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CHARLOTTE MECKLENBURG SCHOOLS

SPECIFICATIONS FOR
EAST MECKLENBURG HIGH SCHOOL
PARTIAL ROOF REPLACEMENT PROJECT
CHARLOTTE, NORTH CAROLINA

Project No. FH226304

PERMITTING / BIDDING

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ADVERTISEMENT FOR BIDS

Sealed proposals will be received until 2:00 p.m. on March 29, 2023 at Charlotte-Mecklenburg Schools, 3301 Stafford Drive, Charlotte, NC 28208, for the East Mecklenburg High School, **Partial** Roof Replacement Project, Charlotte, North Carolina, at which time and place bids will be opened and read. Bids are to be delivered to: Ms. Yolanda Ferguson, at the above address and time.

Complete plans and specifications for this project can be obtained from Terracon Consultants, Inc., 2701 Westport Road, Charlotte, North Carolina 28208. Please contact Vicky Neal at Vicky.Neal@Terracon.com, for a link to the Specifications and Drawing. They will also be available for viewing at the following locations:

- Electronic Plan Rooms of: McGraw Hill Dodge, ConstructConnect

A Prebid Meeting will be held at East Mecklenburg High School, 6800 Monroe Road, Charlotte, North Carolina 28212, at 10:00 a.m. on Wednesday, March 15, 2023.

Qualified Minority-Owned Contractors are encouraged to bid.

Charlotte Mecklenburg Board of Education reserves the unqualified right to reject any and all proposals.

SECTION 008000 – INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 1 Specifications Sections, apply to this section.

1.2 INSTRUCTIONS TO BIDDERS

- A. AIA Document A701, "Instructions to Bidders" (same issue as form of contract) is made a part of these Specifications with the same force and effect as though reprinted in the Specifications in its entirety. The document is available for examination by contractors at the office of Terracon Consultants, Inc.
- B. No interpretation of the meaning of the Drawings, Specifications or other Contract Documents will be made orally to any bidder. Prospective bidders must request such interpretation in writing from the Engineer. To be considered, such request must be received at least five (5) days prior to the time fixed for the opening of bids. Any and all interpretations and supplemental instructions will be issued in the form of written addenda, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda shall not relieve any bidder from any obligation under his bid as submitted. All addenda so issued shall become a part of the Contract Documents.
- C. Following the Pre-Bid Conference, there shall be limited access to the Project Site. Access will be granted by pre-approved appointment only through the office of the Engineer (Terracon) or attn. Mr. William J. Wooten. **No Potential Bidder, sub-contractor or supplier is authorized on school premises without prior authorization of the District's representative.**
- D. Submit written questions within five (5) days of the bid. Addenda, if necessary, will be issued three (3) days prior to bid opening.
- E. Responsive bids will be opened and read aloud in the area where bids are received after the time receiving bids has expired.

1.3 DEFINITIONS AND CONTRACT

- A. Charlotte-Mecklenburg Schools is referred to as "Owner" in these Specifications.
- B. The Owner's authorized representatives are Mr. William J. Wooten and Ms. Yolanda S. Ferguson.
- C. The terms "Architect" and "Engineer" used in the contract documents are that individual, partnership, or corporation engaged by the Owner for the preparation of

certain of the Contract Documents and referred to in the Contract Documents. The "Architect" or "Engineer" may, however, be an Architect, Architect-Engineer, Engineer or other design professional authorized by the Owner to perform such functions and the terms are interchangeable.

- D. The Owner has elected to designate Terracon Consultants, Inc, Charlotte, North Carolina, as Engineer for this Project.
- E. The term "Contract" shall refer to the 2017 issue of AIA Document A101, and the term "General Conditions" shall refer to the corresponding issue of AIA Document A201.
- F. Contract shall be executed on AIA Document A101, "Standard Form of Agreement Between Owner and Contractor."
- G. AIA Document A201 is made a part of these Specifications with the same force and effect as though reprinted in the Specifications in its entirety. The Document is available for examination by Contractors at the office of Terracon Consultants, Inc, 2701 Westport Road, Charlotte, North Carolina 28208, telephone (704) 509-1777.
- H. In the event of conflict between the provisions of AIA Document A201 and these Specifications, the provisions of these Specifications will apply.

1.4 BID PACKAGE

- A. Bids are to be submitted on one original and one duplicate of Bid Package included in these Specifications.
- B. Base quotations upon the Specifications and Drawings, if any. Include a statement to that effect. Quotations containing qualifying statements will not be considered.

1.5 BIDDER QUALIFICATIONS

- A. Bidders must be licensed General Contractors for a minimum of four (4), of the class required by North Carolina Statutes for executing the work being bid. Bidder's name, address, State license number, and date of license must appear on the outside of envelope containing Bidder's proposal.
- B. Prior to an award of contract, and upon request, submit to Engineer satisfactory evidence of current and appropriate license pursuant to the applicable provisions of that State's General Statutes governing the business of "General Contracting" and such other rules, regulations and/or ordinances as may be applicable to performance of the work specified herein. Failure to provide evidence of an appropriate license by any bidder as described herein shall result in that bid, quotation or proposal not being considered.
- C. Bidder must be a Roofing Contractor with at least four (4) years of contracting experience in the type of work involved in this project and must have performed work similar in scope to the work proposed in this project. Provide evidence of qualifications upon request by Engineer. The contracting firm's experience will be considered in the

enforcement of this paragraph. All experience must have been acquired by bidding contractor named on the form of proposal. Firms using aliases, or who have changed names during the five-year period are subject to disqualification at the discretion of the Owner.

- D. Bidder, by submitting a bid for this project, certifies that the bidding contractor is acceptable to the roofing system manufacturer as an installer of the manufacturer's system in all regards and no warranties required by the contract documents will be withheld by the manufacturer solely as a result of the bidder's qualifications to perform the work.

1.6 CONTRACTOR'S INSURANCE AND BONDS

- A. Contractor must submit to the Owner evidence of insurance, Performance and Payment Bonds prior to starting work, as follows.
- B. Certificates of Insurance, executed on AIA Document G705, (or its proprietary or commercial counterpart), and furnished in sufficient copies for binding with each copy of the Owner-Contractor Agreement, shall be filed with, and approved by, the Owner prior to commencement of the Work. All pertinent questions must be answered, and all required information supplied. An incomplete or inadequate Certificate will be returned to the Contractor as being unacceptable. The "cancellation" clause shall be modified as follows:

Should any of the above-described policies be canceled before the expiration date thereof, the issuing company will mail 30 days written notice to the certificate holder named.

- C. A letter from the authorized representative of the insurance company shall accompany the Certificate of Insurance stating if any reduction of coverage exists, or if any claim is pending, at the time the Certificate was issued.
- D. Acceptance, by the Owner, of the insurance, is predicated on the supposition that the Contractor has, in good faith, both provided and provided for all coverage herein before stipulated. Such acceptance, therefore, shall not be construed as blanket approval and accordingly, shall not relieve the Contractor of any liability nor decrease his liability under the terms of coverage.
- E. The following represents the MINIMUM limits of liability required by the Owner:

General Liability

\$1,000,000 each occurrence for bodily injury & property damage
 \$1,000,000 premises operation and independent contractor protection
 \$1,000,000 products and complete operations
 \$1,000,000 commercial broad form property damage
 \$1,000,000 personal and advertising injury
 \$1,000,000 contractual
 \$600,000 limit for owned/hired/non-owned
 \$100,000 fire damage for any single fire

\$5,000 medical (per individual)

Umbrella Liability

\$2,000,000 for projects with contract price of \$5,000,000 or less (per occurrence)

\$5,000,000 for projects with contract price in excess of \$5,000,000 (per occurrence)

Worker's Compensation

State statutory limits

\$500,000 employer's liability (per accident)

\$500,000 (per individual)

\$500,000 limit for disease

"Contractor shall bear all loss, expense (including reasonable attorney's fees), and damage in connection with, and shall indemnify Owner against and save Owner harmless from all claims, demands and judgments made or recovered against Owner because of bodily injuries, including death at any time resulting therefrom, and/or because of damage to property from any cause whatsoever, arising out of, incidental to, or in connection with the work, whether or not due to any act of omission or commission including negligence, but excluding sole negligence of Owner, its employees or agents. Compliance by Contractor with the insurance provisions hereof shall not relieve Contractor from liability under this provision.

Should Owner permit Contractor to use any of its equipment, tools, or facilities, such will be gratuitous and Contractor shall release Owner from and indemnify and save harmless Owner from and against any claims for personal injuries, including death, arising out of the use of such equipment, tools, or facilities, whether or not based upon the condition thereof, or any alleged negligence of Owner in permitting the use thereof."

- F. Performance Bond in the amount of the contract, issued by a surety authorized to do business in the State of North Carolina.
- G. Payment Bond in the amount of 100% of the contract, issued by a surety authorized to do business in the State of North Carolina.
- H. Bid Bond in an amount equal to five percent (5%) of the Total Bid, issued by a surety authorized to do business in the State of North Carolina.

1.7 PERMITS

- A. Obtain all necessary licenses and permits required by law in order to accomplish the work. Submit evidence of all required licenses and permits prior to starting work.
- B. Give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority having jurisdiction of performance of the work or any part thereof. If any requirement of these Specifications is at variance with any such laws, ordinances, rules, regulations or orders in any respect, promptly notify Engineer in writing and obtain written instructions before proceeding with the portion of the work thereby

affected. If any work is performed which is contrary to such laws, ordinances, rules and regulations without receiving Engineer's instructions, contractor shall assume full responsibility therefore and bear all penalties and costs of remedying the work attributable thereto. However, this paragraph shall not be construed to require Contractor to perform detailed engineering calculations normally performed by Engineer except when specifically provided.

1.8 BID WITHDRAWAL

- A. No proposal shall be withdrawn subsequent to specified time of Bid Opening for a period of sixty (60) calendar days without written consent of Owner.

1.9 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

- A. The Bidder is required, before submitting his proposal, to visit the site of the proposed work and familiarize himself with the nature and the extent of the work and any surface and subsurface conditions that may in any manner affect the work to be done, and the equipment, materials, and labor required, and the cost thereof. Bidder is also required to carefully examine the Plans and Specifications and Contract Documents and to inform himself thoroughly regarding any and all conditions and requirements that may in any manner affect the work to be performed under the Contract. Ignorance on the part of the Contractor will in no way relieve him of the obligations and responsibilities assumed under the Contract. No information derived from maps, drawings, specifications, or from Employees of the City, the Engineer, or his assistants, shall relieve the Contractor from any risk or from fulfilling all terms of the Contract.

1.10 SUBSTITUTIONS

- A. Bidders must submit proposed material, product or equipment substitutions to Engineer ten (10) days prior to receipt of bids. Bidders shall submit performance and test data, reference standards, technical descriptions and any other pertinent data to confirm product equality. Bidders will be notified of approved substitutions by addendum.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 008000

SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 PROJECT INFORMATION

- A. Project Identification: East Mecklenburg High School, Partial Roof Replacement Project, Project Number FH226304.
- B. Project Location: 6800 Monroe Road, Charlotte, North Carolina 28214.
- C. Owner: Charlotte-Mecklenburg Schools, 3301 Stafford Drive, Charlotte, North Carolina 28208.
 - 1. Owner's Representative: Mr. William J. Wooten
- D. Engineer: Michael Phifer - Terracon Consultants, Inc.
Mike.phifer@terracon.com

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Furnish all labor, materials, tools, equipment, devices, appliances, utilities, transportation, and other facilities and services necessary to accomplish the work described in these specifications.
- B. Base Bid: Work under Base Bid generally consists of the following:
 - 1. Roof replacement on Roof Areas I1, I2, I3, and I4 generally consists of removal and disposal of the existing gravel-surfaced built-up roofing system, perlite insulation, polyisocyanurate insulation, flashings, metal coping caps, and associated work specified herein to the existing roof decks. Work includes furnishing and installation of a new 2-ply modified bitumen roofing system, mineral perlite cover board, tapered insulation crickets and saddles, polyisocyanurate insulation, flashings, metal coping caps, roof drains and associated work specified herein. See Table 3-1 in specification Section 075216 for additional information.

1.4 START AND COMPLETION

- A. After Contracts are fully executed, a Notice to Proceed will follow within forty-five (45) calendar days. Actual physical work and mobilization is scheduled for June 9, 2023 and shall not occur prior to June 9, 2023 .
1. Work related to submittals and planning may begin prior to June 9, 2023.
- B. Contractor's working hours are anticipated to be from 7:00 a.m. to 7:00 p.m. Monday to Friday. Weekend work is permitted if needed. Final Completion: July 24, 2023. If work extends beyond this date, contractor will be required to work after school hours, school breaks, or weekends to complete the project.
- C. Any extension of contract time considered necessary by the Contractor must be submitted in writing to the Owner with complete details of conditions necessitating extension and specific time of extension requested. Any extension must be specifically authorized by the Owner in writing.
- D. For purposes of this project, a rain day is defined as a day when precipitation equal to or greater than 0.01 inches is recorded at the NOAA or NWS weather station closest to the project. Only that day on which the precipitation occurs will be considered a rain day. The threat of rain, or the occurrence of standing water from previous rain days will not be considered in the evaluation of the contract time to complete the project. In the event, the nearest NOAA or NWS weather station is greater than 15 miles from the project, a rain day will also be defined as any day during which precipitation occurs at the project and the precipitation is documented daily by the contractor and the daily report is provided to the Engineer within 24 hours.
1. Extension to the Contract Time for weather delay days may be granted only if the actual number of weather delay days exceeds that which is considered normal.
 2. Mean Rain Days (considered normal and above 0.01") for Charlotte and surrounding areas:
 - a. June: 10 rain days
 - b. July: 11 rain days
- E. Substantial completion is defined for this project as the successful installation of every component required under the contract documents to be installed for this project. A punch list may be issued by the Engineer for work complete at this time.
- F. Submit requests for extension of contract time in writing to Engineer with complete details of conditions necessitating extension and specific time of extension requested. Obtain Owner's authorization of extension in writing.
- G. In the event the project extends beyond the contract period (including any extensions to contract, approved by Owner), Owner will back charge the contractor for fees and expenses attributable to additional services by Owner's consultants which are provided solely as a result of the project being extended beyond the contract period. Owner may withhold monies attributable to these fees and expenses from contractor's

requests for payment. Where liquidated damages are imposed as a result of the contract between the Owner and Contractor, these fees and expenses will be funded from the liquidated damage payments by the contractor. Owner may withhold monies attributable to these fees and expenses from contractor's request for payment.

- H. **PRECONSTRUCTION CONFERENCE**: Prior to the start of work, there shall be a conference attended by the Contractor, roofing manufacturer's representative, the representative of the Owner, and other parties who may be designated by the Owner, to be convened at the work site for the purpose of reviewing the specifications and job conditions and resolving any questions then arising. Contractor shall advise the office of the Owner of date and time at least one week before the date to allow proper notification of parties.
- I. Liquidated damages will apply starting the first calendar day after the date established for final completion (July 24, 2023) and will be assessed at a rate of **\$250** per day for each calendar day, until such time as all construction is complete and has been accepted by the Engineer.
- J. Contractor, by submitting a bid for this project, attests and agrees that the value of liquidated damages as stated are a fair and equitable representation of damages to the Owner in the event project is not completed within the allotted time.
- K. When Engineer has certified substantial completion, contractor shall have until July 31, 2023 to complete all work under the contract, including any outstanding punch list items established at the substantial completion; any required submittals, including warranties, releases of liens, unit price logs, consents of surety, final pay request, etc. Date of final completion is defined as the date when all work required under the contract has been completed.
- L. Owner may, at Owner's sole option, elect to waive all or part of the liquidated damages upon completion of the work.
- M. In the event the project extends beyond the contract period (including any extensions to contract, approved by Owner), Owner will back charge the contractor for fees and expenses attributable to additional services by Owner's consultants which are provided solely as a result of the project being extended beyond the contract period. Owner may withhold monies attributable to these fees and expenses from contractor's requests for payment. Where liquidated damages are imposed as a result of the contract between the Owner and Contractor, these fees and expenses will be funded from the liquidated damage payments by the contractor. Owner may withhold monies attributable to these fees and expenses from contractor's request for payment.

1.5 DESCRIPTION OF THE EXISTING SYSTEM

- A. Information in this Section is provided only to establish general description and is not necessarily accurate. Before preparing and submitting a bid, visit site and become satisfied as to the existing conditions, size of roof area, etc. Receipt of bid will be considered evidence Contractor has inspected roof or otherwise become satisfied on all details relating to the work.

- B. Various lines including, but not necessarily limited to, coaxial cables, telephone wires, etc. are present on roof surfaces. Become familiar with the locations, purposes and types of lines present and ensure that all lines are properly protected during the course of the work, remain in service during the course of the work and reposition them in their appropriate places at the conclusion of the work unless specifically indicated otherwise herein or on drawings. Carefully coordinate any activities relating to such lines with the Owner prior to conducting such activities.
- C. The existing roof system generally consists of the following:
 - 1. Roof Areas I1, I2, I3, and I4: Gravel surfaced built-up roof in asphalt over varying thickness of perlite insulation including tapered insulation over base sheet over rosin paper over lightweight concrete over a structural concrete deck. Roof area drains to roof drains. Slope is approximately 1/4".
- D. The approximate existing roof area square footage and eave/parapet heights above grade are as follows:

Roof Areas	Eave/Parapet (approximate)	Size of Roof (Sq. Ft.) (approximate)
I1	+/- 10'	10,300
I2	+/- 10'	25,900
I3	+/- 14'	3,020
I4	+/- 10'	5,300
Total:		44,520

- E. Contractor shall engage a licensed and bonded tree trimming service to perform select tree trimming around the roof perimeters.
- F. Contractor shall be responsible to document all existing damage to facility prior to beginning work and producing documentation acceptable to Engineer prior to starting work. Damage discovered during the project, which was not documented, and which is not clearly the responsibility of others, may be presumed by the Engineer or Owner as the responsibility of the Contractor. Documentation may be in the form of written statements and/or drawings but must also be supported by photographs and/or video tape supplied by contractor.

1.6 CONTRACTOR EMPLOYEES

- A. None but skilled foremen and workmen shall be employed on work requiring special qualifications. Any person employed on the work who fails, refuses, or neglects to obey the instructions in anything relating to this work, or who appears to be disorderly, insubordinate, unfaithful, or incompetent, shall upon the order of the Owner be at once discharged and not again employed on any part of the work. Any interference with, or abusive or threatening conduct toward the Engineer or his assistants by the Contractor or his employees or agents, shall be authority for the Owner to annul the Contract and re-let the work.

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- B. Contractor is advised that fraternization with staff and students is unacceptable and will not be tolerated. Fraternization will result in removal of the Contractor personnel for the remainder of the project.

1.7 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

- A. The Bidder is required, before submitting his proposal, to visit the site of the proposed work and familiarize himself with the nature and the extent of the work and any surface and subsurface conditions that may in any manner affect the work to be done, and the equipment, materials, and labor required, and the cost thereof. Bidder is also required to carefully examine the Plans and Specifications and Contract Documents and to inform himself thoroughly regarding any and all conditions and requirements that may in any manner affect the work to be performed under the Contract. Ignorance on the part of the Contractor will in no way relieve him of the obligations and responsibilities assumed under the Contract. No information derived from maps, drawings, specifications, or from Employees of the City, the Engineer, or his assistants, shall relieve the Contractor from any risk or from fulfilling all terms of the Contract.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- C. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to all Sections in the Specifications.
- D. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- E. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.8 PROJECT RECORD DRAWINGS

- A. Maintain and submit one set of black-line white prints of Contract Drawings and Shop Drawings.
- B. Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
- C. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
- D. Accurately record information in an understandable drawing technique.
- E. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
- F. Mark Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings.
- G. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets

1.9 SUBSTANTIAL COMPLETION AND CONTRACTOR'S AFFIDAVIT

- A. Refer to Section 017700 – Closeout Procedures for required closeout documents.

