

UNION COUNTY BOARD OF EDUCATION
CONTRACT ROUTING SHEET

Contractor Name: E2 Mechanical LLC
Address: 4933 Brookshire Boulevard
City, State, Zip: Charlotte, NC 28216
Contact Name: Dan Ranson
Telephone Number: 980.365.7615

UCPS Contract Number: 4-97362029

Purpose of Contract (location and brief description): Sun Valley Middle School HVAC Renovation

Submitting Department: Facilities Department

Date Submitted: 03.29.2024

Budget Account Number: _____

Funding Source: CIP

Contract Amount: \$ 303,099.00

Contract Period: 238 consecutive calendar days

UCPS Employee to Contact: Penny Helms/Danny McManus

Phone Number: 704-296-3160

NOTE: Individuals listed below should initial, date, and forward this form after completing their responsibilities relating to this Contract.

	Date Received	Date Processed	Initials
1. Approved by Fund Owner/Acquire Vendor Signature and proper Insurance Certificate with UCBOE NAMED as CERTIFICATE HOLDER.			
A. Insurance Certificate Reviewed/Approved by Risk Management	<u>4/8/2024</u>	<u>11:22 AM EDT</u>	<u>DS SH</u>
2. Approved by Appropriate Representative(s) of UCPS:			
<input checked="" type="checkbox"/> UCPS Project Coordinator	<u>4/1/2024</u>	<u>8:44 PM EDT</u>	<u>DS KB</u>
<input checked="" type="checkbox"/> UCPS Department Head/School Principal	<u>4/2/2024</u>	<u>10:12 AM EDT</u>	<u>DS DM</u>
<input checked="" type="checkbox"/> Asst. Supt. for Administration & Operations	<u>4/2/2024</u>	<u>9:28 AM EDT</u>	<u>DS CM</u>
<input type="checkbox"/> Asst. Supt. for Human Resources	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<input type="checkbox"/> Asst. Supt. for Instructional Programs	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<input type="checkbox"/> Asst. Supt. for Communications	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<input type="checkbox"/> Chief School Performance Officer	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<input type="checkbox"/> Chief Technology Officer	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
FORWARD TO UCPS GENERAL COUNSEL OFFICE			
3. Approved by Legal Counsel	<u>DS SS</u>	<u>DS KB</u>	<u>DS MM</u>
FORWARD TO SUPERINTENDENT/BOARD OF EDUCATION			
4. Approved by Superintendent			
5. Approved by Board of Education	<u>4/8/2024</u>	<u>2:35 PM EDT</u>	<u>DS KH</u>
FORWARD TO FINANCE			
6. Pre-audited by Representative of Finance Officer	<u>4/8/2024</u>	<u>8:19 AM PDT</u>	<u>DS SM</u>
FORWARD TO PURCHASING			
7. Purchase Order Number assigned by Purchasing Director, or designee, and contract distributed			

Contract #:4-97362029

CONTRACT
SUN VALLEY MIDDLE SCHOOL
HVAC RENOVATION

This **Contract** ("Contract") is made and entered into 12th day of March 2024 between **The Union County Board of Education**, with a mailing address of 400 North Church Street, Monroe, North Carolina 28112 ("UCBOE") and E2 Mechanical LLC, located at 4933 Brookshire Boulevard, Charlotte, North Carolina 28216 ("Vendor" or "Contractor" or "Service Provider").

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

1. Obligations of Vendor. The Vendor agrees to provide the services, goods, materials, equipment, and/or software (the "Services" and/or "Goods," as appropriate) to fully, timely and properly complete the Sun Valley Middle School HVAC Renovation project as more particularly described in the Scope of Work document attached hereto and incorporated herein by reference as Exhibit 1.

The UCBOE and Vendor recognize that time is of the essence to this Agreement and that the UCBOE will suffer financial loss if the work is not completed within the times specified herein. Both parties also recognize the delays, difficulties and expense involved in proving, in a legal or arbitration proceeding, the actual loss suffered by the UCBOE if the Work is not completed on time. Accordingly, in lieu of requiring such proof, the UCBOE and Vendor agree that as liquidated damages for delay (but not as penalty) the Vendor shall pay to the UCBOE for each day in excess of the term allowed for Substantial Completion of the Work, the sum of \$500 as liquidated damages. The amount of \$250 per calendar day for failing to meet the Final Completion Date until Final Completion is actually achieved.

The term of this Contract shall be per Exhibit 1.

This Contract does not grant the Vendor the right or the exclusive right to provide specified Services and/or Goods to UCBOE. Similar Services and/or Goods may be obtained from sources other than the Vendor (or not at all) at the discretion of UCBOE.

The Vendor shall begin work immediately upon issuance of a written notice to proceed and be complete within the time identified within Exhibit 1. The Vendor agrees to perform the Services and supply the Goods in a timely, complete, and professional manner and in accordance with the terms and conditions of this Contract. Furthermore, the Vendor represents and warrants that (i) it is duly qualified and, if required by law, licensed to provide the Services and/or Goods; (ii) it will provide the Services and/or Goods in a manner consistent with the level of care and skill ordinarily exercised by contractors providing similar Services and/or Goods under similar conditions; (iii) it possesses sufficient experience, personnel, and resources to provide the Services and/or Goods; (iv) it shall provide the Services and/or Goods in compliance with applicable laws, statutes, ordinances, codes, orders, rules and regulations; and (v) its reports, if any, shall be complete, accurate, and unambiguous.

2. Obligations of UCBOE. UCBOE hereby agrees to pay to the Vendor for the faithful performance of this Contract, and the Vendor hereby agrees to provide all of the Services and/or Goods, for the sum not to exceed \$303,099.00 ("Contract Price") subject to adjustments as provided for in the Contract Documents.

Base Bid (Cooling Tower)	\$ 136,759.00
Alternate 1 (Chiller)	\$ 149,806.00
Alternate 2 (Chiller Pump)	\$ 6,534.00
Allowance Funds	<u>\$ 10,000.00</u>
Total	\$ 303,099.00 (Three Hundred Three Thousand, Ninety-Nine Dollars and Zero Cents)

3. Project Coordinator. **Karl Todd** is designated as the Project Coordinator for UCBOE. The Project Coordinator shall be UCBOE's representative in connection with the Vendor's performance under this Contract. UCBOE has complete discretion in replacing the Project Coordinator with another person of its choosing.
4. Vendor Supervisor. **Dan Ranson** is designated as the Vendor Supervisor for the Vendor. The Vendor Supervisor is fully authorized to act on behalf of the Vendor in connection with this Contract.
5. Terms and Methods of Payment. UCBOE will make payment after invoices are approved on a net 30-day basis. UCBOE will not pay for services or materials in advance without the prior approval of the Finance Officer. 5% Retainage will be held as allowed by NCGS.
6. Standard Terms and Conditions: Vendor agrees to the Standard Terms and Conditions set forth as Attachment A attached hereto and incorporated herein by reference.
7. Counterpart Execution. This Contract 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 Contract transmitted by facsimile or electronic "PDF" to the same and full extent as the originals.

