the amount of the Subcontractor's reasonable costs of demobilization, delay, and remobilization.

§ 4.9 Professional Services Provided by Subcontractor

§ 4.9.1 The Subcontractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Subcontract Documents or unless the Subcontractor is required to provide such services in order to carry out the Subcontractor's responsibilities for its own construction means, methods, techniques, sequences, and procedures. The Subcontractor shall not be required to provide professional services in violation of applicable law.

§ 4.9.2 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Subcontractor by the Subcontract Documents, the Contractor will provide all performance and design criteria that such services must satisfy to the extent the Contractor has received such performance and design criteria from the Owner and Architect under the terms of the Prime Contract.

§ 4.9.3 If professional design services or certifications by a design professional are required because of means, methods, techniques, sequences, or procedures required by the Contractor and related to the Work of the Subcontractor, the Contractor will provide all performance and design criteria that such services must satisfy.

§ 4.9.4 The Subcontractor shall be entitled to rely upon the adequacy, accuracy, and completeness of the performance and design criteria received from the Contractor under this Section 4.9.

§ 4.9.5 The Subcontractor shall cause the professional services performed under this Section 4.9 to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop drawings and other submittals related to the Work designed by such design professional shall bear the professional's written approval when submitted to the Contractor. The Contractor shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals, provided the Contractor has provided to the Subcontractor all performance and design criteria required by this Section 4.9.

ARTICLE 5 CHANGES IN THE WORK

§ 5.1 The Owner may make changes in the Work by issuing Modifications to the Prime Contract. Upon receipt of a Modification to the Prime Contract issued subsequent to the execution of this Agreement, the Contractor shall promptly notify the Subcontractor of such Modification. Unless otherwise directed by the Contractor, the Subcontractor shall not thereafter order materials or perform Work that would be inconsistent with the changes made by the Modification to the Prime Contract.

§ 5.2 The Subcontractor may be ordered in writing by the Contractor, without invalidating this Subcontract, to make changes in the Work within the general scope of this Subcontract consisting of additions, deletions, or other revisions, including those required by Modifications to the Prime Contract issued subsequent to the execution of this Agreement, with the Subcontract Sum and the Subcontract Time adjusted accordingly. The Subcontractor, prior to the commencement of such changed or revised Work, shall submit promptly to the Contractor written copies of a Claim for adjustment to the Subcontract Sum and Subcontract Time for such revised Work in a manner consistent with requirements of the Subcontract Documents.

§ 5.3 The Subcontractor shall make all Claims promptly to the Contractor for additional cost, extensions of time and damages for delays, or other causes in accordance with the Subcontract Documents. A Claim which will affect or become part of a Claim which the Contractor is required to make under the Prime Contract within a specified time period or in a specified manner shall be made in sufficient time to permit the Contractor to satisfy the requirements of the Prime Contract. Such Claims shall be received by the Contractor not less than two working days preceding the time

by which the Contractor's Claim must be made. Failure of the Subcontractor to make such a timely Claim shall bind the Subcontractor to the same consequences as those to which the Contractor is bound.

ARTICLE 6 CLAIMS AND DISPUTES

§ 6.1 Mediation

§ 6.1.1 Claims, disputes, or other matters in controversy arising out of or related to this Subcontract, except those waived as provided for in Sections 6.4 and 11.3.2, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 6.1.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to this Subcontract and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 6.1.2, the parties may nonetheless proceed to the selection of the arbitrators(s) and agree upon a schedule for later proceedings.

§ 6.1.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by mediation pursuant to Section 6.1, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 6.3 of this Agreement
- Litigation in a court of competent jurisdiction
- Other: *(Specify)*

If the Contractor and Subcontractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

§ 6.3 Arbitration

§ 6.3.1 If the Contractor and Subcontractor have selected arbitration as the method of binding dispute resolution in Section 6.2, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of this Agreement. The arbitration should be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Subcontract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 6.3.2 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 6.3.3 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 6.3.4 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 6.3.5 Consolidation or Joinder

§ 6.3.5.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 6.3.5.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim, dispute, or other matter in question not described in the written consent.

§ 6.3.5.3 The Contractor and Subcontractor grant to any person or entity made a party to an arbitration conducted under this Section 6.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Contractor and Subcontractor under this Agreement.

§ 6.4 Waiver of Claims for Consequential Damages

The Contractor and Subcontractor waive claims against each other for consequential damages arising out of or relating to this Subcontract, including without limitation, any consequential damages due to either party's termination in accordance with Article 7. Nothing contained herein shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of this Agreement.

ARTICLE 7 TERMINATION, SUSPENSION OR ASSIGNMENT OF THE SUBCONTRACT

§ 7.1 Termination by the Subcontractor

The Subcontractor may terminate the Subcontract for the same reasons and under the same circumstances and procedures with respect to the Contractor as the Contractor may terminate with respect to the Owner under the Prime Contract, or for nonpayment of amounts due under this Subcontract for 60 days or longer. In the event of such termination by the Subcontractor for any reason which is not the fault of the Subcontractor, the Subcontractor's Sub-subcontractors, or their agents or employees or other persons or entities performing portions of the Work under contract with the Subcontractor, the Subcontractor shall be entitled to recover from the Contractor payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, as well as reasonable overhead and profit on work not executed and costs incurred by reason of such termination.

§ 7.2 Termination by the Contractor

§ 7.2.1 Termination for Cause

If the Subcontractor repeatedly fails or neglects to carry out the Work in accordance with the Subcontract Documents or otherwise to perform in accordance with this Subcontract and fails within a ten-day period after receipt of notice to commence and continue correction of such default or neglect with diligence and promptness, the Contractor may, by notice to the Subcontractor and without prejudice to any other remedy the Contractor may have, terminate the Subcontract and finish the Subcontractor's Work by whatever method the Contractor may deem expedient. If the unpaid balance of the Subcontract Sum exceeds the expense of finishing the Subcontractor's Work and other damages incurred by the Contractor and not expressly waived, such excess shall be paid to the Subcontractor. If such expense and damages exceed the unpaid balance of the Subcontract Sum, the Subcontractor shall pay the difference to the Contractor.

§ 7.2.2 Termination for Convenience

§ 7.2.2.1 If the Owner terminates the Prime Contract for the Owner's convenience, the Contractor shall promptly deliver notice to the Subcontractor.

§ 7.2.2.2 In case of such termination for the Owner's convenience, the Subcontractor shall be entitled to receive payment for Work properly executed, costs incurred by reason of the termination, and reasonable overhead and profit on the Work not executed.

§ 7.2.2.3 Upon receipt of notice of termination, the Subcontractor shall

- .1 cease operations as directed by the Contractor in the notice;
- .2 take actions necessary, or that the Contractor may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing Sub-subcontracts and purchase orders and enter into no further Sub-subcontracts and purchase orders.

§ 7.3 Suspension by the Contractor for Convenience

§ 7.3.1 The Contractor may, without cause, order the Subcontractor in writing to suspend, delay, or interrupt the Work of this Subcontract in whole or in part for such period of time as the Contractor may determine. In the event of suspension ordered by the Contractor, the Subcontractor shall be entitled to an equitable adjustment of the Subcontract Time and Subcontract Sum.

§ 7.3.2 The Subcontract Time and Subcontract Sum shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 7.3.1. Adjustment of the Subcontract Sum shall include profit on the increased cost of performance caused by suspension, delay, or interruption. No adjustment shall be made to the extent that

- .1 performance is, was or would have been so suspended, delayed, or interrupted by another cause for which the Subcontractor is responsible; or
- .2 an equitable adjustment is made or denied under another provision of this Subcontract.

§ 7.4 Assignment of the Subcontract

§ 7.4.1 In the event the Owner terminates the Prime Contract for cause, this Subcontract is assigned to the Owner pursuant to Section 5.4 of AIA Document A201-2017 provided the Owner accepts the assignment by notifying the Contractor and Subcontractor.

§ 7.4.2 Without the Contractor's written consent, the Subcontractor shall not assign the Work of this Subcontract, subcontract the whole of this Subcontract, or subcontract portions of this Subcontract.

ARTICLE 8 THE WORK OF THIS SUBCONTRACT

The Subcontractor shall execute the following portion of the Work described in the Subcontract Documents, including all labor, materials, equipment, services and other items required to complete such portion of the Work, except to the extent specifically indicated in the Subcontract Documents to be the responsibility of others.

(Insert a precise description of the Work of this Subcontract, referring where appropriate to numbers of Drawings, sections of Specifications and pages of Addenda, Modifications, and accepted alternates.)

ARTICLE 9 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 9.1 The date of commencement of the Subcontractor's Work, shall be:

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Contractor.
- Established as follows:

(Insert a date or a means to determine the date of commencement of the Subcontractor's Work.)

If a date of commencement of the Subcontractor's Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 9.2 Subcontract Time

§ 9.2.1 The Subcontract Time is the period of time, including authorized adjustments, allotted in the Subcontract Documents for Substantial Completion of the Work described in the Subcontract Documents. The Subcontract Time shall be measured from the date of commencement of the Subcontractor's Work.

§ 9.2.2 Subject to adjustments of the Subcontract Time as provided in the Subcontract Documents, the Subcontractor shall achieve substantial completion of the Subcontractor's Work:
(Check one of the following boxes and complete the necessary information.)

- Not later than () calendar days from the date of commencement of the Subcontractor's Work.
- By the following date:

§ 9.2.3 Subject to adjustments of the Subcontract Time as provided in the Subcontract Documents, if portions of the Subcontractor's Work are to be completed prior to substantial completion of the Subcontractor's Work, then the Subcontractor shall achieve earlier substantial completion of such portions by the following dates.
(List all portions of the Subcontractor's Work required to achieve substantial completion of the Subcontractor's Portion of the Work.)

Portion of Work	Substantial Completion
-----------------	------------------------

§ 9.2.4 If the Subcontractor fails to achieve substantial completion as provided in this Section 9.2, liquidated damages, if any, shall be assessed as set forth in Section 3.4.

§ 9.3 With respect to the obligations of both the Contractor and the Subcontractor, time is of the essence of this Subcontract.

§ 9.4 No extension of time will be valid without the Contractor's written consent after a Claim is made by the Subcontractor in accordance with Section 5.3.

ARTICLE 10 SUBCONTRACT SUM

§ 10.1 The Contractor shall pay the Subcontractor the Subcontract Sum in current funds for the Subcontractor's performance of the Subcontract. The Subcontract Sum shall be (\$), subject to additions and deductions as provided in the Subcontract Documents.

§ 10.2 Alternates

§ 10.2.1 Alternates, if any, included in the Subcontract Sum:

Item	Price
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§ 10.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Contractor following execution of this Agreement. Upon acceptance, the Contractor shall issue a Modification to this Subcontract:
(Insert below each alternate and the conditions that must be met for the Contractor to accept the alternate.)

Item	Price	Conditions for Acceptance
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§ 10.3 Unit prices, if any:
(Identify and state the unit price, and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price Per Unit (\$0.00)
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§ 10.4 Allowances, if any, included in the Subcontract Sum:
(Identify allowance and state exclusions, if any, from the allowance price.)

Item	Price
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ARTICLE 11 PAYMENTS

§ 11.1 Progress Payments

§ 11.1.1 Based upon Applications for Payment submitted to the Contractor by the Subcontractor, corresponding to Applications for Payment submitted by the Contractor to the Architect, and Certificates for Payment issued by the Architect, the Contractor shall make progress payments on account of the Subcontract Sum to the Subcontractor as provided below and elsewhere in the Subcontract Documents. Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor and Subcontractor for Work properly performed by their contractors and suppliers shall be held by the Contractor and Subcontractor for those contractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor or Subcontractor for which payment was made to the Contractor by the Owner or to the Subcontractor by the Contractor, as applicable. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor or Subcontractor, shall create any fiduciary liability or tort liability on the part of the Contractor or Subcontractor for breach of trust, or shall entitle any person or entity to an award of punitive damages against the Contractor or Subcontractor for breach of the requirements of this provision.

§ 11.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 11.1.3 Provided an Application for Payment is received by the Contractor not later than the _____ day of a month, the Contractor shall include the Subcontractor’s Work covered by that application in the next Application for Payment which the Contractor is entitled to submit to the Architect. The Contractor shall pay the Subcontractor each progress payment no later than seven working days after the Contractor receives payment from the Owner. If the Architect does not issue a Certificate for Payment or the Contractor does not receive payment for any cause which is not the fault of the Subcontractor, the Contractor shall pay the Subcontractor, on demand, a progress payment computed as provided in Sections 11.1.7, 11.1.8, 11.1.9 and 11.2.

§ 11.1.4 If the Subcontractor’s application for payment is received by the Contractor after the application date fixed above, the Subcontractor’s Work covered by it shall be included by the Contractor in the next Application for Payment submitted to the Architect.

§ 11.1.5 The Subcontractor shall submit to the Contractor a schedule of values prior to submitting the Subcontractor’s first Application for Payment. Each subsequent Application for Payment shall be based upon the most recent schedule of values submitted by the Subcontractor in accordance with the Subcontract Documents. The schedule of values shall allocate the entire Subcontract Sum among the various portions of the Subcontractor’s Work and be prepared in such form and supported by such data to substantiate its accuracy as the Contractor may require, and unless objected to by the Contractor, shall be used as a basis for reviewing the Subcontractor’s Applications for Payment.

§ 11.1.6 Applications for Payment submitted by the Subcontractor shall indicate the percentage of completion of each portion of the Subcontractor’s Work as of the end of the period covered by the Application for Payment.

§ 11.1.7 Subject to the provisions of the Subcontract Documents, the amount of each progress payment shall be computed as follows:

§ 11.1.7.1 The amount of each progress payment shall first include:

- .1 That portion of the Subcontract Sum properly allocable to completed Work:
- .2 That portion of the Subcontract Sum properly allocable to materials and equipment delivered

and suitably stored at the site by the Subcontractor for subsequent incorporation in the Subcontractor's Work or, if approved by the Contractor, suitably stored off the site at a location agreed upon in writing; and

- .3 The amount, if any, for changes in the Work that are not in dispute and have been properly authorized by the Contractor, to the same extent provided in the Prime Contract, pending a final determination by the Contractor of the cost of changes in the Subcontractor's Work, even though the Subcontract Sum has not yet been adjusted.

§ 11.1.7.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of previous payments made by the Contractor;
- .2 The amount, if any, for Work that remains uncorrected and for which the Contractor has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201-2017 for a cause that is the fault of the Subcontractor;
- .3 For Work performed or defects discovered since the last payment application, any amount for which the Contractor may withhold payment in whole or in part, as provided in Article 9 of AIA Document A201-2017, for a cause that is the fault of the Subcontractor; and
- .4 Retainage withheld pursuant to Section 11.1.8 of this Agreement.

§ 11.1.8 Retainage

§ 11.1.8.1 For each progress payment made prior to substantial completion of the Subcontractor's Work, the Contractor may withhold the following amounts as retainage from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 11.1.8.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 11.1.8.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 11.1.8.1 is to be modified prior to substantial completion of the entire Work, including modifications for substantial completion of portions of the Subcontractor's Work as provided in Section 9.2.3, insert provisions for such modification.)

§ 11.1.9 Upon the partial or entire disapproval by the Contractor of the Subcontractor's Application for Payment, the Contractor shall provide notice to the Subcontractor. If the Subcontractor disputes the Contractor's decision regarding a Subcontractor's Application for Payment in whole or in part, the Subcontractor may submit a Claim in accordance with Article 6. When the basis for the disapproval has been remedied, the Subcontractor shall be paid the amounts withheld.

§ 11.1.10 Provided the Contractor has fulfilled its payment obligations under the Subcontract Documents, the Subcontractor shall defend and indemnify the Contractor and Owner from all loss, liability, damage, or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any of the Subcontractor's subcontractors, suppliers, or vendors of any tier. Upon receipt of notice of such lien claim or other claim for payment, the Contractor shall notify the Subcontractor. If approved by the applicable court, when required, the Subcontractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 11.2 Substantial Completion

When the Subcontractor's Work or a designated portion thereof is substantially complete and in accordance with the requirements of the Prime Contract, the Contractor shall, upon application by the Subcontractor, make prompt Application for Payment for such Work. Within 30 days following issuance by the Architect of the Certificate for Payment covering such substantially completed Work, the Contractor shall, to the full extent allowed in the Prime Contract, make payment to the Subcontractor, deducting any portion of the funds for the Subcontractor's Work withheld in accordance with the certificate to cover costs of items to be completed or corrected by the Subcontractor. Such

payment to the Subcontractor shall be the entire unpaid balance of the Subcontract Sum if a full release of retainage is allowed under the Prime Contract for the Subcontractor's Work prior to the completion of the entire Project. If the Prime Contract does not allow for a full release of retainage, then such payment shall be an amount which, when added to previous payments to the Subcontractor, will reduce the retainage on the Subcontractor's substantially completed Work to the same percentage of retainage as that on the Contractor's Work covered by the certificate.

§ 11.3 Final Payment

§ 11.3.1 Final payment, constituting the entire unpaid balance of the Subcontract Sum, shall be made by the Contractor to the Subcontractor when the Subcontractor's Work is fully performed in accordance with the requirements of the Subcontract Documents, the Architect has issued a Certificate for Payment covering the Subcontractor's completed Work and the Contractor has received payment from the Owner. If, for any cause which is not the fault of the Subcontractor, a Certificate for Payment is not issued or the Contractor does not receive timely payment or does not pay the Subcontractor within seven days after receipt of payment from the Owner, final payment to the Subcontractor shall be made upon demand.

(Insert provisions for earlier final payment to the Subcontractor, if applicable.)

§ 11.3.2 Before issuance of the final payment, the Subcontractor, if required, shall submit evidence satisfactory to the Contractor that all payrolls, bills for materials and equipment, and all known indebtedness connected with the Subcontractor's Work have been satisfied. Acceptance of final payment by the Subcontractor shall constitute a waiver of claims by the Subcontractor, except those previously made in writing and identified by the Subcontractor as unsettled at the time of final Application for Payment.

§ 11.4 Interest

Payments due and unpaid under this Subcontract shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

_____ % _____

ARTICLE 12 INSURANCE AND BONDS

§ 12.1 Subcontractor's Required Insurance Coverage

§ 12.1.1 The Subcontractor shall purchase and maintain the following types and limits of insurance, from a company or companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, as will protect the Subcontractor from claims that may arise out of, or result from, the Subcontractor's operations and completed operations under the Subcontract:

(Specify each type of insurance, such as commercial general liability, automobile, worker's compensation, employers' liability, professional liability, and pollution, required to be carried by the Subcontractor, the limits of coverage for each type of insurance, and any other pertinent requirements.)

Type of Insurance

Limits

Other Pertinent Requirements

§ 12.1.2 Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Subcontractor's Work until the date of final payment and termination of any coverage required to be maintained after final payment to the Subcontractor, and, with respect to the Subcontractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Prime Contract.

§ 12.1.3 If professional services are required under Section 4.9, the Subcontractor shall provide the professional liability insurance coverage required under this Section 12.1 for the following period after completion of the Work:

§ 12.1.4 Certificates of Insurance. The Subcontractor shall provide certificates of insurance acceptable to the Contractor evidencing compliance with the requirements in this Article 12 at the following times: (1) prior to commencement of

the Subcontractor's Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Contractor's written request. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the time required in this Article 12. The certificates shall show the Contractor and the Owner as additional insureds on the Subcontractor's Commercial General Liability and any excess or umbrella liability policy.

§ 12.1.5 Deductibles and Self-Insured Retentions. The Subcontractor shall disclose to the Contractor any deductible or self-insured retentions applicable to any insurance required to be provided by the Subcontractor.

§ 12.1.6 Additional Insured Obligations. To the fullest extent permitted by law, the Subcontractor shall cause its commercial general liability coverage to include: (1) the Contractor, the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Subcontractor's negligent acts or omissions during the Subcontractor's operations; and (2) the Contractor and Owner as additional insureds for claims caused in whole or in part by the Subcontractor's negligent acts or omissions for which loss occurs during the Subcontractor's completed operations. The additional insured coverage shall be primary and non-contributory to any of the Contractor's and Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

§ 12.1.7 Notice of Cancellation or Change in Coverage. Within three (3) business days of the date the Subcontractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Subcontract Documents, the Subcontractor shall provide notice to the Contractor of such impending or actual cancellation or expiration. Upon receipt of notice from the Subcontractor, the Contractor shall, unless the lapse in coverage arises from an act or omission of the Contractor, have the right to suspend the Work in accordance with this Agreement until the lapse in coverage has been cured by the procurement of replacement coverage by the Subcontractor. The furnishing of notice by the Subcontractor shall not relieve the Subcontractor of any contractual obligation to provide any required coverage.

§ 12.2 Subcontractor's Required Performance Bond and Payment Bond

§ 12.2.1 The Subcontractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:

(Specify type and penal sum of bonds.)

Type	Penal Sum (\$0.00)
Payment Bond	
Performance Bond	

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

§ 12.2.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations under this Agreement, the Subcontractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

§ 12.3 Contractor's Insurance and Bond Obligations

§ 12.3.1 The Contractor shall furnish to the Subcontractor certificates of insurance evidencing insurance coverage required of the Contractor under the Prime Contract.

§ 12.3.2 The Contractor shall promptly, upon request of the Subcontractor, furnish a copy or permit a copy to be made of any bond covering payment of obligations arising under the Subcontract.

§ 12.4 Property Insurance

§ 12.4.1 When requested in writing, the Contractor shall provide the Subcontractor with copies of the property and equipment policies in effect for the Project, to the extent copies of the policies are available to the Contractor. The Contractor shall notify the Subcontractor if the required property insurance policies are not in effect.

§ 12.4.2 If the required property insurance is not in effect for the full value of the Subcontractor's Work, then the Subcontractor shall purchase insurance for the value of the Subcontractor's Work, and the Subcontractor shall be reimbursed for the cost of the insurance by an adjustment in the Subcontract Sum.

§ 12.4.3 Property insurance for the Subcontractor's materials and equipment required for the Subcontractor's Work, stored off site or in transit and not covered by the Project property insurance, shall be paid for through the Application for Payment process.

§ 12.5 Waivers of Subrogation

The Contractor and Subcontractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other, and (2) the Owner, the Architect, the Architect's consultants, and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance provided under the Prime Contract or other property insurance applicable to the Work or to property at or adjacent to the Project site, except such rights as they may have to proceeds of such insurance held by the Owner as a fiduciary. The Subcontractor shall require similar written waivers in favor of the individuals and entities enumerated herein from the Subcontractor's Sub-subcontractors, agents, and employees. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 12.5 shall not prohibit this waiver of subrogation, which shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the property damaged.

ARTICLE 13 TEMPORARY FACILITIES, SERVICES, EQUIPMENT AND WORKING CONDITIONS

§ 13.1 The Contractor shall furnish and make the Contractor's temporary facilities and services available to the Subcontractor at no cost, except as noted below:

§ 13.2 The Contractor's equipment will be available to the Subcontractor only at the Contractor's discretion and on mutually satisfactory terms, except as noted below:

§ 13.3 Specific working conditions as noted below:

(Insert any specific arrangements or requirements concerning working conditions and labor matters applicable to the Subcontractor's Work.)

ARTICLE 14 MISCELLANEOUS PROVISIONS

§ 14.1 Where reference is made in this Subcontract to a provision of another Subcontract Document, the reference refers to that provision as amended or supplemented by other provisions of the Subcontract Documents.

§ 14.2 The Contractor's representative:

(Name, address, email address and other information)

§ 14.3 The Subcontractor's representative:

(Name, address, email address and other information)

§ 14.4 Notice

§ 14.4.1 Except as otherwise provided in Section 14.4.2, where the Subcontract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic notice is set forth in Section 14.4.3.

§ 14.4.2 Notice of Claims shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 14.4.3 Notice in electronic format, pursuant to Section 14.4.1, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below: *(If other than in accordance with AIA Document E203™–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)*

§ 14.5 Neither the Contractor's nor the Subcontractor's representative shall be changed without ten days' prior notice to the other party.

§ 14.6 The invalidity of any provision of the Subcontract Documents shall not invalidate the Subcontract or its remaining provisions. If it is determined that any provision of the Subcontract violates any law or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case, the Subcontract shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Subcontract.

§ 14.7 The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 14.7.1 Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 15 ENUMERATION OF SUBCONTRACT DOCUMENTS

§ 15.1 This Agreement is comprised of the following documents:

- .1 AIA Document A401™–2017, Standard Form Agreement Between Contractor and Subcontractor;
- .2 Prime Agreement between the Owner and Contractor, including all exhibits thereto, attached as Exhibit A;
- .3 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if not included in the Prime Agreement, dated as indicated below:
(Insert the date of the E203–2013 incorporated into this Agreement.)

- .4 Other Exhibits incorporated into this Agreement:
(Clearly identify any other exhibits incorporated into this Agreement.)

- .5 Other documents:
(List other documents, if any, forming part of the Agreement.)

This Agreement entered into as of the day and year first written above.

CONTRACTOR *(Signature)*

(Printed name and title)

SUBCONTRACTOR *(Signature)*

(Printed name and title)

Sample

**CONTRACTOR’S AFFIDAVIT AND PARTIAL RELEASE
OF
CLAIMS AND LIENS FOR PROGRESS PAYMENT**

STATE OF _____
COUNTY OF _____

I, _____, being duly sworn, state on personal knowledge that I am
_____ (Title) of _____ (Contractor)
and have authority to execute this Affidavit on behalf of the Contractor. I further state the following:

1. All the laborers, persons, firms and corporations having furnished services or materials for the **Demolition of the Davie County High School – Phase 2** have been paid in full for labor and materials furnished to date, except retention and unfounded change orders, and that upon completion of the work of each subcontractor or supplier, the Contractor will cause each such subcontractor and supplier to execute a Release and Waiver of Claim in the form required by the Contract Documents and shall further cause each such subcontractor and supplier to cancel any liens (if any) that may have been filed against the Project.
2. The work covered by this payment has been completed in accordance with the Contract Documents.
2. In consideration of the partial payment of \$_____, the Contractor hereby releases **the Davie County** from all lien rights, claims, or demands of any kind whatsoever which it now has against the construction of the Project arising of or in any way related to the furnishing of labor and materials on or before the date of this Affidavit, except for retainage and unfunded change orders.
4. To the best of the Contractor’s knowledge and belief, no claims or claim of liens exist by or against any subcontractor or supplier who furnished materials or labor on the Project, and if any appear afterwards the Contractor shall hold **Davie County** harmless on the account thereof. Contractor agrees to provide a lien removal bond at no cost to the Owner or its representatives within 15 days from request by the Owner or the Owner’s representatives.
5. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien, plus all lien bonds, costs, interests, both prejudgment at a legal rate.

(Contractor)
By: _____

Sworn to and subscribed before me
this ____ day of _____, 20__.

Notary Public
(Seal) My Commission Expires: _____

Existing Davie County High School Demolition – Phase 2
Project No. 17-466

00675-2
Release of Liens

212 AFFIRMATIVE ACTION FOR MINORITY/WOMEN BUSINESS

Non-Discrimination Statement

1. Davie County will provide minorities and women equal opportunity to participate in all aspects of the County's contracting and purchasing programs.
2. It will further be the policy of Davie County not to discriminate against any person or business on the basis of race, color, ethnic origin, sex or religion.

Affirmative Action Objectives

1. The County shall identify minority and women business and their products and services.
2. The County shall provide information to minority and women business enterprises about the County's procurement needs. This shall be accomplished by:
 - A. Ensuring that perspective MBE/WBE bidders and subcontractors have access to the bidding documents.
 - B. Furnishing MBE/WBE subcontractors with the names of prospective bidders on a project, upon request, and providing prospective bidders with the school system's list of certified MBE/WBE.
3. The County's goal for participation by MBE/WBE is the total value of the work for each project to be ten percent (10%).
4. The County requires that all bidders submit the following with their bids:
 - a. Identification of Minority Business Participation form
 - b. AFFIDAVIT A – Listing of Good Faith Efforts
 - c. On the bid form list of MWBE sub-contractors utilized.
4. The low bidder on a County construction project must provide an assurance in writing to the County prior to the acceptance of their bid that they have met, intend to meet or have made a good faith effort to meet the goal for MWBE participation. The contractor shall provide the County the following information:
 - A. Provide the Owner with either Appendic C or D as may be appropriate.

- B. On the Schedule of values, provide indication of MWBE subcontractors portion of work.
- 5. Provide Appendix E with all requests for payment.
- 6. Failure of a low bidder to meet the affirmative action goal adopted by the County or to make a good faith effort to meet the goal shall result in the bid being considered as rejected.

Certification Criteria

- 1. A minority or women's business enterprise is a business which is at least 51% owned and controlled by minority group members or women.

Competitive Bids

- 1. Nothing in this policy is to be construed as to require the County or contractors to purchase supplies and equipment or award contracts to MBE/WBE who do not submit the lowest responsible bid.

END OF SECTION

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of _____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- 1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- 2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- 3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- 4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- 5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- 6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- 7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- 8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- 9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- 10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

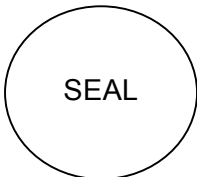
The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by Minority Firms

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by minority businesses as defined in GS143-128.2(g) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit. This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of _____ I do hereby certify that on the _____
(Name of Bidder)

_____ (Project Name)
 Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____ % of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required

Name and Phone Number	*Minority Category	Work description	Dollar Value

*Minority categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (D)

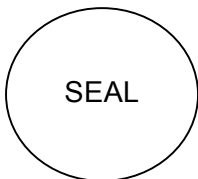
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

State of North Carolina AFFIDAVIT D – Good Faith Efforts

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the _____
 (Name of Bidder)

_____ (Project Name)
 Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*Minority Category	Work description	Dollar Value

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

Examples of documentation that may be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster.
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

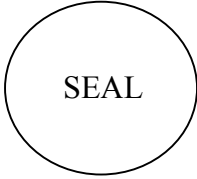
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

APPENDIX E MBE DOCUMENTATION FOR CONTRACT PAYMENTS

Prime Contractor/Architect: _____

Address & Phone: _____

Project Name: _____

Pay Application #: _____ Period: _____

The following is a list of payments made to Minority Business Enterprises on this project for the above-mentioned period.