1.10 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
 - 1. Limits: Confine construction operations to approved staging area and areas within the scope of work.
 - 2. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

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- B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Take all precautions necessary to protect the building and its occupants during the construction period. Repair damage caused by construction operations.

1.11 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 - 2. Notify Owner not less than 48 hours in advance of activities that will affect Owner's operations.

1.12 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than two days in advance of proposed utility interruptions.
 - 2. Obtain Engineers written permission before proceeding with utility interruptions.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Engineer not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Engineers written permission before proceeding with disruptive operations.
- D. Nonsmoking Building: Smoking, including e- cigarettes and vapes is not permitted on the property.
- E. Controlled Substances: Use of tobacco products and other controlled substances is not permitted.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 011400 – WORK RESTRICTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Schedule deliveries per requirements of Owner.
- B. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.
- C. Contractor shall abide by all security and badging requirements of the Owner.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Full Owner Occupancy: Owner will occupy site and existing building during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.
- B. Contractor shall coordinate with Owner on-site personnel on any building shutdowns; 72-hour prior notice required.
- C. Contractor will be stopped if construction operations interfere with facility operations. Contractor must coordinate all operations with Owner's representatives.

1.4 USE OF SUBCONTRACTORS

- A. The Contractor may use Subcontractors to accomplish such miscellaneous or associated work as structural modifications, plumbing, relocation of conduit, service piping and/or HVAC equipment, etc.

NOTE: THE ROOFING CONTRACTOR MAY NOT SUBCONTRACT ANY PART OF THE ROOFING WORK SPECIFIED HEREIN WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER.

1.5 SAFETY AND PROTECTION

- A. The Contractor will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. He will take all necessary precautions for the safety of, and will provide the necessary precautions to prevent damage, injury or loss to:
1. All employees on the work and other persons who may be affected thereby.
 2. All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and,
 3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavement, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- B. Contractor will prevent any work which could reasonably be deemed to be hazardous from taking place over or adjacent to occupied areas. Contractor will be responsible to coordinate with the Owner the vacating of such affected areas of all occupants and will give the Owner adequate notice to allow time to comply. Contractor will post a watchman inside the building in the affected area(s) at all times during the work to ensure no one enters or remains in the affected area(s).
- C. The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. He will erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. All damage, injury or loss to any property caused, directly or indirectly in whole or in part, by the Contractor, and Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, will be remedied by the Contractor.
- D. Roof access shall be from the facility exterior unless otherwise approved by Owner.
- E. Tobacco products will not be allowed on the site at any time. Contractor is responsible to enforce the tobacco policy of the Owner with regard to Contractor's personnel. Non-compliance by any of Contractor's personnel will be justification for removal of those individuals from this project.
- F. Equipment, materials, etc. shall be cordoned off from the public in a manner acceptable to the Owner and/or Engineer so as to prevent access to this equipment by non-contractor personnel. In the event, Owner and/or Engineer do not approve the methods used by contractor to enclose such equipment, Engineer and/or Owner may instruct contractor to take additional precautions at contractor's expense up to and including a complete enclosure of the work area around the equipment and related work area by a 72-inch high chain link fence with lockable gate. Enclosed area shall be sufficiently large as to allow the storage of materials within the fenced area and any related equipment and personnel necessary to maintain the equipment. Additionally, any related safety provisions imposed by local fire marshals, etc. are to be implemented by contractor at contractor's expense. Contractor is responsible to determine what procedures will be acceptable prior to submitting a bid or proposal.

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- G. Submit plans for removal and reroofing to Owner for his approval prior to starting work so that, if necessary, inside operations can be coordinated with the roofing work.
 - H. Safety barricades consisting of orange fencing are to be provided by the Contractor around loading and unloading areas from the rooftop, material and dumpster storage, etc.
 - I. At acoustical deck locations, take measures as necessary to minimize amount of debris that infiltrates holes in acoustical steel deck.

1.6 SAFETY AND SECURITY

- A. The safety and security of CMS staff, students and the general public are of utmost priority to the District. To that end, the Contractor shall be responsible for ensuring that the Contractor's employees, and any/all Subcontractors, comply with the following:
 - 1. **NO drugs or alcohol on District property or adjacent thereto.** The District reserves the right to require the offending party be removed from District property immediately and to be replaced by the Contractor.
 - 2. **NO knives, firearms or other weapons on District property or adjacent thereto.** The offending party shall be reported to authorities and arrested.
 - 3. **NO fraternizing with, threats to, or use of abusive or profane language in the presence of students, parents, visitors, or District representatives, agents, or employees.** The District reserves the right to require the offending party be removed from District property immediately and to be replaced by the Contractor.
 - 4. **NO improper attire or actions while on District property or adjacent thereto.** The District reserves the right to require the offending party be removed from District property immediately and to be replaced by the Contractor.
 - 5. Take all necessary precautions to ensure minimal loss of utilities and facilities required by the occupants of any existing building or facilities and minimal disruption of the educational process.
 - 6. Secure **SLED (State Law Enforcement Division) criminal background checks** on all Contractor and subcontractor representatives, agents and employees performing work on District property, and produce proof of such background checks upon request of the District.
 - 7. Take all necessary precautions to protect students, parents, visitors or District representatives, agents or employees as well as property belonging to those individuals or other third parties during the contract term. **Failure to meet the requirements of conduct in this paragraph, as determined by the District, may result in arrest and/or payment of fines, or stoppage of performance until corrective action is taken, with no increase in contract price or contract term. In addition, the Contractor may be subject to payment to the**

District of all reasonable costs incurred by the District as a result of non-conformance to this paragraph.

8. Contractor/Subcontractor's must stipulate that they are responsible for running a **National Sex Offender Registry check** on their employees who work in schools.

- B. By submission of a bid, the bidder agrees to prohibit any employees or sub-contractor employees from performing work or services at Charlotte-Mecklenburg Schools if they are deemed to be Registered Sex Offenders or pose a known criminal danger to children or staff. The vendor hereby agrees to run a National Sex Offender Registry check (<http://www.nsopr.gov/>) or equivalent on all employees or sub-contractor employees who may be in the proximity of school children or staff. This check must be done by the vendor prior to performing any work or services at Charlotte-Mecklenburg Schools.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011400

SECTION 012100 – ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 - 1. Unit price allowances.
- C. Related Requirements:
 - 1. Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.
 - 2. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Engineer of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Engineer's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Engineer from the designated supplier.

1.4 INFORMATIONAL SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 UNUSED MATERIALS

- A. Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
- B. If requested by Engineer, prepare unused material for storage by Owner when it is not economically practical to return the material for credit. If directed by Engineer, deliver unused material to Owner's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Repair Lightweight Insulating Concrete. Allow 500 square feet.
- B. Allowance No. 2: Wood Blocking Replacement. Allow 200 board feet.

END OF SECTION 012100

SECTION 012200 – UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
 - 1. Division 1 Section “Summary of Work.”
 - 2. Division 1 Section “Allowances.”

1.3 DEFINITIONS

- A. Unit price is an amount incorporated into the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 USE OF UNIT PRICES

- A. Unit prices are required for the items listed below. The associated quantity is indicated for each item in Section 012100, Paragraph 3.3. Allowances shall be included in the Base Bid.
- B. Unit prices quoted by the contractor are to be used to increase or decrease the contract amount. Additive amounts will be at 100% of the quoted unit price and deductive amounts will be at 100% of the quoted unit price. Deductive unit prices will apply only to those items for which specific quantities have been included in the scope of work for Base Bid.
- C. The Contractor will be compensated at the unit price bid for the exact quantity of work performed under each unit price item. If allowances are included in the base bid for unit price work, the actual quantity of work paid for under the allowance will be at the unit price established in the proposal. The quantities indicated in the quantity allowance are estimated quantities only for the purpose of comparing bids. The Contract Sum will be

adjusted accordingly (up or down) based upon the unit prices to reflect the actual work performed.

- D. All unit prices are to include all costs associated with implementing the unit of work, including but not necessarily limited to all labor, insurance, materials, tools, equipment, devices, appliances, utilities, transportation, profit and overhead necessary to remove, replace and legally dispose of off-site any damaged or deteriorated item.
- E. Prior to performing any work under unit pricing, the Contractor shall notify the Engineer to allow for measurement of the actual quantities of work. Any work performed under these items without prior approval and measurement shall be at the Contractor's expense.

1.5 DAILY LOGS

- A. Contractor shall maintain a daily log showing dates, location and exact quantities of unit price work. Copies of log shall be submitted with each application for payment regardless of whether unit price work is accomplished during the period covered by the application. If no unit price work is accomplished during the period, log shall include a statement to that effect. No payment application will be approved unless accompanied by daily logs.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 1: Repair damaged lightweight insulating concrete deck.
 - 1. Description: Repair damaged light weight insulating concrete according to Division 7 Section "Reroofing Preparation."
 - 2. Unit of Measurement: Per square foot.
- B. Unit Price No. 2: Replace damaged or deteriorated wood blocking.
 - 1. Description: Replace damaged or deteriorated wood blocking according to Division 6 Section "Miscellaneous Rough Carpentry."
 - 2. Unit of Measurement: Per board foot.

END OF SECTION 012200

SECTION 012500 – CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections include the following:
 - 1. Division 1 Section “Unit Prices and Unit Price Allowances” for administrative and procedural requirements for using unit prices and for handling and processing allowances.

1.3 MINOR CHANGES IN THE WORK

- A. Engineer will issue supplemental instructions (field orders) authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on AIA Document G710, “Architect’s Supplemental Instructions.”

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Engineer or Owner will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
- B. Proposal Requests issued by Engineer or Owner are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 1. Within seven (7) days after receipt of Proposal Request, submit a Proposal Request Form estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made.
 - 3. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.

5. Include an updated Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship.
- C. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for change to Engineer.
1. Include a statement outlining reasons for the change and the effect of the change on the work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made.
 3. Indicate applicable taxes, delivery charges, equipment rental and amounts of trade discounts.
 4. Include costs of labor and supervision directly attributable to the change.
 5. Include an updated Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship.
- D. Proposal Request Form: Use AIA Document G709 of same issue as Contract.

1.5 REQUEST FOR CHANGE ORDER

- A. Request for Change Orders shall be submitted by Contractor to Engineer on Charlotte-Mecklenburg Change Order Directive Form.
- B. The allowance for overhead and profit shall be as scheduled below. Overhead shall include Contractor's general office expense and small tools:
1. For the Contractor, for work performed by the Contractor's own work forces, fifteen (15) percent of the cost.
 2. For the Contractor, for work performed by the Contractor's subcontractor, ten (10) percent of the cost.
 3. For the subcontractor, for work performed by the subcontractor's own work forces, ten (10) percent of the cost.

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Engineer or Owner may issue a Construction Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or Contract Time.

- C. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

- D. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012900 – PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Divisions 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections include the following:
 - 1. Division 1 Section “Allowances” for procedural requirements governing handling and processing of allowances.
 - 2. Division 1 Section “Contract Modification Procedures” for administrative procedures for handling changes to the Contract.
 - 3. Division 1 Section “Unit Prices” for administrative requirements governing use of unit prices.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.

1.4 SCHEDULE JOF VALUES

- A. Refer to Section 013300 – Submittal Procedures.

1.5 APPLICATION FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Engineer and paid for by Owner.
- B. Initial Application for Payment and final Application for Payment involve additional requirements.

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- C. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
 - D. Payment Application Times: Submit progress payments to Engineer according to the schedule established in the pre-construction meeting.
 - E. Payment Application Forms: Use AIA Documents G702 and G703 as form for Applications for Payment.
 - F. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal document on behalf of Contractor. Engineer will return incomplete applications without action.
 - G. Match entries to data on the approved Schedule of Values.
 - H. Include amounts of fully-approved Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - I. Include a retainage amount of 5% for the value of materials stored at the site and work executed.
 - J. Transmittal: Submit one (1) signed and notarized original copy of each Application for Payment to Engineer electronically. It is suggested that a Draft Copy be sent for review prior to finalizing payment applications.
 - K. Include Manufacturer's Certificates of Compliance with applications for payment of materials. Request certificates from material suppliers at time materials are ordered.
 - L. A payment or payments made to Contractor for work performed shall not constitute acceptance or approval of the work and shall in no way relieve Contractor from the requirements of the Contract.
 - M. All sums received by Contractor for any part or parts of the work furnished or performed by a Subcontractor shall be paid promptly to the latter by Contractor and while in the hands of Contractor shall constitute trust funds held for the use and benefit of Owner.
 - N. If payments are to be made on account of materials or equipment not incorporated in the work but delivered and suitably stored at the site, or at such other location agreed upon in writing, submit bills of sale or other documents satisfactory to Owner establishing Owner's title to such materials or equipment or otherwise protecting Owner's interest therein including the prepayment of applicable insurance and transportation charges to the site.
 - O. Contractor warrants and guarantees the title to all work, materials and equipment covered by an invoice, whether or not incorporated in the work, will pass to Owner upon Contractor's receipt of the payment covering such work, materials and equipment, free and clear of all liens or other similar or dissimilar encumbrances in any

way affecting Owner's title thereto. Submit Release of Liens with each payment application.

- P. Initial Application for Payment: Refer to Division 1 Section "Submittal Procedures" for items that must precede or coincide with submittal of first Application for Payment.
- Q. Final Application for Payment: Refer to Division 1 Section "Submittal Procedures" for items that must precede or coincide with submittal of final Application for Payment.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples and other miscellaneous submittals.

1.3 DEFINITIONS

- A. Shop Drawings: Drawings, diagrams, illustrations, schedules, performance charts, brochures and other data prepared by Contractor or any Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor which illustrate some portion of the work.
- B. Samples: Physical examples furnished by Contractor to illustrate materials, equipment or workmanship and establish standards of work.

1.4 SUBMITTALS

- A. Prior to the start of work, forward the following submittals in triplicate to the Engineer for review and approval.
 - 1. Give written notification of the brand name and manufacturer of each material proposed for use and include a statement that all proposed materials meet the specification requirements. Obtain Engineer's approval prior to placing orders.

NOTE: SUBMITTAL OF CATALOG CUT SHEETS, ETC. IN LIEU OF THE MATERIALS LIST REQUIRED ABOVE IS NOT ACCEPTABLE.

- 2. Submit a Schedule of Values on a copy of AIA Document G703 listing each phase of the work and its scheduled value for each site. Contractor must be prepared to verify all material costs by producing supplier invoices, bills of lading, etc. upon request by Owner or Engineer. The Schedule of Values shall be broken down as listed below:
 - a. Mobilization, insurance, bonds
 - b. Demolition

- c. Insulation materials
 - d. Insulation labor
 - e. Membrane materials
 - f. Membrane roof installation
 - g. Cover board materials
 - h. Cover board labor
 - i. Sheet metal materials
 - j. Sheet metal installation
 - k. Manufacturer's inspections
 - l. Cleanup, demobilization
 - m. Unit price work in Base Bid (separate line items)
 - n. Warranties
- 3. Schedule of Work.
 - 4. Emergency Contact List.
 - 5. Evidence of all licenses and permits have been applied for.
 - 6. Shop Drawing Schedule.
 - 7. Personnel List.
 - 8. Superintendent Experience List.
- B. Prior to payment for materials, furnish, in triplicate, Manufacturer's Certificates of Compliance with materials' specifications, for materials incorporated into the work, signed by a responsible officer of the manufacturing firm and notarized. Each certificate shall be an original document printed on the manufacturer's standard letterhead. Each certificate shall specifically reference the project and the applicable compliance standard.
- C. Prior to final payment, forward the following submittals in quadruplicate to the Engineer for review and approval.
- 1. A Manufacturer's Certificate clearly stating that the specified roof covering meets the requirements for an Underwriters' Laboratories, Inc. Class A roof covering.
 - 2. Contractor's Warranty (on form herein).
 - 3. Manufacturer's Guarantee (if applicable).
 - 4. Asbestos Free Warranty (on form herein).
 - 5. Manufacturer's final inspection report(s).
 - 6. Punch list completion certification.
 - 7. Consent of surety.
- 1.5 SHOP DRAWINGS AND SAMPLES
- A. Within two weeks after award of Contract, Contractor shall provide Engineer and Owner with a schedule of the dates for submission of each shop drawing and sample required by the Contract. The sequence of submittals shall permit an orderly review by Engineer with reasonable time allowed for checking, correction and rechecking corrections, as well as returning the approved or rejected shop drawings and samples to Contractor and, in turn, to any Subcontractor.

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- B. The aforesaid schedule shall provide Engineer with at least 10 working days from the date Engineer receives a submittal until the date the submittal is required to be returned to Contractor. If a submittal contains more than 10 shop drawings, Contractor shall indicate which drawings must be returned within the period of 10 working days, and, in such event, Engineer shall have an additional 10 working days to return the balance of the submittal.
- C. Contractor shall be responsible for coordinating the schedule for submittal of shop drawings and samples with Contractor's progress schedule and the requirements of the Contract. Failure of Contractor to schedule and submit shop drawings and samples in ample time for checking, correction and rechecking will not justify any delay in the timely performance of the work. All shop drawings and samples shall bear the following information and shall be submitted by transmittal form:
1. Owner's and Engineer's respective project numbers.
 2. Date of submittal.
 3. Submittal Number.
 4. Title of Project.
 5. Name of Contractor and date of Contractor's approval.
 6. Name of Subcontractor or supplier and date of submittal to Contractor.
 7. Reference to Specification Section and paragraph and/or Drawing Number(s).
 8. The specific location of that portion of the work covered by the submission.
 9. Any qualification, departure or deviation from the requirements of the Contract.
 10. Any additional information required by the Specifications for the particular material being furnished.

NOTE: ENCLOSED FORM OF TRANSMITTAL IS FOR CONVENIENCE AND MAY BE USED AT CONTRACTOR'S OPTION, EXCEPT THAT ITS USE DOES NOT RELIEVE CONTRACTOR FROM THE OBLIGATION TO SATISFY ALL SUBMITTAL REQUIREMENTS. SHOULD CONTRACTOR ELECT NOT TO USE THE ENCLOSED FORM, THEN ALL REQUIRED INFORMATION MUST BE PROVIDED ON FORM SUPPLIED BY CONTRACTOR.

- D. Each shop drawing shall be numbered. The same numbering system shall be retained throughout all revisions. Each drawing shall have a clear space for the approval stamps of Contractor, Engineer and Engineer's Consultants, if any.
- E. In submitting shop drawings for approval, all associated shop drawings relating to a complete assembly shall, where possible, be submitted at the same time so that each may be checked in relation to the entire proposed assembly.
- F. Contractor shall prepare composite shop drawings and installation layouts, when required, to depict proposed solutions for tight field conditions. The composite shop drawings and field installation layouts shall be coordinated in the field by Contractor and its Subcontractors for proper relationship to the work of all other trades involved in the work.
- G. Prior to submission, Contractor shall review, affix a stamp on, and indicate approval of all shop drawings and samples. Contractor shall determine and verify field

measurements and availability of the material and shall have coordinated each shop drawing and sample with requirements of the Contract.