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[SIGNATURES ON NEXT PAGE]

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

E2 Mechanical, LLC
Vendor Name
DocuSigned by:
Joshua Chertoff 4/4/2024 | 1:22 PM PDT
Signature of Authorized Representative Date
30-0021918
Vendor's Federal Identification #
[if Contract is with Organization or Social Security Number if individual]

THE UNION COUNTY BOARD OF EDUCATION
DocuSigned by:
Kathy Heintel 4/8/2024 | 2:35 PM EDT
Authorized Representative Date

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

DocuSigned by:
Shanna McLamb 4/8/2024 | 8:19 AM PDT
Finance Officer Date

DocuSigned by:
Sara Hymel 4/8/2024 | 11:22 AM EDT
Risk Management Date

As to form:

DocuSigned by:
Michele Morris 4/7/2024 | 5:20 AM PDT
UCBOE Attorney Date

Attachment A

Standard Terms and Conditions

I. Standard Terms and Conditions for All Contracts

1. Defined Terms, "Contract" means the agreement between UCBOE and Vendor which consists of the applicable Contract Documents. "Contract Documents" means: (i) any applicable purchase order between Vendor and UCBOE specifically including all terms and conditions set forth or referenced herein and on the face of a Purchase Order, (ii) any attachments hereto, (iii) any applicable solicitation documentation related to hereto (including without limitation any request for proposals or invitation for bids and Vendor's response thereto), and (iv) any other terms and conditions of a written agreement signed by Vendor and UCBOE that deals with the same subject matter. "Goods" means any supplies, materials, products or other tangible personal property provided by Vendor to UCBOE. "Purchase Order" mean any applicable purchase order issued by UCBOE. "Services" means services, specifically including without limitation construction services, design services, professional or consulting services and software as a service, "UCBOE" means the Union County Board of Education. "Vendor" means the party contracting with UCBOE and includes individual and entities that may be referred to in Contract Documents as "vendor", "seller", "service provider", or "contractor".
2. Written Agreement Signed by Both Parties; Acceptance of Purchase Order Terms and Conditions when there is not a Separate Written Agreement Signed by Both Parties. When a Contract is signed by both UCBOE and Vendor then the Purchase Order issued by UCBOE is for administrative convenience and is not part of the Contract Documents. When there is not a separate Contract signed by both UCBOE and Vendor, then Vendor's acknowledgment of the terms of any Purchase Order, without timely objection, or Vendor's shipment or performance of any part of a Purchase Order, constitutes an agreement to all terms and conditions set forth or referenced herein and on the face of the Purchase Order, together with the terms and conditions of any other applicable Contract Documents. The terms and provisions set forth in the Contract Documents shall constitute the entire agreement between Vendor and UCBOE with respect to the purchase by UCBOE of the Services and/or Goods work performed as described in the Contract Documents. In the event of any conflict between any terms and conditions of the Contract Documents, the terms and conditions most favorable to UCBOE shall control. A Purchase Order constitutes an offer by UCBOE and expressly limits acceptance to the terms and conditions stated therein. No additional or supplemental provision or provisions in variance herewith that may appear in Vendor's quotation, acknowledgment, invoice, or in any other communication from Vendor to UCBOE shall be deemed accepted by or binding on UCBOE. UCBOE 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 UCBOE's authorized representatives expressly assent, in writing, to such provisions. Stenographic and clerical errors and omissions by UCBOE are subject to correction.
3. Cancellation of Purchase Order. UCPS may cancel any Purchase Order or portion thereof without liability, if: (a) Vendor fails upon request to give reasonable assurance of timely performance or UCPS otherwise determines that it has reasonable grounds for insecurity regarding Vendor's performance; (b) conforming Goods or Services (including the quantities specified for delivery) are not delivered within the time specified or, if no time is specified, within a commercially reasonable time; (c) Vendor otherwise breaches the Contract and such breach is not corrected within thirty (30) days following written notice of breach; or (d) cancellation is otherwise required or allowed by law.
4. Quantities. Shipments must equal exact amounts ordered unless otherwise agreed in writing by UCBOE. The award of a term contract neither implies nor guarantees any minimum or maximum purchases. Materials received in excess of quantity specified on the purchase order , at UCBOE option's, may be returned at the Vendor's expense.
5. Prices. If Vendor's price or the regular market price of any of the Goods covered hereunder is lower than the price stated in the Contract Documents on the date of shipment of such Goods, Vendor agrees to give UCBOE the benefit of such lower price on any such Goods. In no event shall Vendor's price be higher than the price last quoted or last charged to UCBOE unless otherwise agreed in writing. No charges for transportation, boxing, crating, etc. are allowable unless such charges are included in the Contract Documents.
6. 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 UCBOE's accounts payable department with a copy to UCBOE Project Coordinator.

7. Freight on Board. All shipments of Goods are FOB destination unless otherwise stated in the Contract Documents. Any freight charges prepaid by Vendor are to be itemized on the invoice unless stated otherwise in writing by form of quote, bid, contract. In instances where Goods are shipped against this order by parties other than those specified on the Purchase Order, the third-party shipper must be instructed to list the UCBOE purchase order number on all packages, bills of lading, etc. to insure prompt identification of order.
8. Taxes. Taxes are included in the Contract Price. Applicable taxes shall be invoiced as a separate item for UCBOE's records.
9. Payment Terms. Payment terms are Net 30 days after receipt of correct invoice or acceptance of Goods, whichever is later.
10. 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.
11. Safety Data Sheets. Safety Data Sheets must be provided with shipment of all chemicals."
12. Delays in Shipment. Time and date of delivery are of the essence, except when delay is due to causes beyond Vendor's reasonable control and without Vendor's fault or negligence.
13. Risk of Loss. Vendor 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 UCBOE or its nominee.
14. Rejection. All Goods shall be received subject to UCBOE's inspection. Goods 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 Vendor's expense or may be accepted at a reduced price. UCBOE may require Vendor to promptly replace or correct any rejected Goods Services and, if Vendor fails to do so, UCBOE may contract with a third party to replace such Goods Services and charge Vendor the additional cost.
15. Warranties. Vendor warrants that all Goods 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 UCBOE of the Goods and shall run to UCBOE and any user of the Goods. This express warranty is in addition to Vendor'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, UCBOE 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.
16. Compliance with All Laws. Vendor warrants that all performance hereunder shall be in accordance with all applicable federal, state and local laws, regulations and orders. The right of Vendor to proceed may be terminated immediately by written notice if UCBOE determines that Vendor, its agent or another representative, has violated any provision of law.
17. Use of Federal Funds. If the source of funds for this Contract is federal funds, the following federal provisions apply pursuant to 2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II (as applicable): Equal Employment Opportunity (41 C.F.R. Part 60); Davis-Bacon Act (40 U.S.C. 3141-3148); Copeland "Anti-Kickback" Act (40 U.S.C. 3145); Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708); Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387); Debarment and Suspension (Executive Orders 12549 and 12689); Byrd Anti-Lobbying Amendment (31 U.S.C. 1352); Procurement of Recovered Materials (2 C.F.R. § 200.322); and Record Retention Requirements (2 CFR § 200.324).
18. Registered Sex Offenders; Jessica Lunsford Act. Under North Carolina law, certain sex offenders are prohibited from coming onto school campuses. Vendor agrees to conduct an annual 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 of its employees whose job involves direct interaction with students as part of the job. UCBOE prohibits any personnel listed on such registries from being on any property owned or operated by UCBOE and from having any direct interaction with students. As a term of the Agreement, said checks must be performed by the Vendor and reported to UCBOE's Superintendent or designee, if Vendor's employees will be working directly with students. Under provisions set forth in the Jessica Lunsford Act under North Carolina law, the signature below certifies that neither Vendor nor any employee or agent of Vendor is