MBE FIRM NAME	* TYPE OF MBE	AMOUNT PAID THIS MONTH (With This Pay App)	TOTAL PAYMENTS TO DATE	TOTAL AMOUNT COMMITTED

*Minority categories: Black (B), Hispanic (H), Asian American (AA), American Indian (AI), White Female (WF), Socially and Economically Disadvantaged (SED)

Approved/Certified By:

Name

Title

Date

Signature

SUBMIT WITH EACH PAY REQUEST - FINAL PAYMENT - FINAL REPORT

SECTION 00800 - SUPPLEMENTARY CONDITIONS

The following supplements modify, change, delete from or add to the "General Conditions of the Contract for Construction," AIA Document A201, 2007 Edition. Where any article of the General Conditions is modified or any Paragraph, Subparagraph or Clause thereof is modified or deleted by these Supplementary Conditions, the unaltered provisions of that Article, Paragraph, Subparagraph or Clause shall remain in effect.

Article 1 - General Provisions

1.1 Basic Definitions

Add the following to Subparagraph 1.1.1:

"Precedence of Contract Documents shall be in the following sequence:

- 1) Agreement (Between Owner and Contractor)
- 2) Addenda
- 3) Supplementary Conditions
- 4) General Conditions (AIA Document A201)
- 5) Constructions Documents comprised of Specifications and Related Documents, and Working Drawings."

Add the following to Subparagraph 1.1.3:

"Provide" shall mean furnish, fabricate, erect, and completely install, including all necessary labor and incidental materials, the referenced or described item complete in place and ready for use or operation."

Add the following to Subparagraph 1.1.5:

"Mechanical, Plumbing, Fire Protection and Electrical Drawings are diagrammatic only. Actual work shall be installed in accordance with measurements obtained at job-site, coordination with other trades as necessary, shop drawing/submittal requirements, and Owner furnished equipment."

Add the following Subparagraph 1.2.4:

"1.2.4 Sections of Division 1 - General Requirements govern the execution of the work of all sections of the Specifications."

Article 3 - Contractor

3.2 Review of Contract Documents and Field Conditions by Contractor.

Add the following to Subparagraph 3.2.2:

"The Contractor shall assume full responsibility for accuracy of measurements obtained at the site. No extra compensation will be allowed because of differences between actual measurements and

dimensions indicated on the Drawings, nor for Contractor's failure to coordinate work with actual field measurements."

Modify Subparagraph 3.3.3 as follows:

"The Contractor shall be responsible for inspection of portions of work already performed under this contract by the Contractor and/or his subcontractors to determine that such portions are in proper condition to receive subsequent work."

3.4 Labor and Materials.

Add the following Subparagraph 3.4.4 to Paragraph 3.4:

"3.4.4 The Contractor shall keep the Architect informed as to the availability of all specified materials, equipment and required labor and shall advise him promptly, in writing, of all materials, equipment or labor that may not be obtainable for the purposes of the Contract, whether due to conditions of the market or other limiting or governing factors."

3.5 Warranty

Add the following to Subparagraph 3.5.1:

"The Contractor shall bear all expenses resulting from substitutions including the cost of work in general, structural, plumbing, mechanical and electrical trades required due to the substitution and the cost of any Architect's services made necessary by the substitution."

3.6 Taxes

Add the following to Subparagraph 3.6.1:

"The Contractor shall include federal, local and state sales, consumer, use and similar taxes in the Contract Sum. He shall pay such taxes at the time that they are due. He shall provide the Owner with an itemized listing and supporting data for all such taxes paid. The tax exemption only applies to permanent building materials. Supporting documentation shall be in conformance with the tax submittal form included in the Project Manual and with all requirements of the State of North Carolina."

3.7 Permits, Fees and Notices:

Add the following to Subparagraph 3.7.1:

"Upon completion of the Work, the Contractor shall deliver to the Architect original copies of all required certificates of inspection."

3.9 Superintendent:

Add the following to Subparagraph 3.9.1:

"Contractor's resident superintendent as approved by the Architect shall not be removed from Project until Project punch list has been completed and Project accepted by Owner or until Architect finds the superintendent unacceptable. Contractor's resident superintendent shall be assigned solely to Project and shall not perform any duties or superintendence on any other Project Contractor may have until completion of this Project."

3.10 Contractor's Construction Schedules

Add the following Sub-Subparagraph 3.10.1.1 to Subparagraph 3.10.1:

"3.10.1.1 At the time of submitting the Construction Progress Schedule to the Architect, the Contractor shall also submit the anticipated amount of each monthly payment that will become due in accordance with the Progress Schedule. No application for payment will be approved until the Construction Progress Schedule has been received by the Architect."

Add the following Sub-Subparagraph 3.10.2.1 to Subparagraph 3.10.2:

"3.10.2.1 The Contractor shall prepare and submit to the Architect within 30 days after award of the Contract a schedule of Shop Drawings and Submittals as required in the Contract Documents. Schedule shall fix dates for submission, and the lead time for each submittal as related to requirements for return receipt for submittal to expedite delivery of material to maintain Progress Schedule. It is to be understood that this Schedule will be subject to change from time to time in accordance with the progress of the work. All Shop Drawings, Samples and Submittals for approval shall be completed within two months after award of the Contract."

Add the following to Subparagraph 3.12.5:

"Shop drawings, product data, samples and other submittals shall be prepared and submitted in accordance with the requirements of Section 01300 - Administrative Requirements."

Article 4 - Administration of the Contract

4.1 Architect

Add the following to Subparagraph 4.1.1:

"The Architect as referred to in these documents is Fuller Architectural, 68 Court Square, Suite 200, Mocksville, North Carolina 27028. The term "Architect" shall include the Architect's consultants and staff for all disciplines including civil, structural, mechanical, plumbing, electrical, etc."

4.3 Claims and Disputes

Add the following to Subparagraph 4.3.2:

"Any claim implemented by Change Order shall represent the entire claim for that event and no additional claims shall be made by either party to the Contract after the claim has been implemented by Change Order."

Article 5 - Subcontractors

5.2 Award of Subcontracts and Other Contracts for Portions of the Work.

Add the following to Subparagraph 5.2.1:

"The listing required by this subparagraph shall be submitted to the Architect not later than 30 days from the date of the Contract. This list shall include the names of manufacturers, suppliers, and installers proposed for each of the products, equipment, and materials to be incorporated into the project."

The Contractor shall furnish upon request adequate data on any named entity on the list in order to permit the Architect and Owner to conduct a proper evaluation. Failure to object to a manufacturer shall not constitute a waiver of any of the requirements of the Contract Documents, and all products furnished by the listed manufacturer must conform to such requirements."

5.3 Subcontractual Relations

Add the following to Subparagraph 5.3.1:

"The division of these specifications into sections is not intended to control the Contractor in dividing the work among subcontractors nor to limit the scope of work performed by any trade under a given section. The Architect will not undertake to settle any differences between the Contractor and his Subcontractors as to inclusion of work or material items. It shall be the Contractor's entire responsibility for the proper coordination and completion of all the work described in these Specifications whether performed by the Contractor or Subcontractors, if any."

Article 7 - Changes in the Work

7.2 Change Orders

Add the following Subparagraph 7.2.3 to Paragraph 7.2:

"7.2.3 A change order, when issued, shall be full compensation, or credit, for the extra work included, omitted, or substituted. It shall show on its face, the adjustment in time for completion of the project as a result of the change in the work. Each change order shall include all costs related thereto, including all overhead, miscellaneous expenses, and incidentals. The Contractor shall submit a written and itemized proposal for each Change Order under consideration (Change Proposal Requests) within 21 days of receipt of a pricing request. See Section 00940 for specific requirements for change orders."

Article 8 - Time

8.2 Progress and Completion

Add the following to Subparagraph 8.2.1:

1. The time for completion of this Contract shall be as indicated by the General Contractor on the Bid Form
2. If the progress or completion of the Work be delayed by any fault, neglect, act or failure to act on the part of the Contractor or any one acting for or on behalf of the Contractor, then the Contractor shall, in addition to all of the other obligations imposed by the Owner, work such overtime or require the appropriate subcontractor to work overtime as may be necessary to make up for all time lost and to avoid delay in the progress and completion of the work.
3. For the purpose of this Article, subcontractors shall be deemed to be acting for and on behalf of the Contractor."

Article 9 - Payments and Completion

9.2 Schedule of Values

Add the following Sub-Subparagraphs 9.2.1.1, 9.2.1.2, and 9.2.1.3 to Subparagraph 9.2.1:

"9.2.1.1 In submitting the Schedule of Values, the Contractor shall be prepared to substantiate any line items in the Schedule of Values that may be questioned by the Architect. Items in question shall be substantiated by such data as may be required by the Architect to establish the reasonableness of the value assigned to the labor and/or materials for that item.

9.2.1.2 At the time of submitting the Schedule of Values, the Contractor shall also submit an estimate of the amount of each Request for Payment for the Owner's use in planning cash flow for the Project. It is understood that actual amounts requested by the Requests for Payment may not agree with this estimate."

9.2.1.3 The schedule of values shall be submitted in accordance with Section 01200."

9.3 Applications For Payment

Add the following to Subparagraph 9.3.1:

"Requests for Payment shall be submitted in 3 copies (unless otherwise directed) to the Architect on forms approved by Architect.

Unless otherwise agreed between the Owner and Contractor, the Contractor shall submit his requests for payment not later than the twenty-fifth day of each month. Requests shall be based on work performed during the period ending with the date of the request.

The Owner will make a partial payment to the Contractor based on Contractor's requests duly certified and approved by the Architect by the twenty-fifth of the following month.

Until Substantial Completion, the Owner will pay ninety-five percent (95%) of the amount due the Contractor on account of progress payments. If the manner of completion of the Work and its progress are and remain satisfactory to the Owner, and in absence of other good and sufficient reasons, when the Project is indicated 50 percent or more complete (Work in Place, not including stored materials) in the application for Payment, the Contractor may, without reduction of previous retainage, request that any remaining progress payments be paid in full. This request shall be in writing and is subject to the Architect's recommendation and Owner's written approval.

The full Contract retainage may be reinstated if the manner of completion of the Work and its progress do not remain satisfactory to the Owner or for other good and sufficient reasons.

No further reduction in retainage will be made upon Substantial Completion of the Work."

Add the following to Subparagraph 9.3.2:

"In requesting payment for materials stored on or off the site, the Contractor shall submit with his Application for Payment the following:

An itemized list of the stored material prepared in sufficient detail to identify the materials and their value.

Evidence such as bills of sale or such other proof as may be requested by the Owner or Architect to substantiate that the materials listed have been paid for by the Contractor, or for materials stored at the site only, a notarized statement from the materials supplier stating that the materials will become the property of the Owner upon payment by the Owner to the Contractor.

For material stored off the site, the Contractor shall submit with his Application for Payment the following:

Evidence that the materials are stored at the location previously agreed to in writing.

Evidence that the storage location is bonded.

Evidence that the materials are insured while in storage and while in transit to the site.

Evidence that transportation to the site will be provided.

No payment will be certified for material stored off the site until:

The storage location has been agreed upon in writing.

The materials may be reviewed in their storage location by the Architect. This inspection, if performed, is an extra service for which the Owner shall pay the Architect and for which the Owner shall be reimbursed by the Contractor."

9.6 Progress Payments

Add the following Sub-Subparagraph 9.6.2.1 to Subparagraph 9.6.2:

"9.6.2.1 The Contractor shall indemnify and hold the Owner harmless from laborer's, mechanic's and materialmen's liens upon the Owner's properties or the premises upon which the work is located, arising out of the work performed or materials furnished by the Contractor or any of his subcontractors or any material suppliers under the Contract."

9.8 Substantial Completion:

Add the following Subparagraph 9.8.1.1 to Subparagraph 9.8.1:

"9.8.1.1 Substantial Completion for this project is defined as the point at which the stage/phase is 100% complete (including the completion of all systems checking and balancing, all required inspections by the local building authority, including acceptance by same), completion of all outstanding punch list items. The project area shall have been cleaned to the point where the Owner may assume occupancy.

9.10 Final Completion and Final Payment

Add the following to Subparagraph 9.10.2:

"At the completion of the project prior to receiving final payment, the Contractor shall furnish the Owner, through the Architect, properly signed and notarized waivers of lien from all subcontractors employed and material suppliers furnishing materials for the Project. Such waivers shall be submitted before final payment will be certified by the Architect to the Owner. The final inspection by the Architect are one time occurrences for each respective phase. If the Project does

not pass final inspection due to no fault of the Owner or Architect, the Contractor shall pay the Owner for expenses incurred as a result of a return by the Architect for final inspections."

Article 11 - Insurance

11.1 Contractor's Liability Insurance

Contractor shall purchase insurance as follows:

Worker's Compensation insurance including Employer's liability to cover employee injuries or disease compensable under Worker's Compensation statutes of states in which Work is conducted under this contract; disability benefit laws, if any; or Federal compensation acts such as U. S. Longshoremen or Harbor Worker's Maritime Employment, or Railroad Compensation Act(s), if applicable. Self-insurance plans approved by regulatory authorities in state in which Work on this Project is performed are acceptable.

Contractor shall assure all subcontractors have worker's compensation coverage for their employees. Supply a copy of all certificates to the Owner prior to commencement of work.

The Owner is to be named as an additional insured to the General Contractor's policy for this project.

Comprehensive General Liability policy to cover bodily injury to persons other than employees and for damage to tangible property, including loss of use thereof, including following exposures:

All premises and operations.

Explosion, collapse and underground damage.

Contractor's protective coverage for independent contractors or subcontractors employed by him.

Contractual liability as required by General Conditions, Paragraph 5.4.

Usual personal injury liability endorsement with no exclusions pertaining to employment.

Products and completed operations coverage.

Comprehensive automobile liability policy to cover bodily injury and property damage arising out of ownership, maintenance, or use of any motor vehicle, including owned, non-owned, and hire vehicles. In light of standard policy provisions concerning (1) loading and unloading and (2) definitions pertaining to motor vehicles licensed for road use versus unlicensed or self-propelled construction equipment, it is strongly recommended that comprehensive general liability and comprehensive auto liability be written by same insurance carrier, though not necessarily in one policy.

Contractor shall purchase for Owner, Owner's Protective Liability policy to protect Owner, Engineer, their consultants, agents, employees and such public corporations in whose jurisdiction Work is located for their contingent liability for work performed by Contractor and subcontractor(s) under this Contract.

Contractor shall purchase Builder's Risk Insurance covering property of the Project for full cost of replacement which shall include, as named insured, (1) Contractor, (2), all subcontractors, (3) Owner and Architect, as their respective interests may prove at the time of loss, covering insurable property which is the subject of this Contract, whether in place, stored at job site, stored elsewhere, or in transit at risk of insured(s). Coverage shall be effected on a "comprehensive" form including, but not limited to perils of fire, wind, vandalism, collapse, theft. Contractor may arrange for such deductible as deems to be within its ability to self-insure, but it will be held solely responsible for such deductibles and for any coinsurance

penalties. Any insured loss shall be adjusted with the Owner and Contractor and be paid to the Owner and Contractor as Trustee for any other insured.

Umbrella or Excess Liability: Owner or its representative may, for certain projects, require limits higher than those stated under "Limits of Liability" below. Contractor is granted option of arranging coverage under single policy for full limit required or by combination of underlying policies with balance provided by Excess or Liability policy equal to total limit(s) requested. Umbrella or excess policy wording shall be at least as broad as preliminary or underlying policy(ies) and shall apply both to Contractor's general liability, to its automobile liability insurance and employer's liability insurance.

Limits of Liability: Required limits of liability for insurance coverage required above shall be not less than following:

1. **Worker's Compensation:**

Worker's Compensation	Statutory
Employers Liability	\$500,000 Per Accident Bodily Injury by Accident
	\$500,000 Policy Aggregate Bodily Injury by Disease
	\$500,000 Per Accident Bodily Injury by Disease

2. **Comprehensive General Liability:**

Coverage A - Bodily Injury & Property	
Damage Liability	\$1,000,000 Any One Occurrence Subject to Products Completed Operations & General Aggregates
Fire Damage Liability	\$50,000 Any One Fire Subject to General Aggregate
Coverage B - Personal & Advertising	
Injury Liability	\$1,000,000 Any One Person Subject to General Aggregate
Coverage C - Medical Payments	
	\$5,000 Any One Person Subject to General Aggregate

3. **Aggregate Limits of Liability:**

	\$2,000,000 Products/Completed Operations Aggregate
	\$2,000,000 General Aggregate

- | | | |
|----|--|--|
| 4. | <u>Automobile:</u> | |
| | Liability | \$1,000,000 Per Accident
Owned, Non-owned & Hired Autos |
| 5. | <u>Builder's Risk-Installation Floater:</u> | By General Contractor |
| 6. | <u>Umbrellas or Excess Liability:</u> | \$5,000,000 |

Other Requirements:

Owner reserves the right to request complete copies of policies if deemed necessary to ascertain details of coverage not provided by certificates. Such policy copies shall be "Originally Signed Copies", and so designated.

Qualifications of Insurers: In order to determine financial strength and reputation of insurance carriers, all companies providing coverage required shall have financial rating not lower than XII and policyholder's service rating no lower than A- as listed in A. M. Best's Key Rating Guide, current edition. Companies with ratings lower than A-: XII will be acceptable only upon written consent of Owner.

Subrogation Clause: Following subrogation clause (or similar wording) shall appear in all policies of liability insurance, "Subrogation Clause": It is hereby stipulated that this insurance shall not be invalidated should insured waive in writing prior to loss any or all right of recovery against any party for loss related to work performed under this Contract.

Add the following Sub-Subparagraph 11.1.3.1 to Subparagraph 11.1.3:

"11.1.3.1 The Contractor shall furnish one copy each of Certificates of Insurance herein required for each copy of the Agreement which shall specifically set forth evidence of all coverage required by Subparagraph 11.1.1, 11.1.2 and 11.1.3. The form of the Certificates shall be AIA Document G-715. The Contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits.

Article 13 - Miscellaneous Provisions

13.1 Governing Law

Add the following to Subparagraph 13.1.1:

"In all operations under the Contract, the Contractor agrees that he will comply with provisions of all State and Federal Laws (including OSHA) and all local ordinances which may affect such operations."

END OF SUPPLEMENTARY CONDITIONS

**SECTION 00940 –
PRICING OF CONSTRUCTION CONTRACT CHANGE ORDERS**

The contract language contained in this Document will supplement and take precedence over all other change order pricing contract provisions in the Contract Documents provided by either the Owner, Construction Manager (Contractor), General Contractor (Contractor) and/or Architect/Engineer. It is understood that these contract provisions will govern the pricing and administration of all change order proposals to be submitted by the Construction Manager and/or the General Contractor and/or the Trade Contractors and/or the Subcontractors and/or all other lower tier subcontractors (all referred to as “Contractor” in this Document). In the event of a conflict between the other contract documents used for the project, the change order pricing contract provisions in this Section 00940 shall govern.

Contractor agrees that it will incorporate the provisions of this Document into all agreements with lower tier Contractors. It is understood that these change order pricing provisions apply to all types of contracts and/or subcontracts specifically including lump sum (or fixed price contracts), unit price contracts, and/or cost plus contracts with or without a guaranteed maximum. It is further understood that these change order provisions will apply to all methods of change order pricing specifically including lump sum change order proposals, unit price change order proposals, and cost plus change order proposals.

Whenever change order proposals to adjust the contract price become necessary, the Owner will have the right to select the method of pricing to be used by the Contractor in accordance with the pricing provisions found in this Document. The options will be (1) lump sum change order proposals, (2) unit price change order proposal, or (3) cost plus change order proposal as defined in the following provisions.

1.1 LUMP SUM CHANGE ORDER PROPOSALS

- A. The Contractor will submit a properly itemized Lump Sum Change Order Proposal covering the additional work and/or the work to be deleted. This proposal will be itemized for the various components of work and segregated by labor, material, and equipment in a detailed format satisfactory to Owner. The Owner will require itemized change orders on all change order proposals from the Contractor, subcontractors, and sub-subcontractors regardless of tier. Details to be submitted will include detailed line item estimates showing detailed materials quantity take-offs, material prices by item and related labor hour pricing information and extensions (by line item or by drawing as applicable).

1.2 LABOR

- A. Estimated labor costs to be included for self-performed work shall be based on the actual cost per hour paid by the Contractor for those workers or crews of workers who the Contractor reasonably anticipates will perform the change order work. Estimated labor hours shall include hours only for those workmen and working foremen directly involved in performing the change order work. Supervision above the level of working foremen (such as general foremen, superintendent, project manager, etc.) is considered to be included in the Markup Percentages as outlined in paragraphs 1.6 and 1.7 of this Document. Note: No separate allowances for warranty expense will be allowed as a direct cost of a change order. Costs attributed to warranty expenses will be considered to be covered by the Markup Percentages as outlined in paragraphs 1.6 and 1.7 of this Document.

1.3 LABOR BURDEN

- A. Labor burden allowable in change orders shall be defined as employer’s net actual

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1.3 LABOR BURDEN

- A. Labor burden allowable in change orders shall be defined as employer’s net actual

cost of payroll taxes (FICA, Medicare, SUTA, FUTA), net actual cost for employer's cost of union benefits (or other usual and customary fringe benefits if the employees are not union employees), and net actual cost to employer for workers' compensation insurance taking into consideration adjustments for experience modifiers, premium discounts, dividends, rebates, expense constants, assigned risk pool costs, net cost reductions due to policies with deductibles for self-insured losses, assigned risk rebates, etc. Contractor shall reduce their standard payroll tax percentages to properly reflect the effective cost reduction due to the estimated impact of the annual maximum wages subject to payroll taxes. (An estimated percentage for labor burden may be used for pricing change orders. However, the percentage used for labor burden to price change orders will be examined at the conclusion of the project and an adjustment to the approved change orders will be processed if it is determined that the actual labor burden percentage should have been more or less than the estimated percentage used.)

1.4 MATERIAL

- A. Estimated material change order costs shall reflect the Contractor's reasonably anticipated net actual cost for the purchase of the material needed for the change order work. Estimated material costs shall reflect cost reductions available to the Contractor due to trade discounts, free material credits, and/or volume rebates. "Cash" discounts (i.e., prompt payment discounts of 2% or less) available on material purchased for change order work shall be credited to Owner if the Contractor is provided Owner funds in time for Contractor to take advantage of any such "cash" discounts. Price quotations from material suppliers must be itemized with unit prices for each specific item to be purchased. "Lot pricing" quotations will not be considered sufficient substantiating detail.

1.5 EQUIPMENT

- A. Allowable change order estimated costs may include appropriate amounts for rental of major equipment specifically needed to perform the change order work (defined as tools and equipment with an individual purchase cost of more than \$500). For Contractor owned equipment, the "bare" equipment rental rates allowed to be used for pricing change order proposals shall be 75% of the monthly rate listed in the most current publication of The AED Green Book divided by 176 to arrive at a maximum hourly rate to be applied to the hours the equipment is used performing the change order work. Further, for Contractor owned equipment the aggregate equipment rent changes for any single piece of equipment used in all change order work shall be limited to 50% of the fair market value of the piece of equipment when the first change order is priced involving usage of the price of equipment. Fuel necessary to operate the equipment will be considered as a separate direct cost associated with the change order work.

1.6 MAXIMUM MARKUP PERCENTAGE ALLOWABLE ON SELF-PERFORMED WORK

- A. With respect to pricing change orders, the maximum Markup Percentage Fee to be paid to any Contractor (regardless of tier) on self-performed work shall be a single markup percentage not-to-exceed (the following sliding scale of percentages) of the net direct cost of (1) direct labor and allowable labor burden costs applicable to the change order or extra work; (2) the net cost of material and installed equipment incorporated into the change or extra work; and (3) net rental cost of major equipment and related fuel costs necessary to complete the change in the Work. The following sliding scale will apply for the pricing of self-performed work portion of each change order proposal request:

1. 15% on the first \$25,000 of the change order direct cost of self-performed work,

2. 10% on the portion of the change order direct cost of self-performed work between \$25,000 and \$50,000 and,
 3. 7.5% on the portion of the change order direct cost of self-performed work between \$50,000 and \$200,000 and,
 4. 5% on the portion of the change order direct cost of self-performed work greater than \$200,000.
- B. The markup computed using the above formula shall be considered to be allocated 2/3 to cover applicable overhead costs directly attributable to the field overhead costs related to processing and supervising the change order work, and the remaining 1/3 to cover home office overhead costs and profit.

1.7 MAXIMUM MARKUP PERCENTAGES ALLOWABLE ON WORK PERFORMED BY LOWER TIER CONTRACTORS

- A. With respect to pricing the portion of change order proposals involving work performed by lower tier contractors, the maximum Markup Percentage Fee allowable to the Contractor supervising the lower tier contractor's work shall not exceed five percent (5%) of the net of all approved change order work performed by all subcontractors combined for any particular change order proposal.
- B. The markup computed using the above formula shall be considered to be allocated 2/3 to cover applicable overhead costs directly attributable to the field overhead costs related to processing and supervising the change order work, and the remaining 1/3 to cover home office overhead costs and profit.

1.8 NO MARKUP ON SALES AND USE TAX

- A. Sales and use tax (if applicable) shall not be subject to any Markup Percentage Fee. Any sales or use tax properly payable by the Contractors shall be added after computing the change order amount before tax.

1.9 DIRECT AND INDIRECT COSTS COVERED BY MARKUP PERCENTAGES

- A. As a further clarification, the agreed upon Markup Percentage Fee is intended to cover the Contractor's profit and all indirect costs associated with the change order work. Items intended to be covered by the Markup Percentage Fee include, but are not limited to home expenses, branch office and field office overhead expense of any kind; project management; superintendents, general foremen; estimating, engineering; coordinating; expediting; purchasing; detailing; legal, accounting, data processing or other administrative expenses; shop drawings; permits; auto insurance and umbrella insurance; pick-up truck costs; and warranty expense costs. The cost for the use of small tools is also to be considered covered by the Markup Percentage Fee. Small tools shall be defined as tools and equipment (power or non-power) with an individual purchase cost of less than \$500.

1.10 DIRECT CHANGE ORDERS AND NET DEDUCT CHANGES

- A. The application of the markup percentages referenced in the preceding paragraphs 1.6 and 1.7 will apply to both additive and deductive change orders. In the case of a deductive change order, the credit will be computed by applying the sliding scale percentages as outlined in paragraphs 1.6 and 1.7 so that a deductive change order would be computed in the same manner as an additive change order. In those instances where a change involves both additive and deductive work, the additions and deductions will be netted and the markup percentage adjustments will be applied to the net amount.

1.11 CONTINGENCY

- A. In no event will any lump sum or percentage amounts for “contingency” be allowed to be added as a separate line item in change order estimates. Unknowns attributable to labor hours will be accounted for when estimating labor hours anticipated to perform the work. Unknowns attributable to material scrap and waste will be estimated as part of material costs.

1.12 CHANGE ORDER PROPOSAL TIME AND CHANGE DIRECTIVES

- A. The Contractor’s proposals for changes in the contract amount or time shall be submitted within seven (7) calendar days of the Owner’s request, unless the Owner extends such period of time due to the circumstances involved. If such proposals are not received in a timely manner, if the proposals are not acceptable to Owner, or if the changed work should be started immediately to avoid damage to the project or costly delay, the Owner may direct the Contractor to proceed with the changes without waiting for the Contractor’s proposal or for the formal change order to be issued. In the case of an unacceptable Contractor proposal, the Owner may direct the Contractor to proceed with the changed work on a cost-plus basis with an agreed upon “not-to-exceed” price for the work to be performed. Such directions to the Contractor by the Owner shall be confirmed in writing by a “Notice to Proceed on Changes” letter within seven (7) calendar days. The cost or credit, and of time extensions will be determined by negotiations as soon as practical thereafter and incorporated in a Change Order to the Contract.

1.13 LIABILITY INSURANCE AND BONDS

- A. In the event of the Contractor has been required to furnish comprehensive general liability insurance and/or performance and/or payment bonds as part of the base contract price, a final contract change order will be processed to account for the Contractor’s net increase or decrease in comprehensive general liability insurance costs and/or bond premium costs associated with change orders to Contractor’s base price. Contract adjustments related to any such increased or decreased costs related to insurance and/or bond coverage will not be subject to any Contractor markup for overhead and profit.

1.14 COST PLUS FEE AGREEMENTS

- A. In those contract situations where the Contractor (Construction Manager, General Contractor, Prime Contractor, Trade Contractor, Subcontractor or Sub-subcontractor) has entered into a cost plus fee with a guaranteed maximum contract arrangement where the basis of compensation is reimbursement for defined “Cost of the Work” plus either a stated percentage fee or fixed fee subject to an agreed upon contract guaranteed maximum price, the Contractor’s total percentage fee or fixed fee to be paid under the terms of cost plus contract agreement shall be adjusted either upward or downward by the same percentage stated in the applicable portion of the cost plus fee agreement. The percentage markups to be applied for the pricing of change orders which will increase or decrease the contract guaranteed maximum price will be percentages outlined in paragraphs 1.6 and 1.7 of this Contract Attachment “A”. However, those percentage markups which are intended to cover field overhead and certain other direct costs attributable to the change order work will not apply to adjustments in the total adjusted fee payable to the Contractor under the cost plus fee portion of the contract agreement.
- B. For example, if the contract utilizes a Fixed Fee, the base contract Fixed Fee will be adjusted by 1/3 of the net percentage markups included in all approved change orders. The remaining 2/3 of the net markups on approved change orders will be considered an adjustment to the Contractor’s general conditions budget.