- H. With respect to standard manufactured items, Contractor shall submit to Engineer manufacturer's illustrated cuts of the items to be furnished showing details, sizes and dimensions and all other pertinent information. Submit one (1) electronic copy and one (1) hard copy.
- I. For all other shop drawings, Contractor shall submit to Engineer a minimum of one (1) electronic copy and one (1) hard copy of black and white prints of each drawing. The drawings will be returned to Contractor after review, comment and stamping by Engineer.
- J. Engineer will review Shop Drawings and Samples to determine conformance with the design concept of the Project and with the information given in the Contract. Engineer's approval of a separate item shall not be construed to mean approval of the assembly of which such item is a part.
- K. Engineer's approval of Shop Drawings or Samples shall not relieve Contractor of responsibility for any deviation from the requirements of the Contract unless Contractor has informed Engineer in writing of such deviation at the time of submission and Engineer has given written approval to the specific deviation, nor shall Engineer's approval relieve Contractor from responsibility for errors or omissions in the shop drawings or samples.
- L. Contractor shall make any corrections required by Engineer and shall resubmit corrected copies of shop drawings or new samples until approved. Contractor shall direct specific attention in writing, or on resubmitted shop drawings, to revisions other than the corrections required by Engineer. The number and distribution of copies shall be the same as in Contractor's first submission.
- M. In the event that Engineer shall mark shop drawings "approved" or "approved as noted," Contractor shall make such corrections, if any, as may be noted. Correction shall be made on, and prints for final distribution shall be made from, the transparencies bearing Engineer's notations and impress stamps. Final distribution of prints shall be made by Contractor.
- N. No portion of the Work requiring a shop drawing or sample submission shall be commenced until the submission has been approved by Engineer. All such portions of the work shall be in accordance with approved shop drawings and samples.
- O. Any work which will result in structural changes in walls, steel, floors and masonry shall not be commenced by Contractor prior to Engineer's written approval. Contractor's submission for such work shall fully describe all details of methods, shoring and bracing.
- P. No sheet metal item is to be purchased, fabricated, or installed until all required shop drawings and related submittals for each item are approved by Engineer. Items purchased, fabricated and/or installed which are not in compliance with approved shop drawings are subject to immediate removal from the project at contractor's expense.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

SUBMITTAL TRANSMITTAL

Date: _____

From: _____

To: Terracon Consultants, Inc.
2701 Westport Road
Charlotte, NC 28208

Project Name: East Mecklenburg High School

Owner: Charlotte-Mecklenburg Schools

Owner's Project Number: _____

Terracon Consultants Project Number: FH226304

Submittal Number: _____ No. of Copies: _____

Specification Section and Paragraph Reference(s): _____

Drawing/Detail Reference(s): _____

Location of Work: _____

Product Manufacturer: _____

Supplier/Subcontractor: _____

Date submitted to Contractor: _____

Qualifications/Deviations from Specifications: _____

CONTRACTOR'S APPROVAL

THIS SUBMITTAL HAS BEEN PREPARED BY THE CONTRACTOR OR THOROUGHLY REVIEWED BY THE CONTRACTOR AND IS A CONTRACTOR APPROVED SUBMITTAL SUBJECT TO ANY QUALIFICATIONS MADE HEREON OR ON THE ATTACHMENTS.

SIGNED: _____

DATE: _____

NAME: _____

ENGINEER'S APPROVAL

APPROVED _____; APPROVED AS NOTED _____; NOT APPROVED - RESUBMIT _____;
REVIEWED _____; APPROVED FOR CONSTRUCTION ACCORDING TO NOTATIONS.
REVISE AND RESUBMIT _____; REFER TO APPROVAL STAMP ON ATTACHMENT _____

Checking by Engineer is only for conformance with the design concept of the project and compliance with the information given in the contract documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes or to techniques of construction, and for coordination of the work of all trades.

SIGNED: _____ DATE: _____

PROJECT SUBMITTAL CHECKLIST

- Materials List
- Materials Certificate of Compliance
 - Lumber
 - Sealant
 - Base Ply Membrane
 - Cap Sheet Membrane
 - Cover Board
 - Base Sheet
 - Base Sheet Fasteners
 - Polyisocyanurate Insulation
 - Base Flashing Membrane
 - Base Flashing Backer Sheet Membrane
 - Asphalt Primer
 - Lightweight Insulating Concrete Patch Material
 - Self-adhering Underlayment
 - Mineral Perlite Cant Strips
 - Manufacturer's Application Procedures
- Copies of Authorizations and Licenses from Authorities having jurisdiction
- AIA Document G703, Schedule of Values
- Material Safety Data Sheets
- Schedule for Removal and Installation
- Written Safety Procedures
- Underwriter's Laboratories, Inc. Class A Roof Covering Certificate from Roofing System Manufacturer
- Shop Drawings
- Metal Samples
- Color Chart
- Documentation of Existing Conditions
- Certification from Manufacturer that Contractor is an Approved Installer
- List of Subcontractors
- List of Contractor Staff Assignments and Qualifications
- Sample Warranties
- Certa Training Certificates for employees operating torches

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes administrative and procedural requirements for quality assurance and quality control.

1.3 WORKMANSHIP

- A. Contractor shall use workmen skilled in the type of installation on this project. Workmen shall be same workmen employed on previous projects used to demonstrate contractor's experience.
- B. All work shall be consistent and shall be performed with the highest quality and skill for installation.

1.4 INSPECTION

- A. Owner will provide inspection during the work. Such inspection may be periodic or daily.
- B. The words "supervise" and "inspect" wherever used herein in connection with the duties or activity of the Engineer shall in no way, expressed or implied, relieve the Contractor from his responsibilities for the safety of the workmen, the preservation of the work or proper performance under this Contract. The Engineer shall not be responsible for the safety of the workmen, the safeguarding of the work, or the proper performance of the Contractor.
- C. No Inspector shall have the power to waive the obligations resting upon the Contractor to furnish good material and do good work as herein prescribed. Any failure or omission on the part of any Inspector or the Engineer to condemn any defective material or work shall not release the Contractor from the obligation to at once tear out, remove, and properly replace or rebuild the same at any time upon discovery of the defect and upon notice from the Owner or Engineer to do so.
- D. Work found to be in violation of specifications or not in accordance with established workmanship practices and standards will be subject to complete removal and proper replacement with new materials at Contractor's expense.

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- E. Remove materials stored on site which are marked by the Inspector as not meeting the requirements of the contract documents.
 - F. Failure of Owner or Engineer to discover or reject defective work, or work not in accordance with the Contract, shall not be deemed an acceptance thereof, nor a waiver of Owner's rights to Contractor's compliance with the Contract or performance of the work, or any part thereof. No partial or final payment, or partial or entire occupancy, by Owner shall be deemed to be an acceptance or work or of material which is not strictly in accordance with the Contract, nor shall it be deemed to be a waiver by Owner of any of Owner's rights pursuant to this Contract or otherwise.

1.5 SUBCONTRACTORS

- A. Use of Subcontractors to accomplish such miscellaneous or associated work as structural modifications, plumbing, relocation of conduit, service piping and/or HVAC equipment, etc. is permitted. **Do not subcontract any part of the roofing work specified herein without the prior written consent of the Owner.**

1.6 PRECONSTRUCTION CONFERENCE

- A. Prior to the start of work there shall be a conference attended by the Contractor, the representative of the Owner, and other parties who may be designated by the Owner, to be convened at the work site for the purpose of reviewing the specifications and job conditions and resolving any questions then arising.

1.7 MANUFACTURER

- A. A technical representative of the roof system manufacturer shall conduct periodic inspections throughout the course of the work. The representative shall prepare a written report for each inspection and shall promptly provide a copy of each report to the Owner, Contractor and Engineer. Each report shall note any deficiencies the representative observes which require correction. A minimum of two (2) inspections is required for this project including a final inspection after contractor has completed installation of all roof system components.

1.8 FINAL INSPECTION

- A. The Engineer and Owner shall conduct a final inspection of all work included in the contract as soon as possible after receiving written notification from the Contractor that the work is complete and ready for inspection.
- B. A final inspection report shall be prepared by the Engineer listing observed deficiencies and shall be furnished to the Contractor.
- C. Contractor shall prepare in triplicate a Certificate of Substantial Completion, AIA Document G704, and forward to the Engineer for execution.

- D. Upon satisfactory completion of all deficiencies, Contractor shall initial each item on the report certifying his compliance and return to the Engineer.
- E. No portion of the final payment shall be made until all items have been satisfactorily corrected and the project given approval.
- F. All project completion documents are to be submitted within thirty (30) days following acceptance by the Owner.

1.9 TESTING

- A. Materials stored on site which are marked by the Inspector, Engineer or Owner as not meeting the requirements of the contract documents are to be removed from the site by the contractor immediately.
- B. At conclusion of each day's work, Contractor shall carefully inspect work including temporary daily tie-offs to ensure system is completely watertight; all stored materials are suitably protected from the weather and all equipment is stored in such a manner as not to interfere with facility operations.

END OF SECTION 014000

SECTION 015000 – TEMPORARY FACILITIES, CONTROLS AND PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This section includes requirements for temporary facilities, controls, protection, and disconnects, including temporary utilities.

1.3 SUBMITTALS

- A. Submit plans for work for approval prior to starting work so that, if necessary, inside operations can be coordinated with the work.

1.4 TEMPORARY UTILITIES

- A. Contractor personnel may not use toilet or washroom facilities in existing buildings.
- B. Contractor will be responsible to provide portable toilet facilities and facilities for washing and clean-up as necessary. Facilities will be located at sites approved by the Owner.
- C. On-site lunchroom facilities will not be available to Contractor personnel.

1.5 CONTRACTORS CONTACT LIST

- A. Contractor shall provide telephone numbers of at least two (2) responsible persons who could be contacted for emergency inspections in the event of roof leakage or periods of internal precipitation during non-working hours, holidays, etc. while the roofing project is in progress.

1.6 CONNECTS AND DISCONNECTS

- A. In the event it is necessary to disconnect any electrical wiring or connections, plumbing lines or other building services, notify the Owner. Do not disconnect or connect services unless authorized in writing by Owner.

- B. Include in Base Bid all costs required for modification of existing service piping, wiring and duct work required in connection with the lifting, removal, modifications or relocation of roof-mounted equipment.
- C. All associated work is to be accomplished by appropriately licensed personnel in accordance with all applicable codes and regulations.
- D. Review roof-top equipment usage with Owner and facility user at beginning of project. Disable equipment determined to be essential to the operations of the facility only at those times prescribed by the Owner. This may require work to be done at other than normal operating hours.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 015000

SECTION 017320 – SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This section includes the following:
 - 1. Pollution Control.
 - 2. Removals.
 - 3. Connects and disconnects.
- B. Related Sections:
 - 1. Section 011000 "Summary of Work."

1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.
- C. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Engineer, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site.

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before starting selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.6 SCHEDULING

- A. Arrange selective demolition schedule so as not to interfere with Owner's on-site operations.

PART 2 - PRODUCTS

2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
 - 1. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 2. Use materials whose installed performance equals or surpasses that of existing materials.

PART 3 - EXECUTION

3.1 POLLUTION CONTROLS

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by removal operations. Return adjacent areas to condition existing before start of selective demolition.

3.2 REMOVALS

- A. Carefully relocate all electrical, co-axial, telephone, fiber optic, intercom and miscellaneous wires, cables, etc. as required to accomplish work specified herein. Accomplish such relocation without interrupting the service provided by these lines except as specifically authorized by the Owner. Become familiar with each line and the level of precaution necessary to relocate them or work around them. Upon completion of roofing work, relocate lines to their original positions and secure them as originally secured unless indicated otherwise in these specifications or on the project drawings.

-
- B. Remove or correct any obstruction, which might interfere with the proper application of new materials.
 - C. Remove all existing gravel-surfaced built-up roofing, polyisocyanurate insulation, mineral perlite insulation, base sheet, flashings and metal flashings down to existing structural deck and discard. Contractor shall take reasonable precautions as necessary to avoid damaging deck during removals, such as, but not limited to, backing out screws, etc. Deck damage as the result of removals will be repaired by the Contractor at no cost to Owner.
 - D. Contractor is to provide means and methods as necessary to protect adjacent surfaces from damage. Components damaged will be repaired by the contractor at no cost to the owner.
 - E. Lift or remove all existing HVAC, duct, ventilators and counterflashings so that existing flashings can be totally removed, and new flashings installed. Provide new wood blocking as required at curbs to provide 8-inch minimum flashing height.
 - F. Remove existing counterflashings and metal copings and discard.

3.3 CONNECTS AND DISCONNECTS

- A. In the event it is necessary to disconnect any electrical wiring or connections, plumbing lines or other building services, notify the Owner. Contractor shall not disconnect or connect services unless authorized in writing by Owner.
- B. Modification of existing service piping, wiring and duct work required in connection with the lifting, removal or relocation of roof-mounted equipment shall be accomplished by this Contractor and is to be included in the Base Bid.
- C. All costs required in connection with electrical and/or mechanical service connections/disconnections are to be included in the Base Bid. All associated work is to be accomplished by appropriately licensed personnel in accordance with all applicable codes and regulations.
- D. All associated work is to be accomplished by appropriately licensed personnel in accordance with all applicable codes and regulations.
- E. Review roof-top equipment usage with Owner and facility user at beginning of project. Disable equipment determined to be essential to the operations of the facility only at those times prescribed by the Owner. This may require work to be done at other than normal operating hours.

END OF SECTION 017320

SECTION 017330 – ASBESTOS PRODUCTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements relating to asbestos-containing materials.
- B. Terracon has conducted an asbestos survey of the existing roof area. A copy of the survey has been included within the Appendices of this Project Manual for the Contractor's reference.

1.3 PROCEDURES

- A. It is the intention of these Specifications that no asbestos-bearing materials be incorporated into the work and that, unless specifically designated to remain, no existing asbestos-bearing materials incorporated in the existing roof system will remain subsequent to completion of the work. In the event additional hidden or unanticipated asbestos-bearing materials are present in the existing roof system, stop all work in the affected area, notify the Engineer and provide temporary protection as required. Costs incurred, if any, due to the presence of hidden and/or unanticipated asbestos-bearing materials will be resolved by Change Order to this Contract.

1.4 WARRANTY

- A. Upon completion of the work, and before final payment and/or release of retainage, submit, and obtain from each subcontractor, material supplier and equipment manufacturer and submit, a properly executed Asbestos Free Warranty. Provide Warranty in the form included herein. Ensure forms are signed by a responsible officer of the Contractor, subcontractor, material supplier and equipment manufacturer and are notarized.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

ASBESTOS FREE WARRANTY

Owner: Charlotte-Mecklenburg Schools

Location of Building: 6800 Monroe Road, Charlotte, NC 28214

Name of Building: East Mecklenburg High School

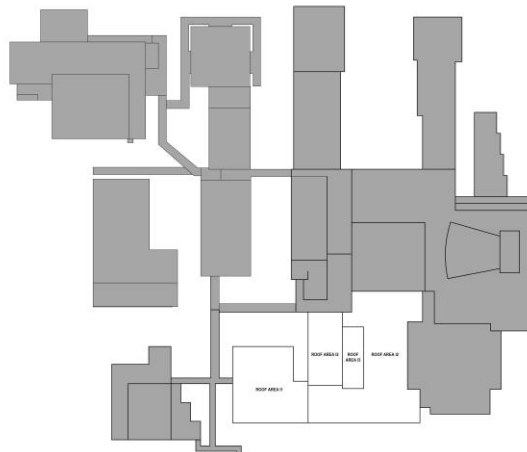
Know all men by these presents that we, _____
(Contractor, Subcontractor, Material Supplier or Equipment Manufacturer)

having furnished labor, materials, equipment and/or supplies; removed roofing, roof insulation, vapor retarder, flashings and/or miscellaneous roof system components; accomplished certain repairs to existing roof system; installed new roofing, roof insulation vapor retarder, flashing and/or miscellaneous roof system components;

from, to and/or on _____ as shown on the roof plan below
(Buildings, Roof Area, etc.)

under contract between _____ and _____
(Owner and Contractor) (Contractor and/or Subcontractor, Material Supplier or Equipment Supplier)

warrant to Owner with respect to said work that no materials containing asbestos fibers were incorporated into the work, and that, to our knowledge and belief, no materials containing asbestos remain in or



Exceptions: _____
If there are no exceptions, state "No Exceptions" here

IN WITNESS WHEREOF, we have caused this instrument to be duly executed, this _____ day of _____, 20 _____.

WITNESS:

Company

By

Notary Public

END OF SECTION 017330

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Warranties.
 - 3. Final cleaning.
- B. Related Sections include the following:
 - 1. Division 1 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.

1.3 SUBSTANTIAL COMPLETION

- 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Complete final cleaning requirements, including touchup painting.
 - 3. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Engineer and Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Owner, that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

- A. Final Inspection shall be conducted as follows:

-
1. The Engineer and Owner will conduct a final inspection of all work included in the contract as soon as possible after receiving written notification by the Contractor that the work is complete and ready for inspection.
 2. The final inspection report shall be prepared by the Engineer and Owner listing observed deficiencies and furnished to the Contractor.
 3. Upon satisfactory completion of all deficiencies, Contractor shall initial each item on the report certifying his compliance and return to the Engineer.
 4. No portion of the final payment will be made until all items have been satisfactorily corrected and the project closeout documents submitted to the Engineer. Final payment shall be made within thirty (30) days of receipt of closeout documents.
 5. All project completion documents are to be submitted within thirty (30) days following acceptance by the Owner.
- B. Refer to Closeout Document Checklist at the end of this Section for all documents to be submitted and approved by Engineer.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
- C. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
1. Remove tools, construction equipment, machinery, and surplus material from Project site.
 2. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 3. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.

4. Clean transparent materials, including glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish glass, taking care not to scratch surfaces.
 5. Remove labels that are not permanent.
 6. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 7. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 8. Leave Project clean and ready for occupancy.
- D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

PROJECT DOCUMENT CHECKLIST

- Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
- AIA Document G704, "Certificate of Substantial Completion."
- AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
- AIA Document G706A, "Contractor's Affidavit of Release of Liens."
- AIA Document G707, "Consent of Surety to Final Payment."
- Contractor's Warranty
- Metal Finish Warranty
- Manufacturer's Warranty, including Maintenance Manuals
- Copy of Final Inspection with all Outstanding Items initialed to indicate completion
- Record Drawings
- Manufacturer's Inspection Reports
- UL Class A Certification Letter

END OF SECTION 01770

SECTION 061000 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Rooftop equipment bases and support curbs.
2. Expansion joint blocking.
3. Wood blocking on top of parapet walls.
4. Wood blocking at eaves.

B. Related Requirements:

1. Division 1 Section "Allowances" for work associated with allowances.
2. Division 7 Section "SBS Modified Bituminous Membrane Roofing."
3. Division 7 Section "Sheet Metal Flashing and Trim."

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Supply and keep materials dry at all times prior to application.
- B. Store all lumber/plywood in dry, covered storage, or on platforms, and with weatherproof, breathable coverings (such as heavy canvas). Materials which are not stored under specified covers are subject to removal from site at Engineer's or Owner's discretion.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: No. 2 grade (or better) southern yellow pine or Douglas fir unless specifically noted otherwise. Each piece of lumber shall bear the inspection stamp of the Southern Pine Inspection Bureau (SPIB) or the Western Wood Products Association (WWPA) indicating the grade and type of lumber. Retain items required to be made from certified wood if not all rough carpentry must be certified wood; verify that certified wood is available for each item before retaining.
 1. Wood Preservative: Alkaline Copper Quaternary (ACQ) pressure-treatment conforming to AWWA Standard C-2 (above ground). Retention of preservative shall be 0.25 pcf. All material shall be kiln-dried after treatment to 19 percent or less moisture content.

- B. Plywood: APA Rated Sheathing (CDX) with waterproof glue for exterior applications in thicknesses specified. All plywood shall comply with the requirements of U.S. Product Standard PS1-09 and each sheet shall clearly bear the APA trademark of the American Plywood Association. Plywood shall be 3/4-inch-thick to match existing with a span rating of 48/24.

2.2 FASTENERS

- A. Fasteners: For securing lumber or plywood to lumber, stainless steel screws of sufficient length to penetrate a minimum of 1-1/2 inches into the underlying member but not smaller than 8d nails. Where circumstances warrant shorter fasteners, consult Engineer.
- B. Lag Screws: 1/2 inch diameter, length to embed in wood a minimum of 2 inches.
- C. For securing wood to concrete, use Tapcon Masonry Fasteners.
- D. For securing wood to steel, secure using self-drilling/self-tapping fasteners.

PART 3 - EXECUTION

3.1 GENERAL

- A. Furnish and install new nominal 6-inch-wide wood blocking at all eaves, edges and openings as required for blocking to finish flush with the top of the roof insulation.
- B. Secure wood blocking over existing blocking with screws in two rows staggered and spaced not over 24 inches in each row.
- C. Secure new wood blocking to steel deck at spacings of 12 inches on center in a staggered pattern.
- D. At tops of concrete walls, secure wood to walls with Tapcon fasteners at 12 inches on center.
- E. Stagger fasteners when securing nominal 6-inch-wide lumber or wider.