listed as a sex offender on the N.C. Sex Offender and Public Protection Registration Program, the N.C. Sexually Violent Predator Registration Program, and/or the National Sex Offender Registry.

19. Nondiscrimination. During the performance of the Contract, Vendor 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.
20. FERPA Electronically Stored Data Compliance: Vendor is expressly prohibited from selling or trading any education records or personally identifiable information acquired under the Agreement. Furthermore, Vendor agrees not to attempt to re-identify students from aggregated data. Further, Vendor will not use any personally identifiable information or education records to advertise or market to students of UCBOE or their parents. Any personally identifiable information and education records held by Vendor pursuant to the Agreement will be made available to UCBOE upon request. Vendor will store and process all data using appropriate administrative, physical, and technical safeguards to secure personally identifiable information and education records from unauthorized access, disclosure, and use. Vendor will conduct periodic risk assessments and remediate any identified security vulnerabilities in a timely manner. Vendor will also have a written incident response plan, to include prompt notification to UCBOE in the event of a security or privacy incident, as well as procedures for responding to a breach of data. Vendor agrees to share its incident response plan upon request. Vendor shall, for all personally identifiable data and education records in its possession and in the possession of any subcontractors, or agents to which it has transferred data as permitted herein, destroy or de-identify such data when such data is no longer needed to perform the Agreement. Vendor hereby agrees to abide by all Board of Education policies and procedures governing the confidentiality of student records and the responsible use of technology and internet safety. If Vendor experiences a security breach concerning any information covered by the Agreement, and such breach is covered by N.C.G.S. §75.61(14), then Vendor will (a) fully comply with Vendor's obligations under the N.C. Identity Theft Protection Act, (b) immediately notify UCBOE with the information listed in N.C.G.S. §75-65(d)(1-4), and (c) fully cooperate with UCBOE in carrying out its obligations under said Identity Theft Protection Act. Vendor will indemnify UCBOE for any breach of confidentiality or failure of its responsibilities to protect confidential information, and for cost of notification of affected persons as a result of its accidental or negligent release of personally identifiable information or education records provided to Vendor pursuant to the Agreement.
21. North Carolina Public Records Law: Vendor acknowledges that UCBOE is subject to the requirements of North Carolina's Public Records Law ("NCPRL"), N.C.G.S. § 132-1, et. seq. The Agreement and any related documents, papers, letters, maps, books, photographs, films, sound recordings, magnetic or other tapes, electronic data-processing records, artifacts, or other documentary material, regardless of physical form or characteristics, made or received by UCBOE in connection with the transaction of the Agreement may be considered a "public record," subject to disclosure under the NCPRL. UCBOE is under no obligation to notify Vendor prior to its compliance of its duties under NCPRL.
22. Conflict of Interest. Vendor represents and warrants that no member of UCBOE 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. Vendor also represents and warrants that, if the Contract is funded by any amount of federal funds, no violation of 2 C.F.R. § 200.318(c) or any other applicable federal conflict of interest law has occurred or will occur. Vendor shall cause this paragraph to be included in all Contracts, subcontracts and other agreements related to the Contract.
23. Gratuities. Vendor represents and warrants that no member of UCBOE or any of its employees has been or will be offered or given a gratuity to an official or employee of UCBOE in violation of applicable law or policy.
24. Kickbacks to Vendor. Vendor 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 UCBOE Contract or in connection with a subcontract relating to a UCBOE Contract. When Vendor has grounds to believe that a violation of this clause may have occurred, Vendor shall promptly report to UCBOE in writing the possible violation.
25. Iran Divestment Act. Vendor 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), Vendor 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.

26. Divestment from Companies that Boycott Israel. The Vendor certifies that it has not been designated by the North Carolina State Treasurer as a company engaged in the boycott of Israel pursuant to N.C.G.S. 147-86.81. It is the responsibility of each vendor or contractor to monitor compliance with this restriction. Contracts valued at less than \$1,000.00 are exempt from this restriction.
27. E-Verification. Vendor shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes
28. Indemnification. To the fullest extent permitted by law, Vendor shall indemnify and hold harmless UCBOE, 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 Vendor's failure to comply with any applicable law, ordinance, regulation, or industry standard or (b) arising directly or indirectly out of Vendor's performance or lack of performance of the terms and conditions of the Contract. In the event that any Services and/or Goods sold and delivered or sold and performed under the Contract Documents shall be defective in any respect whatsoever, Vendor shall indemnify and save harmless UCBOE, 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 Services and/or Goods and are contributed to by said condition. In the event Vendor, its employees, agents, subcontractors and or lower-tier subcontractors enter premises occupied by or under the control of UCBOE in the performance of the Contract Documents, Vendor agrees that it will indemnify and hold harmless UCBOE, 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.
29. Insurance. Unless such insurance requirements are waived or modified by UCBOE or risk management ("DIRM"), Vendor 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 UCBOE and authorized to do business in the State of North Carolina: Automobile - Vendor 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 - Vendor shall maintain commercial general liability insurance that shall protect Vendor 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 Vendor, Vendor shall meet the statutory requirements of the State of North Carolina for worker's compensation coverage and employers' liability insurance. Vendor 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 Vendor to UCBOE and shall contain the provision that UCBOE be given 30 days' written notice of any intent to amend or terminate by either Vendor 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.
30. Termination for Convenience. In addition to all of the other rights which UCBOE may have to cancel this Contract or an applicable Purchase Order, UCBOE shall have the further right, without assigning any reason therefore, to terminate the Contract (or applicable Purchase Order), in whole or in part, at any time at its complete discretion by providing 10 days' notice in writing from UCBOE to Vendor. If the Contract is terminated by UCBOE in accordance with this paragraph, Vendor will be paid in an amount which bears the same ratio to the total compensation as does the Services and/or Goods actually delivered or performed to the total originally contemplated in the Contract. UCBOE will not be liable to Vendor 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 Contract or an applicable Purchase Order.
31. Termination for Default. UCBOE may terminate the Contract, in whole or in part, immediately and without prior notice upon breach of the Contract by Vendor. In addition to any other remedies available to UCBOE law or equity, UCBOE may procure upon such terms as UCBOE shall deem appropriate, Services and/or Goods