1.15 UNIT PRICE CHANGE ORDER PROPOSALS

- A. As an alternative to Lump Sum Change Order Proposals, the Owner or the Construction Manager acting with the approval of the Owner may choose the option to use Contract Unit Prices. Agreed upon Contract Unit Prices shall be the same for added quantities and deductive quantities. Unit Prices are not required to be used for pricing change orders where other methods of pricing change order work are more equitable.
- B. The Contractor will submit, within seven (7) days after receipt of the Owner's written request for a Unit Price Proposal, a written Unit Price proposal itemizing the quantities of each item of work for which there is an applicable Contract Unit Price. The quantities must be itemized in relation to each specific contract drawing.
- C. Contract Unit Prices will be applied to net differences of quantities of the same item. Such Contract Unit Prices will be considered to cover all direct and indirect costs of furnishing and installing the item including the subcontractor's Markup Percentage Fee.

1.16 COST PLUS CHANGE ORDER PROPOSALS

- A. As an alternative to either Lump Sum Change Order Proposals or Unit Price Change Order Proposals, the Owner may elect to have any extra work performed on a cost plus markup percentage fee basis. Upon written notice to proceed, the Contractor shall perform such authorized extra work at actual cost for direct labor (working foremen, journeymen, apprentices, helpers, etc.), actual cost of labor burden, actual cost of material used to perform the extra work, and actual cost of rental of major equipment (without any charge for administration, clerical expense, general supervision or superintendent of any nature whatsoever, including general foremen, or the cost of rental of small tools, minor equipment, or plant) plus the approved Markup Percentage Fee. The intent of this clause is to define allowable cost plus chargeable costs to be the same as those allowable when pricing Lump Sum Change Proposals as outlined in subparagraphs 1.1 through 1.13 above. Owner and Contractor may agree in advance in writing on a maximum price for this work and Owner shall not be liable for any charge in excess of the maximum. Daily time sheets with names of all Contractors' employees working on the project will be required to be submitted to the Owner for both labor and equipment used by the Contractor for time periods during which extra work is performed on a cost plus fee basis. Daily time sheets will break down the paid hours worked by the Contractors' employees showing both base contract work as well as extra work performed by each employee.

1.17 ACCURATE CHANGE ORDER PRICING INFORMATION

- A. Contractor agrees that it is responsible for submitting accurate cost and pricing data to support its Lump Sum Change and/or Cost Plus Change Order Proposals or other contract price adjustments under the contract. Contractor further agrees to submit change order proposals with cost and pricing data which is accurate, complete, current, and in accordance with the terms of the contract with respect to pricing of change orders.

1.18 RIGHT TO VERIFY CHANGE ORDER PRICING INFORMATION

- A. Contractor agrees that any designated Owner's representative will have the right to examine the Contractor's records (during the contract period and up to three years after final payment is made on the contract) to verify the accuracy and appropriateness of the pricing data used to price all change order proposals and/or claims. Contractor agrees that if the Owner determines the cost and pricing data

submitted (whether approved or not) was inaccurate, incomplete, not current, or not in compliance with the terms of the contract regarding pricing of change orders, an appropriate contract price adjustment will be made. Such post-approval contract price adjustments will apply to all levels of contractors and/or subcontractors and to all types of change order proposals specifically including lump sum change orders, unit price change orders, and cost-plus change orders.

1.19 REQUIREMENTS FOR DETAILED CHANGE ORDER PRICING INFORMATION

- A. Contractor agrees to provide and require all Subcontractors to provide a breakdown of allowable labor and labor burden cost information as outlined in this Document. This information will be used to evaluate the potential cost of labor and labor burden related to change order work. It is intended that this information represent an accurate estimate of the Contractor's actual labor and labor burden cost components. This information is not intended to establish fixed billing or change order pricing labor rates. However, at the time change orders are priced, the submitted cost data for labor rates may be used to price change order work. The accuracy of any such agreed upon labor cost components used to price change orders will be subject to later audit. Approved change order amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed upon labor cost components are determined to be inaccurate.

END OF SECTION

CERTIFICATE CONCERNING NORTH CAROLINA
STATE AND COUNTY
SALES TAX

We certify that on the Existing Davie County High School Demolition – Phase 2, Mocksville, NC that the Sales Tax and/or Use Tax on accounts in the amount listed and itemized below was paid by us for the period _____ through _____.

We further certify that the figures below are included in the original Contract Price:

<u>Vendor</u> <u>Invoice</u> <u>No.</u>	<u>Invoice</u> <u>Date</u>	<u>Vendor's</u> <u>Name</u>	<u>Total Amt.</u> <u>of Taxes</u> <u>Paid</u>	<u>State</u> <u>Taxes</u> <u>Paid</u>	<u>County</u> <u>Taxes</u> <u>Paid</u>	<u>County</u>
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(List each invoice on which North Carolina Sales Tax was paid)

Authorized Signature

Sworn to and subscribed to before me this date: _____

By_: _____
Notary Public

(Seal)

My Commission Expires: _____

SECTION 01010 -SUMMARY OF WORK

PART 1 -GENERAL

1.1 SECTION INCLUDES:

- A. Scope of Work.
- B. Contracts.
- C. Owner Furnished Products.

1.2 SCOPE OF WORK:

The project generally includes the demolition of approximately 23,000 sf of the existing B- classroom building, cafeteria building, breezeway, vcovered drop-off, asbestos removal, universal waste, site demolition, site utility demolition and grading.

1.3 CONTRACT:

- A. These documents form the contract documents for one General Contract with the Owner as follows:
 - 1. Applicable to the General Contract: All Addenda; The General Conditions of the Contract; Supplementary Conditions, Specifications Division One, Two and Asbestos Abatement.

PART 2 -PRODUCTS

Not Used.

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01025 -MEASUREMENTS AND PAYMENTS

PART 1 -GENERAL

1.1 SECTION INCLUDES:

- A. Measurement and payment criteria applicable to portions of the Work performed under a unit price payment method.

1.2 AUTHORITY:

- A. Measurement methods delineated in the individual specification sections complement the criteria of this section.
- B. The Architect or other Consultants will take all measurements and compute quantities accordingly. It is the responsibility of the Contractor to show the extent of material prior to removal for computing quantity.

1.3 UNIT PRICES:

- A. **Asbestos:** The contractor shall provide a unit price as called for for the removal of asbestos pipe joints and covering.

1.4 PAYMENT:

- A. **Payment Includes:** Full compensation for all required labor, Products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.
- B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Architect/Engineer multiplied by the unit sum/price for Work which is incorporated in or made necessary by the Work.

PART 2 -PRODUCTS

Not Used

PART 3 -EXECUTION

Not Used

END OF SECTION

SECTION 01040 -PROJECT COORDINATION

PART 1 -GENERAL

1.1 SECTION INCLUDES:

- A. Project Meetings.
- B. Layout.
- C. Cutting and Patching.
- D. Field Orders.
- E. Discrepancies.
- F. Site Documents.
- G. Underwriters' Approval.
- H. Publicity.
- I. Construction Documents.

1.2 PROJECT MEETINGS:

- A. To enable orderly review of progress during construction and to provide for systematic discussion of problems, regularly scheduled project meetings will be held throughout the construction period.
- B. Persons designated by each Contractor to attend and participate in project meetings shall have all required authority to commit the Contractor to decisions agreed upon in the project meetings.
- C. The Contractor will conduct the meetings and compile minutes of each meeting and will distribute copies to the Owner, Architect, Engineering Consultants and all Subcontractors within five (5) calendar days following the meeting. The Contractor
- D. Each Contractor shall, to the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout the construction period.

1.3 CUTTING AND PATCHING:

- A. The General Contractor shall be responsible for all cutting, patching, and finishing of walls, floors, roofs, etc., to allow installation of equipment, piping, ductwork, diameter, or less, through concrete shall be core drilled by the trade requiring the hole. process. No structural member shall be cut without prior written approval from the Architect/Engineer.
- B. Each trade shall be responsible for coordinating the locations and size of holes that need to be cut by the General Contractor in a timely manner so as to cause no delay in the project progress. Each trade shall be responsible for advising the General Contractor of chase spaces and holes required as the building progresses.
- C. All patching work shall be done by the General Contractor. Patches in finish surfaces shall match the adjacent surfaces in material, finish, and quality.
- D. All cutting and patching of elements outside the building wall line shall be done by the trade requiring same.

1.4 FIELD ORDERS:

- A. The term "Field Order" shall be held to refer also to the Architect/Engineer's instructions contained in letter of correspondence written to the Contractor by the Architect/Engineer.

1.5 DISCREPANCIES IN DOCUMENTS:

- A. Should the Contractor or his subcontractors find ambiguities in, or omissions from, the Drawings or Specifications, or should he be in doubt as to their meaning, he shall at once notify the Architect/Engineer, who will issue an interpretation. Failure to notify Architect/Engineer of discrepancies shall constitute acceptance of the conditions and work necessary to carry out the work.

1.6 SITE DOCUMENTS:

- A. The General Contractor shall maintain, in readable condition at the job site, one complete set of working drawings and specifications for the work, including all shop drawings. Such drawings and specifications shall be available for use by the Architect/Engineer or his representative.

1.7 UNDERWRITERS APPROVAL:

- A. All fabricated assemblies of electrically operated equipment shall bear the label of the Underwriters' Laboratories or their reexamination listing in every case where such approval has been established for the particular type of material or device in question. This requirement shall apply also to all manufactured items of electrically operated equipment.

1.8 PUBLICITY:

- A. Without exception, NO publicity or publicity releases (newspapers, radio, television, advertisements, publications, signs, etc.) shall be used or issued without the Owner's prior review and written approval.

PART 2 -PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

SECTION 01300 -SUBMITTALS

PART 1-GENERAL

1.1 GENERAL:

- A. All submittals shall be dated and shall contain the project name; description or names of equipment; materials or equipment which are to be installed, reference to the Section of Specifications where it is specified and Drawing number where shown. All submittals shall be made by Section. Submittals where required by each Section shall contain all submittals required by that Section. All submittals shall be sent electronically. Resubmittals shall be identified as such.
- B. **Coordination:**
1. Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 2. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 3. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 4. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
- C. **Processing:**
- 1 Allow sufficient time for submittal review so that installation will not be delayed as a result of the item required to process submittals until related submittals are received.
 2. Allow one (1) week for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittals being processed must be delayed for coordination.
 3. If an intermediate submittal is necessary, process the same as the initial submittal.

4. Allow one (1) week for reprocessing each submittal.
5. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

1.2 SHOP DRAWINGS:

- A. Submit shop drawings of each item electronically. Each drawing shall have a clear space for stamps. When phrase "by others" appears on Shop Drawings, the Contractor shall indicate on drawing who is to furnish material or operations so marked before submittal. When Shop Drawings are checked "resubmit", or words of like meaning, Contractor shall correct original and submit a new drawing for approval to the Architect/Engineer. After completion of checking of each submission of Shop Drawings, the Architect/Engineer will return check drawings to Contractor.

1.3 MANUFACTURER'S LITERATURE:

- A. For standard manufactured items not requiring special shop drawings for manufacture, submit electronically manufacturer's catalog sheets. Catalog cuts shall be of item to be furnished, showing scale details, sizes, dimensions, performance characteristics, capacities, wiring diagrams and controls, and all other pertinent information. Contractor shall clearly indicate the need for any Owner or Architect/Engineer required selections.

1.4 SAMPLES:

- A. Unless otherwise specifically directed by the Architect/Engineer, all Samples shall be of the precise article proposed to be furnished.
- B. Submit all Samples in the quantity which is required to be returned plus one which will be retained by the Architect/Engineer.

1.5 MAINTENANCE MANUAL AND INSTRUCTIONS:

- A. Contractor shall, prior to completion of Contract, deliver to the Architect/Engineer three copies of a manual, assembled, indexed, and bound; presenting for the Owner's guidance, full details for care and maintenance of mechanical, electrical, and other equipment included in Contract. Manuals shall include parts lists for each item of equipment furnished under the contract. Also provide Owner a digital copy for their records.

- B. Contractor shall, for this manual, obtain from Subcontractors, literature of manufacturers relating to equipment, including motors; also furnish cuts, wiring diagrams, instruction sheets, and other information pertaining to same that will be useful to Owner in overall operation and maintenance. Include also the name, address, and phone number of the nearest sales and service organization for each item.
- C. The binder shall be hard-cover, three ring notebook, embossed with the name of the capacity). Model No. 346-44L or approved equal, 11 " x 8 1/2" with heavy duty rings. Provide the number of binders required to properly contain the information listed
- D. Such manuals and/or data called for under separate Sections of the Specifications, shall be included in the manual described in this Section.

1.6 INSTRUCTIONS:

- A. The Owner's delegated representative shall be given personal instructions by trained personnel, in the care, use, maintenance, and operation procedures for each item. This shall be done in accordance with, and in addition to, the above required manual.

1.7 PRODUCTS AND SUBSTITUTIONS:

- A. See Section 0 1600.

1.8 CLOSEOUT SUBMITTALS:

- A. See Section 0 1700 -Project Closeout

PART 2 -PRODUCTS

Not Used.

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01370 -SCHEDULE OF VALUES

PART 1-GENERAL

1.1 GENERAL REQUIREMENTS:

- A. Submit to the Architect/Engineer a Schedule of Values at least twenty (20) days prior to submitting the first Application for Payment. Schedule shall be used only as a basis for the Contractor's applications for payment.
- B. Upon request by the Architect/Engineer, support values given with data that will substantiate their correctness.
- C. List sums of materials specified under unit-price allowances, and include total quantity and unit price.

1.2 FORM OF SUBMITTAL:

- A. Submit a typewritten Schedule of Values on Application and Certification for Payment, using AIA forms which will also be used as the form for Requests for Payment.
- B. Use the Table of Contents of the Project Manual as the format for listing costs of work for sections under Division 2 through 16.
- C. Identify each line item with the number and title as listed in the Technical Specifications of the Project Manual.
- D. Itemize separate line item cost for project administration.
- E. Itemize a separate line item for allowances.
- F. Change orders shall be separately itemized.

1.3 REVIEW AND RESUBMITTAL:

- A. After review by the Architect/Engineer, if required, revise and resubmit the Schedule of Values following the same procedure as for the original submission.

PART 2 -PRODUCTS

Not Used.

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01400 -QUALITY CONTROL

PART 1-GENERAL

1.1 SECTION INCLUDES:

- A. Quality assurance and control of installation.
- B. References.

1.2 RELATED SECTIONS:

- A. **Section 01300-Submittals:**Submission of Manufacturers' Instructions and Certificates.
- B. **Section 01600 -Material and Equipment:** Requirements for material and product quality.

1.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION:

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.4 REFERENCES:

- A. Conform to reference standard by date of issue current on date of Contract Documents.

- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification for Architect/Engineer before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

PART 2 -PRODUCTS

Not Used

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01510 -TEMPORARY FACILITIES AND CONTROLS

PART 1 -GENERAL

1.1 SECTION INCLUDES:

- A. Temporary Facilities.
- B. Burning on Site.

1.2 TEMPORARY FACILITIES:

- A. **Sanitary Facilities:** The General Contractor shall provide and maintain in a neat and sanitary condition chemical type toilet facilities which comply with the requirements and regulations of the Department of Health or of other bodies having jurisdiction. These facilities shall be available to all workers on the job.
- B. **Offices:** The General Contractor shall provide an office facility as required at the site which shall be large enough for the Contractor's use and for use as a coordination office. Contractor shall have a facsimile machine on site until the completion of the Project.
- C. **Water Service:** The General Contractor shall provide, protect, and maintain a system of temporary water service until removal is authorized by the Architect/Engineer.
- D. **Light and Power Service:**
 - 1. The General Contractor shall make all arrangements and pay all charges to provide, protect, and maintain a system of temporary light and power in a safe operating condition and in compliance with applicable State requirements.
 - 2. Service shall be minimum 200 amp., 110-220 volt, single phase, properly grounded in accordance with NEC requirements. Provide temporary meter and disconnect switch at a distribution point centrally located at the site.
 - 3. Provide sufficient 20 amp. branch circuits with NEMA grounded type receptacles so spaced that from any part of the building(s) an outlet can be reached by a 50 foot extension cord for 110 volt appliances and 100 foot extension cord for 220 volt appliances.
 - 4. Provide proper temporary lighting sufficient to permit proper workmanship to be conducted by all crafts and suitable for maximum safety precautions. Provide lamps rated from 100 watts to 300 watts as necessary and generally located as follows:

5. Temporary electricity shall be available at all hours (as required) to all contractors during the entire construction period.
6. Provide temporary service other than that specified above as may be required for the completion of the project.

E. Stairs, Scaffolding, Ramps, and Hoists:

1. Each Subcontractor shall provide and maintain temporary scaffolding, ramps, and runways as required.
2. Hoisting of materials and equipment shall be provided by the contractor requiring such hoisting.
3. All apparatus, equipment, and construction included in this article shall be in accordance with all applicable state and local laws.
4. The General Contractor shall provide roof protection as necessary where scaffolds and chutes are used.

F. Temporary Storage and Parking: Only the area within the new construction as shown on the Drawings may be used for storing materials including stockpiling topsoil.

G. Removal of Temporary Work: Remove from the premises, on or before completion of work, all temporary facilities.

1.3 BURNING ON SITE:

- A. Open fire, for any purpose, will not be permitted within the building enclosure or on the project site.

PART 2 -PRODUCTS

Not Used.

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01600 -MATERIAL AND EQUIPMENT

PART 1-GENERAL

1.1 SECTION INCLUDES:

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Substitutions and product options.

1.2 RELATED SECTIONS:

- A. **Section 01400 -Quality Control:** Product quality monitoring.

1.3 PRODUCTS:

- A. **Products:** Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components.

1.4 TRANSPORTATION AND HANDLING:

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION:

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.6 SUBSTITUTIONS AND PRODUCT OPTIONS:

A. Contractor Options:

- 1. For products specified only by reference standards, submit any product meeting standards, by any Manufacturer.
- 2. For products specified by naming several products or Manufacturers, select only from products and Manufacturers named.
- 3. For products specified by naming one or more products, but indicating the option of selecting equivalent products by stating "or approved equal", "equal to" or "or equal to" after or before specified product, Contractor must submit request, (as noted below) as required for substitutions, for any product not specifically named.
- 4. Contractor is not discouraged from suggesting Voluntary Alternates. However, Voluntary Alternates and substitutions will be considered if approved as noted below. Otherwise the Contractor shall be responsible for supplying the specified product.

B. Substitutions:

- 1. Substitutions will be considered only under the following conditions:
 - (a) The request is accompanied by complete data on the proposed substitution

substantiating compliance with the Contract Documents including product identification and description, performance and test data, references and samples where applicable, and an itemized comparison of the proposed substitution with the products specified or named by Addenda, with data relating to Contract time schedule, design, and artistic effect where applicable, including color, texture, pattern, and design, and its relationship to separate contracts. Samples shall be submitted with the request for substitution.

2. In making request for substitution, Contractor represents:
 - (a) He has personally investigated proposed product, and determined that is is equal or superior in all respects to that specified by placing his proper stamp, date, item being substituted for, referenced section of project manual and drawing sheets applicable, and signature on each submittal item.
 - (b) He will provide the same guarantee for substitution as for product specified.
 - (c) He will coordinate installation of accepted substitution into work, making such changes as may be required for work to be complete in all respects.
 - (d) He waives all claims for additional costs related to substitution which subsequently become apparent.
3. All requests for substitutions must receive the approval of the Architect.
4. The Owner and the Architect will consider a formal request for substitution of products in place of those specified up to two (2) weeks prior to the signing of the Owner/Contractor Agreement only. No substitutions will be allowed after the Contract has been signed.
5. If substitutions are not submitted in accordance with the above, time spent by the Architect to review substitutions shall be charged to the Contractor through a Change Order or Change Order Directive based on Architect's hourly rate schedule.

PART 2 -PRODUCTS

Not Used

PART 3 -EXECUTION

Not used

END OF SECTION

SECTION 01700 -PROJECT CLOSEOUT

PART 1-GENERAL

1.1 PROJECT CLOSEOUT

- A. **General:** At the completion of the Project, two reviews will be performed by the Architect to establish acceptance of the Work. The terminology of these reviews shall be:
 - B. **Preliminary Review:** The preliminary review shall establish a check list of items to be corrected and completed before the Final Review.
 - C. **Final Review:** The final review shall determine whether items on the check list have been corrected and completed, and whether the work can be accepted by the Owner.
1. Preliminary Review:
 - a. The Contractor shall submit written certification to the Architect that the Project is substantially complete and shall submit list of major items to be completed or corrected.
 - b. The Architect/Engineer shall make a preliminary review, within seven days after receipt of the certification, together with the Owner's Representative. A check list of items will be prepared for correction and completion before the Final Review.
 - c. Should the Architect consider the work not substantially complete, he shall immediately notify the Contractor, in writing, stating the reasons.
 - d. The Contractor shall complete the work, and send a second written notice to the Architect, certifying that the Project is substantially complete, at which time the Architect shall reinspect the Work. If the Work is not substantially complete, the Contractor shall reimburse the Owner to compensate the Architect for all additional visits.
2. Final Review:
 - a. The Contractor shall submit written certification that the Project, or designated portion thereof, is completed and ready for final inspection, and that:
 - b. The work has been inspected for compliance with, and has been completed in accordance with, the Contract Documents.

- c. Equipment and systems have been tested in the presence of Owner's Representative and are operational.
- d. All items contained in the preliminary review list have been corrected or completed.
- e. If the Work is not complete, the Contractor shall reimburse the Owner to

D. Closeout Submittals:

- 1. Coordinate with technical sections of the Specifications. Submittals shall include
 - a. Record Drawings (Record drawings will be provided by each primary contractor (General, Mechanical, Plumbing, and Electrical) in the form of reproducible drawing sheets and will reflect changes in plumbing, mechanical, and electrical work as well as general construction. All addenda items, bulletin drawings, change order items, field changes, and items changed during project meetings shall be included on the Record Drawings. The Record Drawings shall be the same scale and format as the Contract Documents.
 - b. Provide three (3) copies of the following:
 - (1) Guarantees, Warranties and Bonds.

PART 2 -PRODUCTS

Not Used.

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01710 -CLEANING UP

PART1 -GENERAL

1.1 GENERAL:

- A. The General Contractor shall be responsible for all of the clean-up requirements as listed below.
- B. Coordinate the requirements of this section with cleaning requirements specified in each section of the Technical Specification.
- C. Maintain the project premises and public properties free from accumulations of waste, debris, soil and rubbish caused by operations.
- D. Remove all construction equipment, scaffolding, barricades, tools, surplus materials, etc. no longer required at the site.
- E. Provide refuse containers located so as to be easily accessible to all workmen at the site. These containers shall be for the deposit of garbage, refuse from meals, and other trash which might attract vermin. Containers shall have properly fitting lids which shall be maintained normally closed. Containers shall be emptied regularly, and their contents removed from the site. No open accumulation of refuse will be permitted.
- F. At the completion of work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials. Clean all sight-exposed surfaces. Leave the project clean and ready for occupancy.
- G. Provide multiple dumpsters where required by local requirements for proper separation of trash and debris.

1.2 HAZARD CONTROL:

- A. Prevent the accumulation of wastes which create hazardous conditions. Store volatile wastes in covered metal containers, and remove from premises daily. Provide adequate ventilation during use of volatile and noxious substances.
- B. Conduct clean and disposal operations to comply with local ordinances and anti-pollution laws.
- C. Do not burn or bury rubbish and waste materials on the project site.

- D. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.
- E. Do not dispose of wastes into streams, waterways or open drainage ways.

1.3 MATERIALS:

- A. Use only cleaning materials recommended by the manufacturer of the surface to be cleaned or as specified in the technical sections of the specifications.
- B. Use cleaning materials only on the surfaces for which they are intended. Protect adjacent surfaces.

1.4 CONSTRUCTION CLEANING:

- A. Execute cleaning to insure that the buildings, grounds, and public properties are maintained free from accumulations of waste materials. Provide suitable approved containers on the site for collection of waste materials and rubbish. The existing dumpsters on the site shall not be used for the disposal of construction waste.
- B. Once a week or more, if required, during the progress of the Work, clean the site and public properties, and legally dispose of waste materials, debris and rubbish at dumping areas off the Owner's property.
- C. Schedule cleaning operations so that the dust and other contaminants resulting from the cleaning process will not interfere with work in progress or contaminate newly finished surfaces. Wet down dry material and rubbish to lay dust and prevent blowing dust.
- D. The Architect or Owner may serve notice anytime that the Project is inadequately clean and the Contractor has forty-eight (48) hours to comply or the Owner shall employ his own forces and the charge the Contractor for such work.

1.5 FINAL CLEANING:

- A. At final inspection, the building shall be clean and completely prepared for occupancy by the Owner without additional cleaning by the Owner. Employ experienced workmen, or professional cleaners, for final cleaning.
- B. In preparation for final inspection, conduct an inspection for exposed, interior and exterior surfaces.
- C. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from sight-exposed interior and exterior finished surfaces; polish surfaces designated to a shine finish.

- D. Repair, patch, and touch-up marred surfaces to their specified finish.
- E. Broom clean and wash down paved surfaces.
- F. Mechanical Contractor shall replace air conditioning filters.
- G. Mechanical Contractor shall clean ducts, blowers, coils and grilles.
- H. Maintain cleanliness of the project until it is accepted by the Owner.

PART 2 -PRODUCTS

Not Used.

PART 3 -EXECUTION

Not Used.

END OF SECTION

SECTION 01740 -WARRANTIES AND BONDS

PART 1-GENERAL

1.1 SECTION INCLUDES:

- A. Preparation and submittal.
- B. Time of submittals.

1.2 RELATED SECTIONS:

- A. **Document 00700 -General Conditions:** Warranty, and Correction of Work.
- B. **Section 01700 -Contract Closeout:** Contract closeout procedures.
- C. **Individual Specifications Sections:** Warranties required for specific products or Work.

1.3 FORM OF SUBMITTALS:

- A. Any submittal to be electronically submitted.
- B. Label cover of each submittal with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification Section in which specified, and the name of the product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

1.4 PREPARATION OF SUBMITTALS:

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion *of* the applicable item or

- work. Except for items put into use with Owner's permission, leave date of beginning *of time of warranty* until the Date *of Substantial Completion* is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
 - C. Co-execute submittals when required.
 - D. Retain warranties and bonds until time specified for submittal.

1.5 TIME OF SUBMITTALS:

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- C. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 -PRODUCTS

Not Used

PART 3 -EXECUTION

Not Used

END OF SECTION

SECTION 02050
DEMOLITION OF EXISTING STRUCTURES
(INCLUDING HAZARDOUS & UNIVERSAL WASTE)

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work

1. This Section specifies the labor, materials, equipment, and incidentals required for the demolition, relocation, and/or disposal of all structures, building materials, equipment, and accessories to be removed as shown on the Drawings and as specified herein.
2. There may be existing and active stormwater, wastewater, water, and other facilities on site as indicated on the Drawings. It is essential that these facilities, when encountered, remain intact and in service during the proposed demolition. Consequently, the Contractor shall be responsible for the protection of these facilities and shall diligently direct all his activities toward maintaining continuous operation of the existing facilities and minimizing operational inconvenience.
3. Demolition generally includes:
 - a. Complete demolition and removal of manholes, valve vaults, wetwells, piping, and mechanical and electrical equipment related to the Work as shown on the Drawings and specified herein.
 - b. Complete demolition and removal of all above and below ground structures, concrete slabs and foundations, vaults, and underground utilities (water, wastewater, electrical, etc.) as shown on the Drawings and specified herein.
 - c. All material, equipment, rubble, debris, and other products of the demolition shall become the property of the Contractor for his disposal off-site in accordance with all applicable laws and ordinances at the Contractor's expense. **The Owner prohibits the sale of salvageable materials by the Contractor to anyone other than a certified recycler. All materials shall be sent to a certified material recycling company or a State approved landfill.**
4. The Contractor shall examine the various Drawings, visit the site, determine the extent of the Work, the extent of work affected therein, and all conditions under which he is required to perform the various operations.
5. The Contractor shall fill and compact all voids left by the removal of pipe, structures, etc. with materials described herein to a grade that will provide for positive drainage of the disturbed area to drain run-off in direction consistent with the surrounding area. The Contractor shall provide all fill materials to the site as needed. Compaction of fill shall match the compaction of adjacent undisturbed material.
6. Removal and disposal of asbestos-containing materials is specified in Division 02 Section "Asbestos Remediation".

1.02 QUALITY ASSURANCE

- A. Permits and Licenses: Contractor shall obtain all necessary permits and licenses for performing the Work and shall furnish a copy of same to the County prior to commencing the Work. The Contractor shall comply with the requirements of the permits.
- B. Notices: Contractor shall issue written notices of planned demolition to companies or local authorities owning utility conduit, wires, or pipes running to or through the project site. Copies of said notices shall be submitted to the County.
- C. Utility Services: Contractor shall notify utility companies or local authorities furnishing gas, water, electrical, telephone, or sewer service to remove any equipment in the structures to be demolished and to remove, disconnect, cap, or plug their services to facilitate demolition.
- D. Contractor shall notify the Orange County Risk Management Department in writing prior to beginning any demolition work.