3.2 EXISTING WOOD

- A. Inspect all existing wood blocking and curbs carefully. If, in Contractor's opinion, there is existing wood which requires replacement, notify the Engineer. Do not proceed with removals or replacement until directed by the Engineer. Install new wood blocking and curbs the same size and thickness as the existing where removed.
- B. Remove all existing loose, wet, damaged or deteriorated wood blocking and curbs and discard. Install new wood blocking and curbs using the same size and thickness as existing.

3.3 ROOF EQUIPMENT

- A. Install new wood blocking at all roof-mounted equipment as required to provide a minimum flashing height of 8 inches above finished roof level.
- B. Install blocking under integral equipment curbs as required to maintain full cant face above roof level and/or to allow installation of new cant strips.
- C. Install new wood blocking at all expansion joint and control joint curbs as required to provide a minimum flashing height of 8 inches above new finished roof level.
- D. Install new beveled wood blocking over top of parapets as shown in drawings. Secure with screws at 12 inches on center, staggered.
- E. Where pitch pans are to be installed with flange lengths exceeding 12 inches, install wood blocking to finish flush with new insulation aligned with flanges of pan.

3.4 NEW ROOF CURB

- A. Furnish and install wood curb for equipment support as specified herein. Refer to Drawings.
- B. Secure bottom layer of new wood blocking to deck with screws in two (2) staggered rows. Secure wood blocking to wood curb using screws. New curb to be 8 inches above new finished roof surface.
- C. Install screws to penetrate at least 1-1/2 inches into blocking but under no circumstances shall screws protrude through wood blocking.

3.5 PLYWOOD INSTALLATION

- A. Install new plywood sheathing over top of parapet walls and over area divider curbs as specified herein.
- B. Refer to Drawings for locations.
- C. Space plywood a minimum of 1/8 inch at ends.
- D. Secure plywood using specified fasteners, spaced at 12-inches on center along all edges.
- E. Protect installed plywood from damage until system is complete.

END OF SECTION 061000

SECTION 070000 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following
 - 1. Preparations.
 - 2. Deck repairs.
- B. Related Sections include the following:
 - 1. Division 1 Section "Allowances."
 - 2. Division 1 Section "Unit Prices."

PART 2 - PRODUCTS

2.1 LIGHTWEIGHT INSULATING CONCRETE MATERIALS

- A. Provide patch material such as Zono-Patch by Siplast

2.2 MISCELLANEOUS MATERIALS

- A. Steel Plate: For covering openings, 1/8 inch thick, single sheet sized to extend 6 inches beyond opening in all directions.

PART 3 - EXECUTION

3.1 PREPARATION, GENERAL

- A. Prior to commencement of any work, inspect and thoroughly water test all existing roof drains for free flow operation with Owner's maintenance personnel present. Report drain restrictions to Engineer. Should drains become clogged at any time after the start of work, correct the condition at no additional expense to the Owner.

- B. Prior to the installation of any new roofing, flashings, and metal flashings, clean surfaces of all dust, dirt and other foreign matter.
- C. Over all abandoned openings, install new steel plates (if required). Secure to deck using specified fasteners spaced not over 6 inches on center at all edges.
- D. Larger openings may require reinforcement of the plate to prevent deflection. Determination of need will be made by the Engineer after plate is in place. In such event, type and location of reinforcement will be determined and will be authorized by Owner by a Change Order to this Contract.
- E. Extend all existing vents through the roof to the height required by the local plumbing code but not less than 8 inches above finished roof level.

3.2 DECK REPAIR

- A. Inspect the deck carefully. If there are lightweight concrete areas which require repair or replacement, notify the Engineer and Owner. Do not proceed with repair or replacement until directed by the Owner.

3.3 LIGHTWEIGHT INSULATING CONCRETE DECK REPAIR

- A. Where lightweight insulating concrete roof surface is damaged, follow Manufacturers latest printed instructions for repair.
- B. Ensure that all surfaces to receive lightweight insulating concrete are free of oil, grease, paints/primers, loose mill scale, dirt, or other foreign substances. Where necessary, clean or correct surfaces to receive lightweight insulating concrete.
- C. Finish top surface smooth, free of ridges and depressions, and maintain surface in condition to receive subsequent roofing system.
- D. Avoid roof-top traffic over the roof insulation system until one can walk over the surface without creating surface damage.
- E. Perform all patching and repairing of insulating concrete using material supplied by or otherwise approved by concrete manufacturer.

END OF SECTION 070000

SECTION 075520 – SBS-MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Two-ply SBS-modified bituminous membrane roofing.
 - 2. Cover board.
 - 3. Roof insulation.
 - 4. Gypsum underlayment.
- B. Related Sections include the following:
 - 1. Division 6 Section "Rough Carpentry".
 - 2. Division 7 Section "Roofing Preparation".
 - 3. Division 7 Section "Sheet Metal Flashing and Trim".

1.3 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Roof systems to meet wind uplift pressures as shown on drawings and FM 1-90 uplift requirements.
- C. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- D. Provide a roofing system that complies with the requirements of Underwriters' Laboratories, Inc. for a Class A roof covering. Provide a UL Class A certificate,

generated by Roofing System Manufacturer, to Owner at project close-out.

1.5 SUBMITTALS

A. Roof System(s) Verification:

1. Provide a roofing system(s) that complies with the uplift pressures outlined within the contract drawings.
2. Provide the roofing manufacturer's tested assembly numbers that confirm compliance to the provided uplift pressures.
3. Provide the following roof system requirements:
 - a. Base Sheet securement pattern along with evidence of fastener pull out strength testing acceptable to manufacturer to meet uplift requirements.
 - b. Base polyisocyanurate insulation securement pattern spacing requirements at field; perimeter and corners.
 - c. Subsequent polyisocyanurate insulation layer(s), saddles and crickets, cold-fluid applied adhesive ribbon width and field, perimeter and corner adhesive pattern spacing requirements.
 - d. Gypsum coverboard cold-fluid applied adhesive ribbon width and field, perimeter and corner adhesive pattern spacing requirements.

B. Materials List: Give written notification of the brand name and manufacturer of each material proposed for use and include a statement that all proposed materials meet the specification requirements. Obtain approval prior to placing orders.

1. Submittal of catalog cut sheets, etc. in lieu of the materials list required above is not acceptable. Do not submit cut sheets unless specifically requested.

C. Base/Wall Flashing Instructions: Submit manufacturer's base/wall flashing installation instructions.

D. Installation Instructions: Submit manufacturer's latest written installation instructions.

E. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.

F. Manufacturer Certificates: Original document signed by a responsible officer of the manufacturing firm, notarized, on manufacturer's standard letterhead, certifying materials furnished for project comply with the referenced standard. Certificate shall specifically reference the project and applicable compliance standard.

G. Qualification Data: For Installer and manufacturer.

H. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of roofing system.

I. Maintenance Data: For roofing system to include in maintenance manuals.

J. Warranties: Special warranties specified in this Section.

-
- K. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.
 - L. Tapered Insulation Shop Drawings: Submit proposed tapered insulation and cricket system for approval prior to start of work. Provided drawings for each area and include, at a minimum, concise tapered layouts, material identification, cross sections of typical sections with each board labeled, board stagger pattern, slopes and cricket widths.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.
- D. Supply and keep all materials dry at all times prior to application.
- E. Store all insulation, insulating board cants, tapered edge strips and lumber/plywood in dry, covered storage, or on platforms, and with weatherproof coverings. Coverings shall be waterproof breathable type material such as heavy canvas. Insulation wrappers are not sufficient. Materials which are not stored under specified covers are subject to removal from the site at Owner's discretion.
- F. Store all roll goods on end on clean floors or platforms. Do not use flattened rolls or rolls with ends damaged.
- G. Materials which, in the opinion of the Owner, have been prematurely exposed to the weather are subject to immediate removal by the contractor and replaced with new materials at contractor's expense. Owner may, at Owner's option, mark such materials with paint or other indelible materials while they remain on-site.
- H. Store solvent bearing materials in dry, cool storage and keep lids tight on partially used containers to prevent escape of solvents.
- I. Store all emulsions in dry storage at temperatures above 40°F.

1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.8 WARRANTY

- A. Warranty: Manufacturer's standard form, without monetary limitation, in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
 - 1. Special warranty includes roofing membrane, base flashings, roof insulation, fasteners, cover boards, and other components of roofing system.
 - 2. Warranty Period: 20 years from date of Substantial Completion.

- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as roofing membrane, base flashing, roof insulation, fasteners, cover boards, substrate boards, and walkway products, for the following warranty period:
 - 1. Warranty Period: Five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Listed in this section are specifications for materials required generally for use in accomplishing the work specified. Materials not listed may also be required.

- B. Except as specifically noted herein, all reference standards included herein are to be presumed to be the latest published editions of such standards available as of the issue date of these specifications.

- C. Brand or manufacturer names are used as standards of quality where no other appropriate reference is available. Submit substitution requests under requirements listed in other Sections.

- D. Where a generic product or a general manufacturer's product is specified and more than one such product is offered by the manufacturer, provide the manufacturer's premium materials.

2.2 MANUFACTURERS

- A. For purposes of these documents, the roof system manufacturer is defined as the manufacturer of the primary roof membrane. The roof system is intended to encompass, but is not necessarily limited to, all components above the deck including underlayment and/or vapor retarder components, roof insulation, roof membrane, membrane flashings and any proprietary flashing/components of the system manufacturer. Subject to compliance with the material specifications of these documents, all materials are to be supplied by the same manufacturer.

- B. All materials used in systems to be covered by a Manufacturer's Guarantee must be supplied by the same manufacturer, unless the manufacturer issuing the guarantee waives this requirement in writing.

-
- C. The following material manufacturers are approved for this project. Such approval does not relieve the Contractor from the requirement to supply materials which meet all other requirements of these Specifications.
 - D. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Cold Process or Torch-Applied SBS-Modified Bituminous Membrane Roofing:
 - a. Soprema
 - b. Johns Manville
 - c. Siplast

2.3 SBS-MODIFIED ASPHALT-MEMBRANE MATERIALS

- A. Base Ply: ASTM D 5147 and D 6163, Type I or II, Grade S, SBS-modified asphalt sheet with glass fiber mat reinforcing, suitable for application method specified.
- B. Cap Sheet: ASTM D 5147 and D 6163, Type I or II, Grade G, SBS-modified asphalt sheet with glass fiber mat reinforcing, granular surfaced, suitable for application method specified and as follows:
 - 1. Granule Color: White.

2.4 BASE SHEET MATERIALS

- A. Base Sheet: Unperforated, asphalt-impregnated and coated, glass-fiber sheet, dusted with mineral surfacing on both sides.
- B. Slip Sheet: Building paper, 3 lbs./100 sf, rosin sized.

2.5 BASE FLASHING SHEET MATERIALS

- A. Backer Sheet: ASTM D 6164, Grade S, Type I, polyester-reinforced, SBS-modified asphalt sheet; granular surfaced; suitable for application method specified.
- B. Flashing Sheet: ASTM D 6298 fiberglass reinforced, SBS-modified asphalt sheet; suitable for application method specified, and as follows:

2.6 AUXILIARY ROOFING MEMBRANE MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.
- B. Cold adhesive as recommended by the manufacturer for adhering SBS-modified bitumen membrane systems.
- C. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

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- D. Liquid Membrane Flashing System: Seamless liquid membrane with reinforcing polyester fleece to meeting roofing system manufacturer's warranty.
 - E. Asphalt Primer: ASTM D 41.
 - F. Metal Flashing Sheet: Metal flashing sheet is specified in Division 7 Section "Sheet Metal Flashing and Trim."
 - G. Roofing Granules: Ceramic-coated roofing granules, No. 11 screen size with 100 percent passing No. 8 sieve and 98 percent of mass retained on No. 40 sieve, color to match roofing membrane.
 - H. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.
 - I. Lightweight Concrete Base Sheet Fasteners: Coated, Twin-Loc fasteners specifically made for attaching base sheet to lightweight insulating concrete decks, 1.75 inch leg length, with 2-3/4 inch diameter plates.

2.7 INSULATION/BOARD GOODS

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.
- B. Insulation Cant Strips: ASTM C 728, mineral perlite cut to fit at 45° with minimum 4-1/2" face.
- C. Tapered Edge Strips: ASTM C 728, mineral perlite 1-1/2 inches at edges.
- D. Polyisocyanurate Roof Insulation: ASTM C 1289, Type II, with felt or glass-fiber mat on both major surfaces, manufactured to meet the following requirements:
 - 1. Nominal Compressive Strength: 20 psi.
 - 2. Dimensional Stability: 2% maximum linear change when conditioned at 158°F and 97% relative humidity.
 - 3. Minimum Curing Time: 24 hrs. plus 24 hrs. for each inch of thickness at a minimum of 60°F before shipment from manufacturer.
 - 4. Maximum Board Thickness: 2 inches.
 - 5. Maximum Board Size: 4' x 8' (mechanically attached).
 - 6. Maximum Board Size: 4' x 4' (adhered).
- E. Gypsum Cover/Underlayment Board: ASTM C 1177, Type X, glass mat, water-resistant substrate, to be used as cover board and underlayment.
 - 1. Product: Subject to compliance with requirements. Provide "Dens-Deck Prime" by Georgia Pacific Corporation.
 - 2. Cover board: 1/2" thick, max board size 4' x 4'
 - 3. Alternative coverboards such as 1/4-inch thick Sopraboard by Soprema and 1/2-inch thick ProtectoR™ HD by Johns Manville are acceptable in their respective approved roof systems.

-
- F. Insulation Adhesive: Two component, low rise polyurethane foam, approved by membrane manufacturer for insulation and substrates on this project.
 - G. Termination Bar: Extruded aluminum bar, 1 inch wide, 1/8-inch-thick, with pre-punched holes at 6 inches on center.

2.8 FASTENING DEVICES

- A. Galvanized Steel Roofing Nails: 11 or 12-gauge hot dipped galvanized steel ring shank roofing nails, minimum 3/8-inch diameter head as manufactured by W. H. Maze Company. Minimum length 1½ inches.
- B. Masonry Anchors: Drive-pin fastener with alloy sleeve and stainless-steel nail insert for use in concrete, brick or concrete masonry units, 1/4-inch diameter, 1-inch length, flat head.
- C. Lightweight Concrete Base Sheet Fasteners: Coated, Twin-Loc fasteners specifically made for attaching base sheet to gypsum decks, 1.75 inch leg length, with 2-3/4 inch diameter plates.
- D. Insulation fasteners and plates: Plated steel fasteners and 3-inch diameter round or square plate as manufactured by or specifically recommended by the roof system manufacturer. Fasteners and plates must be factory-mutual approved for 1-90 and 1-120 construction with the specified insulation.

PART 3 - EXECUTION

3.1 GENERAL SCHEDULE

- A. Refer to Table 3-1 for a general schedule of the primary roof components (described from the bottom up) for each roof area. Methods of installation and related materials are in other sections of these specifications.

Table 3-1

ROOF AREA 11, 12 and 13
Existing Structural Concrete
Existing Lightweight Insulating Concrete
Rosin and Mechanically Attached Base Sheet
1 Layer of 2 inch Polyisocyanurate Insulation (adhered)
1 Layer of 1 inch Polyisocyanurate Insulation (adhered)
Cover Board – Reference Specifications Section 2.7 (adhered)
Modified Bitumen Base Ply
Modified Bitumen Cap Sheet

ROOF AREA 14
Existing Structural Concrete
Existing Lightweight Insulating Concrete
Rosin and Mechanically Attached Base Sheet
1 Layer of 2 inch Polyisocyanurate Insulation (adhered)
1 Layer of 1 inch Polyisocyanurate Insulation (adhered)
¼ Inch Per Foot Tapered Polyisocyanurate Insulation (adhered)
Cover Board – Reference Specifications Section 2.7 (adhered)
Modified Bitumen Base Ply
Modified Bitumen Cap Sheet

3.2 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:
 - 1. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
 - 2. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 - 3. Proceed with installation only after unsatisfactory conditions have been corrected.

- B. Inspect all surfaces to receive work specified herein. Application of materials constitutes approval of the substrate as being satisfactory.

3.3 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Do not apply bituminous materials when ambient air temperature is below 40°F unless equipment can be operated, and materials handled, without exceeding maximum allowable temperatures and without damage to materials, and then only with approval of the Engineer.
- D. Do not apply emulsions when ambient air temperature is below 40°F or is expected to be below freezing within 24 hours after application.
- E. Accomplish application of roofing materials so that each area will be complete at the end of each workday.
- F. Protect edges and incomplete flashings against water entry at all times. Remove cut-offs and temporary protection prior to resumption of work.
- G. Prime all concrete, masonry and metal surfaces to receive bituminous materials, using approximately one gallon of primer per 100 square feet of surface. Allow primer to dry thoroughly before application of bituminous materials.
- H. Set insulating board cant strips and tapered edge strips in a generous bed of plastic roof cement so that they are tightly cemented to both horizontal and vertical surfaces.
- I. Torch apply base ply and base flashing.
- J. Torch Operations: For a minimum of two (2) hours following daily completion of torch applications, maintain a fire watch inside and outside the building in the area of torch application. Utilize a fully-functional hand-held infrared device suitable for detecting areas of elevated temperature.

3.4 BASE SHEET ATTACHMENT

- A. Clean deck surfaces of all dirt, dust and other foreign matter.
- B. Install a layer of rosin paper next to deck utilizing Twin Loc base sheet fasteners.
- C. Starting at low points in roof, apply one ply of fiber glass base sheet perpendicular to slope, lapped at least 4 inches at sides and 6 inches at ends.
- D. Fasten base sheet through center of sheet in two staggered rows spaced approximately 11 inches apart and through laps with appropriate fasteners. Space fasteners as follows:

-
1. Field of Roof: 12 inches on center at laps, 12 inches on center at intermediate rows. Field of roof is defined as all areas of roof except perimeter, corners, and extended corners.
 2. Perimeter: 9 inches on center at laps, 9 inches on center at intermediate rows. Perimeter of roof is defined as all exterior edges and is 8 feet wide unless indicated otherwise on Drawings.
 3. Corners: 6 inches on center at laps, 6 inches on center at intermediate rows. Corners of roof occur at all perimeter locations where changes in direction occur and are 8' x 8' in size unless indicated otherwise on Drawings.
- E. Terminate base sheet up face of all vertical surfaces.

3.5 INSULATION AND COVER BOARD APPLICATION

- A. Apply insulation and cover board layers as specified herein.
1. Insulation ribbon adhesives pattern to meet specified wind uplift pressures.
 2. Bottom layer of insulation to be adhered in insulation ribbon adhesives directly to base sheet.
 3. Succeeding insulation and cover board to be adhered in insulation ribbon adhesives
- B. Ensure full adhesion of all layers of insulation and cover board take whatever steps necessary to achieve full adhesion including, if necessary, temporary ballasting of insulation and cover board until adhesive sets.
- C. Where insulation and cover board are to be adhered, clean surfaces of all dirt, dust and other foreign matter.
- D. Install insulation and cover board using 3/4-inch-wide ribbons of adhesive. Apply adhesive in ribbons at spacings to meet specified wind uplift pressures.
- E. Contractor shall employ all additional methods and procedures as necessary to ensure insulation units and cover board units are fully adhered to the substrate including applying additional adhesive along edges, ballasting insulation units, installing mechanical fasteners at insulation and cover board corners, etc. Walk boards into the adhesive and roll using 30-inch wide, 100-150-pound weighted steel roller.
- F. Stagger all joints off those of preceding layer.
- G. Apply insulation and cover board with end joints staggered approximately one-half the length of units.
- H. Fit all insulation and cover board units snugly to each other and to all vertical surfaces.
- I. Remove and replace all damaged units with new insulation and cover board or repair to provide a smooth surface and uniform insulation thickness.
- J. Place insulation and cover board into adhesive shortly after it has reached its maximum rise and walk into place.