- substantially similar to those so terminated, in which case Vendor shall be liable to UCBOE for any excess costs for such similar goods, supplies, or services and any expenses incurred in connection therewith.
32. **Contract Funding.** It is understood and agreed between Vendor and UCBOE that UCBOE'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 UCBOE for any payment may arise until funds are made available to UCBOE's Finance Officer and until Vendor receives notice of such availability. Should such funds not be appropriated or allocated, the Contract shall immediately be terminated. UCBOE shall not be liable to Vendor for damages of any kind (general, special, consequential or exemplary) as a result of such termination.
 33. **Accounting Procedures.** Vendor shall comply with any accounting and fiscal management procedures prescribed by UCBOE 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.
 34. **Improper Payments.** Vendor shall assume all risks attendant to any improper expenditure of funds under the Contract. Vendor shall refund to UCBOE 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. Vendor shall make such refunds within thirty (30) days after UCBOE notifies Vendor in writing that a payment has been determined to be improper.
 35. **Contract Transfer.** Vendor shall not assign, subcontract or otherwise transfer any interest in the Contract without the prior written approval of UCBOE.
 36. **Contract Personnel.** Vendor agrees that it has, or will secure at its own expense, all personnel required to provide the Services and/or Goods set forth in the Contract.
 37. **Key Personnel.** Vendor shall not substitute for key personnel (defined as those individuals identified by name or title in the Contract Documents or in written communication from Vendor) assigned to the performance of the Contract without prior written approval from UCBOE Project Coordinator (the individual at UCBOE responsible for administering the Contract).
 38. **Contract Modifications.** The Contract may be amended only by written amendment duly executed by both UCBOE and Vendor.
 39. **Relationship of Parties.** Vendor is an independent contractor and not an employee of UCBOE. The conduct and control of the work will lie solely with Vendor. The Contract shall not be construed as establishing a joint venture, partnership or any principal-agent relationship for any purpose between Vendor and UCBOE. Employees of Vendor shall remain subject to the exclusive control and supervision of Vendor, which is solely responsible for their compensation.
 40. **Advertisement.** The Contract will not be used in connection with any advertising by Vendor without prior written approval by UCBOE.
 41. **Monitoring and Evaluation.** Vendor shall cooperate with UCBOE, or with any other person or agency as directed by UCBOE, in monitoring, inspecting, auditing or investigating activities related to the Contract. Vendor shall permit UCBOE to evaluate all activities conducted under the Contract. UCBOE has the right at its sole discretion to require that Vendor remove any employee of Vendor from UCBOE Property and from providing Services and/or Goods under the Contract following provision of notice to Vendor of the reasons for UCBOE's dissatisfaction with the Services and/or Goods of Vendor's employee.
 42. **Financial Responsibility.** Vendor is financially solvent and able to perform under the Contract. If requested by UCBOE, Vendor agrees to provide a copy of its latest audited annual financial statements or other financial statements as deemed acceptable by UCBOE's Finance Officer. In the event of any proceedings, voluntary or involuntary, in bankruptcy or insolvency by or against Vendor, the inability of Vendor to meet its debts as they become due or in the event of the appointment, with or without Vendor's consent, of an assignee for the benefit of creditors or of a receiver, then UCBOE shall be entitled, at its sole option, to cancel any unfilled part of the Contract without any liability whatsoever.
 43. **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 Vendor to notify, in writing, the issuing purchasing office at once, indicating the specific regulation which required such alterations. UCBOE reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract.
 44. **Inspection at Vendor's Site.** UCBOE 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 UCBOE 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.

45. **Confidential Information.** All information about UCBOE provided to the Vendor or its officers, employees, agents, representatives and advisors (the "Vendor Representatives"), and all copies or other full or partial reproductions thereof and notes, memoranda or other writings related thereto created by Vendor or any Vendor Representative, regardless of whether provided before or after the date of the Contract and regardless of the manner or medium in which it is furnished, is referred to as "Confidential Information". Confidential Information does not include any information that (a) is or becomes generally available to the public other than as a result of an impermissible disclosure by Vendor, (b) was known by or available on a nonconfidential basis to Vendor before it was disclosed by UCBOE or (c) becomes available to Vendor on a nonconfidential basis from a third party whom Vendor does not know to be bound by a confidentiality agreement with, or have an obligation of secrecy to, UCBOE. Except as and to the extent required by law or order or demand of any governmental or regulatory authority, Vendor and Vendor Representatives will (x) keep all Confidential Information confidential and (y) will only disclose or reveal any Confidential Information to Vendor Representatives who must have the information to fulfill Vendor's obligations under the Contract and who agree to observe the terms of this Section. Vendor and Vendor Representatives will not use the Confidential Information for any purpose other than fulfilling Vendor's obligations under the Contract. By way of example and not limitation, Vendor shall not sell, market, or commercialize Confidential Information, create derivative products or applications based on Confidential Information. If Vendor is requested or required, pursuant to applicable law or regulation or by legal process, to disclose any Confidential Information, Vendor will provide UCBOE with prompt and timely notice of the requests or requirements so that UCBOE can seek an appropriate protective order or other remedy and will not be prejudiced by delay. If UCBOE does not obtain a protective order or other remedy, Vendor will only disclose that portion of the Confidential Information which Vendor's legal counsel determines Vendor is required to disclose. Upon termination of the Contract or otherwise upon UCBOE's request, Vendor will promptly deliver to UCBOE all Confidential Information in the possession of Vendor or the Vendor Representatives.
- Student Information:** If, during the course of Vendor's performance of the Contract, Vendor should obtain any information pertaining to students or students' official records, Vendor 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 Vendor's performance of the Contract, Vendor should obtain any information pertaining to employees of UCBOE's personnel records, Vendor 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. This section will survive the termination of this Contract.
46. **Intellectual Property.** Vendor agrees, at its own expense, to indemnify, defend and save UCBOE harmless from all liability, loss or expense, including costs of settlement and attorney's fees, resulting from any claim that UCBOE's use, possession or sale of the Services and/or Goods infringes any copyright, patent or trademark or is a misappropriation of any trade secret.
47. **No Pre-Judgment or Post-Judgment Interest.** In the event of any action by Vendor for breach of contract in connection with the Contract, any amount awarded shall not bear interest either before or after any judgment, and Vendor specifically waives any claim for interest.
48. **Background Checks.** At the request of UCBOE's Project Coordinator, Vendor (if an individual) or any individual employees of Vendor shall submit to UCBOE criminal background check and drug testing procedures.
49. **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.