1.03 SHOP DRAWINGS AND SUBMITTALS

- A. Submittals shall be submitted to the County for review and acceptance prior to construction in accordance with the General Conditions and specifications Section 01300 "Submittals."
- B. Submit to the County for their approval, 2 copies of proposed methods and operations of demolition or relocation of the structures specified below prior to the start of Work. Include in the schedule the coordination of shut-off, capping, and continuation of utility service as required.
- C. Provide a detailed sequence of demolition and removal work to ensure the uninterrupted progress of the County's operations.
- D. Before commencing demolition work, all structure relocation, bypassing, capping, or modifications necessary will be completed. Actual work will not begin until the County has inspected and approved the prerequisite work and authorized commencement of the demolition work.
- E. The above procedure must be followed for each individual demolition operation.

1.04 SITE CONDITIONS

- A. Prior to demolition, the Contractor shall obtain written verification from the utility owner(s) that the existing utilities, including stormwater, wastewater, and/or water facilities, are not operational and are ready for demolition.
- B. The County assumes no responsibility for the actual condition of the structures to be demolished or relocated.
- C. Conditions existing at the time of inspection for bidding purposes will be maintained by the County insofar as practicable. However, variations within each site may occur prior

to the start of demolition work.

- D. No additional payment will be made for pumping or other difficulties encountered due to water.
- E. Certain information regarding the reputed presence, size, character and location of existing underground structures, pipes and conduit has been shown on the Drawings. There is no certainty of the accuracy of this information, and the location of underground structures shown may be inaccurate and other obstructions than those shown may be encountered. The Contractor hereby distinctly agrees that the County is not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information regarding obstructions either revealed or not revealed by the Drawings; and that he shall have no claim for relief from any obligation or responsibility under this Contract in case the location, size, or character of any pipe or other underground structure is not as indicated on the Drawings, or in case any pipe or other underground structure is encountered that is not shown on the Drawings.

1.05 RESTRICTIONS

- A. No building, tank or structure, or any part thereof, shall be demolished until an application has been filed by the Contractor with the Building Department Inspector and a permit issued if a permit is required. The fee for this permit shall be the Contractor's responsibility. Demolition shall be in accordance with applicable provisions of the Building Code of the State of Florida.
- B. No explosives shall be used at any time during the demolition. No burning of combustible material will be allowed.
- C. Contractor shall notify the Orange County Risk Management Department prior to beginning any demolition work.

1.06 DISPOSAL OF MATERIAL

- A. All salvageable or useable material or equipment to be retained by the County shall be shown on Drawings, and shall be moved to a designated area by Contractor for pick up by County. The Contractor shall promptly remove all other materials from the site as indicated or shown on the Drawings.
- B. All materials not retained by the County shall become the Contractor's property and shall be removed off-site.
- C. The on-site storage of removed items is prohibited by the County. Off-site sale of salvageable material by the Contractor is acceptable.

1.07 TRAFFIC AND ACCESS

- A. Conduct work to ensure minimum interference with on-site and off-site roads, streets,

sidewalks, and occupied or used facilities.

- B. Special attention is directed towards maintaining safe and convenient access to the existing facilities remaining in operation by plant personnel and plant associated vehicles, including trucks and delivery vehicles.
- C. Do not close or obstruct streets, sidewalks, or other occupied or used facilities without permission from the County. Provide alternate routes around closed or obstructed traffic in access ways.

1.08 PROTECTION

- A. Conduct operations to minimize damage by falling debris or other causes to adjacent buildings, structures, roadways, other facilities, and persons. Provide interior and exterior shoring, bracing, or support to prevent movement or settlement or collapse of structures to be demolished and adjacent facilities to remain.

1.09 DAMAGE

- A. Promptly repair damage caused to adjacent facilities by demolition operations as directed by the County at no cost to the County.

1.10 UTILITIES

- A. Maintain existing utilities as directed by the County to remain in service and protect against damage during demolition operations.
- B. Do not interrupt existing utilities serving occupied or operational facilities, except when authorized by County. Provide temporary services during interruptions to existing utilities as acceptable to the County.
- C. The Contractor shall cooperate with the County to shut off utilities serving structures of the existing facilities as required by demolition operations.
- D. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the interruption of all public and private utilities or services.
- E. All utilities being abandoned shall be terminated at the service mains in conformance with the requirement of the utility companies or the municipality owning or controlling them.

1.11 EXTERMINATION

- A. If required, before starting demolition, the Contractor shall employ a certified rodent and vermin exterminator and treat the facilities in accordance with governing health laws and regulations. Any rodents, insects, or other vermin appearing before or during the demolition shall be killed or otherwise prevented from leaving the immediate vicinity of

the demolition work.

1.12 POLLUTION CONTROL

- A. For pollution control, use water sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust rising and scattering in the air to the lowest level of air pollution practical for the conditions of work. The Contractor shall comply with the governing regulations.
- B. Clean adjacent structures and improvements of all dust and debris caused by demolition operations as directed by the County. Return areas to conditions existing prior to the start of Work.

1.13 HAZARDOUS AND UNIVERSAL WASTE DISPOSAL

Davie County defines hazardous and universal wastes as any waste material that poses a human health threat or may cause damage to the environment. Disposal options should be thoroughly investigated for these materials and may involve recycling, reuse, or disposal. Irresponsible discharges to the environment or improperly managing waste should be avoided. It is imperative that the use, handling, storage, transportation and disposal of hazardous and recyclable materials and waste from the DCHS are consistently managed following the guidelines outlined in federal, state, local and Davie County regulations and other hazardous waste regulations. Items contaminated with Hazardous material must be decontaminated and sampled to confirm the hazardous materials were removed or shall be disposed of as hazardous waste. All hazardous and universal waste disposal must be cleared through the County's Hazardous Waste Consultant, Allied Consulting and Environmental Services. Contacts include DeWitt Whitten – 704-482-5596. Containers used to store hazardous waste must be approved by the United States Department of Transportation (DOT). The contractor shall supply necessary containers. The containers shall remain closed except when material is being placed into them. Each container shall be labeled with a properly completed hazardous waste label as soon as any quantity of waste is placed into it. The County's Hazardous Waste Consultant must observe waste sampling, review all testing data, evaluate waste determinations and must sign all manifests.

- A. The contractor will comply with all regulations and conditions of State & Local permits and licenses applicable to the project.
- B. The contractor assumes responsibility and liability for compliance with all applicable regulations especially those affecting the health and safety of contractor employees, subcontractors, and all others during the performance of the work. This responsibility includes the protection of County employees and visitors located near the worksite. Prevention of damage to County property, supplies, and equipment from accidents, improper storage or misuse of hazardous materials shall also be avoided.
- C. Hazardous materials and waste may be accumulated and temporarily stored on County property per the provision of State hazardous waste permit, but should not exceed 30 days, except for extremely hazardous materials, for which arrangements should be made to remove the material for the premises as soon as is practicable. The following conditions should be met to ensure that hazardous substances are properly managed:
 - 1. Hazardous waste containers should be in good condition, compatible with the material being stored in it, properly labeled at all times, and free of leaks.
 - 2. Adequate secondary containment should be provided for those wastes where accidental discharges or leaks could cause an environmental release.
 - 3. Hazardous waste accumulation areas will be pre-approved by the owner and designer before wastes are stored there. The areas will be open for inspection by the owner or designer upon request. Hazardous waste accumulation areas shall also be inspected at least daily by the contractor or its environmental oversight subcontractor and shall be locked when not in use. Wastes in containers that are leaking will be immediately transferred to a reliable container and any spilled material properly cleaned up.

The contractor should coordinate waste disposals with the Owner's Hazardous Waste Consultant. The contractor is responsible for the disposal fees of hazardous and universal waste disposal.

Do not ship any Hazardous or Universal Wastes without the Hazardous Waste Consultant's notification and approval. The Consultant must be notified to ensure that the proper paperwork, with the correct EPA ID number, addresses, and emergency contact information is used. The Owner's Hazardous Waste Consultant representative MUST sign all paperwork for recycling or disposal shipments Universal or Hazardous Waste, including Bulbs.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SEQUENCE OF WORK

- A. The sequence of demolition and relocation of existing facilities shall be in accordance with the approved critical path schedule as specified in paragraph 1.03 above.

3.02 REMOVAL OF EXISTING PROCESS EQUIPMENT, PIPING, AND APPURTENANCES

- A. Equipment to be retained by the County will be designated for retention by the County prior to bidding as specified in Paragraph 1.06 above. Subject to the constraints of maintaining existing facilities in operation as shown on the Drawings, all other process equipment, non-buried valving and piping, and appurtenances shall be removed from the site.

3.03 DEMOLITION PROCEDURES

The Contractor shall adhere to the following demolition procedures as referenced on the Drawings:

- A. **TO BE DEMOLISHED:** Demolition shall be the breaking up, cutting, filling of any holes resulting, final grading of the area, performing any other operations required, and the removal from the site of all structures and equipment (structures, substructures, floor slabs, equipment, tanks, pipes, fittings, electrical systems, light poles, wiring, underground conduits and wiring, isolated slabs, and sidewalks) as indicated on the Drawings. All pieces of concrete, metal, and any other demolished material shall be removed to a depth of at least 5-feet below existing grade. Broken pieces of concrete may be size reduced by an on-site crusher, but in any event must be removed from the project site.

Before commencing structural demolition, remove all mechanical, electrical, piping, and miscellaneous appurtenances. Completely remove the structure by thoroughly breaking up concrete into pieces no more than 2-feet across the largest dimension.

- B. **TO BE REMOVED:** Where indicated on the Drawings, the structures and equipment shall be completely removed from the site with all associated connecting piping or electrical service. The item shall be taken whole or in parts to be salvaged or disposed of by the Contractor.
- C. **TO BE ABANDONED:** Where indicated on the Drawings, the structures and equipment shall be left in place, drained, and the contents properly disposed. The upper 4-feet of the structure shall be cut and removed, including the cover slab and access port, frame, and cover. All structures to be abandoned with bottom slabs shall be drilled (2 holes minimum, 2.0-inch diameter each) or hole punched to prevent flotation and filled with common fill.
- D. **PIPING TO BE REMOVED:** Where indicated on the Drawings, pipe (and conduit) shall be drained and the contents properly disposed. The pipe (or conduit) shall then be completely removed from the site, including fittings, valves, and other in-line devices. Connections to existing piping to remain shall be plugged by mechanical means (M.J. plugs, tie-rods, or thrust blocks). Piping shall be removed in accordance with Specification Section 02080 "Abandonment, Removal and Salvage or Disposal of Existing Pipe."
- E. **PIPING TO BE ABANDONED:** Where indicated on the Drawings, piping (or conduit)

shall be left in place. All such piping shall be drained and the contents properly disposed. The pipe (or conduit) shall then be filled with grout (flowable fill) and each end of the pipe (or conduit) shall be plugged using a concrete plug in a manner acceptable to the County. Piping shall be abandoned in accordance with Specification Section 02080 "Abandonment, Removal and Salvage or Disposal of Existing Pipe."

- F. TO BE PROTECTED: Where indicated on the Drawings, the utility service, fence, structure, tree, or device so designated shall be temporarily protected during the prosecution of the demolition work as specified in Division 1.
- G. TO REMAIN: Where indicated on the Drawings, the designated facilities shall remain intact and in service during the prosecution of the demolition work.

3.04 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent materials to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect existing utilities and services indicated to remain in service and protect them against damage during demolition operations.
4. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
5. Cover and protect furniture, furnishings, and equipment that have not been removed.
6. Patch, repair or replace materials and items accidentally damaged during demolition operations.
7. Confine dust and debris to immediate area of demolition activity to the greatest extent practicable.

B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.05 DEWATERING OF EXISTING PROCESS UNITS AND DISPOSAL OF RESIDUE

The Contractor shall notify the County prior to beginning the dewatering work on any existing process units which contain wastewater, grit, or sludge. The Contractor, at his own

expense, shall remove the entire contents of each structure and dispose off site. The proper transport and disposal of all residues shall remain the responsibility of the Contractor.

END OF SECTION



M. Copy of Emergency Contingency Plan. The contractor shall prepare a Contingency Plan to address emergencies that may include fire, accident, hazardous material release, power failure, negative pressure system failure, supplied air system failure, evacuation of injured person(s) for both life threatening and non-life threatening injuries, or any other event that may require modification or abridgement of the decontamination/isolation procedures. The Contingency Plan shall list phone numbers and locations of local emergency services including but not limited to: fire, ambulance, doctor, hospital, police, power company, and natural gas company. The Contingency Plan will be posted inside and outside the work area during all work shifts and be readily available to all personnel.

3. Post-Job

Upon completion of the scope of work, the Asbestos Contractor shall submit two complete, bound sets of post-job submittals to the APD. Request for final payment will not be approved until the post-job submittal package has been reviewed and approved by the Building Owner and the Building Owner's representative. The post-job submittal should include at a minimum:

- A. Affidavits: Provide Contractor's affidavit of payment of debts and claims, affidavit of release of liens, and consent of the surety company to final payment.
- B. Manifest: Provide North Carolina Asbestos Waste Shipment Record (NCDENR 3787) receipt from asbestos waste disposal site which acknowledges the Contractor's delivery(s) of waste material. Include date, name of waste transporter, quantity of material delivered, and signature of authorized representative of disposal site.
- C. Daily Logs: Submit copies of all daily logs showing the following: name of all persons entering the work site, date, entering and leaving time, company or agency represented, reason for entering, employee's daily air monitoring data as required by the OSHA Standard, written comments by inspectors, APD, or other persons.
- D. Medical: Provide copies of worker release forms.
- E. Special Reports: All documents generated under Section 2.0, Paragraph D, Sub-paragraph 3.

SECTION 02080
ABANDONMENT, REMOVAL, AND SALVAGE OR DISPOSAL OF
EXISTING PIPE

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: This section specifies the furnishing of all labor, materials, equipment, and incidentals required to abandon, remove, salvage, and/or dispose of existing pipelines and appurtenances as shown on the Drawings and as specified herein.

1.02 QUALITY ASSURANCE

- A. Permits and Licenses: Contractor shall obtain and pay respective fees for all necessary permits and licenses for performing the Work and shall furnish a copy of same to the Owner prior to commencing the Work. The Contractor shall comply with the requirements of the permits. All removal or abandonment of asbestos pipe material shall be performed by a licensed asbestos abatement Contractor or Subcontractor registered in the State of North Carolina.
- B. Notices: Contractor shall issue written notices of planned Work to companies or local authorities owning utility conduit, wires, or pipes running to or through the project site. Copies of said notices shall be submitted to the County.
- C. Standards:
1. National Emission Standards Hazardous Air Pollution (NESHAP), 40 CFR Part 61, Subpart M, latest revision
 2. Occupational Safety and Health Act, 29 CFR
 3. The Environmental Protection Agency (EPA) Asbestos Abatement Worker Protection Rule
 4. NC State Statutes
 5. Asbestos pipe handling best management practices provided at the end of this section
- D. Quality Control
1. It shall be the responsibility of the Contractor to provide supervision and inspections to ensure that the existing piping is removed and disposed, salvaged, or abandoned as designated in the Drawings and as specified herein.
 2. Asbestos Pipe
 - a. All removal or abandonment of pipe material containing asbestos shall be performed by a licensed asbestos abatement Contractor or Subcontractor.

- b. The asbestos abatement Contractor or Subcontractor shall contact the State Environmental Protection Division prior to removal or abandonment of any asbestos material and shall obtain all required permits and licenses and issue all required notices as required by the State Environmental Protection Division. The Contractor shall be responsible for all fees associated with permits, licenses, and notices to the governing regulatory agencies.
- c. The asbestos abatement Contractor shall perform Work in accordance with all applicable standards referenced in paragraph 1.02.C of this section.
- d. The asbestos abatement Contractor shall have experience performing asbestos removal similar to this Project.

1.03 SHOP DRAWINGS AND SUBMITTALS

A. Shop Drawings

1. Submittals shall be submitted to the Owner/Architect for review and acceptance prior to construction in accordance with the General Conditions and specifications Section 01300 "Submittals."
2. Shop Drawings shall be submitted to the Architect for review and acceptance prior to construction in accordance with these specifications for the following:
 - a. Grout
 - b. Caps and plugs
 - c. Credentials of licensed asbestos abatement Contractor including current certification.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 REMOVAL, ABANDONMENT, SALVAGE, AND DISPOSAL

- A. General: Existing piping designated on the Drawings to be removed shall be exposed and removed by the Contractor.
- B. Removal and Disposal
 1. Pipe designated to be removed shall be completely drained and the contents properly disposed. The piping system including fittings and valves shall then be completely removed from the site.
 2. Existing services and/or connections not shown on the Drawings shall be removed in accordance with this section at no additional cost. Existing live services encountered shall be maintained.
 3. Asbestos: Pipe material containing asbestos shall be removed and disposed by a licensed asbestos abatement Contractor or Subcontractor.
 4. Structures shall be removed in accordance with Section 02050 "Demolition of Existing Structures."
- C. Abandonment
 1. Pipe designated on the Drawings to be abandoned (or retired in place) shall be left in place, drained, and its contents properly disposed. Pipe requires end caps or plugs.

All air release valves and vaults, valve boxes, fire hydrants, manholes, and manhole rings and covers shall be removed and disposed of or salvaged as specified above.

2. All pipe 4-inches or larger to be abandoned in place shall be completely filled with grout and each end of the pipe shall be plugged in a manner acceptable to the County.
3. Grout: Where designated on the Drawings, pipe to be abandoned shall be filled with grout.
4. Plugs: Pipe to be abandoned shall be capped or plugged with a mechanical joint fitting that will prevent soil or other deposits from entering the pipe.

D. Asbestos Pipe Handling Best Management Practices

1. Projects will require worker documentation before entering the regulated Work area. A copy of: their current training certificate (workers and their supervisor); current medical condition showing the doctor approved their working with asbestos and wearing a respirator; signed acknowledgment forms; and current record (6-months) of each workers respirator fit test will be required from all workers.
2. Projects also require air monitoring. OSHA will accept historic data on air monitoring within 12-months of the Project, provided the data is from a project of like material and conditions with a crew of the same experience, supervision, and training. Otherwise, monitoring is required throughout the Project. OSHA requires two (2) types of personnel air monitoring, full shift and 30-minute excursion level (when highest levels are anticipated).
3. Some provisions should be made for worker showering or otherwise washing following work before removing respirators, etc. Even if direct exposure is not anticipated, and at a minimum, a source of water to rinse the respirators, wash workers faces and hands, and (in the event of unanticipated direct exposure) some place to shower is required. The workers will also need a change room and some place to keep their street clothes and personal possessions.
4. Proposals to remove asbestos pipe sections by cutting must address how the cutting debris will be captured and kept from becoming airborne. Soil that could be considered contaminated may also have to be removed.
5. Licensed asbestos abatement Contractors or Subcontractors should have a pollution endorsement in their liability insurance in case of asbestos fiber release. A contingency plan, in case the project does not run as smoothly as expected, should be developed and include emergency phone numbers kept on site during the Project.
6. Daily logs of the asbestos removal work should be kept, and should include sign in sheets for the workers and whatever air monitoring was done. Accident reports and other reports or correspondence if something unusual happened should also be included.
7. Waste receipts must be kept through all stages of transport from the site to, and including, the acceptance at the dumpsite where the material will be abandoned. Amount of material removed must be equal to the amount of material to be turned into to the dump.

8. The primary Contractor will give "approval for tear down" at project completion, indicating that all asbestos removal operations are complete and whether there is a need for any air monitoring. Air monitoring, if not required by any governing agency or approved permit as discussed previously, may also be required by the County if documentation to the general public pertaining to contamination is deemed necessary. This air monitoring is normally done by collecting area samples downwind of the project at the barrier tape or just inside it. It requires a source of electricity to run the pumps, which is often provided by a generator.

END OF SECTION



ASBESTOS ABATEMENT DESIGN SPECIFICATIONS

PROJECT

ABATEMENT OF ASBESTOS CONTAINING MATERIALS

**FORMER DAVIE HIGH SCHOOL CAMPUS
B BUILDING, CAFETERIA BUILDING, & COVERED ENTRY/WALKWAY
1200 SOUTH SALISBURY STREET
MOCKSVILLE, NORTH CAROLINA**

FOR

**COUNTY OF DAVIE
298 EAST DEPOT STREET
MOCKSVILLE, NORTH CAROLINA 27028**

BY

**ALLIED CONSULTING & ENVIRONMENTAL SERVICES, LLC
POST OFFICE BOX 2426
SHELBY, NORTH CAROLINA 28151
704.600.6255
704.482.5596**

ACES PROJECT No. 2017 – 11 – 118

ISSUE DATE: JANUARY 1, 2018



ASBESTOS ABATEMENT DESIGN SPECIFICATIONS

PROJECT

ABATEMENT OF ASBESTOS CONTAINING MATERIALS

FORMER DAVIE COUNTY HIGH SCHOOL CAMPUS
B BUILDING, CAFETERIA BUILDING, & COVERED WALKWAY
1200 SOUTH SALISBURY STREET
MOCKSVILLE, NORTH CAROLINA

FOR

COUNTY OF DAVIE
298 EAST DEPOT STREET
MOCKSVILLE, NORTH CAROLINA 27028

BY

ALLIED CONSULTING & ENVIRONMENTAL SERVICES, LLC
POST OFFICE BOX 2426
SHELBY, NORTH CAROLINA 28151
704.600.6255
704.482.5596

ACES PROJECT No. 2017 – 11 – 118

ISSUE DATE: JANUARY 1, 2018

PREPARED BY:

DeWitt Whitten, REM, CES, REPA, CESCO
General Manager
NC Asbestos Project Designer #40459

REVIEWED BY:

Robert L. Smith, AIA, LEED AP
Managing Partner



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ASBESTOS ABATEMENT DESIGN SPECIFICATION

PROJECT SUMMARY

Location: Former Davie County High School Campus
1200 South Salisbury Street
Mocksville, North Carolina

General Description: The abatement scope of work shall include the removal of the following ACM:

SUMMARY OF ACM TO BE ABATED PRIOR TO DEMOLITION		
BUILDING	ACM	EST. QUANTITY
B	Floor tile & mastic	7,635 sq. ft.
B	Lay-in Ceiling Tile	1,080 sq. ft.
B	Roofing	11,050 sq. ft.
Cafeteria	Window Glazing	2 windows
Steam Tunnel	Pipe Wrap	270 lin. ft.
Covered Walkway	Roofing	1,725 sq. ft.

Verification of the location and quantity of the ACM to be included in the removal scope is the sole responsibility of the asbestos abatement contractor. Removal of the asbestos containing materials included in this project shall be performed in accordance with all applicable federal, state, and local regulations and per the conditions set forth within these project removal guidelines. Information concerning previous material testing, material locations and general conditions is made available as an attachment to the asbestos abatement design specification package.

This document is to provide criteria regarding asbestos removal activities conducted for the project. The abatement contractor shall follow the terms set forth in this specification during all phases of the asbestos abatement conducted on the grounds of the former Davie High School campus for the specified buildings.



PART 1 – GENERAL REQUIREMENTS

1.0 CODES AND REGULATIONS

A. REFERENCE SPECIFICATIONS

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 project site.

Unless modified by this project specification, all specifications for stripping, removal, repair, and disposal work shall conform to the following specifications and standards, as applicable, as if completely reproduced herein.

1. The following regulations published by the Environmental Protection Agency (EPA):
 - a. “National Emissions Standards for Hazardous Air Pollutants Asbestos”, 40 CFR Part 61, Subpart A.
 - b. “General Provisions”, 40 CFR Part 61, Subpart A.
 - c. “Guidance for Controlling Asbestos-Containing Materials in Buildings”, June 1985 (EPA # 560/5-85-024).
 - d. “Asbestos-Containing Materials in Schools”, 40 CFR Part 762, Subpart E and Appendices.
2. The following regulations published by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA):
 - a. “Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules”, Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations.
 - b. “Respiratory Protection”, Title 29, Part 1910, Section 134 of the Code of Federal Regulations.
 - c. “Construction Industry”, Title 29, Part 1926, Code of Federal Regulations.
 - d. “Access to Employee Exposure and Medical Records”, Title 29, Part 1910, Section 20 of the Code of Federal Regulations.



- e. "Hazard Communication", Title 29, Part 1926, Section 59 of the Code of Federal Regulations.
- f. "Specifications for Accident Prevention Signs and Tags", Title 29, Part 1910, Section 145 of the Federal Regulations.

3. The following regulations published by North Carolina state agencies:

- a. North Carolina Asbestos Hazard Management Program Rules as adopted by 15 NCAC 19C .0600.
- b. "North Carolina Occupational Safety and Health Standards for the Construction Industry", 29 CFR Part 1926 as adopted by T13 NCAC 07F .0201 and Shipyard T13:07F .0500.
- c. North Carolina General Statutes, Chapters 95, 97, and 130.

4. The following documents published by the American National Standards Institute:

- a. "Fundamentals Governing the Design and Operation of Local Exhaust Systems", Z9.2-2006.
- b. "Standard for Respiratory Protection - Respiratory Use – Physical Qualifications for Personnel", Z88.6-2006.
- c. "Practices for Respiratory Protection", Z88.2-1992

B. DEFINITIONS

- 1. **Abatement** – Procedures used to control fiber release from ACBM using either asbestos removal, encapsulation, or enclosure.
- 2. **Asbestos Project Designer (APD)** – Allied Consulting and Environmental Services, LLC (ACES), Post Office Box 2426, Shelby, North Carolina 28151; Phone – 704.600.6255.
- 3. **ACBM** – Asbestos containing building materials.
- 4. **ACM** – Asbestos containing materials.
- 5. **Accessible** – Asbestos containing building material that is subject to disturbance by occupants or custodial or maintenance personnel in the course of their normal activities.
- 6. **ACGIH** – American Conference of Government Industrial Hygienists.
- 7. **Air Monitoring** – The process of measuring the approximate number of asbestos fibers in a specific volume of air in a stated period of time.
- 8. **Amended Water** – Water to which a surfactant has been added.



9. **Area Monitoring** – Sampling of airborne fiber levels within the asbestos control area and inside the physical boundaries which is representative of the airborne fiber levels but is not collected in the breathing zone of the personnel.
10. **APD** – Asbestos Project Designer, responsible for the preparation of the design document for the removal/abatement of the specified asbestos containing materials.
11. **Asbestos** – Asbestos includes but is not limited to the following minerals: actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite. Asbestos material means asbestos or any material containing asbestos such as asbestos waste, scraps, debris, containers, equipment, and asbestos contaminated clothing consigned for disposal.
12. **Asbestos Containing Waste Material** – any material which is or is suspected of being or any material contaminated with asbestos containing material which is to be removed or has been removed from a work area for disposal.
13. **Asbestos Fibers** – Airborne fibers having an aspect ratio of 3:1 longer than 5 micrometers when analyzed by the NIOSH 7400 Method.
14. **Building Owner** – County of Davie
15. **Class I Asbestos Work** – Activities involving the removal of TSI and surfacing ACBM and PCAM.
16. **Class II Asbestos Work** – Activities involving the removal of ACBM which is not TSI insulation or surfacing material. This includes, but is not limited to, the removal of asbestos containing wallboard, floor tile and sheetgood flooring, roofing, siding shingles, and construction mastics.
17. **Class III Asbestos Work** – Repair and maintenance operations where ACBM, including TSI and surfacing ACBM and PACM, is likely to be disturbed.
18. **Class IV Asbestos Work** – Maintenance and custodial activities during which employees may contact but do not disturb ACBM or PACM and activities to clean-up dust, waste, and debris resulting from Class I, II, and III activities.
19. **Competent Person** – As used in this document, refers to a person employed by the contractor who is trained in the recognition and control of asbestos hazards in accordance with the current applicable federal, state, and local regulations.
20. **Contractor** – Refers to a North Carolina accredited and qualified asbestos abatement contractor.
21. **Control Area** – Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. These areas have been sealed off from the outside, protected with 6 mil polyethylene sheeting, and are equipped with a decontamination enclosure system and reduced pressure system.
22. **Decontamination Area** – A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers or materials and equipment. A decontamination enclosure system always contains at least one airlock.



23. **Decontamination Enclosure System** – A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers or of materials and equipment. A decontamination enclosure system always contains at least one airlock.
24. **Disturbance** – Activities that disrupt or disturb the matrix of ACBM or PACM, crumble or pulverize ACBM, or generate visible debris from ACBM or PACM. Disturbance includes cutting away small amounts of ACBM or PACM, no greater than the amount that can be contained in one standard size glove bag or waste bag in order to access a building component. In no event shall the amount of ACBM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.
25. **Eight-Hour Time Weighted Average (TWA)** – Airborne concentration of asbestos to which an employee is exposed, averaged over an 8-hour workday as indicated in 29 CFR 1926.62.
26. **Encapsulation** – The coating of asbestos containing materials with a bonding agent, sealing agent (encapsulant), or elastomer bridging agent to prevent the release of asbestos fibers following abatement.
27. **Encapsulant** – A liquid material that can be applied to asbestos containing materials, which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging) or by penetrating into the material and binding its components (penetrating).
28. **Enclosure** – Refers to the area in which asbestos containing materials are encased within permanent impermeable, airtight barriers.
29. **EPA** – Environmental Protection Agency
30. **Excursion Limit** – Airborne asbestos concentration (1.0 fiber/cc) as averaged over a 30-minute period.
31. **Friable Asbestos Containing Material** – Material that contains greater than 1.0 percent asbestos that when dry can be crumbled, pulverized, or reduced to powder by hand pressure or is damaged by operations such as drilling, sanding, sawing, or abrading.
32. **Glovebag** – 6-mil polyethylene bag with latex gloves extending inside the work bag and having ports for water and vacuum attachments.
33. **HEPA Filter** – High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining at least 99.97 percent of mono-dispersed particles of 0.3 micrometer in diameter or larger.
34. **HEPA Vacuum** – Vacuum equipped with HEPA filters used to clean-up dust and debris in work areas.
35. **HVAC** – Heating, ventilation, and air-conditioning
36. **NC HHCU** – The North Carolina Health Hazards Control Unit.
37. **Masking and Sealing Operations** – Procedures used to cover and protect floors, walls, and fixed objects as appropriate with 6 mil polyethylene plastic sheets during an asbestos abatement project.
38. **NIOSH** – National Institute for Occupational Safety and Health.