-
1. Walking insulation board in immediately after placement into adhesive may cause slippage/movement until adhesive starts to set.
- K. Install insulation crickets as follows:
1. Form crickets along the upslope side of all curb mounted equipment with base widths exceeding 12 inches using factory tapered polyisocyanurate insulation and fill units and tapered edge strips.
 2. Form crickets between drains using factory tapered polyisocyanurate insulation units, polyisocyanurate insulation fill units and tapered edge strips.
 3. Install crickets of sufficient size and slope as required to ensure complete drainage and prevent standing water. Fabricate full crickets between drains with a minimum width-to-length ratio of 0.5. Fabricate partial crickets with dimensions which would result in a minimum width-to-length ratio of 0.5 if they were extended to full size.
 4. Fabricate crickets to be sufficiently wide to result in valleys with positive slopes of not less than 1/16:12.
 5. At a minimum, fabricate crickets to provide an installed slope matching that of adjacent roof slope.
 - a. Unless noted otherwise, fabricate all crickets from tapered stock as required to provide an installed slope matching that of the adjacent roof area. For example, where the roof slope is 3/8-inch per foot, fabricate crickets from tapered stock to provide an installed slope of 3/8-inch per foot.
 6. Start cricket construction by striking chalk lines for outer edges of tapered edge strips. Install edge strips along chalk lines, mitering and fitting at the points where lines break.
 7. Provide a minimum tapered polyisocyanurate thickness of 1/2 inch along edges of crickets. Taper edges of crickets down to base insulation using continuous wood fiber board tapered edge strips. Secure tapered edge strips with two (2) rows of insulation adhesive.
 8. Complete cricket assembly using factory tapered polyisocyanurate insulation.
 9. Secure cricket insulation in ribbons of insulation adhesive.
 10. Installed tapered edge strips along edges of cricket valleys to ensure smooth transition.
- L. Taper insulation down to drains using tapered edge beginning at a point approximately 24 inches from drain. Provide larger sumps where drains are outside the drain valley. Secure sump insulation using insulation adhesive.
1. A minimum thickness of 2" insulation is required to be extended into the drain sump area.
- M. Install cover board over all insulation and crickets. Set in adhesive as described previously.
- N. Provide an insulation thickness at eaves as required to maintain gravel stop-fascia at uniform elevation and with uniform face widths. Install additional tapered edge strips at eaves, etc. as required to meet this requirement.

3.6 ROOFING MEMBRANE INSTALLATION (GENERAL)

- A. Install roofing membrane system according to roofing system manufacturer's written instructions and applicable recommendations of ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing."
- B. Clean surfaces of all dirt, dust and other foreign matter.

3.7 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

- A. Install modified bituminous roofing membrane sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system, installing as follows:
 - 1. Fully adhere base ply to substrate utilizing hot application. Fully adhere cap sheet utilizing torch application.
 - 2. Alternatively, fully adhere base and cap sheet to substrate utilizing cold adhesive.
 - 3. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.
 - 4. Cut rolls in maximum 18-foot lengths.
 - 5. Apply new SBS modified bitumen material, suitable for application method specified, in strict accordance with manufacturer's latest printed instructions except as modified in this section.
 - 6. Apply pressure on the sheet to ensure full contact with the substrate and complete adhesion.
 - 7. At roof edges and openings, terminate roofing sheets at the outer edge of blocking.
 - 8. Strip flange of edge metal with one ply of base ply material in accordance with membrane manufacturer's latest printed instructions. Fit stripping snugly to lip of edge metal. Extend stripping a minimum of 6 inches beyond edge of flange.
 - 9. Strip flange of metal flashings and scupper liners with one ply of base ply material in accordance with membrane manufacturer's latest printed instructions. Extend stripping a minimum of 6 inches beyond edge of flange.
 - 10. Strip drain lead with one ply of base ply material in accordance with membrane manufacturer's latest printed instructions. Extend stripping a minimum of 12 inches beyond edge of lead.
- B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps a minimum of 36 inches. Completely bond and seal laps. For cold-applied application utilize hot-air welding techniques, leaving no voids.
 - 1. Repair tears and voids in laps and lapped seams not completely sealed.
 - 2. Apply roofing granules to cover exuded bead at laps.
 - 3. Lap ends at least 6 inches and sides at least 3 inches.
- C. Install roofing membrane sheets so side and end laps shed water.
- D. At internal roof drains, extend roofing sheets across drain body opening. Do not allow interply bitumen to enter drain bowl. Cut sheets across drain body opening and trim flush with the inside face of the drain body.

3.8 BASE FLASHING INSTALLATION

- A. Install base flashing over cant strips and other sloping and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates under cap sheet according to roofing system manufacturer's written instructions and as follows:
 - 1. Prime substrates with asphalt primer if required by roofing system manufacturer.
 - 2. Flashing Sheet Application: Torch flashing sheet to substrate as required by roofing system manufacturer.
- B. Extend base flashing up walls or parapets a minimum of 8 inches above roofing membrane and 4 inches onto field of roofing membrane.
- C. Prior to installation of base flashings at plywood substrates, furnish and install new rosin sized sheathing paper and fiber glass base sheet. Lap ends of base sheet 4 inches. Secure using specified fasteners spaced 6 inches on center in both directions.
- D. Install roofing membrane cap-sheet stripping where metal flanges and edgings are set on membrane roofing according to roofing system manufacturer's written instructions.
- E. At masonry substrates, fasten top of flashing with approved fasteners through continuous termination bar on a line approximately 1 inch below top edge and spaced not over 6 inches on center.
- F. At locations where wall is to be covered with base flashing material and exceeds 12 inches in height above roof surface, install wall flashings as recommended by the roofing system manufacturer. Nail top edge of wall flashings and laps at 4 inches on center using flashing nails. Lap wall flashing over base flashing minimum of 4 inches. Torch to substrate using manufacturer approved application methods.
- G. Check all laps as required by the manufacturer's specifications, reheat and seal as required to obtain full adhesion.

3.9 LIQUID MEMBRANE FLASHING SYSTEM

- A. Utilize liquid membrane flashing system as alternate flashing means only at locations where pipe penetration is securely fastened and per manufacturer's requirements.
 - 1. Follow manufacturer's latest printed installation instructions. Refer to Drawings. Submit three (3) copies to Engineer prior to start of work.
 - 2. Prep surfaces as required by roofing system manufacturer. Install sealant to fill voids where roofing membranes terminate at penetrations.
 - 3. Using masking tape, mask the perimeter of the area to receive the flashing system. Apply resin primer to substrates requiring additional preparation and allow primer to set.
 - 4. Pre-cut fleece to ensure a proper fit at transitions and corners prior to membrane application.
 - 5. Apply an even, generous base coat of flashing resin using a roller at the minimum rate specified by the resin manufacturer to prepared surfaces requiring flashing coverage. Work the fleece into the wet, catalyzed resin using a brush or roller to fully embed the fleece in the resin and remove trapped air. Lap fleece

layers a minimum of 2 inches and apply an additional coat of catalyzed resin between layers of overlapping fleece. Again, using a roller, apply an even top coat of catalyzed resin at the minimum rate specified by the resin manufacturer immediately following embedment of the fleece, ensuring full saturation of the fleece. Ensure that the flashing resin is applied to extend a 0.25 inch beyond the fleece. Remove the tape before the catalyzed resin sets. Make allowances for saturation of roller covers and application equipment.

6. Should work be interrupted for more than 12 hours or the surface of the catalyzed resin becomes dirty or contaminated by the elements, wipe the surface to be lapped with new flashing resin using the specified cleaner/solvent. Allow the surface to dry for a minimum 20 minutes and a maximum 60 minutes before continuing work.
7. Apply the color finish over the installed field membrane after the membrane is set, dry and has been in place for a minimum 2 hours.
8. Using the specified cleaner/solvent, wipe field surfaces to receive the color finish layer. Allow the surface to dry for a minimum 20 minutes before continuing work.
9. Apply an even top coat of catalyzed color finish resin at the minimum rate specified by the resin manufacturer. Allow 2 hours cure time prior to exposing the membrane to foot traffic.

3.10 TORCH OPERATIONS

- A. All torch operations are to comply with Certified Roofing Torch Applicator (CERTA) and NRCA requirements. Torch operators shall be fully certified by CERTA. Contractor shall provide copy of certification for all torch applicators.
 1. For a minimum of two hours following daily completion of torch applications, maintain a fire watch inside and outside the building in the area of torch application. Utilize a fully-functional hand-held infrared device suitable for detecting areas of elevated temperature.
 2. Contractor shall maintain two (2) fully operational fire extinguishers at the site at all times.
 3. Apply two-ply base flashing backer sheet at wood curbs. Take all measures necessary to protect wood curbs from open flames.
- B. Contractor shall use “torch-and-flop” method at all base flashings.

3.11 WALKWAY APPLICATION

- A. Install new walkway at all locations indicated on Drawings as specified herein.
- B. Install new walkway on all sides of all major equipment (motorized equipment, scuttles, or any rooftop unit with any shingle dimension greater than 4 feet).
- C. Adhere walkway units by setting cold adhesive over cap sheet surface.
- D. Cut strips of walkway units for installation under wood sleepers from new full-size walkway units. Cut strips a minimum of 6 inches wider and longer than sleeper to be supported.

- E. Set units so that long edges are aligned and units are spaced about 2 inches apart.

SBS-MODIFIED BITUMINOUS MEMBRANE ROOFING SYSTEM WARRANTY

(on Contractor's Standard Letterhead)

Owner: Charlotte Mecklenburg Schools

Installer: _____

Location of Building: 6800 Monroe Rd., Charlotte, North Carolina

Name of Building: East Mecklenburg High School

Roof Areas: _____

Date of Substantial Completion: _____

Know all men by these presents, that we, Installer as defined above, having installed insulation, roofing, flashings and sheet metal work, and having accomplished certain other work on the roof areas identified above under contract between Owner and Contractor, warrant to Owner, with respect to said work that for a period of five (5) years from date of Substantial Completion of said work, the roofing including underlayment and cover boards, insulation, roofing membrane, flashings and sheet metal work, shall be absolutely watertight and free from all leaks, provided however that the following are excluded from this warranty:

- Defects or failures resulting from abuse by the Owner.
- Defects in design involving failure of (1) structural frame, (2) load-bearing walls, and (3) foundations.
- Damage caused by fire, tornado, hail, hurricane, acts of God, wars riots or civil commotion.

We, Installer, agree that should any leaks occur in the roofing we will promptly remedy said leaks in a manner to restore the roof to a watertight condition by methods compatible to the system and acceptable under industry standards and general practice.

We, Installer, further agree that for a period of five (5) years from date of Substantial Completion referred to above, we will make repairs at no expense to the Owner, to any defects which may develop in the work including but not limited to open laps, blisters, wrinkles, ridges, splits, warped insulation, and loose flashings in a manner compatible to the system and acceptable under industry standards and general practice.

IN WITNESS WHEREOF, we have caused this instrument to be duly executed, this _____ day of _____, 20 _____.

(Installer)

WITNESS:

by _____
President

Notary Public

The undersigned named Owner agrees, from the date of acceptance of the project, to maintain the roof in accordance with the manufacturers written requirements and agrees to avoid damage to the roof surface by any parties under his control working or walking on the roof. The Owner recognizes his responsibility to inspect the roof semi-annually.

Owner Date

END OF SECTION 075520

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Sheet metal flashing and trim.
- B. Related Sections include the following:
 - 1. Division 7 Section "SBS-Modified Bituminous Membrane Roofing."

1.3 SUBMITTALS

- A. Materials List: Give written notification of the brand name and manufacturer of each material proposed for use and include a statement that all proposed materials meet the specification requirements. Obtain approval prior to placing orders.
 - 1. Submittal of catalog cut sheets, etc. in lieu of the materials list required above is not acceptable.
- B. Submit shop drawings of all specified types of metal shapes, showing details of proposed installation where appropriate.
- C. Submit two 6-inch long samples of each metal shape.
- D. Manufacturer Certificates: Original document signed by a responsible officer of the manufacturing firm, notarized, on manufacturer's standard letterhead, certifying materials furnished for project comply with the referenced standard. Certificate shall specifically reference the project and applicable compliance standard.
- E. Obtain approval of shop drawings, samples and certifications prior to fabrication and installation.
- F. No sheet metal item is to be purchased, fabricated, or installed until all required shop drawings and related submittals for each item are approved. Items purchased, fabricated and/or installed which are not in compliance with approved shop drawings are subject to immediate removal from the project at contractor's expense.

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- G. Color Chart: Manufacturer's standard range of colors for prefinished metals, including available gauges.
 - H. Provide written approval indicating the shop formed metal or premanufactured edge metal/coping meets ES-1 certifications.

1.4 STORAGE

- A. Restrict on-site storage to minimum for work in progress. Protect all stored metal from exposure to weather and physical damage.

1.5 WARRANTIES

- A. Upon completion of the work, furnish from manufacturer a standard twenty (20) year finish warranty.
- B. Finish: Deterioration includes, but is not limited to, the following:
 - 1. Color fading more than 5 Hunter Units when tested according to ASTM D 2244.
 - 2. Chalking in excess of a No. 8 Rating when tested according to ASTM D 4214.
 - 3. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

PART 2 - PRODUCTS

2.1 SHEET METAL MATERIALS

- A. Aluminum-Zinc (Galvalume) Alloy-Coated Steel Sheet: ASTM A 792/A792M, Class AZ50 coating designation, Grade 40 (Class AZM150 coating designation, Grade 275); structural quality.
- B. Stainless Steel: ASTM A 167, chromium-nickel steel sheet, AISI Type 304.
- C. Solder: ASTM B 32 with 50% lead and 50% tin unless otherwise specified herein.
- D. Lead: 4 lb. soft lead.
- E. Exposed Finish: Kynar® 500 based fluoropolymer coating, containing not less than 70% polyvinylidene fluoride resin by weight. Mask metal with protective plastic film.
 - 1. Color: As selected by Owner from manufacturer's full range of colors.

2.2 AUXILIARY MATERIALS

- A. Sealant: ASTM C920, Type S, Grade NS, Class 25, one-part urethane sealant.
- B. Self-Adhering Membrane: H.T. 60 mil meeting ASTM D1970.

2.3 SHEET METAL SCHEDULE

- A. Counterflashing: 24 ga. prefinished galvalume
- B. Coping Caps: 24 ga. prefinished galvalume
- C. Edge Metal: 24 ga. prefinished galvalume
- D. Cleat: 22 ga. Prefinished galvalume
- E. Expansion Joint Covers: 24 ga. Prefinished galvalume

PART 3 - EXECUTION**3.1 INSTALLATION, GENERAL**

- A. Inspect all surfaces to which metal is to be applied. Do not install metal unless surfaces are even, sound, clean, dry and free from defects that might affect the application.
- B. Follow recommendations of Sheet Metal and Air Conditioning Contractors National Association Architectural Sheet Metal Manual (Seventh Edition) for fabricating in-shop and on-site, and for installation, unless otherwise specified herein or on Drawings.
- C. Follow published instructions of the product manufacturer for installation of extruded or proprietary metal products, unless otherwise specified herein or on Drawings.
- D. Use nails, screws, bolts, cleats or other fasteners of the same material or, if approved by Engineer, of material chemically compatible with the contacted metal.
 - 1. Use stainless steel fasteners at all locations in contact with pressure-treated lumber.
- E. Fabricate cleats to be a minimum one gauge heavier than metal to be secured by cleat unless otherwise noted.
 - 1. Secure cleats to substrate with fasteners specifically manufactured for the purpose at spacings of 6 inches, on center. Fasteners are to be manufactured of metal chemically compatible with the contacted metal. Fasteners to be used in wood substrates are to be ring shank. Fasteners are to be located as close to hem of cleat as practical but no more than 2 inches from hem unless specifically indicated otherwise herein or on drawings.
- F. Solder metal, where required, using standard industry techniques in accordance with the requirements of the metal manufacturer and the SMACNA Architectural Sheet Metal Manual for the types of metal to be soldered. Joints shall be thoroughly sweated to ensure full penetration of solder in the joint and to ensure a secure connection. Riveted joints shall be fully soldered to eliminate rivet holes or potential for corrosion.

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- G. Install metal to be water and weathertight with lines, arises and angles sharp and true and with plane surfaces free of waves or buckles. All raw edges of exposed or finish sheet metal shall be hemmed.
 - H. Install shop-formed flashings in 10-foot lengths maximum and with minimum number of pieces in each straight run.
 - I. Do not place dissimilar metals in direct contact or in positions where water sheds across both metals.
 - J. Where aluminum is in contact with masonry or concrete, coat the contacting surface with bituminous paint.
 - K. Miter and seal all inside and outside corners of coping caps. Shop fabricated corner pieces are preferable.
 - L. Shop form all metal shapes, which are to be formed of prefinished metal, with protective plastic film in place. Do not remove plastic film until just prior to (or, if possible, after) installation.
 - M. At all corners, shop form corner pieces of coping caps with 18-inch legs (joints no more than 18 inches from corner).
 - N. Form faces of coping caps and gravel stop with vertical faces of sufficient width to extend a minimum of 1-1/2 inches below wood blocking.
 - O. All edge metal and coping shall comply with ES-1.

3.2 COUNTERFLASHING/RECEIVER INSTALLATION

- A. Install new counterflashings as specified herein. Refer to SMACNA Architectural Sheet Metal Manual Figure 4-6 and Drawings.
- B. Secure counterflashing or receiver to vertical surface with appropriate fasteners spaced 9-inches on center.
 - 1. Secure counterflashing to receiver using compatible gasketed screws spaced at 9 inches on center.
- C. Refer to sheet metal schedule for gauge and metal type.
- D. Install butyl tape behind counterflashing or receiver.
- E. Notch and lap joints and inside corners. Notch and seam outside corners. Do not rivet or otherwise secure joints and corners.
- F. Lap ends of counterflashing 4 inches. Crimp hem of overlapping section around hem of underlapping section.
- G. Fill sealant cove to full depth with permanent, non-shrinking sealant.

3.3 COPING CAP INSTALLATION

- A. Install new coping cap at area divider curbs as specified herein. Refer to SMACNA Architectural Sheet Metal Manual Figure 3-4A.
- B. Refer to sheet metal schedule for gauge and metal type.
- C. Prior to installation of coping cap, apply a strip of self-adhering membrane across the top of the blocking and extending down the outside and inside face approximately the width of the vertical sections of the coping cap. Use strips as long as practical, lapping the ends 6 inches.
- D. Face-fasten flanges to wood blocking using high-domed gasketed fasteners.
- E. Refer to SMACNA Architectural Sheet Metal Manual Figure 2-1, Detail 1 for cleat and coping hem dimensions.
- F. Join sections with drive cleats and caulk with approved sealant. Refer to SMACNA Architectural Sheet Metal Manual Figure 3-1, Detail 2.
- G. At coping cap terminations at higher walls, turn coping cap up vertical 4", seal, and fasten. Provide surface-mounted counterflashing.

3.4 EXPANSION JOINT COVER INSTALLATION

- A. Install new expansion joint covers as specified herein. Refer to SMACNA Architectural Sheet Metal Manual Figure 5-5A.
- B. Refer to sheet metal schedule for gauge and metal type.
- C. At all eaves, walls and vertical surfaces, if new or existing wood blocking and/or cants are continuous, cut blocking and/or cants completely through its thickness. Remove a section the same width as the space between the expansion joint curbs, blocking or cants.
- D. Prior to installation of expansion joint cover, fill joint with fiber glass batt insulation in polyethylene envelope.
- E. Prior to installation of the expansion joint cover, apply over the joint a strip of self-adhering membrane extending across the joint and terminating at the bottom edge of the joint cover flange. Use strips as long as practical, lapping the ends 6 inches and cemented with flashing cement.
- F. Join sections with 1 inch vertical single-lock standing seams and caulk with approved sealant. Refer to SMACNA Architectural Sheet Metal Manual Figure 3-3, Seam 22.