50. No Third-Party Benefits. The Contract shall not be considered by Vendor to create any benefits on behalf of any third party. Vendor 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.
51. Force Majeure. Neither party shall be responsible to the other for any losses resulting from the failure to perform any terms or provisions of the Agreement if the party's failure to perform is attributable to war, riot or other disorder, strike or other work stoppage; fire; flood; storm; illness; pandemic, communicable disease, or any other act not within the control of the party whose performance is interfered with, and which, by reasonable diligence, such party is unable to prevent. However, UCBOE will be entitled to a refund for fees paid on account of services not rendered by Vendor including any and all deposits.
52. Ownership of Documents; Work Product. All documents created pursuant to the Contract shall, unless expressly provided otherwise in writing, be owned by UCBOE. Upon the termination or expiration of the Contract, any and all finished or unfinished documents and other materials produced by Vendor pursuant to the Contract shall, at the request of UCBOE, be turned over to UCBOE. Any technical knowledge or information of Vendor which Vendor shall have disclosed or may hereafter disclose to UCBOE shall not, unless otherwise specifically agreed upon in writing by UCBOE, be deemed to be confidential or proprietary information and shall be acquired by UCBOE free from any restrictions as part of the consideration of the Contract.
53. Strict Compliance. UCBOE 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.
54. General Provisions. UCBOE'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 Vendor hereunder, UCBOE shall be entitled to recover costs and reasonable attorney's fees. Vendor may not assign, pledge, or in any manner encumber Vendor's rights under this Contract or applicable Purchase Order or delegate the performance of any of its obligations hereunder, without UCBOE's prior, express written consent.
55. 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 Union County, North Carolina. North Carolina law will govern the interpretation and construction of the Contract.
56. Severability. Any provision of this Contract that is determined by any court of competent jurisdiction to be invalid or unenforceable will not affect the validity or enforceability of any other provision. Any provision of the Contract held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

II. Additional Standard Terms and Conditions for Construction Contracts

1. Supervision and Provision for Labor and Supplies. The Vendor will supervise and direct the construction work (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.
2. Coordination of Work and Notification of Progress. The Vendor agrees to coordinate its Work with the work of any other separate contractors or with the work of UCBOE's own forces to avoid delaying or interfering with their work. Vendor shall enforce good order and discipline among his employees and subcontractors on the Project. The Vendor further agrees to inform UCBOE on a regular basis or at UCBOE's request of the progress of the Work.
3. Provision for all Permits, Licenses, and Inspections. Unless otherwise provided, the Vendor shall secure and pay for all permits, licenses, and inspections necessary for the proper execution and completion of the Work.
4. Cleanliness. Vendor shall keep the Project reasonably free from waste materials or rubbish resulting from the Vendor's operations.
5. Additional Warranties. The Vendor warrants that the Vendor has visited the location of the Project and is familiar with all field conditions bearing upon the Vendor'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 is non-negligent and 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 Vendor 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, which is the date UCBOE accepts the Work or such date as the Vendor actually completes all the Work (the "Date of Completion"). During such period, the Vendor will remedy at Vendor's expense nonconformities or defects in the Work within a reasonable time after receiving notice thereof from UCBOE.

6. Indemnity for Subcontractor Payment. In addition to the indemnification obligations contained in the attached terms and conditions to this Contract, the Vendor further agrees to defend and indemnify UCBOE from and against all claims, damages, losses, and expenses, including reasonable attorneys' fees, arising out of the Vendor's failure to pay subcontractors or materials suppliers.
7. Change Orders. The Vendor agrees that UCBOE 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 UCBOE 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 Vendor's overhead.
8. Performance/Payment Bond. If required by law and/or the bidding documentation, the Vendor agrees to provide a Performance Bond and Labor and Material Payment Bond for its faithful performance in a form reasonably satisfying to UCBOE.
9. Payments Withheld. The UCBOE may withhold payment for the following reasons to the extent permitted under N.C. Gen. Stat. § 143-134.1(e): (1) defective Work not remedied; (2) third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to UCBOE is provided by the Vendor; (3) failure of the Vendor to make payments properly to subcontractors or for labor, materials or equipment; (4) reasonable evidence that the Work will not be completed with the time specified, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; (5) failure to carry out the Work in accordance with the Contract Documents; (6) failure to provide sales tax documentation in accordance with subparagraph 9.3.5; (7) failure or refusal of the Vendor to submit the required information on minority business enterprises; and (8) failure of the Vendor to comply with (a) the provisions of the Sedimentation and Pollution Control Act (N.C. Gen. Stat. § 113A-50 *et seq.*), and/or (b) any Notice of Violation issued by the North Carolina Department of Natural Resources.
10. Retainage. For public construction contracts costing an amount equal to or greater than \$100,000, the UCBOE will retain five percent of the amount of each progress payment on the project for as long as is authorized by N.C. Gen. Stat. § 143-134.1. At all times during the Project, the UCBOE may retain the maximum funds allowed by N.C. Gen. Stat. § 143-134.1. The UCBOE specifically reserves the right to withhold additional funds as authorized by this Contract and N.C. Gen. Stat. § 143-134.1. The Vendor may pay each subcontractor no later than seven days after receipt of payment from the UCBOE and in accordance with N.C. Gen. Stat. § 143-134.1 the amount to which the subcontractor is entitled, reflecting percentages actually retained from payments to the Vendor on account of the subcontractor's portion of the Work. The Vendor shall, by appropriate agreement with each subcontractor, require each subcontractor to make payments to sub-subcontractors in a similar manner and in accordance with N.C. Gen. Stat. § 143-134.1.
11. The Vendor shall use and submit applications for payment using a form reasonably satisfactory to UCBOE ("Application for Payment"). The Contractor shall submit with each Application for Payment a completed "Statement of Sales Tax Paid" and "Minority Business Enterprise" documentation in a form acceptable to UCBOE.