39. **OSHA** – Occupational Safety and Health Association.
40. **PACM** – Presumed asbestos containing materials.
41. **Permissible Exposure Limit (PEL)** – The PEL for asbestos is 0.1 asbestos fibers per cubic centimeter (f/cc) of air as an 8-hour time weighted average as determined by 29 CFR 1926.62. If an employee is exposed for more than eight hours in a work day, the PEL shall be determined by the following formula: $PEL (f/cc) = C_1 \times T_1 + C_2 \times T_2 + \dots + C_n \times T_n / 8$ where C_x = airborne asbestos concentration collected over time period T_x
42. **Personnel Monitoring** – Sampling of the breathing zone of contractor personnel in accordance with 29 CFR 1926.1101 and appendices.
43. **Post-Removal Cleaning** – Refers to final cleaning of the control area following all asbestos removal using a combination of HEPA vacuuming and wet wiping.
44. **Pre-Cleaning** – Refers to the cleaning of fixed and movable items of equipment and material within the control area by the Contractor before set-up of the control area.
45. **Presumed Asbestos Containing Materials** – thermal system insulation and/or surfacing material found in buildings constructed no later than 1980. The designation of a material as “PACM” may be rebutted pursuant to paragraph (k)(5) of 29 CFR 1926.1101.
46. **Project Site** – B Building, Cafeteria Building, and Covered Walkways of the Former Davie County High School campus – 1200 S. Salisbury Street, Mocksville, NC
47. **Removal** – All specified procedures necessary to remove asbestos containing materials from an area and dispose of the materials at an authorized site in accordance with regulatory requirements of NESHAPS and applicable state and local guidelines.
48. **Renovation** – Altering, removing, or stripping of one or more facility components, including, but not limited to the stripping or removal of asbestos containing materials from facility components, retrofitting for fire protection, the installation or removal of heating, ventilation, and air conditioning (HVAC) system.
49. **Repair** – Returning damaged ACBM to an undamaged condition or to an intact state so as to prevent a fiber release using encapsulation, sealing, enclosure, or encasement.
50. **Respirator (Negative Pressure)** – A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.
51. **Respiratory Protection** – Protecting the employee, through the wearing of a respirator, from breathing airborne asbestos fibers.
52. **Testing Laboratory** – The term “testing laboratory” is defined as an independent entity engaged to perform specific inspections or air monitoring analysis of the work, either at the project site or elsewhere; and to report the results of those inspections and/or tests.
53. **TSI** – Thermal system insulation
54. **VAFT** – Vinyl asbestos floor tile



55. **Work Area** – The area where asbestos related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers, debris, and to prevent entry by unauthorized personnel. The work area is a regulated area as defined by 29 CFR 1926.
56. **Work Site** – The work site consists of those areas where the asbestos abatement activities will be performed and all areas within 100 feet of the abatement areas and/or as designated in the Project Specifications and subsequent addendums.



2.0 PROJECT COORDINATION

A. GENERAL

1. The asbestos abatement contractor (Contractor) will be a licensed general contractor in either the specialty interior, building, unclassified, or asbestos categories by the North Carolina Licensing Board of General Contractors and limited for the bid amount.
2. The Contractor shall be responsible for visiting the site, prior to bidding, to confirm the scope of the work. Any quantities listed by the asbestos project designer (APD) in the plans, specifications, or surveys are done so as approximations. The Contractor has the responsibility for determining actual quantities of the materials to be removed/abated. No additional contract price adjustments will be allowed due to variances between actual quantities and the estimated quantities listed herein. Should additional ACM be discovered during abatement activities, which was not previously identified, the contractor shall immediately notify the Building Owner and the APD.
3. The Contractor shall furnish and is responsible for all costs including but not limited to: permit fees, containment preparation, labor, materials, services, insurance, bonding, and equipment necessary to perform and complete the asbestos abatement/removal and disposal of all asbestos containing materials in accordance with the plans and specifications, applicable EPA and OSHA regulations, and any applicable state and local government regulations.
4. The Contractor has and assumes the responsibility of proceeding in such a manner that he offers his employees and others a workplace free of recognized hazards causing or likely to cause death or serious injury. The Contractor shall be responsible for performing this abatement and disposal so that airborne asbestos fibers levels do not exceed established protective levels.
5. The Contractor will be responsible for all costs, including additional visits and analytical fees, should the Building Owner's air monitoring firm determines that the Contractor failed a visual and/or final air clearance inspection. Notification and scheduling of inspections during the project is the responsibility of the Contractor. The Contractor will allow a minimum notice of 48 hours prior to final visual assessment and air clearance sampling unless the Building Owner's air monitoring firm, Contractor, and the Building Owner agree upon a different time frame.



B. PERSONNEL

1. Supervisor

- a. All supervisors shall be currently accredited by the NC HHCU for asbestos abatement.
- b. All supervisors on the project shall have a minimum of two years experience in the administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc.
- c. One supervisor shall be provided for every ten (10) workers at the project site during work hours. A minimum of one supervisor shall be present at the project site during all work hours.
- d. The Contractor shall have at least one employee on the job, per shift, in either a foreman or supervisor's position, who is bilingual in the appropriate languages when employing workers who do not speak fluent English.
- e. A minimum of one accredited supervisor per company shall have attended a 24-hour respiratory protection course and provide appropriate documentation of such.

2. Worker

- a. All workers shall be currently accredited as such by the NC HHCU.

3. Competent Person

- a. A competent person, as defined in the OSHA Asbestos Standard, 29 CFR 1926.1101, employed by the Contractor must be outside the work area at all times to monitor activity, ensure containment security, provide information to visitors, and provide access for authorized persons to the work area.

4. Employees

- a. The Contractor is responsible for the behavior of workers within his employment. If at any time during the contracted work, or any of the Contractor's employees are judged to exhibit behavior unfitting for the area or judged to be a nuisance by the Building Owner or the Building Owner's



representative, the Contractor shall immediately remove them from the project site.

- b. The contractor shall be responsible for compliance with the following behavior:
 - (i) Under no circumstances will alcohol, drugs, firearms, tobacco, tobacco products or any other type of controlled substances be permitted on the project site.
 - (ii) All workers are restricted to the area of asbestos abatement work.
 - (iii) All vehicles must be parked in the area designated by the Building Owner.
 - (iv) All workers must conform to the following basic dress code when in the public area of the work site: long pants and shirts with sleeves, i.e., no tank tops, no shorts, etc.
 - (v) The Contractor is responsible for disposal of all materials brought to the project site/work site by his employees including drink cans, bottles, wrappers, or other food containers.
- c. Failure to adhere to these rules could result in criminal or civil prosecution and/or removal from the project site.

C. MEETINGS

1. Pre-Bid

A pre-bid meeting will be held at a time and place to be announced by the Owner and/or the Owner's Representative. All contractors desiring to submit a bid must attend the pre-bid meeting, visit the work site, confirm quantities, site access issues, etc.

2. Periodic Project Meetings

The Building Owner, Building Owner's Representative, and/or project manager reserves the right to schedule meetings with a representative of the abatement contractor during the course of the project to discuss project activities, scheduling, etc.



D. SUBMITTALS

1. With Bid Documents, in addition to documents required by the Project Architect
 - A. Bidders must demonstrate experience on asbestos abatement projects by the submission of a list of three (3) previous asbestos abatement removal projects; names, addresses, and phone numbers of clients; location of projects; and dates projects were performed.
 - B. An officer of the company must sign a statement containing the following information:
 - (i) Record of any citations issued by Federal, State, or Local regulatory agencies relating to asbestos abatement activity. Projects, dates, and resolutions must be included.
 - (ii) Situations in which an asbestos-related contract has been terminated including projects, dates, and reason(s) for termination.
 - (iii) Listing of any asbestos-related legal proceedings/claims in which the contractor (or employees scheduled to participate) are currently involved. Include descriptions of role, issue, and resolution to date.
 - C. Bidders shall provide evidence of insurance as outlined in the general specifications.
 - D. Bidders shall provide proposed detailed schedule of work.

2. Upon Award of Contract

The successful contractor will submit one copy of the pre-job submittal within five days of the award of the contract for review and approval by the Building Owner and APD. A copy of the submittal shall also be kept in a three-ring binder as part of the project log by the Contractor at the work site in a clean room or on-site office of the contractor. The submittals will contain, at a minimum, the following information:

- A. A summary of the company's training program and/or a list of EPA approved training certification courses that the company's employees have attended.
- B. A summary of the company's written respiratory protection program which is in compliance with OSHA regulations and other applicable state or local regulations.



- C. Statement indicating the company has an established medical surveillance program in compliance with 29 CFR 1926.1101. The statement should also include documentation that all personnel participate in the medical surveillance program.
- D. A copy of the Asbestos Permit Application and Notification for Demolition/Renovation (NC DENR Form 3768) submitted to the NC HHCU and any other required agency. The contractor will be provide notification to the Building Owner and APD at the time the Form 3768 is submitted to the NC HHCU. The Contractor will also notify local fire and police departments and other local agencies as applicable or required. Upon receipt of the approved permit, the Contractor shall provide a copy of the approved permit to the Building Owner and APD. The actual permit will be posted outside the decontamination unit at the work site.
- E. Provide documentation for of all employees that will be involved in the abatement/removal activities at the work site. The documentation should include the name of each individual, their position, their accreditation, social security number, and copy of the most recent certificate.
- F. Documentation signed by each worker acknowledging their participation in the company's employee medical surveillance program.
- G. Documentation for each worker reflecting their most recent fit test records and completion date of most recent respiratory protection program.
- H. Copy of most recent Initial Exposure Assessment as required by the OSHA Construction Asbestos Standard, 29 CFR 1926.
- I. Name, location, and applicable permit of asbestos waste disposal site. A contact name and phone number for the facility shall also be provided.
- J. Manufacturer's technical data sheets, certificates of compliance, MSDS sheets, and additional information as appropriate for all equipment and materials to be utilized during the abatement/removal project.
- K. Proposed location of decontamination units.
- L. Proposed project schedule including anticipated start date, set-up time, anticipated dates of work, number of shifts per day, anticipated completion date, etc.



M. Copy of Emergency Contingency Plan. The contractor shall prepare a Contingency Plan to address emergencies that may include fire, accident, hazardous material release, power failure, negative pressure system failure, supplied air system failure, evacuation of injured person(s) for both life threatening and non-life threatening injuries, or any other event that may require modification or abridgement of the decontamination/isolation procedures. The Contingency Plan shall list phone numbers and locations of local emergency services including but not limited to: fire, ambulance, doctor, hospital, police, power company, and natural gas company. The Contingency Plan will be posted inside and outside the work area during all work shifts and be readily available to all personnel.

3. Post-Job

Upon completion of the scope of work, the Asbestos Contractor shall submit two complete, bound sets of post-job submittals to the APD. Request for final payment will not be approved until the post-job submittal package has been reviewed and approved by the Building Owner and the Building Owner's representative. The post-job submittal should include at a minimum:

- A. Affidavits: Provide Contractor's affidavit of payment of debts and claims, affidavit of release of liens, and consent of the surety company to final payment.
- B. Manifest: Provide North Carolina Asbestos Waste Shipment Record (NCDENR 3787) receipt from asbestos waste disposal site which acknowledges the Contractor's delivery(s) of waste material. Include date, name of waste transporter, quantity of material delivered, and signature of authorized representative of disposal site.
- C. Daily Logs: Submit copies of all daily logs showing the following: name of all persons entering the work site, date, entering and leaving time, company or agency represented, reason for entering, employee's daily air monitoring data as required by the OSHA Standard, written comments by inspectors, APD, or other persons.
- D. Medical: Provide copies of worker release forms.
- E. Special Reports: All documents generated under Section 2.0, Paragraph D, Sub-paragraph 3.



4. Special Reports

- A. General: Except as otherwise indicated, submit special reports to the APD within one day of occurrence. One copy should also be placed in the project logbook.
- B. Unusual Events: When an event of unusual and significant nature occurs (i.e. failure of negative pressure system, rupture of temporary enclosure, etc.) at the work site, Contractor shall prepare and submit a special report to the APD within 3 hours of the occurrence. The report shall list chain of events, persons involved, response by Contractor's personnel, evaluation of results or effects, and any other pertinent information.
- C. Accidents: Prepare and submit reports of significant accidents at the work site to the APD within 8 hours after occurrence. Reports should include date, person(s) involved, apparent cause, response, and if needed, actions take to prevent further such accidents. For the purposes of this specification, a significant accident is defined to include events where personal injury is sustained, property loss occurs, or where an event posed a significant threat of personal injury or property loss.



3.0 GENERAL PROVISIONS

A. GENERAL

1. By submitting a bid on this project, the Contractor acknowledges that the work site has been visited and the Contractor is satisfied as to (1) the conditions affecting the work, including (but not limited to) the physical conditions of the work site which may bear upon site access, handling and storage of tools and materials, access to water, electric or other utilities or otherwise that may affect performance of the required activities; (2) the character and quantity of all surface and subsurface materials or obstacles to be encountered in so far as this information is reasonably ascertainable from a visit to the work site, including exploratory work done by the Building Owner, the APD, as well as, information presented in the project Specification. Any failure of the Contractor to become acquainted with available information shall not relieve the Contractor from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Building Owner and the APD for this project are not responsible for any conclusions or interpretations made by the Contractor on the basis of the information presented in the Project Specification.

2. Should a Contractor find discrepancies in the plans and/or project specification or should Contractor be in doubt as to the meaning or intent of any part thereof, the Contractor must, prior to the bid request, request in writing clarification from the Building Owner and/or the APD. Discrepancies with regard to conflicts between the project specification and applicable federal, state, or local regulations or requirements shall be included herein. Failure to request such clarification is a waiver to any claim by the Contractor for expense made necessary by reason of later interpretation of the project specification by the Building Owner and/or the APD.



4.0 INSURANCE REQUIREMENTS

A. GENERAL

1. The Contractor shall purchase and maintain in force insurance as outlined in the general specifications for the proposed project.



5.0 TEMPORARY FACILITIES

A. GENERAL

1. The Contractor shall provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.
2. The Contractor shall use qualified tradesmen for installation of temporary services and facilities. Locate, modify, and extend temporary services and facilities where they serve the project adequately and result in minimum interference with the performance of the work.

B. WATER SERVICE

1. **The Building Owner will supply a source of water at the work site.** The Contractor bears all expense of heating and getting water to the work site areas and decontamination locations. The Contractor shall be responsible for ensuring that the waterline(s) that they are using are properly maintained and protected and do not leak or break. Any resulting damage to the building or items within the building from water damage shall be replaced or repaired at the Contractor's expense to the Building Owner's satisfaction.
2. Supply hot and cold water to the decontamination unit(s) in accordance with Section 10.0. Hot water shall be supplied at a minimum temperature of 100° Fahrenheit (F) and a maximum temperature of 110° F.
3. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment.

C. ELECTRICAL SERVICE

1. **The Building Owner will supply a source of electricity at the work site.** The Contractor bears all expense of providing electricity to the work site areas and decontamination locations.
2. The Contractor will comply with all applicable NEMA, NEC, and UL standards and governing state and local regulations for materials and layout of temporary electrical service.



3. The Contractor will provide receptacle outlets equipped with ground fault circuit interrupters, reset button, and pilot light for plug-in connections of power tools and equipment.
4. The Contractor will provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of work during the abatement/removal period.
5. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every work area.
6. The contractor will provide the services of an electrician, on a standby basis, to service electrical needs during the abatement process.
7. The contractor will provide an additional power service and distribution service, consisting of individual dedicated 15 amp, 120 volt circuits to electrical drops with receptacle outlets equipped with ground fault interrupt protection, color coded for the exclusive use of the air monitoring firm.

D. FIRST AID

1. A minimum of one first aid kit shall be located in the clean room of the decontamination unit. Additional first aid kits, as the Contractor feels is adequate or is required by law, shall be located throughout the work area.

E. FIRE EXTINGUISHERS

1. The Contractor shall comply with the applicable recommendations of NFPA Standard 10 – “Standard for Portable Fire Extinguishers”. Locate fire extinguishers where they are most convenient and effective for their intended purpose but provide not less than one extinguisher in each work area or floor level.

F. TOILET FACILITIES

1. The Contractor shall provide temporary toilet facilities to be used by the Contractor’s employees.

G. PARKING

1. The Contractor’s employees will park only in areas designated by the Building Owner.



H. SITE SECURITY

1. The Contactor is responsible for maintaining security in the work areas at all times during work hours at the work site. The Contractor is responsible for securing the work areas at the end of the work day.

I. STORAGE

1. The Contractor shall supply temporary storage for all equipment and materials for the duration of the project. Storage facilities and dumpster(s) will be maintained in areas designated by the Building Owner.

J. HEATING/COOLING

1. The Contractor shall provide adequate heating and cooling in the work areas of the building to perform his work as appropriate.



6.0 NEGATIVE PRESSURE SYSTEM

A. GENERAL

1. The Contractor will provide high-efficiency particulate air (HEPA) filter exhaust systems equipped with new HEPA filters for the project. Exhaust equipment and systems shall comply with ANSI Z9.2-79 and used according to the manufacturer's recommendations.
2. A system of HEPA-equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02" to -0.04" water column). A continuous chart-recorded manometer shall be used to confirm this condition. The Contractor shall provide a manometer or magnehelic-type negative pressure differential monitor with minor scale divisions of 0.005 inches of water and accuracy within plus or minus one percent. The manometer will be calibrated daily as recommended by the manufacturer.
3. The Contractor will provide additional air filtration devices inside the work areas for emergency standby as well as for circulation of dead air space.
4. The pressure differential will be maintained at all times after preparation is complete and until the final visual inspection and clearance air tests confirm the area is clean and acceptable for re-occupancy and the designer confirms verbally with written follow-up to discontinue the use of the negative pressure system.
5. Air shall be exhausted outside the building and away from the decontamination chamber if at all feasible. Any variations must be approved by the NC HHCUC.
6. The Contractor shall check daily for leaks and document his checks in the bound logbook.
7. There shall be a minimum of four air changes per hour in any air containment area.
8. The Contractor shall change the pre-filters, secondary filters, and the HEPA filters as necessary to ensure negative pressure is maintained throughout the duration of the project.
9. The Contractor will install observation windows where feasible. The Contractor will work with the Building Owner's Air Monitor to determine feasibility and location. The observation windows will be provide a minimum of one square foot of visible area using a plexi-glass type material.



7.0 WORK AREA PREPARATION

A. GENERAL

1. Before work begins at the work site, a decontamination unit must be in operation as outlined in Section 10.0
2. Completely isolate the work area from the other parts of the building so as to prevent contamination beyond the isolated area.
3. The Contractor shall set-up a work area, load out, and decontamination facility at the locations shown in the approved asbestos abatement design specification. Any variations must be approved by the Building Owner. The decontamination facility outside the work area shall consist of a change room, shower room, and equipment room, at a minimum, as described in Section 10.0
4. The Contractor shall wet clean and/or HEPA vacuum all items and equipment in the work area suspected of being contaminated with asbestos but not in direct contact with the asbestos material to be removed and either secure these items in place with two layers of polyethylene sheeting, air tight, or have them removed from the work area.
5. Critical Barriers: The Contractor shall thoroughly seal the work area for the duration of the project by completely sealing off all individual openings and fixtures in the work area, including but limited to, heating and ventilation ducts, doorways, corridors, windows, skylights, and lighting with two layers polyethylene sheeting taped securely in place. If the Contractor is using sealant materials to fill in small holes or cracks, the material shall have appropriate fire ratings. Protection for any non-moveable fixtures that may be on the walls, floors, or ceilings that are not part of the work shall be protected by appropriate means.
6. Floors: Apply two or more layers of 6 mil (minimum) polyethylene plastic sheeting with joints overlapped 24 inches and taped securely. Plastic sheeting shall be carried up wall a minimum of 12 inches and secured.
7. Walls: Apply two or more layers of 4 mil (minimum) polyethylene plastic sheeting with joints overlapped 24 inches and taped securely. Plastic sheeting shall be lapped over floor coverings and taped securely.



8. Polyethylene sheeting on floors and walls shall be installed in such a manner that they may be removed independently of the critical barriers.
9. Entrances and exits from a work area will have triple barriers of polyethylene plastic sheeting in a z-configuration so that the work area is always closed off by one barrier when workers enter or exit the work area. The containment exits shall be adequately labeled and emergency evacuation routes shall be demarcated.
10. No ACM or water may be left on the floor at the end of the workday.
11. Floor surfaces, walls, finishes, or coverings, etc. that in the Contractor's opinion will be damaged by water or that may become contaminated with asbestos shall have additional protective preparation as the Contractor sees appropriate, at his cost, to protect the original condition of the surfaces.
12. Any costs associated with physical damage caused by water or securing polyethylene sheeting to areas inside or outside the abatement area shall be the Contractor's responsibility.
13. Provide caution signs at all approaches to asbestos-control areas containing concentrations of airborne asbestos fibers. Locate signs at such distance that personnel may read the signage and take the necessary protective steps required before entering the area. All signs will conform to 29 CFR 1926.1101 and 29 CFR 1926.62 requirements.
14. A negative pressure system shall be addressed as outlined in Section 6.0.
15. After work area preparation, the Contractor shall notify the Building Owner and the Building Owner's air monitoring firm with written follow-up that the Contractor is ready for a pre-work inspection.



8.0 WORKER PROTECTION

A. GENERAL

1. The Contractor shall provide worker protection as required by OSHA, state, and local standards applicable to the work being performed. The Contractor is solely responsible for enforcing worker protection requirements at least equal to those specified in this Section.
2. Each time the work area is entered, the Contractor shall require all persons to remove street clothes in the changing room of the personnel decontamination unit and put on new disposable coveralls, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.
3. Workers shall not eat, drink, smoke, chew gum, apply cosmetics, or chew tobacco in the work area, the equipment room, the load out area, or the clean room.

B. WORKER TRAINING

1. The Contractor will have his workers trained in accordance with 29 CFR 1926 and applicable North Carolina regulations regarding the dangers inherent in handling, breathing asbestos fibers, proper work procedures, and personal and area protective measures.

C. MEDICAL EXAMINATIONS

1. The Contractor will provide medical examinations for all his workers. The medical examinations shall, at a minimum, meet the OSHA requirements as set forth in 29 CFR 1926.

D. PROTECTIVE CLOTHING

1. The Contractor will provide disposable full-body coveralls and disposable head covers and require that all workers in the work area wear them. Provide a sufficient number for all required changes for all workers in the work area. Cloth work clothing may be worn underneath disposable protective clothing. However, this clothing is to remain inside the work area and be disposed of as asbestos contaminated waste.
2. Boots: The Contractor will provide work boots with non-skid soles, and where required by OSHA, additional foot protection for all workers. All boots/footwear worn within the control area will be considered as asbestos contaminated material and may not be worn outside the control area.



3. Gloves: The Contractor will provide suitable work gloves to all workers and require that they be worn at the appropriate times. The work gloves are not to be removed from the work area and shall be disposed of as asbestos containing waste at the completion of the work.
4. The Contractor shall provide eye and ear protection as appropriate.

E. ADDITIONAL PROTECTIVE EQUIPMENT

1. The Contractor will provide the appropriate respirators or respirator system to ensure adequate respiratory protection, disposable coveralls, head covers, gloves, and footwear covers for the Building Owner, the Building Owner's representative, the Building Owner's air monitoring firm, or other authorized representatives who may inspect the work site at no cost to the Building Owner. The personal protective equipment provided by the Contractor shall remain the property of the Contractor.

F. DECONTAMINATION PROCEDURES

1. The Contractor will require that all workers use the following decontamination procedures as a minimum requirement whenever leaving the work area.
 - a. Remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.
 - b. Still wearing respirators, proceed to showers. Showering is mandatory. Care should be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is a minimum:
 - Thoroughly wet body including hair and face
 - With respirator still in place thoroughly wash body, hair, respirator face piece, and all exterior parts of the respirator
 - Take a deep breath, hold it and/or exhale slowly, completely wet hair, face, and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.
 - Carefully wash face piece of respirator inside and out
 - Shower completely with soap and water, rinse thoroughly
 - Rinse shower room walls and floor prior to exit
 - Proceed from shower to changing (clean) room and change into street clothes or new disposable work items
 - c. After showering, each employee shall inspect, clean and repair his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.
 - d. Proceed to clean room, dry off, and dress in street clothes.



9.0 RESPIRATORY PROTECTION

A. GENERAL

1. All respiratory protection programs shall be established in accordance with the respiratory protection requirements of 29 CFR 1910.134 and 29 CFR 1926.1101. These regulations shall be considered a requirement of these specifications. The following sub-sections provide for the establishment of standard protection program, but do not relieve the Contractor from the implementation or enforcement of a respiratory protection program.
2. The Contractor shall designate an administrator for their respiratory program. The administrator shall be responsible for the implementation and enforcement of the provisions and procedures set forth in the respiratory protection program. The Contractor shall submit the name of the administrator to the Building Owner and APD.
3. The Contractor shall ensure that only those individuals who are medically able to wear respiratory protection equipment shall be issued a respirator. Before being issued a respirator, an employee of the Contractor shall have received a medical and physical examination and approved to wear a respirator.
4. Each employee of the Contractor that is determined to be fit to wear a respirator shall be fit tested, following applicable procedures outlined in OSHA regulations, upon receiving the respiratory equipment and then regularly throughout the project.



10. DECONTAMINATION UNITS

A. GENERAL

1. Personnel Decontamination Area

- a. The Contractor shall establish a decontamination unit to include an equipment room, clean room, and a shower outside each work area. The decontamination unit shall be a continuous with the work area.
- b. The clean room will contain boxes or lockers for each worker's street clothes. The boxes or lockers will be provided by the Contractor.
- c. Maintain floor of changing room dry and clean at all times. Do not allow the overflow water from shower to escape the shower room.
- d. Damp wipe all surfaces twice after each shift change with a disinfectant solution.
- e. Provide hot and cold water, adequate drainage, and standard fixtures including an elevated showerhead as necessary for a complete and operable shower. A water hose and bucket is not an acceptable shower.
- f. Arrange water shut-off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the work area.
- g. Pump shower wastewater to drain. Provide 20 micron and 5 micron wastewater filters in line to drain. Change filters daily or more often if necessary.
- h. If the decontamination area is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 3/8 inch plywood "ceiling" with two layers of polyethylene sheeting covering the top of the plywood "ceiling".
- i. Visual Barrier: Where the decontamination area is immediately adjacent to and within view of the occupied areas, provide a visual barrier of opaque plastic sheeting so that worker privacy is maintained and work procedures are not visible to the building occupants. Where the area adjacent to the decontamination area is accessible to the public, construct a solid barrier (i.e.



wood, metal, etc.) on the public side of the sheeting to protect the sheeting. Construct barrier using wood or metal studs, 16 inches on center maximum, covered with a minimum of 3/8 inch plywood or equivalent.

2. Equipment Decontamination Units

- a. Provide an equipment decontamination unit consisting of a serial arrangement of rooms - clean room, holding area, and washroom (at a minimum) with each room separated by a minimum of three curtain doorways for removal of equipment and material from work area. Do not allow personnel to enter or exit work area through equipment decontamination unit.
- b. Washroom: Provide a washroom for cleaning of bagged or drummed asbestos waste materials passed from the work area.
- c. Holding Area: Provide a holding area as a drop location for sealed drums and bagged asbestos waste materials passed from the washroom.
- d. Clean Room: Provide a clean room to isolate the holding area from the building exterior or occupied areas.
- e. Equipment or Material: Obtain all equipment or materials from the work area through the equipment decontamination unit according to the following procedure (at a minimum):
 - (1) When passing contaminated equipment, sealed plastic bags, drums or containers into the washroom, close all doorways of the equipment decontamination unit, other than the doorway between the work area and the washroom. Keep all outside personnel clear of the equipment decontamination unit.
 - (2) Once inside the washroom, wet-clean the bags and/or equipment.
 - (3) When wet-cleaning is complete, insert bagged waste material into a clean container (bag, drum, etc.) during the pass between the washroom and holding area. Close all doorways except the doorway between the washroom and holding area.
 - (4) Workers from the exterior of the work area enter the clean room then the holding area to remove decontaminated equipment and/or



containers for disposal. Require these workers to wear full protective clothing and respiratory protection as described in Section 8.0 and Section 9.0.

3. Maintenance of Enclosure System

- a. The Contractor's supervisor shall ensure that the barriers and plastic linings are effectively sealed and taped. Repair damaged barriers and remedy defects immediately upon discovery. Areas of damage and the required repairs will be documented in the project logbook.
- b. The Contractor's supervisor shall visually inspect the asbestos removal enclosure at the beginning of each work shift.
- c. Use smoke methods to test the effectiveness of the enclosure system when requested by the Building Owner or Building Owner's designated representative.