3.5 EDGE METAL INSTALLATION

- A. Install new edge metal as specified herein. Refer to SMACNA Architectural Sheet Metal Manual Figure 2-1 and drawings.

-
- B. Refer to sheet metal schedule for gauge and metal type.
 - C. Fabricate edge metal with flange width no wider than the width of the blocking less $\frac{1}{2}$ inch and not less than 4 inches.
 - 1. At draining edges, fabricate lip to be $\frac{1}{2}$ -inch high above flange.
 - 2. At non-draining edges, fabricate lip to be $\frac{3}{4}$ -inch high above flange.
 - D. Apply a strip of self-adhering membrane across the top of the blocking over roof membrane and extending down the outside face approximately the width of the vertical section of the edge metal. Use strips as long as practical, lapping the ends 6 inches.
 - E. Engage formed drip at lower edge of face with continuous cleat. Refer to drawings and SMACNA Architectural Sheet Metal Manual Figure 2-1, Detail 1.
 - F. Leave a $\frac{1}{4}$ inch opening between sections. Center the cover plate over the opening, nail with two nails through opening between sections. Refer to SMACNA Architectural Sheet Metal Manual Figure 2-5A.
 - G. Nail through flange near center. Space nails 3 inches on center in a staggered pattern. Refer to SMACNA Architectural Sheet Metal Manual Figure 2-1.
 - H. Where fascia extensions are installed, stagger fascia extension joints midway between joints of edge metal. Provide stiffening ribs where shown on drawings.

3.6 BASE FLASHING CLOSURE INSTALLATION

- A. Install new base flashing closures where base flashings abruptly end as specified herein.
- B. Refer to sheet metal schedule for gauge and metal type.
- C. Completely seal all joints to be watertight.
- D. Install closures over roof membrane and under base flashings.
- E. Extend closures up under counterflashings, where present or specified.
- F. Install closures to completely seal ends of base flashings, membrane and cants as well as end joints of edge metal or drip edge, if present.

3.7 MISCELLANEOUS FLANGED FLASHING INSTALLATION

- A. Set flange on top of roofing membrane in solid bed of mastic.
- B. Install bonnet flashing extending below and beyond edges of flashing riser and secure mechanically to roof penetration so that connection is watertight. Securement by sealant is not acceptable.

PROJECT NUMBER FH226274

EAST MECKLENBURG HIGH SCHOOL
PARTIAL ROOF REPLACEMENT PROJECT
CHARLOTTE-MECKLENBURG SCHOOLS

END OF SECTION 076200

PROJECT NUMBER FH226274

**EAST MECKLENBURG HIGH SCHOOL
PARTIAL ROOF REPLACEMENT PROJECT
CHARLOTTE-MECKLENBURG SCHOOLS**

APPENDIX: FORMS

APPENDIX

BID FORM

Bid of _____
(Name of Contractor)

Project: East Mecklenburg High School
Charlotte-Mecklenburg Schools
6800 Monroe Road
Charlotte, North Carolina 28212

Bids Due: _____

To: Charlotte-Mecklenburg Schools
3301 Stafford Drive
Charlotte, North Carolina 28208

The undersigned having carefully examined the Project Manual and Project Drawings entitled "Specifications for East Mecklenburg High School, Partial Roof Replacement Project, Charlotte-Mecklenburg Schools, Charlotte, North Carolina and:

Addendum No. _____ dated _____
Addendum No. _____ dated _____
Addendum No. _____ dated _____

and being licensed in the State of North Carolina as a Contractor to do the specified work and having not less than four (4) years contracting experience in the type of work involved in this type of project and having carefully examined the project site and being familiar with all conditions affecting the construction of the project proposes to furnish all services, labor, materials and operations required in accordance with the Project Manual and Project Drawings and all Addenda for the lump sum of:

BASE BID: ALL WORK, LABOR, AND MATERIALS OUTLINED IN SCOPE OF WORK

_____ Dollars (\$_____).

This sum is hereinafter called Base Bid.

UNIT PRICES

The undersigned proposed the following unit prices for additions or deletions to the Contract/Agreement. Unit prices shall include all costs including charges for materials, labor, equipment, fees, field and office operations overhead, taxes, insurance and profit. The Contract/Agreement will be altered in each case as follows:

	<u>ITEM</u>	<u>UNIT</u>	<u>UNIT PRICE</u> (ADD/DEDUCT)
1.	Repair damaged light weight insulating concrete.	Per sq.ft.	\$ _____
2.	Wood blocking replacement.	Per bd. ft.	\$ _____

SUBCONTRACTORS

FIRM	TRADE
_____	_____
_____	_____
_____	_____
_____	_____

BID HOLDING TIME AND ACCEPTANCE

The undersigned hereby agrees that this bid may not be revoked or withdrawn after the time set for the opening of bids but shall remain open for acceptance for a period of sixty (60) days following the bid date.

SCHEDULE OF COMPLETION

Construction shall start on the date outlined within the Notice to Proceed (anticipated on or around _____, although subject to change) and substantial completion shall be reached on _____.

BID BOND

The undersigned encloses bid security in the amount of:

_____ Dollars (\$_____)

being not less than five (5) percent of the TOTAL BID and payable to the Owner. The undersigned agrees the bid security is to become the property of the Owner as it is the proper measure of liquidated damages the Owner will sustain because of delay and additional expense caused by the failure of the undersigned to:

Within seven (7) days of notice of acceptance of bid to sign the AGREEMENT.

Within seven (7) days of the date of the signing of the AGREEMENT furnish the PERFORMANCE AND MATERIAL PAYMENT BONDS and Contractor's CERTIFICATE OF INSURANCE.

Begin work within the period of time stipulated under SCHEDULE OF COMPLETION above.

THE UNDERSIGNED ACKNOWLEDGES IT IS A:

- | | |
|--|--|
| <input type="checkbox"/> SOLE PROPRIETOR | <input type="checkbox"/> JOINT VENTURE |
| <input type="checkbox"/> PARTNERSHIP | <input type="checkbox"/> CORPORATION |

SIGNED BY:

NAME _____ SEAL

ADDRESS _____

BY _____
SIGNATURE

_____ TITLE

(IF A CORPORATION)
 ()
 ()
 ()
 ()
 ()
 ()
 STATE OF INCORPORATION

CONTRACTOR'S LICENSE NO. _____

Enclosure: Bid Security
M/W/SBE Forms

**DOCUMENT 00 43 13
BID SECURITY FORM**

Date of Execution of this bond _____

Name and Address of Principle (Bidder) _____

Name and Address of Surety _____

Name and Address of Contracting Body THE CHARLOTTE-MECKLENBURG COUNTY BOARD OF EDUCATION
a body corporate of the State of North Carolina,
PO Box 30035, Charlotte, North Carolina, 28230-0035

Amount of Bond Bid Amount and Proposal Dated: _____
_____ for _____

KNOW ALL MEN BY THESE PRESENTS, that we the PRINCIPLE above named and SURETY above named who is duly licensed to act as SURETY in the State of North Carolina, are held and firmly bound unto THE MECKLENBURG COUNTY BOARD OF EDUCATION, a body corporate of the State of North Carolina, as Obligee, in the penal sum of five percent (5%) of the amount bid in the bid and proposal described in lawful money of the United States of America, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such, that if the PRINCIPLE shall be awarded the contract for which the bid and proposal above described is submitted and shall execute the contract, give bond for the faithful performance of the contract, and give bond for the payment of all persons supplying labor and materials in the prosecution of the work provided for in said contract, within ten (10) days after the award of the same to the PRINCIPLE above named, then this obligation shall be null and void; but if the PRINCIPLE above named fails to so execute such contract and give performance bond and payment bond as required by Section 129 of Chapter 143 of the General Statutes of North Carolina, as amended, the Article 3 of Chapter 44-A of the General Statutes of North Carolina, as amended, the Surety shall upon demand, forthwith pay the Obligee the amount of this bond set forth above.

IN WITNESS WHEREOF, the Principle above named and the Surety above named have executed this instrument under their several seals on the date set forth above.

WITNESS:

Principle (Name of individual, and trade Name, partnership, corporation, or joint venture)

(Proprietorship or Partnership)

BY _____(Seal)

TITLE _____
(Owner, Partner, Office held in corporation, joint venture)

(Corporate Seal)

ATTEST

BY _____
(Corporation)

TITLE _____
(Corporation Secretary or Assistant Secretary Only)

Surety (Name of Surety Company)

BY _____

TITLE Attorney in Fact

(Corporate Seal of Surety)

WITNESS:

(Address of Attorney in Fact)

COUNTERSIGNED:

N.C. Licensed Resident Agent

CHARLOTTE-MECKLENBURG SCHOOLS MINORITY, WOMEN, AND SMALL BUSINESS ENTERPRISE PROGRAM

Informal Construction Guidelines for M/W/SBE Participation

In accordance with G.S. 143-64.31, it shall be the policy of the Charlotte-Mecklenburg Board of Education to promote full and equal access to business opportunities with Charlotte-Mecklenburg Schools. Minority-owned, women-owned, and small business enterprises (collectively “M/W/SBE”) as well as other responsible vendors shall have a fair and reasonable opportunity to participate in CMS business opportunities.

“Minority” as used in this policy means African American (all persons having origins in any of the African racial groups); Hispanic/Latino American (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin); Asian American (all subcontinent, or the Pacific Islands); and Native American (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

“Woman” as used in this policy means a non-minority woman who has 51% ownership, interest, holds the professional or contractor license necessary for operation as well as management, control, and have technical expertise directly related to the primary product or service of the business.

“Small” as used in this policy means a business enterprise owned, operated, and controlled by one (1) or more eligible owners who have 51% ownership, interest, holds the professional or contractor license necessary for operation as well as management, control, and have technical expertise directly related to the primary product or service of the business, and is 25% or less of the applicable size standards established by the Small Business Administration.

“Socially and Economically Disadvantaged” as used in this policy means a minority, woman, or small business enterprise owned, operated, and controlled by one (1) or more eligible owners who have 51% ownership, interest, holds the professional or contractor license necessary for operation as well as management, control, and have technical expertise directly related to the primary product or service of the business, and is 25% or less of the applicable size standards established by the Small Business Administration.

Bidders responding to this solicitation shall comply with the M/W/SBE Program by making Good Faith Efforts to utilize the following aspirational goals for M/W/SBE participation under this contract for construction services:

Category	MBE Goal	WBE Goal	SBE	Total M/W/SBE Goal
Construction	10%	6%	5%	21%
Architecture & Engineering	4%	7%	5%	16%
Professional Services	9%	9%	5%	23%
Other Services (other than Architecture & Engineering and other Professional Services)	5%	4%	5%	14%
Goods	3%	3%	5%	11%

The Bidder shall provide, with the bid the following documentation:

- Minority, Women, and Small Business Enterprise Identification Form** (including suppliers)
- Affidavit A** (if subcontracting)

OR

- Minority, Women, and Small Business Enterprise Identification Form**
- Affidavit B** (if self-performing all work with own workforce **AND** will not purchase any materials or supplies in the performance of the contract . Upon request, provide sufficient information for Charlotte-Mecklenburg Schools to determine that the Bidder does not customarily subcontract work on this type of project)

Within 72 hours after notification of being the apparent low bidder, the low bidder who is subcontracting anything must provide the following information:

- Affidavit C** (if aspirational goals are met or exceed established goal of M/W/SBE participation)
- Appendix I** (Signed by the M/W/SBE subcontractors, may come in after 72-hr deadline)

OR

- Affidavit D** and all documentation as requested on the form (if aspirational goals are not met or exceed established goal of M/WBE participation)
- Appendix I** (Signed by the M/WBE subcontractors, may come in after 72-hr deadline)

****With each pay request the prime contractors will submit Appendix IV listing payments made to all subcontractors.**

Compliance Documentation

All written statements, affidavits or intentions made by the Bidder shall become a part of the agreement between the Contractor and Charlotte-Mecklenburg Schools for performance on this contract. Failure to comply with any of these statements, affidavits or intentions or with the M/W/SBE Program Guidelines shall constitute a breach of contract. A finding by Charlotte-Mecklenburg Schools that any information submitted either prior to award of the contract or during the performance of the contract is inaccurate, false, or incomplete, shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of Charlotte-Mecklenburg Schools whether to terminate the contract for breach.

In determining whether a contractor has made Good Faith Efforts, Charlotte-Mecklenburg Schools will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, intensity, and results of these efforts.

Good Faith Effort Documentation – The bidder’s documentation to meet the goals set forth in these provisions shall include, but not limited to, the following evidence:

1. Copies of solicitations for quotes to at least three (3) M/W/SBE firms for each subcontract to be let under this contract. Each solicitation shall contain a specific description of the work to be subcontracted, location where the bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
2. Copies of quotes or responses received from each firm responding to the solicitation.

3. A telephone log of follow-up calls to each firm sent a solicitation.
4. For subcontracts where an M/W/SBE firm is not considered to be the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
5. Documentation of any contacts, correspondence or conversation with M/W/SBE firms made in an attempt to meet the aspirational goals.
6. The successful bidder shall maintain records relating to all commitments for a period of at least one year following acceptance of final payment.

Note: Additional Good Faith Efforts are identified in Affidavit A.

After review of the Bidder's Good Faith Efforts, the Bidder may request and be granted a Waiver of the M/W/SBE aspirational goals that have not been met for that particular project. A Waiver may be granted upon review of the Bidder's documentation and determination that, in fact, a Good Faith Effort has been put forth. The Contractor's M/W/SBE Utilization Commitment shall be incorporated into the contract.

Charlotte-Mecklenburg Schools is authorized to establish specifications requiring bidders to subcontract a certain designated percentage of the construction and repair work amount, provided that nothing contained in these requirements shall be construed to require that the award of subcontracts be made to subcontractors who do not submit the lowest responsive bid.

Dispute Resolution Procedures

Under G.S. 143-128, Senate Bill 914 states that a public entity shall use the dispute resolution process adopted by the State Building Commission pursuant to G.S. 143-135.26(11), or shall adopt another dispute resolution process, which shall include mediation, to be used an alternative to the dispute resolution process adopted by the State Building Commission. This dispute resolution process shall be available to all the parties involved in the public entity's construction project including the public entity, the architect, the construction manager, the contractor, and the first-tier and lower-tier subcontractors and shall be available for any issues arising out of the contract or construction process.

The public entity may set a reasonable threshold, not to exceed fifteen thousand dollars (\$15,000), concerning the amount in controversy that must be at issue before a party may require other parties to participate in the dispute resolution process. The public entity may require that the cost of the process be divided between the parties to the dispute with at least one-third of the cost to be paid by the public entity, if the public entity is a party to the dispute. The public entity may require in its contract that a party participate in mediation concerning a dispute as a precondition to initiating litigation concerning the dispute.

NOTE: Charlotte-Mecklenburg Schools reserves the right to waive any irregularities in M/W/SBE documentation if they can be resolved prior to award of the contract, and Charlotte-Mecklenburg Schools finds it to be in its best interest to do so and award the contract.

Charlotte- Mecklenburg Schools M/W/SBE Documentation Overview

Form	Submission Requirements	Required Form
<p>Subcontractor / Supplier Identification Form</p> <p>Lists the total dollar amount of such participation by MBEs, WBEs, and SBE subcontractors and suppliers the Bidder will use on the project.</p>	Due with bid/proposal	Minority, Women, and Small Business Enterprise Identification Form
<p>Listing of Good Faith Efforts (GFE)</p> <p>Indicates the actions you undertook to recruit and solicit minority vendors, subcontractors, vendors, or suppliers for this project.</p>	Due with bid/proposal (if subcontracting)	Affidavit A
<p>Intent to Perform Contract with Own Workforce</p> <p>Indicates that the Bidder does not customarily subcontract elements of this type project, normally performs all elements of work on this project with his/her own current work force AND will not purchase any materials or supplies in the performance of the contract.</p>	Due with bid/proposal (self-performing)	Affidavit B
<p>Portion of Work to be Performed by M/W/SBE Firms</p> <p>Identifies minority participation that is equal to or greater than the M/W/SBE total goal for construction 21%, Other Services 14%, and/or Goods 11% of the bidders total contract price (See form for additional information). Appendix I is signed by the M/W/SBE.</p>	<p>Within three (3) business days after notification of being the apparent low bidder</p> <p>Appendix I is submitted upon substantial completion of the project.</p>	Affidavit C and Appendix I
<p>Documentation of Good Faith Efforts (GFE)</p> <p>Indicates GFEs of bidders who <u>do not</u> achieve the total M/W/SBE goal for construction 21%, Other Services 14%, and/or Goods 11% participation by M/W/SBEs.</p> <p>Documentation provided should correspond with the items checked on Affidavit A. Appendix I is signed by the M/W/SBE firms.</p>	<p>Within three (3) business days after notification of being the apparent low bidder</p> <p>Appendix I is submitted upon substantial completion of the project.</p>	Affidavit D and Appendix I
<p>Professional Services</p> <p>Indicates the minimum percent of the total dollar amount of the contract with M/W/SBEs. Appendix I is signed by the M/W/SBE firms.</p>	Within three (3) business days after receiving Letter of Commitment	Appendix I, II and/or III
<p>Documentation for All Contract Payments</p> <p>Contractor shall provide with each pay request to CMS all payments to contractors, subcontractors, supplies and service providers.</p>	Must submit with each pay request and final payment	Appendix IV

Attach AFFIDAVIT A or AFFIDAVIT B to the Bid

State of North Carolina AFFIDAVIT A – Listing of the Good Faith Effort

County of _____

Affidavit of _____
(Name of Bidder)

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

Bidder must earn at least 50 points from the Good Faith Efforts list for their bid to be considered responsive.

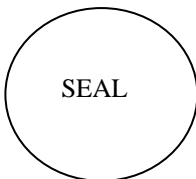
- 1 – (10 Points)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- 2 – (10 Points)** 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 Points)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- 4 – (10 Points)** 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 Points)** Attended pre-bid meetings scheduled by the public owner.
- 6 – (20 Points)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- 7 – (15 Points)** 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 Points)** 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 Points)** 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 Points)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

In accordance with GS143-128.2(d) and Board of Education Policy the undersigned will enter into a formal agreement with the firms listed in the Identification of Minority, Women, and Small Business Participation schedule conditional upon execution of a contract with the Owner. 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, Women, and Small Business Enterprise commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____ County _____

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

Notary Public _____

My commission expires _____

Attach AFFIDAVIT A or AFFIDAVIT B to the Bid

DO NOT USE AFFIDAVIT 'B' UNLESS YOU ARE ONLY PROVIDING LABOR AND NOT PURCHASING ANY MATERIALS OR SUPPLIES

State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.

County of _____

Affidavit of _____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____ contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform **all elements of the work** on this project with his/her own current work forces; **AND** the bidder will not purchase any materials or supplies in the performance of the contract

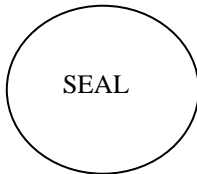
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

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 M/W/SBE Firms

County of _____

***** (NOTE: THIS FORM IS TO BE SUBMITTED ONLY BY THE APPARENT LOWEST RESPONSIVE BIDDER) *****

If the portion of the work to be executed by M/WBE firms as defined in GS143-128.2(g) and Board of Education M/W/SBE Policy is equal to or greater than the M/W/SBE aspirational goal of MBE 10%, WBE 6%, and SBE 5% in **Construction**, and/or MBE 5%, WBE 4%, and SBE 5% in **Other Services** and/or MBE 3%, WBE 3%, and SBE 5% in **Goods** participation 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 the apparent low bidder.