III. Additional Standard Term and Condition for Designer Contracts (which include Architectural, Engineering, Surveying, and Technical Services)

Additional Insurance. In addition to the insurance required pursuant to Section 22 of the Standard Terms and Conditions for All Contracts, the Vendor 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 UCBOE and authorized to do business in the State of North Carolina: Professional liability insurance in commercially reasonable amounts as reasonably determined by UCBOE.

IV. Additional Standard Terms and Conditions for Information Technology Contracts

1. Definitions.

“Hardware” means the hardware the Vendor utilizes in the Hosted Environment for delivery and maintenance of the Hosted Software Services.

“Hosted Environment” means the Hardware, system software, hosting support software, network connectivity, and facility used by Vendor to support the Hosted Software Services.

“Hosted Software Services” means the application, including the Hosted Software and any applicable Third-Party Software, as run on the Hosted Environment.

“Hosted Software” means the software owned and controlled by Vendor or Vendor’s third-party contractor that supports the Hosted Software Services.

“Support Services” means application and technical support required to maintain the performance, uptime and connectivity of the Hosted Software Services for UCBOE access and use, including without limitation, telephone support, error correction, maintenance, and installation of Updates and Upgrades to the Hosted Software.

“Updates” means (i) modifications to or releases of the Hosted Software that (a) add new features, functionality, and/or improved performance, (b) operate on new or other databases, operating systems, or server platforms or (c) extend the Hosted Software functionality to take advantage of advances in coding language, hardware, network or wireless infrastructures; and (ii) deviation corrections, bug or error fixes, patches, workarounds, and maintenance releases.

“Upgrades” means any new version or new release of the Hosted Software typically provided on an annual or bi-annual basis by the Vendor that includes new features, functions, support or service that were not in place with the immediately prior version.

2. Grant of License. Vendor grants to UCBOE for the term of this Contract a non-exclusive, non-transferable license to access and use over the internet the Hosted Software (the “License”).
3. Updates and Upgrades. Vendor will make certain limited and applicable Hosted Software Updates and Upgrades available to UCBOE at no additional cost. All such Updates and Upgrades shall automatically become subject to the benefits and terms of this Contract and shall automatically be considered part of the License granted under this Contract.
4. Security. Vendor’s Hosted Environment shall maintain security measures in place to help protect against the loss, misuse, and alteration of the Hosted Software Services, and specifically the Confidential Information provided to Vendor by UCBOE.
5. Warranties. Vendor warrants the following: (a) Vendor has the full authority to grant the License; (b) the Hosted Software is free from material defects or viruses; (c) the Hosted Software contains no disabling devices; and (d) the Hosted Software conforms to all material specifications set forth in the documentation and any other written material provided to UCBOE for any purpose. Without limiting any other remedies available to UCBOE under this Contract, at law or in equity, in the event that any Hosted Software does not conform to the warranties set forth for the Hosted Software herein, Vendor shall, at UCBOE’s option, promptly correct or replace such Hosted Software and, in either case, Vendor shall perform any Support Services or other work required to restore the Hosted Software to the state that existed prior to any such breach, all at Vendor’s expense. UCBOE reserves the right to reject the Hosted Software and to hold Vendor responsible for any loss, direct or indirect, caused by any such breach of warranty. In the event Vendor is or becomes aware of a problem with any item of Hosted Software, Vendor shall notify UCBOE upon such determination. Acceptance or use of the Hosted Software shall not constitute a waiver of any claim under any warranty.
6. Effect of Termination and Orderly Transition. Upon termination or expiration of this Contract for any reason, Vendor will cooperate in good faith with UCBOE to provide for an orderly transfer of the Goods and Services

and Confidential Information to UCBOE or UCBOE's successor vendor ("Orderly Transition") and according to the terms of this section.

- a. **Scope of Work for Orderly Transition.** Within thirty (30) days of notification by UCBOE that it will transfer Goods and Services to itself or a successor vendor, the parties will create and execute a scope of work document detailing tasks, the responsible parties for individual tasks, and timeframes for completion of tasks necessary to complete an Orderly Transition. The final, executed Orderly Transition scope of work shall be incorporated into this Contract and become subject to its terms. Vendor's failure to (a) cooperate in developing the Orderly Transition scope of work, (b) execute an Orderly Transition scope of work, or (c) abide by the executed Orderly Transition scope of work shall be deemed a material breach of this Contract.
 - b. **Time Frame.** Unless otherwise mutually agreed in an executed Orderly Transition scope of work, Vendor shall continue to provide Goods and Services while UCBOE migrates its Confidential Information from Vendor's Hosted Software Services in the Orderly Transition process. Vendor agrees that, as part of the Orderly Transition process and within the specified time frame, it will transfer to UCBOE all of the Confidential Information provided to Vendor by UCBOE pursuant to this Contract. Vendor will provide the Confidential Information in commercially reasonable electronic format as agreed in the Orderly Transition scope of work at no additional cost.
 - c. **Time and Material Costs Only.** UCBOE will be obligated to pay for time and materials at a reasonable hourly rate of no more than \$75/hour for the Orderly Transition. No other fees will be assessed for the Orderly Transition. Fees shall be agreed upon in advance as part of developing the scope of work referenced in subsection (a) above.
 - d. **Destruction of Confidential Information after Orderly Transition.** Unless otherwise mutually agreed in an executed Orderly Transition scope of work, Vendor agrees that after returning all Confidential Information to UCBOE pursuant to subsection (b) above it will destroy all remaining copies of Confidential Information and back-up Confidential Information in its possession, contained in or on any medium (such as a storage area network or "SAN") or as may be stored offsite, within thirty (30) days of completion of Orderly Transition. Vendor shall provide UCBOE with a detailed summary of the destruction process and standards to be utilized by Vendor with respect to the Confidential Information, and UCBOE shall approve such process and standards prior to Vendor commencing such destruction.
7. **Intellectual Property Warranty.** In addition to the warranties set forth elsewhere in this Contract with respect to the Goods and Services, Vendor expressly represents, warrants and covenants that neither the furnishing of Hosted Services to UCBOE hereunder, nor does the Hosted Software, violate, in whole or in part, any provision of any law, common law or regulation concerning copyrights, trade secrets, trademarks, tradenames, service marks, patents or other provisions regulating or concerning intellectual property rights.
 8. **Additional Indemnification.** To the fullest extent permitted by law, Vendor shall indemnify, defend and hold harmless UCBOE, its and directors, officers, managers, employees and agents, from all suits, claims, costs, damages and other liabilities, including reasonable attorneys' fees as incurred by counsel of UCBOE's choice, relating to or arising from (a) Vendor's failure to maintain the security and integrity of Confidential Information, the Hosted Software Services and the Hosted Environment; (b) any claim for infringement of any copyright, trade secret, trademark, tradename, service mark, patent, or other law or regulation concerning intellectual and/or proprietary property rights; and (c) any claims by third party interests in the Hosted Software.
 9. **Data Use.** Notwithstanding the foregoing, Vendor acknowledges and agrees that all Confidential Information is proprietary to and owned exclusively by UCBOE, whether provided in tangible or electronic form and whether entered into any software or Hosted Software Services owned or licensed by Vendor (including without limitation the Hosted Software and Hosted Software Services) or otherwise provided in connection with any products provided and services performed by Vendor (including without limitation the Goods and Services) and whether to, by or through a Vendor-affiliated ASP or other Hosted Software Services. Furthermore, Vendor shall not sell, market, or commercialize Confidential Information, create derivative products or applications based on Confidential Information or otherwise use Confidential Information in any manner unrelated to the performance of Vendor's obligations under the Contract. Vendor shall not share Confidential Information with any parent or subsidiary company of Vendor or any other Vendor-affiliated entity without the express prior written consent of UCBOE detailing the scope of allowable disclosure. Vendor agrees that if it breaches this