4. Decontamination Unit Contamination

- a. If the air quality in the decontamination unit exceeds 0.01 fibers per cubic centimeter analyzed by PCM or 70 structures per millimeter squared analyzed by TEM or its integrity is diminished through use as the Building Owner's air monitoring firm or other designated representative, no employee shall use the unit until corrective steps are taken and approved by the Building Owner's air monitoring firm or other designated representative.



11.0 PROJECT DECONTAMINATION

A. GENERAL

1. Carry out a first cleaning of all surfaces of the work area including plastic sheeting, tools, scaffolding, and/or staging equipment/materials by use of damp cleaning and/or mopping and a HEPA vacuum until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces. Do not perform dry dusting, dry sweeping, or blow down with high-pressure air or water systems.
2. Equipment shall be cleaned and all contaminated materials removed before removing polyethylene from the walls and floors.
3. The Contractor shall replace all pre-filters and clean the inside and outside of the HEPA exhaust units.
4. After removing polyethylene sheets from walls and floors but with polyethylene sheets remaining on all windows, doors, and critical components, the Contractor shall clean all surfaces in the work area including ducts, electrical conduits, steel beams, roof deck, etc. with amended water and then HEPA vacuum all surfaces.
5. After cleaning the work area, the Contractor shall allow the area to thoroughly dry and then wet-clean and HEPA vacuum all surfaces in the work area again.
6. At completion of the cleaning operations, the Contractor's supervisor shall perform a thorough visual inspection of the work area to ensure that the work area is dust and fiber free. When the supervisor believes the work area is ready for a final project decontamination inspection, he shall notify the Building Owner's air monitoring firm.
7. Upon notification of the Contractor's supervisor and after all work areas are dry, the personnel of the project's air monitoring firm shall perform a visual inspection for dust and/or fibers. The air monitoring firm will notify the Contractor's supervisor of any discrepancies found during the visual inspection. If the work area has not been adequately cleaned/decontaminated, cleaning shall be repeated at the Contractor's expense including additional visual inspections by the project's air monitoring firm until the work is found to be in compliance.
8. Assuming no discrepancies are noted and/or the work area is found to be in compliance, the Contractor shall apply an approved and compatible lockdown sealant to surfaces in the work area.



9. Once the lockdown sealant has been applied and the work area has dried, all entrances and exits shall be unsealed and the plastic sheeting, tape, and any other trash/debris shall be disposed of as ACM waste material as outlined in Section 14.
10. All HEPA unit intakes and exhausts shall be wrapped and sealed with 6 mil polyethylene before removing from the work area.
11. After the air monitoring firm has approved the final project decontamination and the Contractor has completed the tear down for occupancy by others, the air monitoring firm shall perform a final visual inspection of the work area.
12. Any residual ACM that is present after removing critical barriers that in the opinion of the air monitoring firm should have been removed/cleaned during the pre-cleaning phase prior to installing critical barriers shall be cleaned and re-cleared at the Contractor's expense.
13. There shall be appropriate seals totally enclosing the inspection area to keep it separate from clean areas or other areas where abatement/removal of ACM is or will be in progress. Once an area has been accepted and air monitoring has determined an area is found in compliance for re-occupancy, a loss of the critical barrier integrity or escape of asbestos dust into a previously identified clean area shall void the previous visual acceptance and air sampling clearance testing. Additional visual cleaning and air clearance sampling shall be required at the Contractor's expense.
14. Upon completion of the work, the Contractor shall remove all tools, equipment, and materials from the work area.
15. The Contractor shall leave the site clean, neat, and orderly and in a condition to begin new construction and/or renovation. The Contractor will be responsible for repair or replacement of the Building Owner's property damaged by the Contractor during performance of this project.



12.0 WORK AREA CLEARANCE

A. GENERAL

1. Notification and scheduling of the final inspection during the project is the responsibility of the Contractor.

B. FINAL CLEARANCE TESTING

1. After the second cleaning operation and after the area is completely dry, the following test procedures shall be performed:
 - a. The air monitoring firm retained by the Building Owner shall conduct a final inspection. The inspection shall be conducted following the guidelines set forth in the American Society for Testing and Materials (ASTM), Standard Practices for the Visual Inspection of Asbestos Abatement Projects, Designation E1368.90. If the work area is found visibly clean, the air monitoring firm will collect air samples for clearance and re-occupancy.
 - b. During the air testing, the accredited air monitor shall perform aggressive air sampling as described in the EPA-AHERA regulations (40 CFR Part 763, Subpart E, Appendix A). Where non-friable removal techniques are utilized with limited containment, non-aggressive air sampling shall be performed.
 - c. Clearance testing for samples analyzed using Phase Contrast Microscopy (PCM) Method (minimum of five samples using the NIOSH 7400 Method) will be sampled as follows: during sampling, the maximum flow rate shall be 10 liters per minute or less with a minimum sample size of 1,200 liters for each sample. Clearance criteria shall be less than 0.1 fibers per cubic centimeter of air (f/cc) for all samples analyzed.
 - d. Clearance testing for samples analyzed using the Transmission Electron Microscopy (TEM) Method described in 40 CFR Part 763, Subpart E, Appendix F will be sampled as follows: during sampling, the maximum flow rate shall be 10 liters per minute or less with a minimum sample size of 1,200 liters for each sample. Clearance criteria shall be an arithmetic mean less than or equal to 70 structures per square millimeter or a Z-Test less than or equal to 1.65.
 - e. Final clearance criteria shall be in accordance with applicable federal and state regulations, unless otherwise noted. The air monitoring firm will submit to the



Building Owner a final report which shall describe the activities performed during the abatement of ACM at the building.

- f. The use of the negative pressure system, if necessary, may be discontinued after the air monitoring firm instructs the Contractor that they have passed the final project decontamination inspection.

For this project, clearance testing will be performed using the PCM method. The Building Owner will pay for the initial air clearance testing and a turn-around-time of twenty-four (24) hours or less will be utilized. In the event the results of the initial air clearance testing do not meet the applicable clearance criteria, the contractor will be responsible for the cost of the additional air clearance testing until the air clearance criteria has been met.



PART 2 - PRODUCTS

A. GENERAL

1. The Contractor shall submit a list of all materials and products to be used during this project. The Building Owner reserves the right to review this list and reject any products deemed unacceptable. The Contractor will not substitute materials unless prior receipt of written approval by the Building Owner or the Building Owner's representative.



PART 3.0 – EXECUTION

13.0 ASBESTOS REMOVAL

A. GENERAL

1. It is the intent of this specification that the Contractor shall completely remove and dispose of all ACM from the work site as described herein this document. The identified areas of ACM are further described in this section, on the attached figures, and the attached laboratory results.
2. The Contractor shall perform the removal of all friable ACM or significantly damaged non-friable ACM from within reduced pressure enclosures or reduced pressure glove bag enclosures.
3. Prior to the Contractor's mobilization to the project site or starting the asbestos removal, the Contractor shall thoroughly decontaminate all equipment. The Contractor's equipment, decontamination units, and work area set-up shall be approved by the Building Owner's designated representative.
4. The Contractor shall be responsible for collecting personnel air monitoring samples in accordance with OSHA Construction Asbestos Standard 29 CFR 1926.1101 unless an initial exposure assessment has been submitted and approved by the Building Owner's representative. Results of the occupational and environmental sampling shall be submitted to the Building Owner's representative within three working days of collection, signed by the testing laboratory responsible official, the employee that performed the sampling, and the Contractor's competent person.
 - a. The sampling results shall represent each job classification, or if working conditions are similar to previous projects by the same employer, the Contractor may provide previously collected exposure data that can be used to estimate worker exposures in accordance with 29 CFR 1926.1101. The data shall represent the worker's regular daily exposure to asbestos.
 - b. The initial monitoring shall determine the requirements for further monitoring and the need to fully implement the control and protective requirements included in 29 CFR 1926.1101.
5. All loose asbestos material removed in the work area shall be adequately wetted, bagged, sealed, and labeled properly before personnel breaks or end of each shift.



6. All plastic sheeting, tape, cleaning materials, clothing, and all other disposable materials or items used in the work area shall be packed into sealable plastic bags (6 mil minimum thickness), doubled, and treated as contaminated material.
7. All materials shall be double-bagged prior to removing it from the established waste load out area.
8. All excess water (except shower water) shall be combined with removed material or other absorptive material and properly disposed of per EPA regulations. The Contractor shall not place water into storm drains, onto lawns, into ditches, creeks, streams, rivers, or oceans.
9. The Building Owner and/or Building Owner's designated representative may consider alternate removal procedures and methods, however, alternate removal procedures and methods shall not be utilized unless authorized in writing by the Building Owner or the Building Owner's designated representative.
10. Various tasks may be combined with the approval, in writing, by the Building Owner or Building Owner's designated representative.

B. SCOPE OF WORK – ASBESTOS ABATEMENT

1. The Contractor shall furnish all labor, materials, services, insurance, and equipment necessary for the removal and disposal of ACM and materials as described in this section in the designated areas of B Building, the Cafeteria Building, and the covered walkway located on the former Davie County High School campus located at 1200 S. Salisbury Street in Mocksville, North Carolina (Figure 1). The abatement/removal and disposal will be performed in accordance with the appropriate and applicable Federal, State, and Local guidelines and regulations.
2. The quantities shown in this Section are estimates only. The Contractor has the responsibility for determining the actual quantities of material to be abated, removed, and disposed of. No additional contract price adjustments will be allowed due to variances between actual and the estimated quantities listed herein.
3. Removal of identified ACM as shown in the following table.



SUMMARY OF ACM TO BE ABATED PRIOR TO DEMOLITION		
BUILDING	ACM	EST. QUANTITY
B	Floor tile & mastic	7,635 sq. ft.
B	Lay-in Ceiling Tile	1,080 sq. ft.
B	Roofing ¹	11,050 sq. ft.
Cafeteria	Window Glazing	2 windows
Steam Tunnel	Pipe Wrap	270 lin. ft.
Covered Walkway	Roofing ¹	1,725 sq. ft.

NOTE: Roofing materials (ACM) must be abated prior to the demolition of the structure

4. If additional ACM is discovered (behind walls, above ceilings, or in steam tunnels, etc.), all work in the area should cease and the APD and Owner's representative contacted to further evaluate the discovery and determine the most cost effective and timely response action.



14.0 ASBESTOS REMOVAL METHODS

1. Asbestos Removal
 - a. Establish a control area as outlined in Section 7.0 and 10.0 of this specification.
 - b. Pre-clean and decontaminate all items appropriately that may be contaminated within the control area. Remove and dispose of any asbestos contaminated items if they cannot be decontaminated.
 - c. The ACM shall be wet down and removed and placed into properly labeled 6 mil polyethylene bags and sealed with duct tape. Seal bag within a clean bag.
 - d. Any additional waste materials shall be placed into properly labeled 6 mil polyethylene bags and seal with duct tape. Seal bag within a clean bag.
 - e. After asbestos removal, no asbestos materials shall be visible on exposed surfaces. If so, clean-up work shall be done at the Contractor's expense until all visible evidence of asbestos has been removed.
 - f. Glove Bag Removal: As appropriate or as needed, the Contractor may use glove bags for removal of pipe insulation as allowed by current OSHA Standard 1926.1101.
 - (1) Position bag around the pipe insulation to be removed and seal to pipe with tape. Construct a sealed side port to allow access for wetting asbestos and evacuating the bag with a HEPA filtered vacuum. In accordance with the OSHA Standards, each glove bag shall be smoke-tested for leaks and any leaks sealed prior to use.
 - (2) Wet the insulation as much as possible to minimize dust generation.
 - (3) Cut insulation along a joint with a sharp knife into manageable sections and let fall into bag.
 - (4) Scrape all residual insulation completely off pipes, brackets, and hangers.
 - (5) Tape glove together below pipe before removing bag from pipe. Completely evacuate air from bag with a HEPA vacuum.
 - (6) Place contaminated glove bag into a properly labeled 6 mil polyethylene bag and seal with duct tape.



15.0 DISPOSAL OF ASBESTOS CONTAINING WASTE MATERIAL

A. GENERAL

1. Within the work area, all asbestos containing materials and miscellaneous contaminated debris shall be immediately placed into properly labeled 6 mil polyethylene bags or appropriate non-porous waste containers; properly sealed and protected. All material shall be double bagged and wet-wiped prior to removing to waste load-out area.
2. If a dumpster is to remain on the project site during abatement/removal operations to accumulate waste before disposal, then it must be completely closed or covered (no open top dumpsters). The load out vehicle/dumpster shall be locked and labeled with warning signs while located at the project site. The placement of the dumpster shall be approved by the Building Owner.
3. Waste disposal polyethylene bags (6 mil thickness minimum) and containers, non-porous (steel/plastic) drums or equivalent, with labels, appropriate for storing asbestos waste during transportation to the disposal site shall be utilized. In addition to the OSHA, NESHAP, and DOT labeling requirements, all containers shall be labeled with the date of removal, the name of the waste generator, and the location at which the waste was generated.
4. The Contractor shall transport the containers and bags of ACM waste material to the approved waste disposal site. An enclosed vehicle will be used to haul the ACM waste materials to the disposal site. No rental vehicles or trailers shall be used. Vehicle selection, vehicle covers, and associated work practices shall assure that no asbestos dust becomes airborne during the loading, transport, and unloading activities, and that materials placed at the waste site is performed without breaking any seals. Transportation of the waste material to the pre-designated disposal site shall be in accordance with 40 CFR 61.150 and DOT 49 CFR Parts 100 – 399.
5. Workers loading and unloading the asbestos waste materials shall wear respirators and disposable clothing when handling waste materials. Asbestos warning signs shall be posted during loading and unloading the asbestos waste materials.
6. The Contractor shall use the NC HHCU's Waste Shipment Record (Form 3787) for disposal records per 40 CFR 61.150 and distribute a copy of all waste shipment records to the Building Owner after completion of the project.

END OF ASEBESTOS ABATEMENT SPECIFICATION



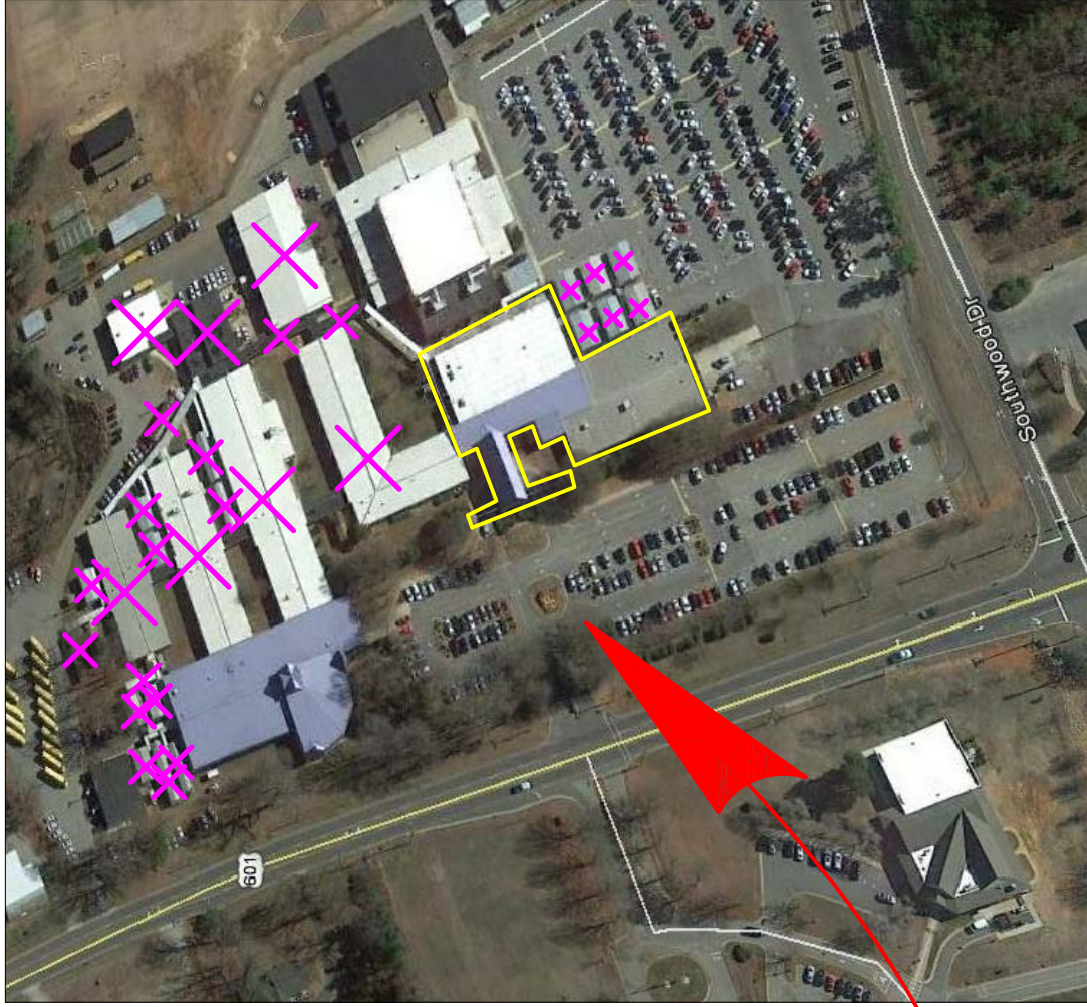
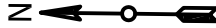
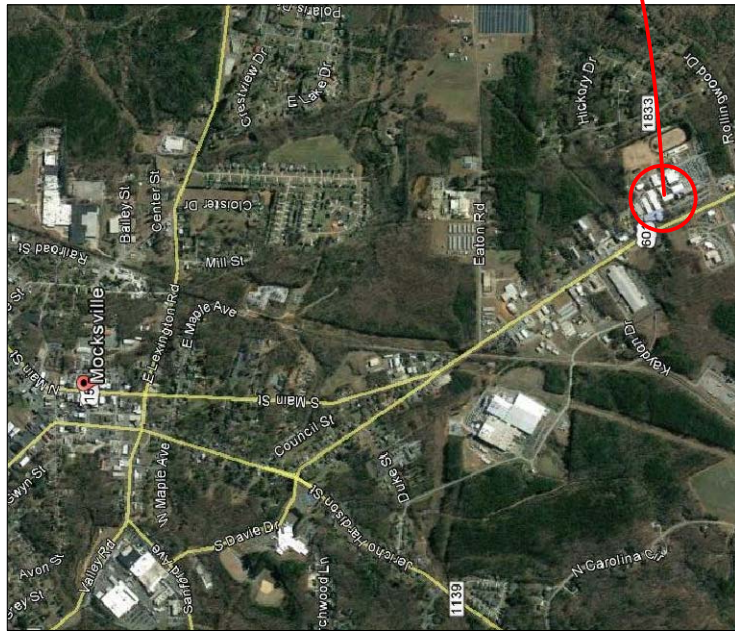
APPENDIX 1

FIGURES

LEGEND

✕ Existing Buildings/Structures Previously Demolished or No Longer Present

□ Existing Buildings/Structures to be Demolished



ACES PROJ. NO.: 2017 - 11 - 118

DATE: December 30, 2017

LOCATION PLAN

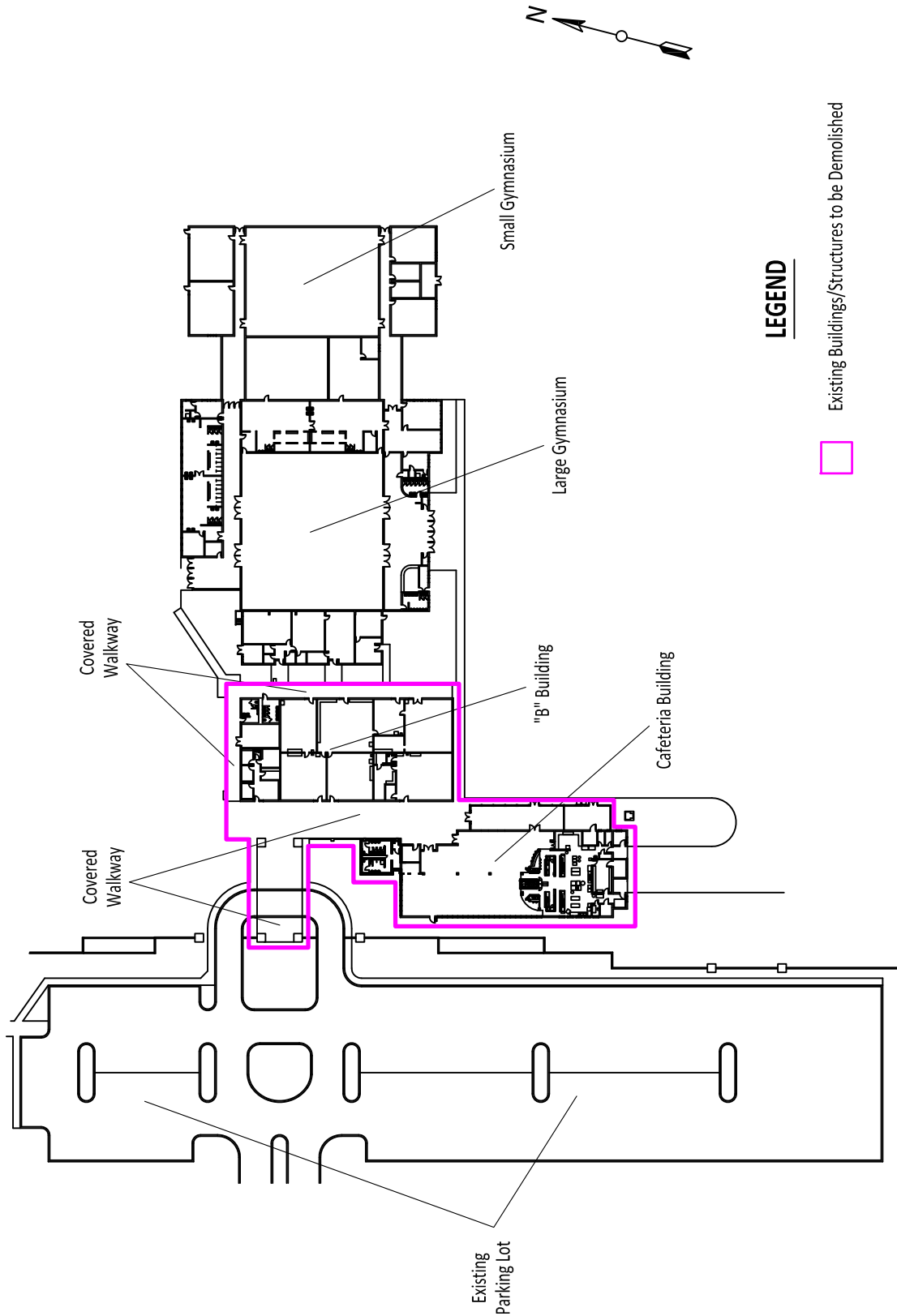
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FORMER DAVIE COUNTY H. S. - 1200 SALISBURY ROAD
MOCKSVILLE, NORTH CAROLINA**

FIGURE

1



NOT TO SCALE

LEGEND

 Existing Buildings/Structures to be Demolished

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 DATE: December 30, 2017

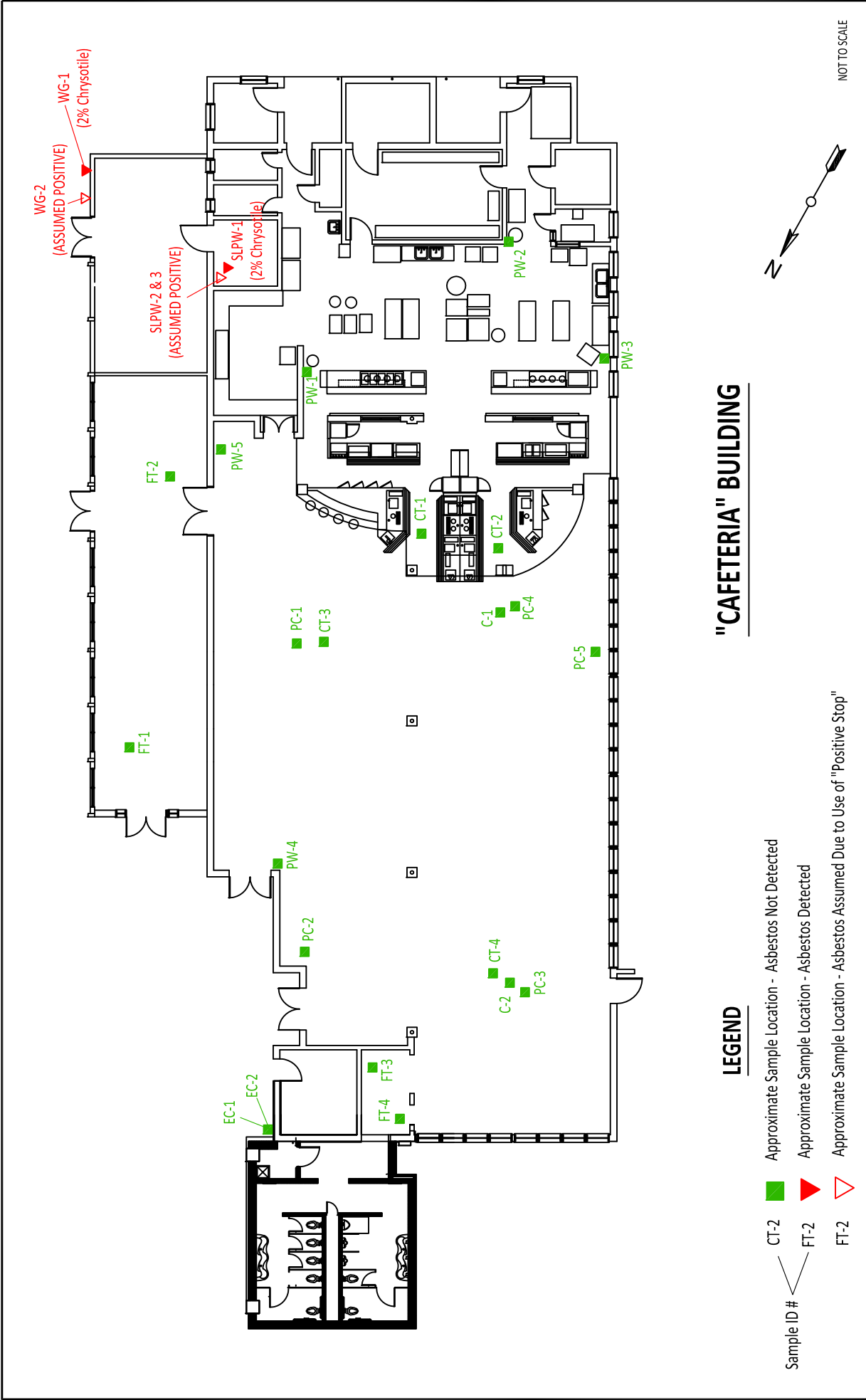
LOCATION PLAN

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FIGURE
2



"CAFETERIA" BUILDING

LEGEND

- Sample ID # CT-2 Approximate Sample Location - Asbestos Not Detected
- FT-2 Approximate Sample Location - Asbestos Detected
- FT-2 Approximate Sample Location - Asbestos Assumed Due to Use of "Positive Stop"



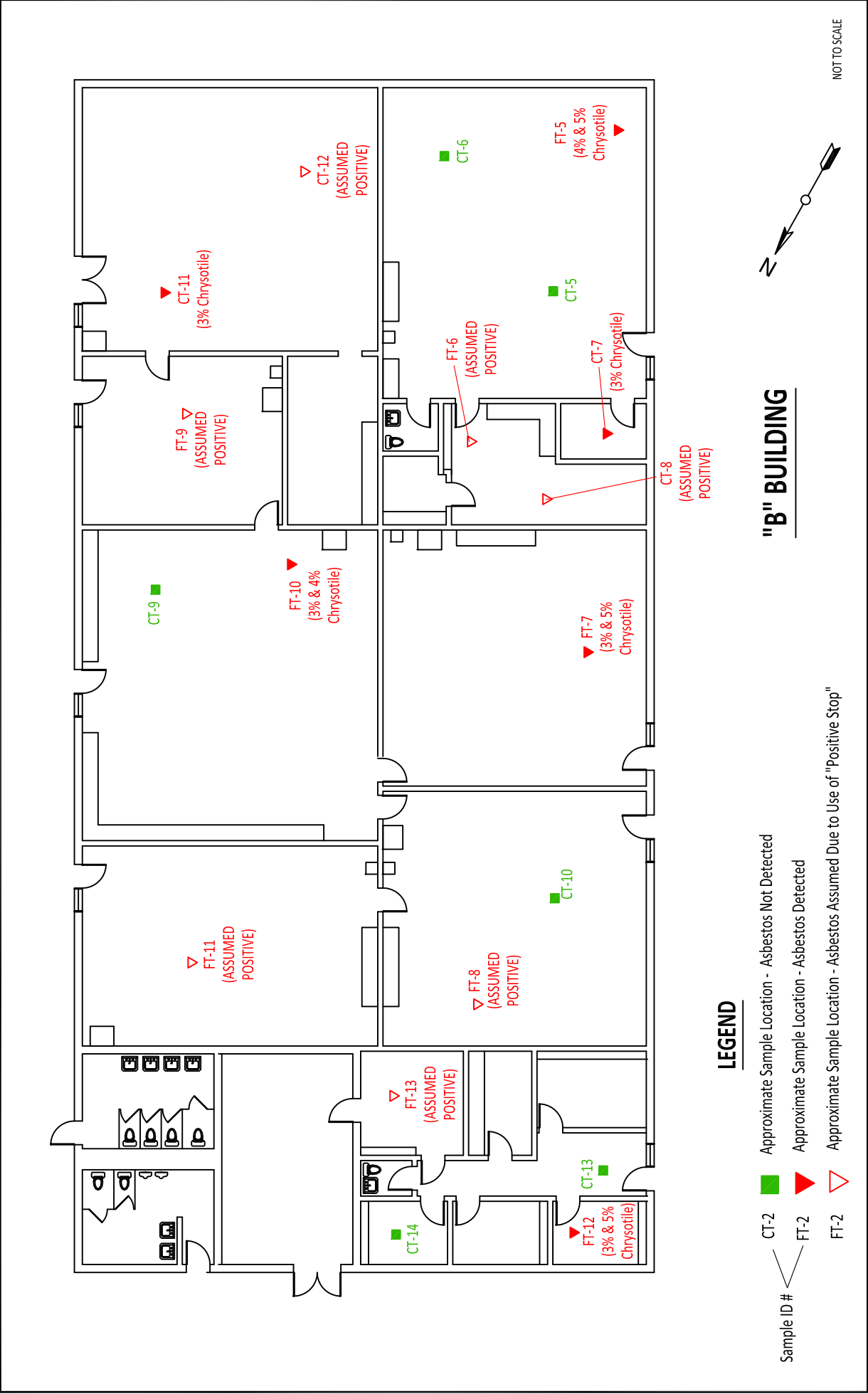
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SAMPLE LOCATION PLAN