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

(Project Name)

Project ID# _____ Amount of Bid \$ _____

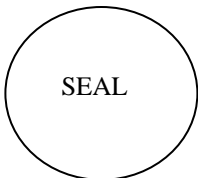
I will expend a minimum of _____% of the total dollar amount of the contract with minority, women, or small business enterprises. M/W/SBEs will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms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

Name and Address	*M/W/SBE Category	Work description	Dollar Value

*M/W/SBE categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) Native American Indian (**N**), Female (**F**) Socially and Economically Disadvantaged (**D**), Small (**S**)

In accordance with GS143-128.2(d) and Board of Education Policy the undersigned will enter into a formal agreement with the 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 contract. The undersigned hereby certifies that he or she has read the terms of the Minority, Women, and Small Business Enterprise 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 _____

If the aspirational goal of MBE 10%, WBE 6%, and SBE 5% in **Construction**, and/or MBE 5%, WBE 4%, and SBE 5% in **Other Services** and/or MBE 3%, WBE 3%, and SBE 5% in **Goods** participation by M/W/SBE businesses **is not** achieved, the apparent lowest responsible, responsive bidder shall provide the following documentation to the Owner of his good faith efforts **and** the M/W/SBE firms that **will** be used on the project:

(Name of Bidder)

Affidavit of: _____

I do certify the attached documentation as true and accurate representation of my good faith efforts.

I will expend a minimum of _____% of the total dollar amount of the contract with minority, women, or small business enterprises. M/W/SBEs 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 Address	*M/W/SBE Category	Work description	Dollar Value

*M/W/SBE categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**), Small (**S**)

Documentation of the Bidder's good faith efforts to meet the goals set forth in these provisions. Examples of documentation include, but are not limited to, the following evidence:

- A. Copies of solicitations for quotes to at least three (3) M/W/SBE firms from the source list provided by the State for each subcontract to be let under this contract. 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. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- G. Letter detailing reasons for rejection of minority business due to lack of qualification.
- H. 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.

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 I
LETTER OF INTENT TO
PERFORM AS A
SUBCONTRACTOR OR SUBCONSULTANT
(PROVIDE MATERIALS OR/& SERVICES)

PROJECT: _____
 (Project Name)

TO: _____
 (Name of Prime Bidder/Architect)

The undersigned intends to perform work in connection with the above project as

_____ Minority Business Enterprise _____ Women's Business Enterprise
 _____ Small Business Enterprise

The M/W/SBE status of the undersigned is/is not certified by the City of Charlotte or the Carolinas Minority Suppliers Development Council or other governmental entities. Our M/W/SBE certification number is _____.

The undersigned is prepared to perform the following described work or provide materials or services in connection with the above project (specify in detail particular work items, materials or services to be performed or provided) at the following price: _____.

You have projected the following commencement date for such work, and the undersigned is projecting completion of such work as follows:

Items	Projected Commencement Date	Projected Completion Date

Subcontracting at any tier must be reported and is subject to all M/W/SBE compliance requirements. This form shall be used for M/W/SBE subcontracting at any level.

Date: _____

_____ (Name & Phone No. of M/W/SBE Company)
 _____ (Name & Title of Authorized Office)
 _____ (Signature)

THE PRIME CONTRACTOR OR ARCHITECT MUST GET THIS FORM COMPLETED BY THE SUBCONTRACTORS/SUPPLIERS

APPENDIX IV

DOCUMENTATION FOR ALL PAYMENTS TO CONTRACTORS, SUBCONTRACTORS, SUPPLIERS, AND SERVICE PROVIDERS

Prime Contractor/Architect: _____

Address & Phone: _____

Project Name: _____

Pay Application #: _____ Period: _____

Current Requested Payment Amount _____

The following is a list of payments to be made to all contractors/suppliers & other providers on this project for the above-mentioned period.

Firm Name and Address	*M/W/SBE Category	Amount to be Paid form this pay Request	Total Payments to date	Total Amount Committed
Totals				

*M/W/SBE categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) Native American Indian (**N**), Female (**F**), Small (**S**), or Socially and Economically Disadvantaged (**D**)

Date: _____ Approved/Certified By: _____

Name

Title

Signature

****THIS DOCUMENT MUST BE SUBMITTED WITH EACH PAY REQUEST & FINAL PAYMENT****

**APPENDIX V
WAIVER REQUEST
FOR GOOD FAITH EFFORTS**

PROJECT: _____
COMPANY: _____
ADDRESS: _____
CITY: _____ **STATE:** _____ **ZIP:** _____
CONTACT PERSON: _____ **PHONE NO:** _____
TITLE: _____

The said company request a Full () or Partial () waiver for the M/W/SBE aspirational goals for this particular project for the following reasons:

Signature: _____ Date: _____

CMS USE ONLY

Good Faith Efforts Verified: _____

Request of Waiver Granted: **YES** (____) **NO** (____)

Comments: _____

M/WBE Administrator: _____ **Date:** _____

STATE OF NORTH CAROLINA

COUNTY OF MECKLENBURG

AFFIDAVIT of COMPLIANCE
with N.C. E-Verify Statutes

I, _____ (hereinafter the "Affiant"), duly authorized by and on behalf of _____ (hereinafter the "Employer") after being first duly sworn hereby swears or affirms as follows:

1. I am the _____ (President, Manager, CEO, etc.) of the Employer and possess the full authority to speak and act on behalf of the Employer identified above.
2. Employer desires to enter into a contract (or has contracted) with the Charlotte-Mecklenburg Board of Education ("CMBE"). Employer acknowledges and understands that by law the CMBE is prohibited from entering into contracts with contractors or subcontractors that do not comply with the requirement to use E-Verify.
3. Employer understands that "E-Verify" means the federal E-Verify program operated by the United States Dept. of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law.

_____ Employer employs 25 or more employees in the State of North Carolina, and is in compliance with the provisions of N.C. Gen. Stat. §64-26. Employer has verified the work authorization of its employees through E-Verify and shall retain the records of verification while the employee is employed and for a period of at least one year thereafter.

_____ Employer employs fewer than 25 Employees and is therefore not subject to the provisions of N.C. Gen. Stat. §64-26.

4. All subcontractors engaged by or to be engaged by Employer have or will have likewise complied with the provisions of N.C. Gen. Stat. §64-26. Employer acknowledges that it has an obligation to verify and attests that it has taken every reasonable step to ensure all subcontractors it employs as part of any contract with the Charlotte-Mecklenburg Board of Education are in compliance with the requirement to E-Verify the employment status of the employees of the subcontractor.
5. Employer shall keep Charlotte-Mecklenburg Board of Education informed of any change in its status pursuant to Article 2 of Chapter 64 of the North Carolina General Statutes.

This the _____ day of _____, 20____

Affiant-Sign here please

STATE OF NORTH CAROLINA

COUNTY OF _____

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

[SEAL]

Notary Public

My commission expires: _____

Contract #:
Lawson Requisition #:

**CONTRACT FOR SERVICES
(SMALL CONSTRUCTION/REPAIR)**

This Contract for Services ("Contract") is made and entered into **[Date]** between **The Charlotte-Mecklenburg Board of Education**, located in Charlotte, North Carolina ("CMBE") and **[Contractor Name]** ("Contractor", also referenced as "Seller" in the Standard Terms and Conditions).

For and in consideration of the mutual promises set forth in this Contract, the parties do mutually agree as follows:

1. Obligations of Contractor.

The Contractor agrees to provide the labor, services, materials and equipment (the "Work" or the "Services") needed to complete that certain project known as **[Project Name]** improvements (the "Project") in accordance with the Scope of Work document attached hereto and incorporated herein by reference as Exhibit 1. **[This contract incorporates by reference the construction design drawings, plans and specifications, described as follows, which will govern the Work to be provided by the Contractor: [Reference Plans, if any]]**

The Contractor will supervise and direct the Work and shall furnish, provide, and pay for all labor, materials, equipment, machinery, utilities, and services reasonably necessary for the execution and completion of the Work.

The Contractor agrees to fully complete the Work by **[Date of Completion]** (the "Date of Completion").

The Contractor agrees to coordinate its Work with the work of any other separate contractors or with the work of the CMBE's own forces to avoid delaying or interfering with their work. The Contractor further agrees to inform the CMBE on a regular basis or at the CMBE's request of the progress of the Work.

Unless otherwise provided, the Contractor shall secure and pay for all permits, licenses, or inspections necessary for the proper execution and completion of the Work; shall comply with all laws, ordinances, or regulations bearing on the performance of the Work; shall enforce good order and discipline among his employees and subcontractors on the Project; and shall keep the Project reasonably free from waste materials or rubbish resulting from the Contractor's operations.

Contractor certifies that it currently has and agrees to purchase and maintain during its performance under this Contract insurance coverage as required by Section 16 of the Standard Terms and Conditions.

[Contractor also agreed to provide a Performance Bond and Labor and Material Payment Bond hereto attached for its faithful performance, in form and substance reasonably satisfactory to CMBE.]

The Contractor warrants that the Contractor has visited the location of the Project and is familiar with all field conditions bearing upon the Contractor's performance of the Work; that the materials and equipment furnished under the Contract are of good quality and new (unless otherwise permitted); that the Work meets or exceeds the standards ordinarily observed in the

industry; and that the Work conforms to the requirements of the Contract and to all applicable codes, ordinances, laws, or regulations. The Contractor further warrants and promises that the Work shall be free from defects and nonconformities in materials and workmanship for a period of one year from the later of the Date of Completion or such date as the Contractor actually completes all the Work. During such period the Contractor will remedy at Contractor's expense nonconformities or defects in the Work within a reasonable time after receiving notice thereof from CMBE.

In addition to the indemnification obligations contained in the attached terms and conditions to this Contract, the Contractor further agrees to defend and indemnify the CMBE from and against all claims, damages, losses, and expenses, including reasonable attorneys' fees, arising out of the Contractor's failure to pay subcontractors or materials suppliers.

The Contractor agrees that the CMBE may order changes in the general scope of the Work, including additions, deletions, and similar revisions. The parties agree to adjust the Contract Price and Date of Completion to reflect the effects of such changes, which adjustments shall be authorized only upon execution of a written change order (a "Change Order"). In case of emergency or extenuating circumstances or if a construction contingency is provided as stated below, approval of changes may be obtained verbally by telephone or field orders approved by the CMBE Project Coordinator and promptly thereafter substantiated in writing as outlined under normal procedures. The amount of any increase or decrease in the Contract Price shall be by mutual acceptance of a total amount supported by sufficient data and information to substantiate the change. Any decrease in Contract Price for a decrease in the Work will be the reasonable costs of the Work deleted, including a reasonable amount for the decrease in the Contractor's overhead.

The Contractor agrees to perform the Work in a timely, complete, and professional manner and in accordance with the terms and conditions of this Contract. Furthermore, the Contractor represents and warrants that (i) it is duly qualified to provide the Work, (ii) it will provide the Work in a manner consistent with the level of care and skill ordinarily exercised by others practicing under similar conditions, (iii) it possesses sufficient experience, personnel, and resources to complete the Work, and (iv) it shall perform the Work in compliance with applicable laws, statutes, ordinances, codes, orders, rules and regulations.

2. Obligations of CMBE. The CMBE hereby agrees to pay to the Contractor for the faithful performance of this Agreement, and the Contractor hereby agrees to perform all of the Work, for the sum not to exceed **[Contract Price]** ("Contract Price") subject to adjustments as provided for in the Contract Documents.
3. Project Coordinator. **[Primary Contact for CMBE]** is designated as the Project Coordinator for CMBE. The Project Coordinator shall be CMBE's representative in connection with the Contractor's performance under this Contract. CMBE has complete discretion in replacing the Project Coordinator with another person of its choosing.
4. Contractor Supervisor. **[Primary Contact for Contractor]** is designated as the Contractor Supervisor for the Contractor. The Contractor Supervisor is fully authorized to act on behalf of the Contractor in connection with this Contract.
5. Terms and Methods of Payment. The CMBE will make payment after invoices are approved on a net 30 day basis. The CMBE will not pay for services or materials in advance without the prior approval of the Finance Officer. Contractor to submit invoices on the following schedule: **[Invoice Schedule]**.
6. Additional Provisions.

- a. Standard Terms and Conditions: Contractor agrees to the Standard Terms and Conditions set forth as Attachment A attached hereto and incorporated herein by reference.
 - b. Iran Divestment Act: Contractor certifies that, as of the date listed below, it is not on the Final Divestment List, as created by the State Treasurer pursuant to N.C.G.S. § 143-6A-4, in violation of the Iran Divestment Act. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 143C-6A-5(b), Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List. The Final Divestment List can be found on the State Treasurer’s website at the address www.nctreasurer.com/Iran and should be updated every 180 days.
 - c. E-Verification: Contractor shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes.
 - d. Federal Uniform Guidance: “Contracts funded with federal grant or loan funds must be procured in a manner that conforms with all applicable Federal laws, policies, and standards, including those under the Uniform Guidance (2 C.F.R. Part 200).” Additional information can be found at: <http://www.cms.k12.nc.us/cmsdepartments/Finance/procurementservices/Pages/default.aspx>.
7. Counterpart Execution. This Agreement may be executed and recorded in two or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument. Each party shall be entitled to rely upon executed copies of this Agreement transmitted by facsimile or electronic “PDF” to the same and full extent as the originals.

**[THE REST OF THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]
[SIGNATURES ON NEXT PAGE]**

IN WITNESS WHEREOF, the CMBE and the Contractor have executed this Contract on the day and year first written above.

[CONTRACTOR NAME]

Contractor Name

Signature of Authorized Representative

Date

Contractor's Federal Identification #

[if Contract is with Organization or Social Security Number if individual]

Originator/Fund Owner Date

This instrument has been preaudited
in the manner required by the School Budget
and Fiscal Control Act.

Executive Director of Building Services Date

Finance Officer

Date

REVIEWED BY:

APPROVED AS TO FORM:

Procurement Lead

School Board Attorney

Date

REVIEWED BY:

Division of Insurance and Risk Management

THE CHARLOTTE-MECKLENBURG BOARD OF EDUCATION

Chief Operating Officer

Date

Superintendent (if applicable)

Date

Board Chairperson (if applicable)

Date

Attachment A**Standard Terms and Conditions**

1. **Acceptance.** Seller's acknowledgment of the terms of this purchase order (this "Order"), without timely express written objection, or Seller's shipment or performance of any part of this Order, constitutes an agreement to (i) all terms and conditions set forth or referenced herein and on the face of this Order, (ii) on any attachments hereto, (iii) any applicable solicitation documentation related to this Order (including without limitation any request for proposals or invitation for bids or Seller's response thereto) that deal with the same subject matter as this Order, and (iv) any other terms and conditions of a written agreement signed by Seller and The Charlotte-Mecklenburg Board of Education ("CMBE") that deals with the same subject matter as this Order (collectively, the "Contract Documents"). The terms and provisions set forth in the Contract Documents shall constitute the entire agreement between Seller and CMBE with respect to the purchase by CMBE of the (i) goods ("Goods") and/or (ii) services provided or work performed ("Services") as described in the Contract Documents. The agreements set forth in the Contract Documents are sometimes referred to herein as the "Contract." In the event of any conflict between any terms and conditions of the Contract Documents, the terms and conditions most favorable to CMBE shall control. This Order constitutes an offer by CMBE and expressly limits acceptance to the terms and conditions stated herein. No additional or supplemental provision or provisions in variance herewith that may appear in Seller's quotation, acknowledgment, invoice, or in any other communication from Seller to CMBE shall be deemed accepted by or binding on CMBE. CMBE hereby expressly rejects all such provisions which supplement, modify or otherwise vary from the terms of the Contract Documents, and such provisions are superseded by the terms and conditions stated in the Contract Documents, unless and until CMBE's authorized representatives expressly assent, in writing, to such provisions. Stenographic and clerical errors and omissions by CMBE are subject to correction.
2. **Quantities.** Shipments must equal exact amounts ordered unless otherwise agreed in writing by CMBE. The award of a term contract neither implies nor guarantees any minimum or maximum purchases.
3. **Prices.** If Seller's price or the regular market price of any of the Goods or Services covered hereunder is lower than the price stated in the Contract Documents on the date of shipment of such Goods or Services, Seller agrees to give CMBE the benefit of such lower price on any such Goods or Services. In no event shall Seller's price be higher than the price last quoted or last charged to CMBE unless otherwise agreed in writing. No charges for transportation, boxing, crating, etc. are allowable unless such charges are included in the Contract Documents.
4. **Invoices.** It is understood and agreed that orders will be shipped at the established Contract prices in effect on dates orders are placed. Invoicing at variance with this provision may subject the Contract to cancellation. Applicable North Carolina sales tax shall be invoiced as a separate item. Invoices shall be sent to CMBE's accounts payable department with a copy to the CMBE Project Coordinator.
5. **Freight on Board.** All shipments of Goods are FOB destination unless otherwise stated in the Contract Documents.
6. **Taxes.** Applicable taxes shall be invoiced as a separate item.
7. **Payment Terms.** Payment terms are Net 30 days after receipt of correct invoice or acceptance of Goods or Services, whichever is later.
8. **Condition and Packaging.** Unless otherwise provided by special terms and conditions or specifications, it is understood and agreed that any item offered or shipped has not been sold or used for any purpose and shall be in first class condition. All containers/packaging shall be suitable for handling, storage or shipment.

9. Delays in Shipment. Time and date of delivery are of the essence, except when delay is due to causes beyond Seller's reasonable control and without Seller's fault or negligence.

10. Risk of Loss. Seller shall have the risk of loss of and damage to the Goods subject to the Contract Documents until such Goods are delivered to the destination and accepted by CMBE or its nominee.

11. Rejection. All Goods and Services shall be received subject to CMBE's inspection. Goods or Services that are defective in workmanship or material or otherwise not in conformity with the requirements of the Contract Documents may be rejected and returned at Seller's expense or may be accepted at a reduced price. CMBE may require Seller to promptly replace or correct any rejected Goods or Services and, if Seller fails to do so, CMBE may contract with a third party to replace such Goods and Services and charge Seller the additional cost.

12. Compliance with All Laws. Seller warrants that all performance hereunder shall be in accordance with all applicable federal, state and local laws, regulations and orders.

13. Registered Sex Offenders. Contractor acknowledges that CMBE Policy ADDA, "Registered Sex Offenders," prohibits anyone registered or required to register as a sex offender from being present on any CMBE Property for any reason, whether before, during or after school hours, or on or off of CMBE Property. Contractor expressly agrees that it, and any of its employees, will comply with this policy and acknowledges that any individuals that violate this policy are subject to removal from CMBE Property by CMS and/or law enforcement officials and may also be subject to criminal prosecution. "CMBE Property" includes all property owned or operated by the Charlotte-Mecklenburg Board of Education, including school campuses and buildings, athletic fields, playgrounds, parking lots, bus stops, vehicles, school buses, activity buses and any other properties owned or controlled by CMS.

If Contractor, any of Contractor's employees, or any of Contractor's subcontractors or employees of subcontractors will have any direct interaction with students, then Contractor or the subcontractor must (i) on an annual basis conduct a check of the N.C. Sex Offender and Public Protection Registration Program, the N.C. Sexually Violent Predator Registration Program and the National Sex Offender Registry for all such employees; and (ii) prohibit individuals listed on such registries from being on CMBE Property.

14. Warranties. Seller warrants that all Goods and Services delivered hereunder will be free from defects in materials and workmanship and will conform strictly to the specifications, drawings, or samples specified or furnished. This warranty shall survive any inspection, delivery, acceptance or payment by CMBE of the Goods and Services and shall run to CMBE and any user of the Goods or Services. This express warranty is in addition to Seller's implied warranties of merchantability and fitness for a particular purpose which shall not be disclaimed. In addition to any other rights available at law or equity, CMBE shall be entitled to all rights and remedies provided by the Uniform Commercial Code, Chapter 25 of the North Carolina General Statutes, for breach of express warranties and implied warranties of merchantability or fitness for a particular purpose, including but not limited to consequential and incidental damages.