section, UCBOE may, at its option, pursue any or all of the following remedies: (a) immediately terminate this Contract without liability to Vendor; (b) seek an injunction without posting a bond; and (c) pursue whatever other remedies may be available to it at law, in equity or pursuant to this Contract.

EXHIBIT 1**SCOPE OF WORK****PART 1-GENERAL**

Union County Public Schools is soliciting bids for Cooling Tower and Chiller Replacements at Sun Valley Middle School.

Contractor is to provide all labor, equipment, materials, permits, fees, inspections, etc. to provide a turnkey project as indicated within the bid documents. Permits and Inspections shall be provided to assigned UCPS Project Coordinator.

Note: Specifications are provided to give a general description of Work. Contractor is to visit the site and field verify all existing conditions that may affect design and layout of this project prior to preparation of submittals.

Contractor shall comply with all current local, state, and national codes and regulations. This includes, but not limited to, complying with all ADA requirements. In the event of a conflict between the Scope of Work and code regulations, the Contractor shall notify the assigned UCPS Project Coordinator for direction.

Contractors shall be properly licensed within the state of North Carolina to complete work identified within the bid documents, have successfully completed projects of this type and size for a minimum of 5 years, and be able to provide references within 24 hours of request.

Additional Information

Chemicals are currently being handled through Southwest Engineers. Contact Information will be provided to awarded Contractor.

All roof penetrations must be performed by the roofing manufacturer that currently holds the warranty. Contractor shall contact the assigned UCPS Project Coordinator for contact information, if needed.

Existing pipe hangers and supports may be reused provided the existing spacing complies with code and is determined by Contractor to be in a re-useable condition.

PART 2-SAFETY

Contractor is solely responsible for safeguarding the project areas through the duration of the project including, but not limited to, barricades and snow fencing.

The Contractor may setup on site at a location authorized by the assigned UCPS Project Coordinator. Any equipment or supplies left on school property shall be securely locked. UCPS will not be responsible for damages or theft of Contractor's or 3rd party (i.e. rental equipment) property.

Contractor shall require all employees to abide by the OSHA safety guidelines. A written safety policy shall be provided to the assigned UCPS Project Coordinator within 24 hours of request.

Contractor shall perform due diligence to ensure all representatives of the Contractor including, but not limited to, subcontractors are Covid free prior to arrival.

All representatives of Contractor shall dress appropriate for school environment and perform work in a professional manner. Compliance is at the sole discretion of Union County Public Schools. Any individual not in compliance will be asked to leave Union County Public School property.

There are not to be any drugs, firearms, tobacco, or weapons on school property.

Contractor's Project Manager shall provide daily, to office of worksite, a list of employees working onsite.

PART 3-WARRANTY

Refer to Draft Contract for Warranty Information (Exhibit 3).

Contractor is responsible for damages to UCPS property as a direct result of this project. Contractor shall repair, replace to the fullest extent as needed to restore the property to the original state at no cost to Union County Public Schools.

PART 4-PROJECT SCHEDULE

February 2024 Notice to Proceed anticipated for release (contact Procurement Lead if not received).

Interior Work may be performed during operating hours provided no interruption to the students or staff. Exterior Work can take place anytime. Existing HVAC system must remain in operation until the change over takes place. All work is to be closely scheduled with assigned UCPS Project Coordinator to ensure no disruption to school activities.

Contractor shall list the number of consecutive calendar days required for completion.

Contractor shall appoint a Project Manager to be the sole point of contact through the duration of the project. The Project Manager shall be fluent in the English Language (speaking and writing). The Project Manager shall be easily accessible via telephone and email. At minimum, a status update shall be provided to the assigned UCPS Project Coordinator on biweekly basis.

PART 5-ALLOWANCE FUNDS

Definition: A designated amount of funds included in the contract amount for unforeseen conditions.

When an unforeseen condition arises, Contractor is to submit a written request for the amount of funds needed. The request shall be accompanied with backup documentation for the request (i.e. materials and labor quotes).

If approved, UCPS is to provide a signature of approval to the Contractor.

All unused funds will be credited to UCPS at the end of the project.

Amount of Allowance Funds allocated to this project is \$10,000.00.

SPECIFICATIONS PROVIDED ON NEXT PAGE

Sun Valley Middle School-Forced Draft, Blow Through Cooling Tower Replacement (Base Bid)

Contractor shall remove and properly dispose of the existing Evapco LSTA 4-125 cooling tower. Remove and dispose of steel structural members with rust damage. The concrete pillars shall be elevated for reuse. The piping, (condenser piping and make-up water piping), and electrical connections shall be left in place for reconnection of the contractor for this project.

The new tower shall have equivalent capacity of the LSTA 4-125 Tons at 80 degree wet bulb temperature, leaving water 85 degrees, entering water 95 degrees.

Requirements are as follows:

- 30 HP Motor
- 510 G.P.M. (460 Volts, 3-Phase)
- 4 KW Basin Heater
- Stainless Steel Cold Water Basin with Fill Valve and Float
- UV resistant PVC spray system and fill. (Fill shall have a flame spread rating of 5 per ASTM E8-81a.)
- Internal piping shall be removable for cleaning.
- Stainless Steel Strainers
- Factory installed totally enclosed, fan cooled inverter duty motor
- All fans shall be statically and dynamically balanced centrifugal fans.
- Tower frame shall be hot dipped-galvanized.
- Vibration isolation is required.
- Provide and install VFD for the cooling tower in the mechanical room.

New structural components as well as anchoring and vibration isolation requirements shall be installed in accordance with manufacturer's recommendations for this size tower. The entire tower installation, including electrical and piping, shall be in accordance with manufacturer's requirements. Any piping, electrical or structural modifications shall be the responsibility of the installing contractor. A factory start-up of the tower is required.