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FIGURE 3

NOT TO SCALE




"B" BUILDING

LEGEND

- Sample ID # CT-2 Approximate Sample Location - Asbestos Not Detected
- FT-2 Approximate Sample Location - Asbestos Detected
- FT-2 Approximate Sample Location - Asbestos Assumed Due to Use of "Positive Stop"

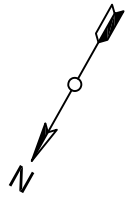
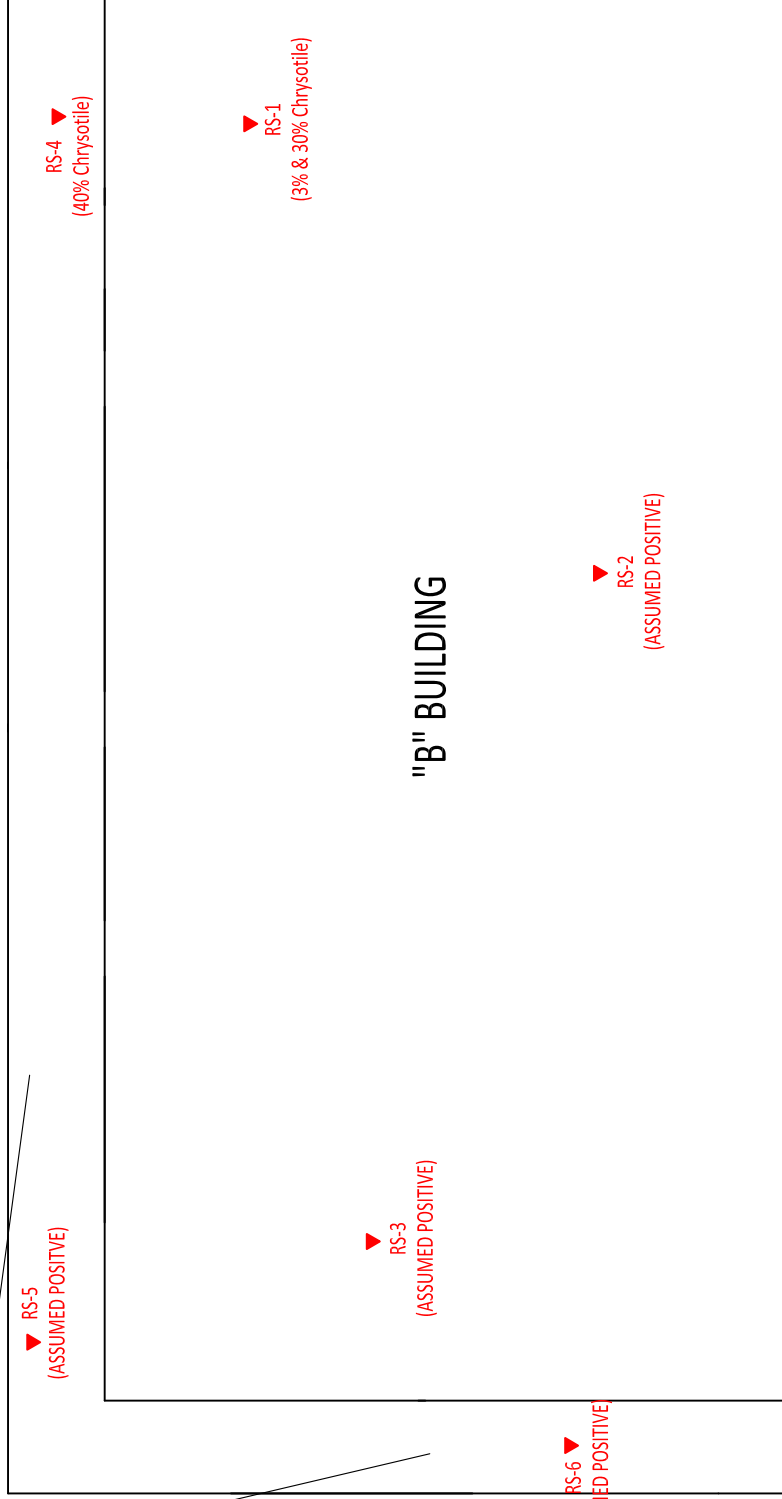
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SAMPLE LOCATION
PLAN

COVERED WALKWAY



"B" BUILDING - ROOF LEVEL

NOT TO SCALE

LEGEND

- CT-2 ■ Approximate Sample Location - Asbestos Not Detected
- FT-2 ▶ Approximate Sample Location - Asbestos Detected
- FT-2 ◀ Approximate Sample Location - Asbestos Assumed Due to Use of "Positive Stop"

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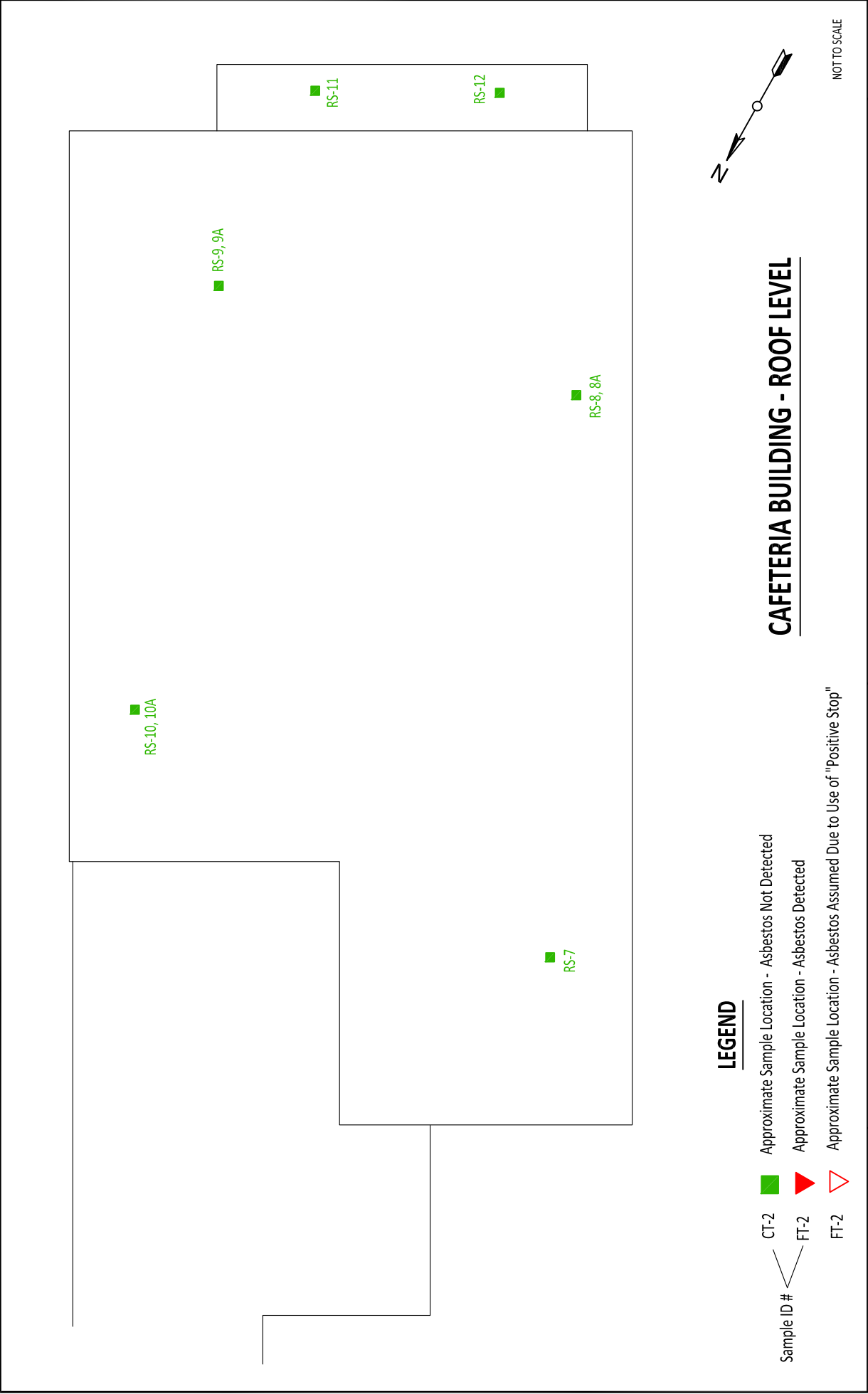
**SAMPLE LOCATION
 PLAN**

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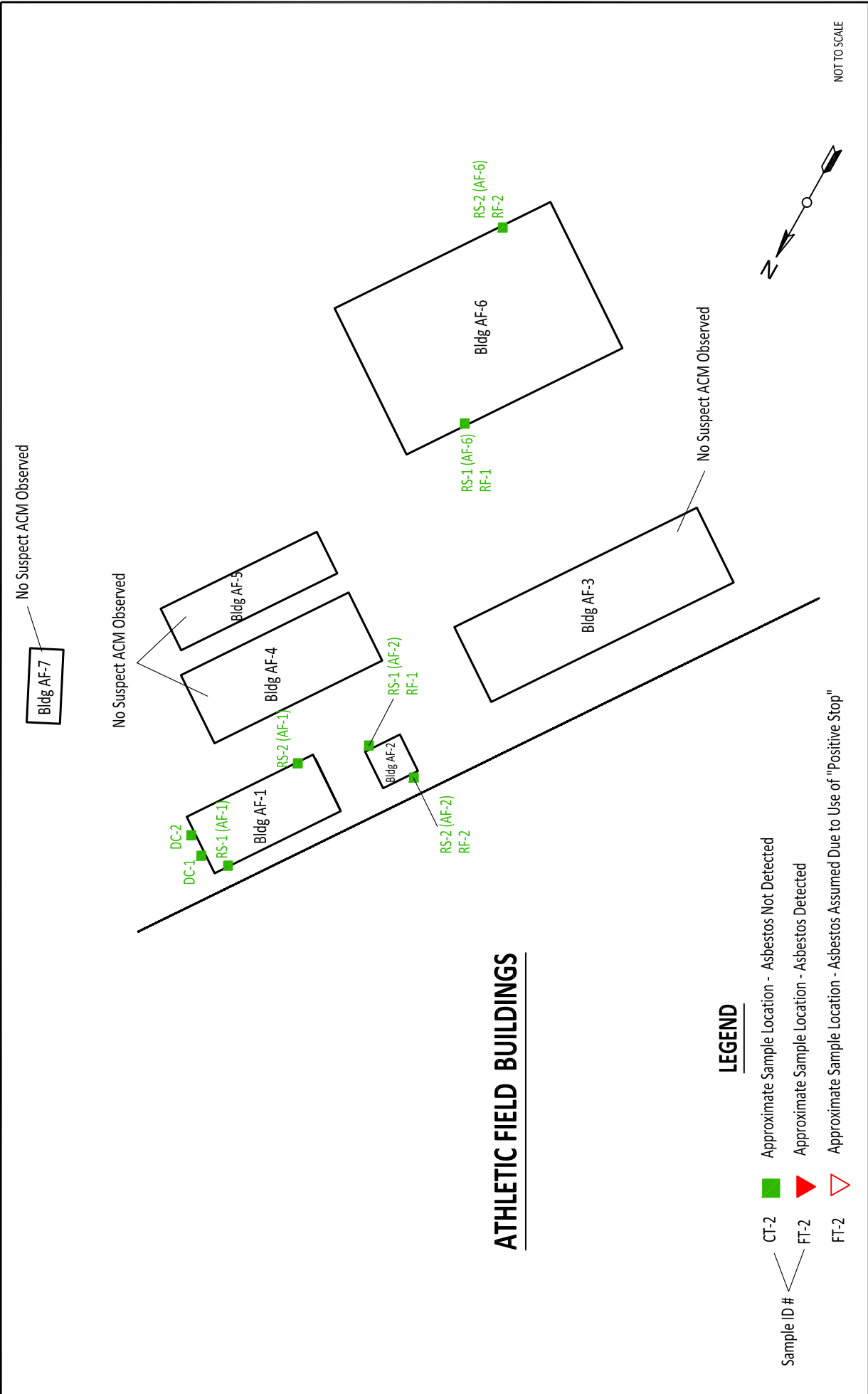
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FIGURE

5



<p>ACES PROJ. NO.: 2017 - 11 - 118 DATE: December 30, 2017</p>	<p>SAMPLE LOCATION PLAN</p>
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<p>ALLIED CONSULTING & ENVIRONMENTAL SERVICES SHELBY, NORTH CAROLINA P.O. BOX 2426 (28151-2426) 704-600-6255 409 E. MARION ST. (28150) FAX 704-482-5596</p> 	
<p>FIGURE 6</p>	




ATHLETIC FIELD BUILDINGS

LEGEND

- Sample ID # CT-2 Approximate Sample Location - Asbestos Not Detected
- FT-2 Approximate Sample Location - Asbestos Detected
- FT-2 Approximate Sample Location - Asbestos Assumed Due to Use of "Positive Stop"

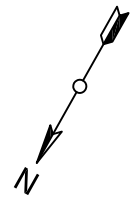
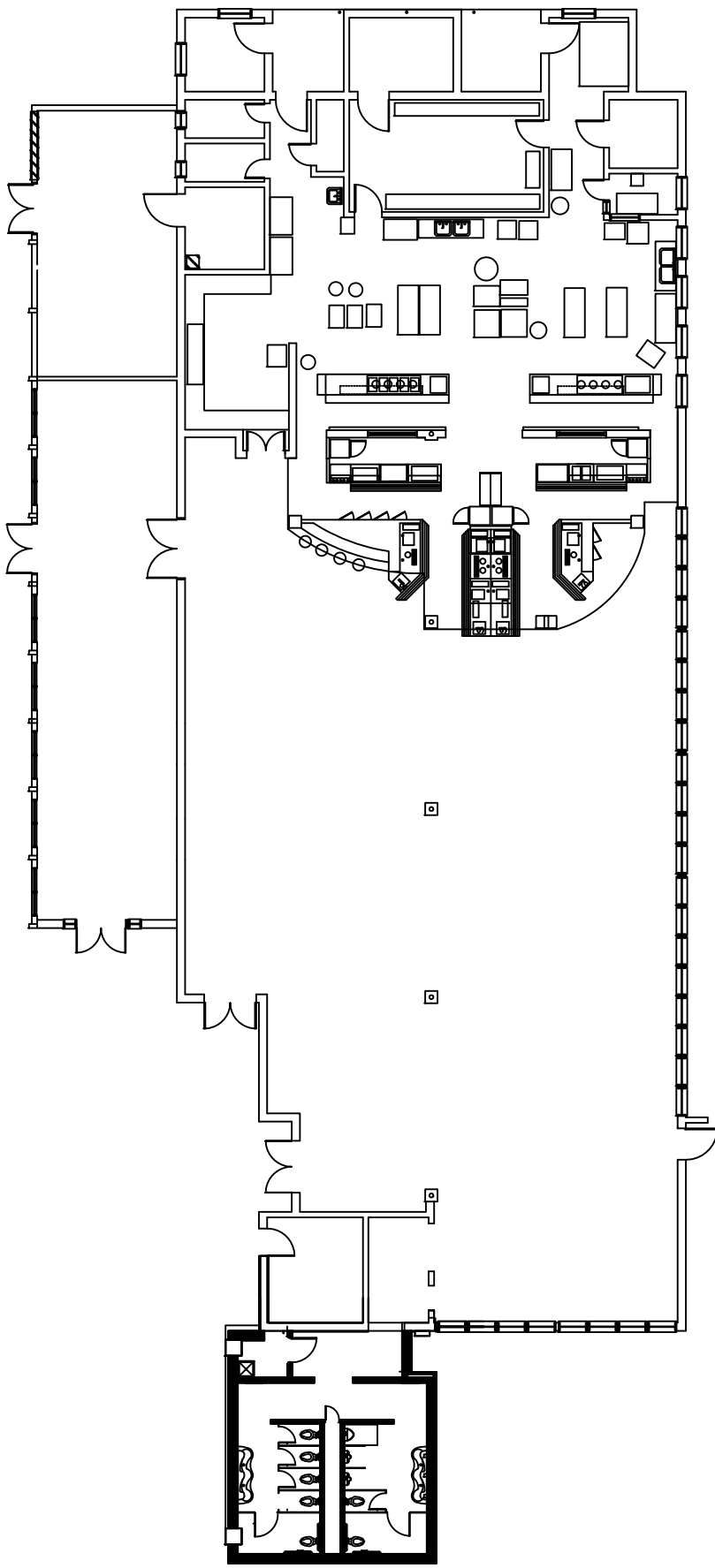
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SAMPLE LOCATION PLAN



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NOT TO SCALE

CAFETERIA BUILDING

LEGEND

☒ Approximate Location of Identified ACM - Window Glazing & Pipe Wrap

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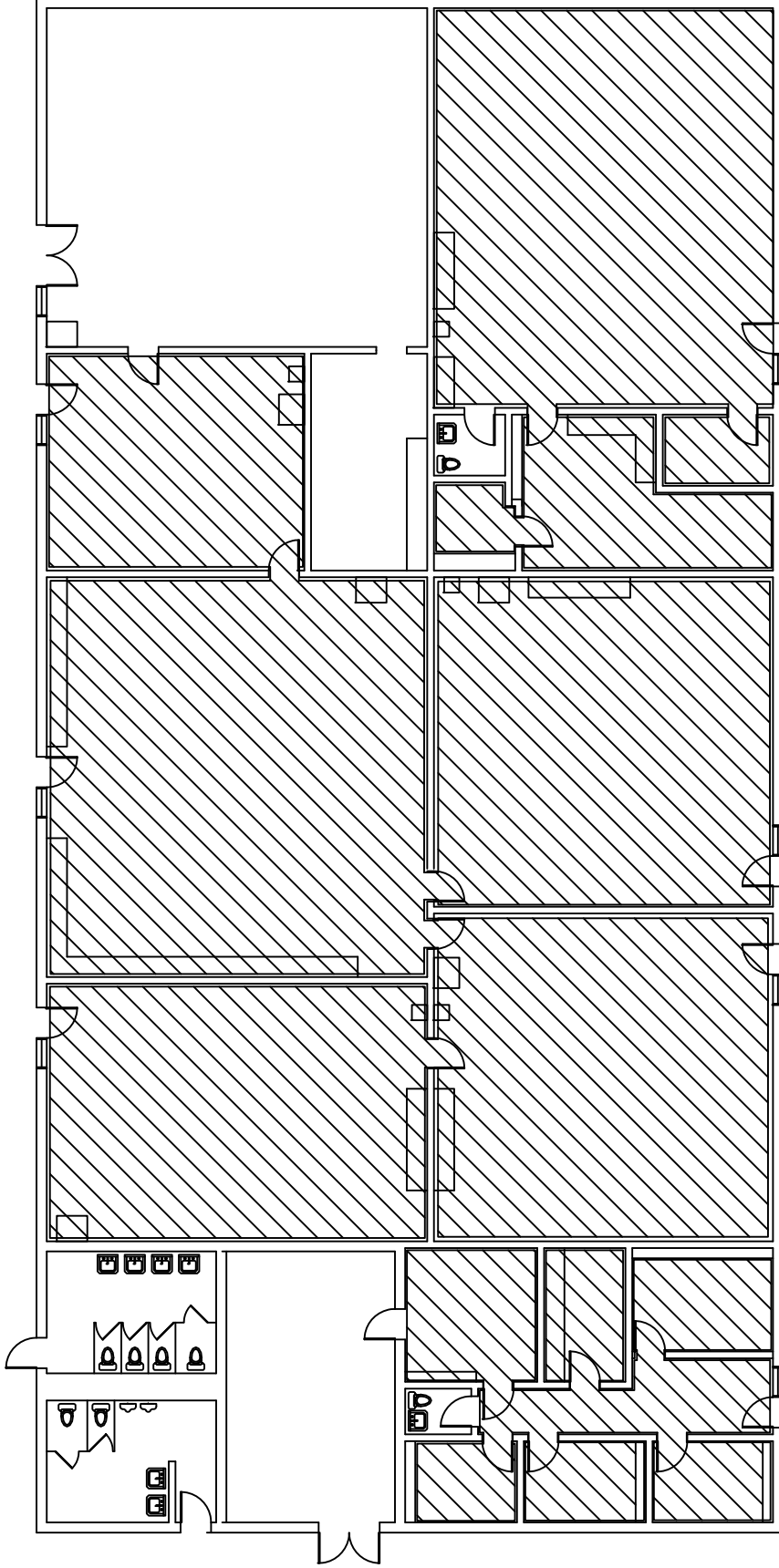
**ACM LOCATION
 PLAN**

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FIGURE
8



NOT TO SCALE

"B" BUILDING

LEGEND

 Approximate Location of Identified ACM - Floor Tile and Mastic

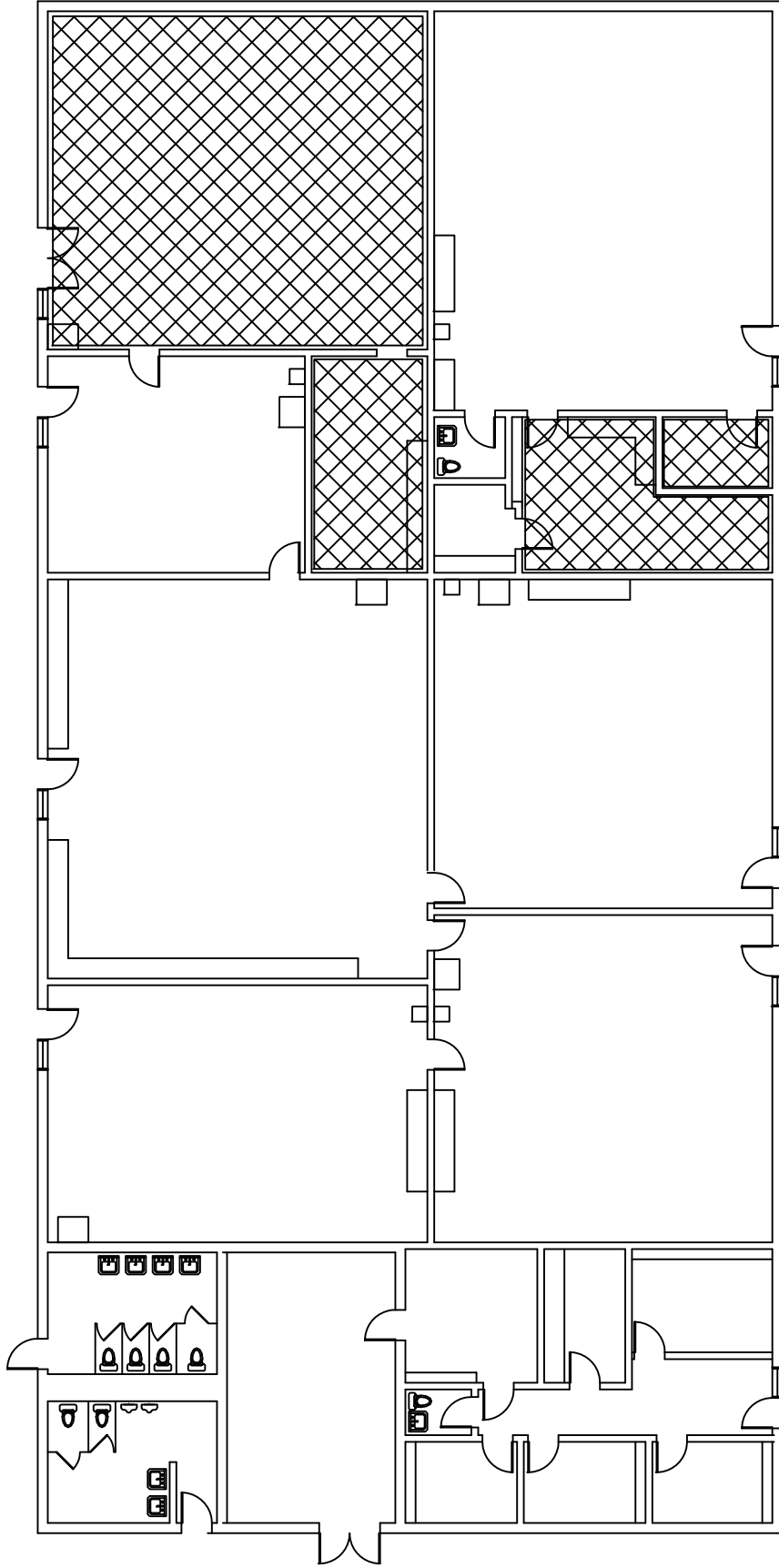
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 DATE: December 30, 2017

**ACM LOCATION
 PLAN**


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FIGURE
9



NOT TO SCALE

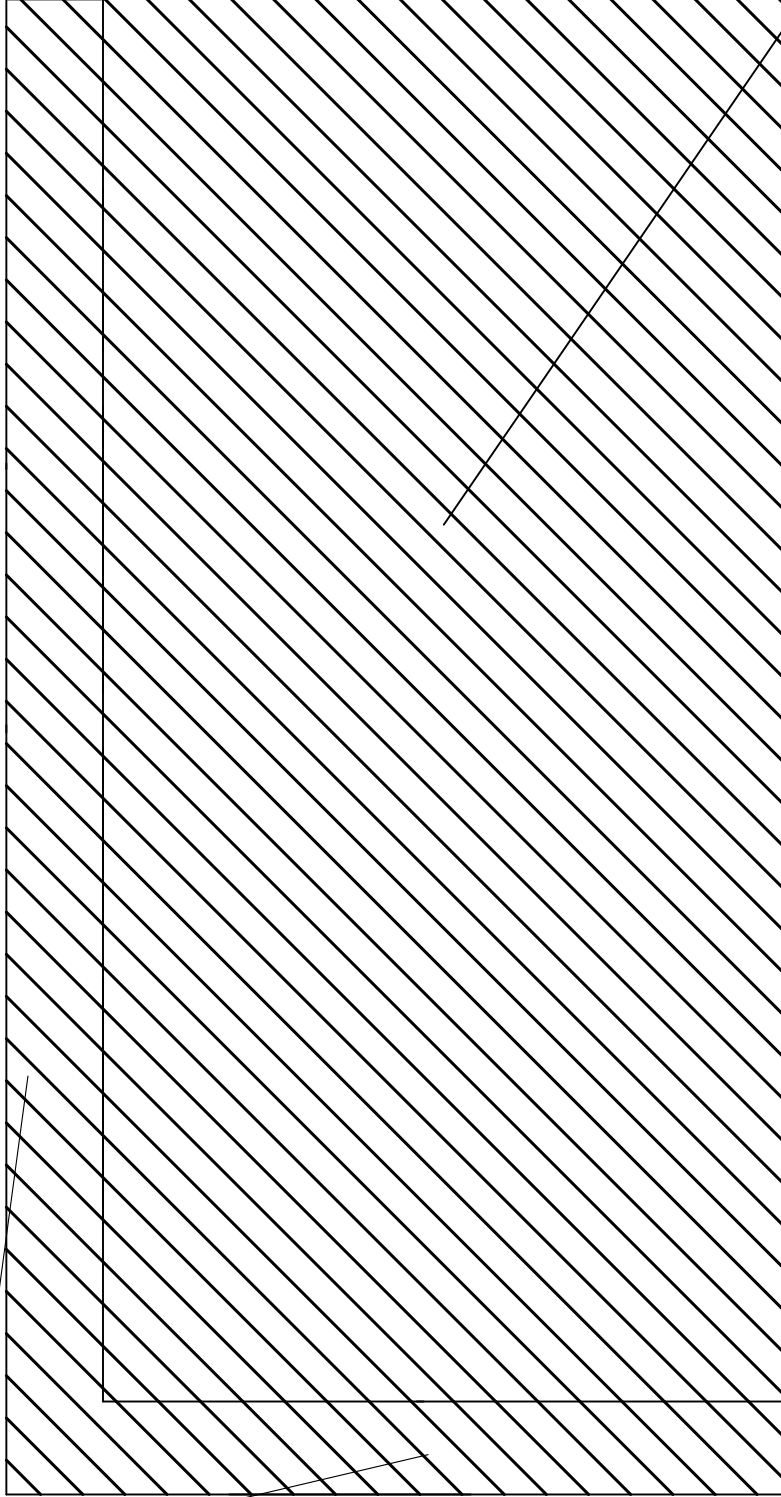
"B" BUILDING

LEGEND

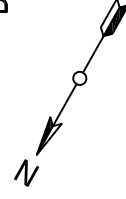
☒ Approximate Location of Identified ACM - Lay-in Ceiling Tile