15. Indemnification. Seller shall indemnify and hold harmless CMBE, its officers, agents, employees and assigns from and against all claims, losses, costs, damages, expenses, attorneys' fees and liability that any of them may sustain (a) arising out of Seller's failure to comply with any applicable law, ordinance, regulation, or industry standard or (b) arising directly or indirectly out of Seller's performance or lack of performance of the terms and conditions of the Contract. In the event that any Goods or Services sold and delivered or sold and performed under the Contract Documents shall be defective in any respect whatsoever, Seller shall indemnify and save harmless CMBE, its officers, agents, employees and assigns from all loss or the payment of all sums of money by reason of all accidents, injuries or damages to persons or property that shall happen or occur in connection with the use or sale of such Goods or Services and are contributed to by said condition. In the event Seller, its employees, agents, subcontractors and or lower-tier subcontractors enter premises occupied by or under the control of CMBE in the performance of the Contract Documents, Seller agrees that it will indemnify and hold harmless CMBE, its officers, agents, employees and assigns, from any loss, costs, damage, expense or liability by reason of property damage or personal injury of whatsoever nature or kind arising out of, as a result of, or in connection with such entry.

16. Insurance. Unless such insurance requirements are waived or modified by CMBE or the Charlotte-Mecklenburg Department of Insurance and Risk Management ("DIRM"), Seller certifies that it currently has and agrees to purchase and maintain during its performance under the Contract the following insurance from one or more insurance companies acceptable to CMBE and authorized to do business in the State of North Carolina: Automobile - Seller shall maintain bodily injury and property damage liability insurance covering all owned, non-owned and hired automobiles. The policy limits of such insurance shall not be less than \$1,000,000 combined single limit each person/each occurrence. Commercial General Liability - Seller shall maintain commercial general liability insurance that shall protect Seller from claims of bodily injury or property damage which arise from performance under the Contract. This insurance shall include coverage for contractual liability. The policy limits of such insurance shall not be less than \$1,000,000 combined single limit each occurrence/annual aggregate. Worker's Compensation and Employers' Liability Insurance - If applicable to Seller, Seller shall meet the statutory requirements of the State of North Carolina for worker's compensation coverage and employers' liability insurance. Seller shall also provide any other insurance or bonding specifically recommended in writing by the DIRM or required by applicable law. Certificates of such insurance shall be furnished by Seller to CMBE and shall contain the provision that CMBE be given 30 days' written notice of any intent to amend or terminate by either Seller or the insuring company. Failure to furnish insurance certificates or to maintain such insurance shall be a default under the Contract and shall be grounds for immediate termination of the Contract.

17. Termination for Convenience. In addition to all of the other rights which CMBE may have to cancel this Order, CMBE shall have the further right, without assigning any reason therefore, to terminate any work under the Contract Documents, in whole or in part, at any time at its complete discretion by providing 10 days notice in writing from CMBE to Seller. If the Contract is terminated by CMBE in accordance with this paragraph, Seller will be paid in an amount which bears the same ratio to the total compensation as does the Goods or Services actually delivered or performed to the total originally contemplated in the Contract. CMBE will not be liable to Seller for any costs for completed Goods, Goods in process or materials acquired or contracted for, if such costs were incurred prior to the date of this Order.

18. Termination for Default. CMBE may terminate the Contract, in whole or in part, immediately and without prior notice upon breach of the Contract by Seller. In addition to any other remedies available to CMBE law or equity, CMBE may procure upon such terms as CMBE shall deem appropriate, Goods or Services substantially similar to those so terminated, in which case Seller shall be liable to CMBE for any excess costs for such similar supplies or services and any expenses incurred in connection therewith.

19. Contract Funding. It is understood and agreed between Seller and CMBE that CMBE's obligation under the Contract is contingent upon the availability of appropriated funds from which payment for Contract purposes can be made. No legal liability on the part of CMBE for any payment may arise until funds are made available to CMBE's Finance Officer and until Seller receives notice of such availability. Should such funds not be appropriated or allocated, the Contract shall immediately be terminated. CMBE shall not be liable to Seller for damages of any kind (general, special, consequential or exemplary) as a result of such termination.

20. Accounting Procedures. Seller shall comply with any accounting and fiscal management procedures prescribed by CMBE to apply to the Contract and shall assure such fiscal control and accounting procedures as may be necessary for proper disbursement of and accounting for all project funds.

21. Improper Payments. Seller shall assume all risks attendant to any improper expenditure of funds under the Contract. Seller shall refund to CMBE any payment made pursuant to the Contract if it is subsequently determined by audit that such payment was improper under any applicable law, regulation or procedure. Seller shall make such refunds within 30 days after CMBE notifies Seller in writing that a payment has been determined to be improper.

22. Contract Transfer. Seller shall not assign, subcontract or otherwise transfer any interest in the Contract without the prior written approval of CMBE.

23. Contract Personnel. Seller agrees that it has, or will secure at its own expense, all personnel required to perform the services set forth in the Contract.

24. Key Personnel. Seller shall not substitute for key personnel (defined as those individuals identified by name or title in the Contract Documents or in written communication from Seller) assigned to the performance of the Contract without prior written approval from CMBE Project Coordinator (the individual at CMBE responsible for administering the Contract).

25. Contract Modifications. The Contract may be amended only by written amendment duly executed by both CMBE and Seller. However, minor modifications may be made by CMBE Project Coordinator to take advantage of unforeseen opportunities that: (a) do not change the intent of the Contract or the scope of Seller's performance; (b) do not increase Seller's total compensation or method of payment; and (c) either improve the overall quality of the product or service to CMBE without increasing the cost, or reduce the total cost of the product or service without reducing the quantity or quality. All such minor modifications to the Contract must be recorded in writing and signed by both the Project Coordinator and Seller, and placed on file with the Contract. No price adjustments will be made unless the procedure has been included in the Contract and a maximum allowable amount stipulated.

26. Relationship of Parties. Seller is an independent contractor and not an employee of CMBE. The conduct and control of the work will lie solely with Seller. The Contract shall not be construed as establishing a joint venture, partnership or any principal-agent relationship for any purpose between Seller and CMBE. Employees of Seller shall remain subject to the exclusive control and supervision of Seller, which is solely responsible for their compensation.

27. Advertisement. The Contract will not be used in connection with any advertising by Seller without prior written approval by CMBE.

28. Nondiscrimination. During the performance of the Contract, Seller shall not discriminate against or deny the Contract's benefits to any person on the basis of sexual orientation, national origin, race, ethnic background, color, religion, gender, age or disability.

29. Conflict of Interest. Seller represents and warrants that no member of CMBE or any of its employees or officers who may obtain a direct benefit, personal gain or advantage for themselves or a relative or associate as a result of the Contract, subcontract or other agreement related to the Contract is in a position to influence or has attempted to influence the making of the Contract, has been involved in making the Contract, or will be involved in administering the Contract. Seller shall cause this paragraph to be included in all Contracts, subcontracts and other agreements related to the Contract.

30. Gratuities to CMBE. The right of Seller to proceed may be terminated by written notice if CMBE determines that Seller, its agent or another representative offered or gave a gratuity to an official or employee of CMBE in violation of policies of CMBE.

31. Kickbacks to Seller. Seller shall not permit any kickbacks or gratuities to be provided, directly or indirectly, to itself, its employees, subcontractors or subcontractor employees for the purpose of improperly obtaining or rewarding favorable treatment in connection with a CMBE Contract or in connection with a subcontract relating to a CMBE Contract. When Seller has grounds to believe that a violation of this clause may have occurred, Seller shall promptly report to CMBE in writing the possible violation.

32. Monitoring and Evaluation. Seller shall cooperate with CMBE, or with any other person or agency as directed by CMBE, in monitoring, inspecting, auditing or investigating activities related to the Contract. Seller shall permit CMBE to evaluate all activities conducted under the Contract. CMBE has the right at its sole discretion to require that Seller remove any employee of Seller from CMBE Property and from performing services under the Contract following provision of notice to Seller of the reasons for CMBE's dissatisfaction with the services of Seller's employee.

33. Financial Responsibility. Seller is financially solvent and able to perform under the Contract. If requested by CMBE, Seller agrees to provide a copy of its latest audited annual financial statements or other financial statements as deemed acceptable by CMBE's Finance Officer. In the event of any proceedings, voluntary or involuntary, in bankruptcy or insolvency by or against Seller, the inability of Seller to meet its debts as they become due or in the event of the

appointment, with or without Seller's consent, of an assignee for the benefit of creditors or of a receiver, then CMBE shall be entitled, at its sole option, to cancel any unfilled part of the Contract without any liability whatsoever.

34. Governmental Restrictions. In the event any governmental restrictions are imposed which necessitate alteration of the material, quality, workmanship or performance of the items offered prior to their delivery, it shall be the responsibility of the Seller to notify, in writing, the issuing purchasing office at once, indicating the specific regulation which required such alterations. CMBE reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract.

35. Inspection at Seller's Site. CMBE reserves the right to inspect, at a reasonable time, the equipment/item, plant or other facilities of a prospective contractor prior to Contract award, and during the Contract term as necessary for CMBE determination that such equipment/item, plant or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the Contract.

36. Confidential Information. Student Information: If, during the course of Seller's performance of the Contract, Seller should obtain any information pertaining to the students' official records, Seller agrees to keep any such information confidential and to not disclose or permit it to be disclosed, directly or indirectly, to any person or entity. The Contract shall not be construed by either party to constitute a waiver of or to in any manner diminish the provisions for confidentiality of students' records. Additionally, pursuant to N.C.G.S. 115C-401.1, it is unlawful for a person who enters into a contract with a local board of education to sell personally identifiable information that is obtained from a student as a result of that person's performance under the Contract. Employee Personnel Information: If, during the course of Seller's performance of the Contract, Seller should obtain any information pertaining to employees of CMBE's personnel records, Seller agrees to keep any such information confidential and to not disclose or permit it to be disclosed, directly or indirectly, to any person or entity. Other Confidential Information: (a) Seller agrees that it will at all times hold in confidence for CMBE all designs, know-how, techniques, devices, drawings, specifications, patterns, technical information, documents, business plans, item requirements, forecasts and similar data, oral, written or otherwise, conveyed by CMBE to Seller in connection herewith or procured, developed, produced, manufactured or fabricated by Seller in connection herewith or procured, developed, produced, manufactured or fabricated by Seller in connection with Seller's performance hereunder (collectively, "Information"). Seller shall exercise the same degree of care to prevent disclosure of any Information to others as it takes to preserve and safeguard its own proprietary information, but in any event, no less than a reasonable degree of care. Seller shall not, without the prior written consent of CMBE, reproduce any Information; nor disclose Information to any party; nor use any Information for any purpose other than performance for the benefit of Seller hereunder. (b) Any technical knowledge or information of Seller which Seller shall have disclosed or may hereafter disclose to CMBE in connection with the Goods or other performance covered by the Contract shall not, unless otherwise specifically agreed upon in writing by CMBE, be deemed to be confidential or proprietary information and shall be acquired by CMBE free from any restrictions as part of the consideration of the Contract.

37. Intellectual Property. Seller agrees, at its own expense, to indemnify, defend and save CMBE harmless from all liability, loss or expense, including costs of settlement and attorney's fees, resulting from any claim that CMBE's use, possession or sale of the Goods or Services infringes any copyright, patent or trademark or is a misappropriation of any trade secret.

38. No Pre-Judgment or Post-Judgment Interest. In the event of any action by Seller for breach of contract in connection with the Contract, any amount awarded shall not bear interest either before or after any judgment, and Seller specifically waives any claim for interest.

39. Background Checks. At the request of CMBE's Project Coordinator, Seller (if an individual) or any individual employees of Seller shall submit to CMBE criminal background check and drug testing procedures.

40. Mediation. If a dispute arises out of or relates to the Contract, or the breach of the Contract, and if the dispute cannot be settled through negotiation, the parties agree to try in good faith to settle the dispute by mediation administered by the American Arbitration Association under its Commercial Mediation Rules before resorting to litigation.

41. No Third Party Benefits. The Contract shall not be considered by Seller to create any benefits on behalf of any third party. Seller shall include in all contracts, subcontracts or other agreements relating to the Contract an acknowledgment by the contracting parties that the Contract creates no third party benefits.

42. Force Majeure. If CMBE is unable to perform its obligations or to accept the services or goods because of Force Majeure (as hereinafter defined), the time for such performance by CMBE or acceptance of services will be equitably adjusted by allowing additional time for performance or acceptance of services equal to any periods of Force Majeure. "Force Majeure" shall mean any delays caused by acts of God, riot, war, terrorism, inclement weather, labor strikes, material shortages and other causes beyond the reasonable control of CMBE.

43. Ownership of Documents. All documents created pursuant to the Contract shall, unless expressly provided otherwise in writing, be owned by CMBE. Upon the termination or expiration of the Contract, any and all finished or unfinished documents and other materials produced by Seller pursuant to the Contract shall, at the request of CMBE, be turned over to CMBE. Any technical knowledge or information of Seller which Seller shall have disclosed or may hereafter disclose to CMBE shall not, unless otherwise specifically agreed upon in writing by CMBE, be deemed to be confidential or proprietary information and shall be acquired by CMBE free from any restrictions as part of the consideration of the Contract.

44. Strict Compliance. CMBE may at any time insist upon strict compliance with these terms and conditions notwithstanding any previous course of dealing or course of performance between the parties to the contrary.

45. General Provisions. CMBE's remedies as set forth herein are not exclusive. Any delay or omission in exercising any right hereunder, or any waiver of any single breach or default hereunder, shall not be deemed to be a waiver of such right or of any other right, breach, or default. If action be instituted by Seller hereunder, CMBE shall be entitled to recover costs and reasonable attorney's fees. Seller may not assign, pledge, or in any manner encumber Seller's rights under this Order, or delegate the performance of any of its obligations hereunder, without CMBE's prior, express written consent.

46. Contract Situs. All matters, whether sounding in contract or tort relating to the validity, construction, interpretation and enforcement of the Contract, will be determined in Mecklenburg County, North Carolina. North Carolina law will govern the interpretation and construction of the Contract.

Charlotte Mecklenburg Board of Education
Contract Insurance Guidelines
As of 3/31/2011

INSURANCE: Throughout the term of this contract, the contractor and any of his subcontractors will comply with the insurance requirements described in this section. In the event that the contractor fails to maintain required insurance, Charlotte Mecklenburg Board of Education (herein referred to as CMBE) shall be entitled to terminate or suspend the contract immediately.

The contractor agrees to purchase and maintain the following insurance coverage during the life of the contract:

A) Automobile Liability

Insurance with a limit of not less than \$1,000,000 per occurrence combined single limit each occurrence for bodily injury and property damage liability covering all owned, non-owned, and hired vehicles.

B) Commercial General Liability

Insurance with a limit not less than \$1,000,000 per occurrence/aggregate including coverage for bodily injury, property damage, products and completed operations, personal/advertising injury liability and contractual liability.

C) Workers' Compensation

Insurance meeting the statutory requirements of the State of North Carolina and any applicable Federal laws; and, Employers' Liability - \$100,000 per accident limit, \$500,000 disease per policy limit, \$100,000 disease each employee limit.

CMBE shall be named as an additional insured under the commercial general liability insurance for operations or services rendered under this agreement.

The Certificate Holder's Address should read:

The Charlotte Mecklenburg Board of Education P.O. Box 30035, Charlotte, NC 28230-0035

CMBE shall be a designated insured under the auto liability

The contractor shall not commence any work in connection with the resulting contract until it has obtained all of the types of insurance set forth in this section and furnished the project manager with proof of insurance coverage by certificates of insurance accompanying the contract. The contractor shall be responsible for notifying CMBE of any material changes (including renewals) to or cancellation of the insurance coverages required above. Notice to CMBE must be completed in writing within 48 hours of the changes.

The contractor shall not allow any subcontractor to commence work until all such subcontractors have obtained the same insurance coverages as described above.

All insurance policies shall be written by insurers qualified to do business in the State of North Carolina. If any of the coverage conditions are met by a program of self-insurance, the contractor must submit evidence of the right to self-insure as provided by the State of North Carolina.

CMBE shall be exempt from, and in no way liable for any sums of money that may represent a deductible or self-insured retention in any insurance policy. The payment of the deductible/retention shall be the sole responsibility of the contractor and/or subcontractor.

The contractor's insurance shall be primary of any self-funding and/or insurance otherwise carried by CMBE for all loss or damages arising from the contractor's operations under this agreement. The contractor and each of its subcontractors shall and does waive all rights of subrogation against CMBE and each of the Indemnitees.



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and
40 CFR, Part 763, Subpart E, App.E



Customer: Terracon
2701 Westport Rd
Charlotte, NC 28206

Attn: Alex Manzanarez

Lab Order ID: 10015419

Analysis: PLM

Date Received: 02/07/2023

Date Reported: 02/07/2023

Project: East Mecklenburg High School

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
1-1	Base flashing	None Detected	15% Fiber Glass	85% Other	Black, Silver Non-Fibrous Homogeneous
10015419_0001					Crushed, Dissolved
1-2 - A	Base sheet	None Detected	30% Fiber Glass 20% Cellulose	50% Other	Black Fibrous Homogeneous
10015419_0002	felt				Crushed, Dissolved
1-2 - B	Base sheet	None Detected	50% Cellulose	30% Perlite 20% Other	Brown Fibrous Homogeneous
10015419_0005	insulation				Teased
1-3	Roof tar	None Detected	10% Fiber Glass	90% Other	White Non-Fibrous Homogeneous
10015419_0003					Dissolved, Crushed
1-4	Resin paper	None Detected	85% Cellulose	15% Other	Tan, Pink Fibrous Homogeneous
10015419_0004					Teased

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogenous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Katelyn Stewart (5)

Analyst

Approved Signatory



Scientific Analytical Institute
 4604 Dundas Dr. Greensboro, NC 27407
 Phone: 336.292.3888 Fax: 336.292.3313
 www.sailab.com lab@sailab.com

Lab Use Only
 Lab Order ID: 10015419
 Client Code: _____

Company Contact Information	
Company: Terracon	Contact: <i>Alex [Signature]</i>
Address: <i>2701 Westport Rd Chapel Hill NC 27516</i>	Phone <input type="checkbox"/> : 704-509-1777
	Fax <input type="checkbox"/> :
	Email <input checked="" type="checkbox"/> : <i>Alex.Morgan@terracon.com</i>
Billing/Invoice Information	
Company:	90 Min. <input type="checkbox"/> 48 Hours <input type="checkbox"/>
Contact:	3 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>
Address:	6 Hours <input type="checkbox"/> 96 Hours <input type="checkbox"/>
	12 Hours <input type="checkbox"/> 120 Hours <input type="checkbox"/>
	24 Hours <input checked="" type="checkbox"/> 144+ Hours <input type="checkbox"/>

Asbestos Test Types	
PLM EPA 600/R-93/116 (PLM)	<input checked="" type="checkbox"/>
Positive stop	<input type="checkbox"/>
PLM Point Count 400 (PT4)	<input type="checkbox"/>
PLM Point Count 1000 (PTM)	<input type="checkbox"/>
PCM NIOSH 7400-A Rules (PCM)	<input type="checkbox"/>
B Rules (PCB) <input type="checkbox"/> TWA (PTA) <input type="checkbox"/>	
TEM AHERA (AHE)	<input type="checkbox"/>
TEM Level II (LII)	<input type="checkbox"/>
TEM NIOSH 7402 (TNI)	<input type="checkbox"/>
TEM Bulk Qualitative (TBL)	<input type="checkbox"/>
TEM Bulk Chatfield (TBS)	<input type="checkbox"/>
TEM Bulk Quantitative (TBQ)	<input type="checkbox"/>
TEM Wipe ASTM D6480-05	<input type="checkbox"/>
TEM Microvac ASTM D5755-09	<input type="checkbox"/>
TEM Water EPA 100.2 (TW1)	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>

PO Number: FH226304
 Project Name/Number: East Greensboro High School

Sample ID #	Description/Location	Volume/Area	Comments
1-1	BASE FLASHING		
1-2	BASE SHEET		
1-3	ROOF TAB		
1-4	ROOF PAPER		
			Accepted <input checked="" type="checkbox"/>
			Rejected <input type="checkbox"/>

Total # of Samples _____

Relinquished by	Date/Time	Received by	Date/Time
<i>Alex [Signature]</i>	1-30-23	<i>[Signature]</i>	2/7 8:30am