<p>ACES PROJ. NO.: 2017 - 11 - 118 DATE: December 30, 2017</p>	 <p>ALLIED CONSULTING & ENVIRONMENTAL SERVICES SHELBY, NORTH CAROLINA P.O. BOX 2426 (28151-2426) 704-600-6255 409 E. MARION ST. (28150) FAX 704-482-5596</p>	<p>ASBESTOS SURVEY FOR DEMO & ABATEMENT DESIGN B BLDG, CAFETERIA BLDG, & COVERED WALKWAYS FORMER DAVIE COUNTY H. S. - 1200 SALISBURY ROAD MOCKSVILLE, NORTH CAROLINA</p> <p>FIGURE 10</p>
<p>ACM LOCATION PLAN</p>		

COVERED WALKWAY




"B" BUILDING



NOT TO SCALE

"B" BUILDING & COVERED WALKWAY - ROOF LEVEL

LEGEND

 Approximate Location of Identified ACM - Roofing Materials

ACES PROJ. NO.: 2017 - 11 - 118
DATE: December 30, 2017

**ACM LOCATION
PLAN**


**ALLIED CONSULTING &
 ENVIRONMENTAL SERVICES**
 SHELBY, NORTH CAROLINA
 P.O. BOX 2426 (28151-2426) 704-600-6255
 409 E. MARION ST. (28150) FAX 704-482-5596

**ASBESTOS SURVEY FOR DEMO & ABATEMENT DESIGN
 B BLDG, CAFETERIA BLDG, & COVERED WALKWAYS
 FORMER DAVIE COUNTY H. S. - 1200 SALISBURY ROAD
 MOCKSVILLE, NORTH CAROLINA**

FIGURE

11



APPENDIX 2

CERTIFICATES OF ANALYSIS &

CHAIN OF CUSTODY SHEETS



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708669

Customer ID: ALLC25

Customer PO:

Project ID:

Attention: Dewitt Whitten
Allied Consulting & Environmental Svcs
P.O. Box 2426
Shelby, NC 28151

Phone: (704) 232-0152

Fax:

Received Date: 11/10/2017 10:50 AM

Analysis Date: 11/16/2017

Collected Date: 11/09/2017

Project: Davie Cty H.S. Cafeteria Bldg./ 2017-11-118

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
FT-1-Floor Tile <small>411708669-0001</small>	12x12 Floor Tile & Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
FT-1-Mastic <small>411708669-0001A</small>	12x12 Floor Tile & Mastic	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
FT-2-Floor Tile <small>411708669-0002</small>	12x12 Floor Tile & Mastic	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
FT-2-Mastic <small>411708669-0002A</small>	12x12 Floor Tile & Mastic	Tan Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
FT-3-Floor Tile <small>411708669-0003</small>	12x12 Floor Tile & Mastic	Black Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
FT-3-Mastic <small>411708669-0003A</small>	12x12 Floor Tile & Mastic	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
FT-4-Floor Tile <small>411708669-0004</small>	12x12 Floor Tile & Mastic	Black Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
FT-4-Mastic <small>411708669-0004A</small>	12x12 Floor Tile & Mastic	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
CT-1 <small>411708669-0005</small>	2x2 LICT - Textured Finish	Gray/White Non-Fibrous Homogeneous	60% Cellulose 5% Min. Wool	10% Perlite 25% Non-fibrous (Other)	None Detected
CT-2 <small>411708669-0006</small>	2x2 LICT - Textured Finish	Gray/White Fibrous Homogeneous	60% Cellulose 15% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
CT-3-Ceiling Tile <small>411708669-0007</small>	12x12 Ceiling Tile & Adhesive	Gray/White Non-Fibrous Homogeneous	2% Cellulose 70% Min. Wool	5% Ca Carbonate 23% Non-fibrous (Other)	None Detected
CT-3-Mastic <small>411708669-0007A</small>	12x12 Ceiling Tile & Adhesive	Brown Non-Fibrous Homogeneous	1% Fibrous (Other)	99% Non-fibrous (Other)	None Detected
CT-4-Ceiling Tile <small>411708669-0008</small>	12x12 Ceiling Tile & Adhesive	Gray Fibrous Homogeneous	5% Cellulose 85% Min. Wool	5% Ca Carbonate 5% Non-fibrous (Other)	None Detected
CT-4-Mastic <small>411708669-0008A</small>	12x12 Ceiling Tile & Adhesive	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
PC-1 <small>411708669-0009</small>	Plaster Ceiling	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
PC-2 <small>411708669-0010</small>	Plaster Ceiling	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected

Initial report from: 11/16/2017 15:49:56



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708669
Customer ID: ALLC25
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
PC-3 411708669-0011	Plaster Ceiling	Gray Non-Fibrous Homogeneous		30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
PC-4 411708669-0012	Plaster Ceiling	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
PC-5 411708669-0013	Plaster Ceiling	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
PW-1-Skim Coat 411708669-0014	Plaster Walls	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
PW-1-Rough Coat 411708669-0014A	Plaster Walls	Gray Non-Fibrous Homogeneous		25% Quartz 8% Ca Carbonate 67% Non-fibrous (Other)	None Detected
PW-2-Skim Coat 411708669-0015	Plaster Walls	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
PW-2-Rough Coat 411708669-0015A	Plaster Walls	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
PW-3-Skim Coat 411708669-0016	Plaster Walls	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
PW-3-Rough Coat 411708669-0016A	Plaster Walls	Gray Non-Fibrous Homogeneous		30% Quartz 8% Ca Carbonate 62% Non-fibrous (Other)	None Detected
PW-4-Skim Coat 411708669-0017	Plaster Walls	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
PW-4-Rough Coat 411708669-0017A	Plaster Walls	Gray Non-Fibrous Homogeneous		25% Quartz 5% Ca Carbonate 70% Non-fibrous (Other)	None Detected
PW-5-Skim Coat 411708669-0018	Plaster Walls	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
PW-5-Rough Coat 411708669-0018A	Plaster Walls	Gray Non-Fibrous Homogeneous		20% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
C-1 411708669-0019	Caulk at Skylights	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
C-2 411708669-0020	Caulk at Skylights	White Fibrous Homogeneous	<1% Synthetic 5% Glass	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected
WG-1 411708669-0021	Window Glazing	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (Other)	2% Chrysotile
WG-2 411708669-0022	Window Glazing				Positive Stop (Not Analyzed)
EC-1 411708669-0023	Exterior Caulk	White Non-Fibrous Homogeneous		8% Ca Carbonate 92% Non-fibrous (Other)	None Detected
EC-2 411708669-0024	Exterior Caulk	White Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected

Initial report from: 11/16/2017 15:49:56



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Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708669
Customer ID: ALLC25
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
SLPW-1 <small>411708669-0025</small>	Wrap on Steam Line Piping	Brown/Black Non-Fibrous Homogeneous	15% Cellulose	5% Ca Carbonate 78% Non-fibrous (Other)	2% Chrysotile
SLPW-2 <small>411708669-0026</small>	Wrap on Steam Line Piping				Positive Stop (Not Analyzed)
SLPW-3 <small>411708669-0027</small>	Wrap on Steam Line Piping				Positive Stop (Not Analyzed)

Analyst(s) _____

Eric Loomis (20)

Lacy Searcy (15)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

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

Initial report from: 11/16/2017 15:49:56



Asbestos Lab Services Chain of Custody

EMSL Order Number (Lab Use Only):

411708669

Charlotte, NC
376 Crompton Street
Charlotte, NC 28273
PHONE: (704) 525-2205
FAX: (704) 525 2382

Company: Allied Consulting & Environmental Services, LLC
 Street: P. O. Box 2426
 City/State/Zip: Shelby, NC 28151
 Report To (Name): DeWitt Whitten
 Telephone: 7042320152
 Project Name/Number: **Davie City H.S. Cafeteria Bldg / 2017-11-11B**
 Please Provide Results: Email
 Purchase Order:
 State Samples Taken: NC

EMSL-Bill to: Same Different

If Bill to is Different note instructions in Comments**

Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options* - Please Check

- 3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative) Other: <input type="checkbox"/>
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: **DeWitt Whitten** Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
FT-1,2	12x12 Floor Tile & Mastic	HA #1	9 NOV 2017 AM
FT-3,4	12x12 Floor Tile & Mastic	HA #2	"
CT-1,2	2x2 LICT - textured finish	HA #3	"
CT-3,4	12x12 ceiling tile ^{ceiling tile} & ADHESIVE	HA #4	"
PC-1,2,3,4,5	Plaster ceiling	HA #5	"
PW-1,2,3,4,5	Plaster walls	HA #6	"
C-1,2	caulk @ skylights	HA #7	"
WG-1,2	Window Glazing	HA #8	"

Client Sample # (s): **see above & next page** Total # of Samples: **27**

Relinquished (Client): *[Signature]* Date: **10 Nov 2017** Time: **10:44**
 Received (Lab): *[Signature]* Date: **11/10/17** Time: **10:50 AM W/LN**

Comments/Special Instructions:



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708670

Customer ID: ALLC25

Customer PO:

Project ID:

Attention: Dewitt Whitten
Allied Consulting & Environmental Svcs
P.O. Box 2426
Shelby, NC 28151

Phone: (704) 232-0152

Fax:

Received Date: 11/10/2017 10:50 AM

Analysis Date: 11/16/2017

Collected Date: 11/09/2017

Project: Davie Cty H.S. - B Bldg./ 2017-11-118

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
FT-5-Floor Tile <small>411708670-0001</small>	12x12 Floor Tile & Mastic	Tan Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
FT-5-Mastic <small>411708670-0001A</small>	12x12 Floor Tile & Mastic	Black Fibrous Homogeneous	1% Cellulose	94% Non-fibrous (Other)	5% Chrysotile
FT-6-Floor Tile <small>411708670-0002</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-6-Mastic <small>411708670-0002A</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-7-Floor Tile <small>411708670-0003</small>	12x12 Floor Tile & Mastic	Tan Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (Other)	3% Chrysotile
FT-7-Mastic <small>411708670-0003A</small>	12x12 Floor Tile & Mastic	Black Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	5% Chrysotile
FT-8-Floor Tile <small>411708670-0004</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-8-Mastic <small>411708670-0004A</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-9-Floor Tile <small>411708670-0005</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-9-Mastic <small>411708670-0005A</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-10-Floor Tile <small>411708670-0006</small>	12x12 Floor Tile & Mastic	Tan Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile
FT-10-Mastic <small>411708670-0006A</small>	12x12 Floor Tile & Mastic	Black Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
FT-11-Floor Tile <small>411708670-0007</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-11-Mastic <small>411708670-0007A</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-12-Floor Tile <small>411708670-0008</small>	12x12 Floor Tile & Mastic	Tan Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (Other)	3% Chrysotile
FT-12-Mastic <small>411708670-0008A</small>	12x12 Floor Tile & Mastic	Black Fibrous Homogeneous	1% Cellulose	94% Non-fibrous (Other)	5% Chrysotile

Initial report from: 11/16/2017 16:18:58



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708670
Customer ID: ALLC25
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
FT-13-Floor Tile <small>411708670-0009</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
FT-13-Mastic <small>411708670-0009A</small>	12x12 Floor Tile & Mastic				Positive Stop (Not Analyzed)
CT-5 <small>411708670-0010</small>	2x2 LICIT - Small Pinhole	Gray/White Fibrous Homogeneous	60% Cellulose 8% Min. Wool	10% Perlite 22% Non-fibrous (Other)	None Detected
CT-6 <small>411708670-0011</small>	2x2 LICIT - Small Pinhole	Gray/White Fibrous Heterogeneous	60% Cellulose 8% Min. Wool	10% Perlite 22% Non-fibrous (Other)	None Detected
CT-7 <small>411708670-0012</small>	2x2 LICIT - Textured Finish	Gray Fibrous Homogeneous	90% Min. Wool	7% Non-fibrous (Other)	3% Chrysotile
CT-8 <small>411708670-0013</small>	2x2 LICIT - Textured Finish				Positive Stop (Not Analyzed)
CT-9 <small>411708670-0014</small>	2x2 LICIT - Small Pinhole	Gray/White Fibrous Homogeneous	50% Cellulose 8% Min. Wool	10% Perlite 32% Non-fibrous (Other)	None Detected
CT-10 <small>411708670-0015</small>	2x2 LICIT - Small Pinhole	Gray/White Fibrous Heterogeneous	60% Cellulose 8% Min. Wool	10% Perlite 22% Non-fibrous (Other)	None Detected
CT-11 <small>411708670-0016</small>	2x2 LICIT - Textured Finish	Gray Fibrous Homogeneous	90% Min. Wool	7% Non-fibrous (Other)	3% Chrysotile
CT-12 <small>411708670-0017</small>	2x2 LICIT - Textured Finish				Positive Stop (Not Analyzed)
CT-13 <small>411708670-0018</small>	2x2 LICIT - Small Pinhole	Gray/White Fibrous Homogeneous	60% Cellulose 8% Min. Wool	10% Perlite 22% Non-fibrous (Other)	None Detected
CT-14 <small>411708670-0019</small>	2x2 LICIT - Small Pinhole	Gray/White Fibrous Heterogeneous	60% Cellulose 8% Min. Wool	15% Perlite 17% Non-fibrous (Other)	None Detected

Analyst(s) _____

Eric Loomis (3)
Lacy Searcy (13)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

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

Initial report from: 11/16/2017 16:18:58



Asbestos Lab Services Chain of Custody
 EMSL Order Number (Lab Use Only):

411708670

Charlotte, NC
 376 Crompton Street
 Charlotte, NC 28273
 PHONE: (704) 525-2205
 FAX: (704) 525 2382

Company: Allied Consulting & Environmental Services, LLC		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party</small>	
Street: P. O. Box 2426			
City/State/Zip: Shelby, NC 28151			
Report To (Name): DeWitt Whitten		Fax: 7044825596	
Telephone: 7042320152		Email Address: dewitt@aces-env.com	
Project Name/Number: Daric City H.S. - B Bldg 1 2017-11-11B			
Please Provide Results: Email		Purchase Order:	State Samples Taken: NC

Turnaround Time (TAT) Options* - Please Check

- 3 Hour
 6 Hour
 24 Hour
 48 Hour
 72 Hour
 96 Hour
 1 Week
 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative) Other: <input type="checkbox"/>
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: **DeWitt Whitten** Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
FT-5, 6	12x12 Floor Tile & Mastic	HA # 11	9 NOV 2017 AM
FT-7, 8, 9	12x12 Floor Tile & Mastic	HA # 12	"
FT-10, 11	12x12 Floor Tile & Mastic	HA # 13	"
FT-12, 13	12x12 Floor Tile & Mastic	HA # 14	"
CT-5, 6	2x2 LICT - small pinhole	HA # 15	"
CT-7, 8	2x2 LICT - textured finish	HA # 16	"
CT-9, 10	2x2 LICT - small pin hole	HA # 17	"
CT-11, 12	2x2 LICT - textured finish	HA # 18	"

Client Sample # (s): see above & next page	Total # of Samples: 19
Relinquished (Client): <i>[Signature]</i>	Date: 10 Nov 2017 Time: 1046
Received (Lab): <i>[Signature]</i>	Date: 11/10/17 Time: 10:50AM W/M

Comments/Special Instructions:



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708918
Customer ID: ALLC25
Customer PO:
Project ID:

Attention: Dewitt Whitten Allied Consulting & Environmental Svcs P.O. Box 2426 Shelby, NC 28151	Phone: (704) 232-0152 Fax: Received Date: 11/17/2017 1:50 PM Analysis Date: 11/24/2017 Collected Date: 11/17/2017
Project: Davie Cty H.S. B. Bldg. & Walkway/ 2017-11-118	

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
RS-1-Silver Paint <small>411708918-0001</small>	B. Bldg. - Roof	Silver Non-Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
RS-1-Roofing <small>411708918-0001A</small>	B. Bldg. - Roof	Brown/Black Fibrous Homogeneous	10% Cellulose	60% Non-fibrous (Other)	30% Chrysotile
RS-1-Insulation <small>411708918-0001B</small>	B. Bldg. - Roof	Brown Fibrous Homogeneous	75% Cellulose	25% Perlite	None Detected
RS-2-Silver Paint <small>411708918-0002</small>	B. Bldg. - Roof				Positive Stop (Not Analyzed)
RS-2-Roofing <small>411708918-0002A</small>	B. Bldg. - Roof				Positive Stop (Not Analyzed)
RS-2-Insulation <small>411708918-0002B</small>	B. Bldg. - Roof	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS-2-Felt <small>411708918-0002C</small>	B. Bldg. - Roof	Gray Fibrous Homogeneous	85% Cellulose 3% Glass	12% Non-fibrous (Other)	None Detected
RS-3-Silver Paint <small>411708918-0003</small>	B. Bldg. - Roof				Positive Stop (Not Analyzed)
RS-3-Roofing <small>411708918-0003A</small>	B. Bldg. - Roof				Positive Stop (Not Analyzed)
RS-4 <small>411708918-0004</small>	Covered Walkway - Roof	Brown/Black Fibrous Homogeneous	15% Cellulose	45% Non-fibrous (Other)	40% Chrysotile
RS-5 <small>411708918-0005</small>	Covered Walkway - Roof				Positive Stop (Not Analyzed)
RS-6 <small>411708918-0006</small>	Covered Walkway - Roof				Positive Stop (Not Analyzed)

Initial report from: 11/27/2017 13:27:05



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411708918

Customer ID: ALLC25

Customer PO:

Project ID:

Analyst(s)

Aaron Hartley (6)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

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

Initial report from: 11/27/2017 13:27:05

Asbestos Lab Services Chain of Custody
 EMSL Order Number (Lab Use Only):

411708918

Charlotte, NC
 376 Crompton Street
 Charlotte, NC 28273
 PHONE: (704) 525-2205
 FAX: (704) 525 2362

Company: Allied Consulting & Environmental Services, LLC
 Street: P. O. Box 2426
 City/State/Zip: Shelby, NC 28151
 Report To (Name): DeWitt Whitten Fax: 7044825596
 Telephone: 7042320152 Email Address: dewitt@aces-env.com
 Project Name/Number: Davie City H.S. B Bldg & Walkway / 2017-11-118
 Please Provide Results: Email Purchase Order: State Samples Taken: NC

Turnaround Time (TAT) Options* - Please Check

- 3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM-Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARE 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARE 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARE 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARE 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative)
TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking		Other: <input type="checkbox"/>

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: DeWitt Whitten Samplers Signature: [Signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
RS-1, 2, 3	Roof - B Bldg	HA #1	17 Nov 17 AM
RS-4, 5, 6	Roof - Covered Walkway	HA #2	11

Client Sample # (s): see above Total # of Samples: 6

Relinquished (Client): [Signature] Date: 17 Nov 2017 Time: 1:45

Received (Lab): [Signature] Date: 11/17/17 Time: 1:50 pm W/IN

Comments/Special Instructions:



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411709311

Customer ID: ALLC25

Customer PO:

Project ID:

Attention: Dewitt Whitten
Allied Consulting & Environmental Svcs
P.O. Box 2426
Shelby, NC 28151

Phone: (704) 232-0152

Fax:

Received Date: 12/05/2017 11:10 AM

Analysis Date: 12/08/2017

Collected Date: 12/05/2017

Project: Davie H.S.- Cafeteria Bldg /2017-11-118

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
RS-7-Gray/Tan Layer <small>411709311-0001</small>	Built-up Roof Section	Gray/Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
RS-7-Tar <small>411709311-0001A</small>	Built-up Roof Section	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS-7-Roofing <small>411709311-0001B</small>	Built-up Roof Section	Black Fibrous Homogeneous	15% Cellulose	5% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
RS-8-Gray/Tan Layer <small>411709311-0002</small>	Built-up Roof Section	Gray/Tan Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
RS-8-Tar <small>411709311-0002A</small>	Built-up Roof Section	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS-8-Roofing <small>411709311-0002B</small>	Built-up Roof Section	Black Fibrous Homogeneous	15% Cellulose	5% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
RS-9-Gray/Tan Layer <small>411709311-0003</small>	Built-up Roof Section	Gray/Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
RS-9-Tar <small>411709311-0003A</small>	Built-up Roof Section	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS-9-Roofing <small>411709311-0003B</small>	Built-up Roof Section	Black Fibrous Homogeneous	15% Cellulose	5% Quartz 5% Ca Carbonate 75% Non-fibrous (Other)	None Detected
RS-10-Gray/Tan Layer <small>411709311-0004</small>	Built-up Roof Section	Gray/Tan Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
RS-10-Tar <small>411709311-0004A</small>	Built-up Roof Section	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
RS-10-Roofing <small>411709311-0004B</small>	Built-up Roof Section	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
RS-11 <small>411709311-0005</small>	Built-up Roof Section	Black Non-Fibrous Homogeneous		10% Quartz 5% Ca Carbonate 85% Non-fibrous (Other)	None Detected
RS-12 <small>411709311-0006</small>	Built-up Roof Section	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
RS-8A <small>411709311-0007</small>	BUR Underlayment	Gray Non-Fibrous Homogeneous		8% Quartz 8% Ca Carbonate 84% Non-fibrous (Other)	None Detected
RS-9A <small>411709311-0008</small>	BUR Underlayment	Gray Non-Fibrous Homogeneous		8% Quartz 8% Ca Carbonate 84% Non-fibrous (Other)	None Detected

Initial report from: 12/08/2017 13:30:56



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411709311
Customer ID: ALLC25
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
RS-10A	BUR Underlayment	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
<small>411709311-0009</small>					

Analyst(s) _____

Anupriya Tyagi (12)

Lacy Searcy (5)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

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

Initial report from: 12/08/2017 13:30:56



Asbestos Lab Services Chain of Custody

EMSL Order Number (Lab Use Only):

411709311

Charlotte, NC
 376 Crompton Street
 Charlotte, NC 28273
 PHONE: (704) 525-2205
 FAX: (704) 525 2382

Company: Allied Consulting & Environmental Services, LLC
 Street: P. O. Box 2426
 City/State/Zip: Shelby, NC 28151
 Report To (Name): DeWitt Whitten
 Telephone: 7042320152
 Project Name/Number: **Dawie H.S. - Cafeteria Bldg / 2017-11-118**
 Please Provide Results: Email
 Purchase Order:
 State Samples Taken: NC

EMSL-Bill to: Same Different
 If Bill to is Different note instructions in Comments**
 Third Party Billing requires written authorization from third party

Fax: 7044825596
 Email Address: dewitt@aces-env.com

Turnaround Time (TAT) Options* - Please Check

- 3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative) Other: <
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: **DeWitt Whitten** Samplers Signature: **[Signature]**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
RS-7,8,9,10	Built-up Roof Section	HA#1	5 DEC 2017 AM
RS-11, 12	Built up Roof Section	HA#2	" "
RS-8A, 9A, 10A	BUR Underlayment	HA#3	" "

Client Sample # (s): **See above** Total # of Samples: **9**
 Relinquished (Client): **[Signature]** Date: **5 Dec 2017** Time: **1107**
 Received (Lab): **[Signature]** Date: **12/5/17** Time: **11:10AM W/IN**

Comments/Special Instructions:



EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411610289

Customer ID: ALLC25

Customer PO:

Project ID:

Attention: Dewitt Whitten
Allied Consulting & Environmental Svcs
P.O. Box 2426
Shelby, NC 28151

Phone: (704) 232-0152

Fax:

Received Date: 12/30/2016 9:30 AM

Analysis Date: 01/05/2017

Collected Date: 12/27/2016

Project: Davie H.S. Various Outbldgs./ 2016-12-097

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
RS-1 411610289-0001	Storage Bldg. A - Roof Shingle	Various Fibrous Homogeneous	10% Glass	5% Quartz 5% Ca Carbonate 80% Non-fibrous (Other)	None Detected
RS-2 411610289-0002	Storage Bldg. A - Roof Shingle	Black Fibrous Homogeneous	2% Glass	5% Quartz 8% Ca Carbonate 85% Non-fibrous (Other)	None Detected
RS-1 411610289-0003	Storage Bldg. B - Roof Shingle	Black Fibrous Homogeneous	8% Glass	8% Quartz 5% Ca Carbonate 79% Non-fibrous (Other)	None Detected
RS-2 411610289-0004	Storage Bldg. B - Roof Shingle	Black Non-Fibrous Homogeneous	2% Glass	8% Quartz 8% Ca Carbonate 82% Non-fibrous (Other)	None Detected
RS-1 411610289-0005	Storage Bldg. C - Roof Shingle	Black Fibrous Homogeneous	10% Glass	5% Quartz 5% Ca Carbonate 80% Non-fibrous (Other)	None Detected
RS-2 411610289-0006	Storage Bldg. C - Roof Shingle	Black Fibrous Homogeneous	2% Cellulose	5% Quartz 10% Ca Carbonate 83% Non-fibrous (Other)	None Detected
RF-1 411610289-0007	Storage Bldg. C - Roof Felt	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
RF-2 411610289-0008	Storage Bldg. C - Roof Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected
DC-1 411610289-0009	Bldg. AF-1 - Door Caulk	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
DC-2 411610289-0010	Bldg. AF-1 - Door Caulk	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
RS-1 411610289-0011	Bldg. AF-1 - Roof Shingle	Green Fibrous Homogeneous	8% Glass	5% Quartz 5% Ca Carbonate 82% Non-fibrous (Other)	None Detected
RS-2 411610289-0012	Bldg. AF-1 - Roof Shingle	Black Fibrous Homogeneous	2% Glass	5% Quartz 8% Ca Carbonate 85% Non-fibrous (Other)	None Detected
RS-1 411610289-0013	Bldg. AF-2 - Roof Shingle	Various Fibrous Homogeneous	10% Glass	5% Quartz 8% Ca Carbonate 77% Non-fibrous (Other)	None Detected
RS-2 411610289-0014	Bldg. AF-2 - Roof Shingle	Black Fibrous Homogeneous	2% Glass	5% Quartz 8% Ca Carbonate 85% Non-fibrous (Other)	None Detected
RF-1 411610289-0015	Bldg. AF-2 - Roof Felt	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
RF-2 411610289-0016	Bldg. AF-2 - Roof Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Initial report from: 01/05/2017 14:29:21



EMSL Analytical, Inc.

376 Crompton Street Charlotte, NC 28273

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 411610289
Customer ID: ALLC25
Customer PO:
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
RS-1 <i>411610289-0017</i>	Bldg. AF-6 - Roof Shingle	Various Fibrous Homogeneous	10% Glass	8% Quartz 5% Ca Carbonate 77% Non-fibrous (Other)	None Detected
RS-2 <i>411610289-0018</i>	Bldg. AF-6 - Roof Shingle	Black Fibrous Homogeneous	1% Glass	5% Quartz 8% Ca Carbonate 86% Non-fibrous (Other)	None Detected
RF-1 <i>411610289-0019</i>	Bldg. AF-6 - Roof Felt	Black Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
RF-2 <i>411610289-0020</i>	Bldg. AF-6 - Roof Felt	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (Other)	None Detected

Analyst(s) _____

Anupriya Tyagi (10)

Lacy Searcy (10)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

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

Initial report from: 01/05/2017 14:29:21



Asbestos Lab Services Chain of Custody

EMSL Order Number (Lab Use Only):

411610289

Charlotte, NC
 376 Crompton Street
 Charlotte, NC 28273
 PHONE: (704) 525-2205
 FAX: (704) 525 2382

Company: Allied Consulting & Environmental Services, LLC
 Street: P. O. Box 2426
 City/State/Zip: Shelby, NC 28151
 Report To (Name): DeWitt Whitten
 Telephone: 7042320152
 Project Name/Number: **David H.S. Various Outbuildings / 2016-12-097**
 Please Provide Results: Email _____ Purchase Order: _____ State Samples Taken: NC

Turnaround Time (TAT) Options* - Please Check
 3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative) Other: <input type="checkbox"/>
---	--	---

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples): 0.8µm 0.45µm

Samplers Name: **DeWitt Whitten** Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
RS-1, 2	Roof Shingle - Storage Bldg A		27 DEC 16 PM
RS-4, 2	Roof Shingle - Storage Bldg B		"
RS-7, 2	Roof Shingle - Storage Bldg C		"
RF-1, 2	Roof Felt - Storage Bldg C		"
DC-1, 2	Door Caulk - Bldg AF-1		"
RS-1, 2	Roof Shingle - Bldg AF-1		"
RS-1, 2	Roof Shingle - Bldg AF-2		"
RF-1, 2	Roof Felt - Bldg AF-2		"
RS-1, 2	Roof Shingle - Bldg AF-4		"
RF-1, 2	Roof Felt - Bldg AF-4		"

Client Sample # (s): _____ Total # of Samples: **20**

Relinquished (Client): *[Signature]* Date: **30 Dec 2016** Time: **0922**

Received (Lab): *[Signature]* Date: **12/30/16** Time: **9:30 AM WJW**

Comments/Special Instructions:



APPENDIX 3

PHOTO LOG



1. Asbestos containing materials – floor tile and mastic



2. Asbestos containing material – floor tile (both types) and mastic



3. Asbestos containing materials –textured lay-in ceiling tile



4. Asbestos containing material – black pipe wrap on piping



5. Asbestos containing materials –built-up roofing materials on “B” Building



6. Asbestos containing material – built-up roofing materials on covered walkway