Acceptable manufacturers are Marley, BAC, and Evapco.

CHILLER SPECIFICATIONS PROVIDED ON NEXT PAGE

Sun Valley Middle School-Chiller Replacement (Alternate 1)

- Remove and properly dispose of existing 80 Ton air-cooled chiller. Owner will remove refrigerant, parts, etc. prior to the removal of the Contractor. Coordinate schedule with Owner.
- Existing valves, sensors and piping serving the chiller shall be left in place after chiller removal.
- Provide and install one (1) new 80 Ton, Air-cooled, 460V/3-Phase, Chiller with Wye-delta Starters. The new chiller shall be equipped with BacNet cards, (BacNet over IP), per UCPS Controls Specifications. All new controls shall be compatible with the existing campus wide control systems.
- Chiller water pressure drop shall not exceed 20 feet H₂O.
- All piping and insulation modifications, electrical connections and modifications, concrete pad modifications, etc. required for the new chiller installations, as well as the 6" emergency taps and isolation valves that would allow emergency, roll-up chiller connections shall be the responsibility of the Contractor.
- The removal of the existing chiller and the installation of the new chiller shall require a crane to work above the existing fencing.
- The installation of the new chiller shall include water flow balancing and factory chiller start-up. (Existing flow=288 GPM)
- Provide or extend electric heat tape as required to protect the chiller and connected exterior chilled water piping.
- Chiller shall be equipped with vibration isolation pads, hot gas by-pass, low ambient controls and hail guards.
- Approved manufacturers are Trane, Daikin, Carrier.
- All controls disconnect and reconnect to the new chiller shall be the responsibility of this contractor.
- All controls shall be of the same manufacturer as existing. Coordinate with UCPS to ensure the newly installed equipment is communicating with the existing BAS properly.
- Chilled water pump shall be controlled by chiller per recommendation of the chiller manufacturer and/or specifications.
- Provide and install a new in-line chiller pump with the same performance criteria as the existing pump, 460V, 3-Phase, 288 GPM, 35Ft. HD. The pump installation shall include any electrical or piping modifications required for a turn-key installation of both chiller and the chiller pump.
- Acceptable pump manufacturers are Taco, B&G, Armstrong.
- Acceptable chiller manufacturers are Trane, Carrier, Daikin.

UCPS CONTROL SPECIFICATIONS BEGIN ON THE NEXT PAGE

UNION COUNTY PUBLIC SCHOOLS

DDC CONTROL SPECIFICATIONS

HVAC INSTRUMENTATION AND CONTROLS HVAC

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The required system will be Niagara Based and be added to existing N4 Server. All equipment will consist of approved products specified below. Contractor to provide needed quantities of product specified below based on jobsite visit and plans provided. All Graphics, Alarms, Trending and Scheduling shall be added to existing N4 server and match existing layout and function of other schools unless approved in writing by UCPS.

Contractor to provide job documentation, including System Layout, Comm bus layout, sequence of operation, point to point controller diagrams and all product data sheets. The documentation is to be provided via 3 hard copies and also place on FX server to be access via system graphics.

All Products to be warrantied for a period of 3 years from the date of purchase, all labor to be warrantied 1 year from Job Completion and Sign-off.

APPROVED PRODUCTS:

1. System to be IP based, all controllers now to be connected via UCPS Ethernet network. Contractor to provide switches listed below. UCPS will install and setup switches in existing IT closets located on each classroom wing. All Ethernet cable for HVAC equipment will be Cat-6 and orange in color. The Contractor will pull CAT-6 cable via existing cable tray from field controllers to new switches.
2. APPROVED PRODUCTS:
 1. VG-20 Controllers for Fan Coils
 2. VG-32 Controllers for Chillers, Boilers, Air Handling Units
 3. VC-20 Expansion Controllers for Chillers, Boilers, Air Handling Units
 4. VW-8V Controllers for VAV Units
 5. A/CP-S Room Sensors for Fan Coils
 6. A/CP-S Room Sensor for Variable Air Volume and Air Handling Units
 7. EX3300-48 48 Port Switch (1 Per Wing)
 8. FX-7021 Jace (Located in Mechanical Room and will be provided by UCPS)
 9. A/10K-CP-6 Duct Temp Sensors for Fan Coils
 10. RIXGA CT Switches for Fan Coil Fan Status (Fan Coils, Air Handling Units, Chillers, Boilers)
 11. PA Series JCI UL Listed Control Panels (if needed) Chiller, Boiler Plant
 12. A/10K-CP Immersion Sensors Chillers, Boilers

Company Name	Address	Phone	Email
Facility Systems Services Inc	P.O. BOX 1540 Matthews, NC 28106	Danny Fox 704-214-7810	dfox@fss-i.com
Platinum Building Automation	6527 Hudspeth Rd, Harrisburg, NC 28075	Jason Williams 704-765-8503	jwilliams@platinumbuildingautomation.com
Environmental Controls	PO Box 481779 Charlotte, NC 28269	Brett Downs 704-995-4245	brettd@ecmsolution.com
Carolina Air Solutions	2900 Westinghouse Blvd Charlotte NC,28273	Billy Garrison 704-506-9068	billy@carolinaairsolutions.com

1.2 RELATED DOCUMENTS

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

1.3 SUMMARY

A. This Section includes control equipment for HVAC systems and all components for addition to the facility, including control components for terminal heating and cooling units not supplied with factory wired controls.

1.4 SYSTEM DESCRIPTION

A. Control system consists of sensors, indicators, actuators, final control elements, interface equipment, other apparatus, accessories, to control the addition and existing mechanical systems. Add interlock wiring components to existing system as indicated on the drawings.

1.5 SEQUENCE OF OPERATION

AIR COOLED CHILLER:

The stand-alone microprocessor based chiller control panel furnished with the chiller shall monitor and control the chiller in a stand-alone mode. The new chiller shall receive a Start/Stop from the BAS.

The local chillers shall perform the following chiller plant control strategies and support the specified monitoring and diagnostics.

- Chiller start/stop - The local chiller control panel shall enable and disable the chiller based upon outside air temperatures of 60oF (adj.) and a call of occupied from the BAS.
- Chiller ambient lockout –The chiller operation shall be based upon an operator defined ambient temperature limit.
- Chilled water pump control – Each chiller shall automatically enable its primary chilled water pump on. Chiller controller will control the chiller pump to insure freeze protection.

Note: Existing Chillers may not meet above sequence and will require rewiring.

- **No dual temp systems should be considered for new construction.**

HVAC CONTROLS FOR CHILLERS:

- New chillers are to be controlled by existing BAS controllers in mechanical room. New chillers will have BacNet cards installed on them and the Control Contractor will be responsible for providing the integration for BacNet over IP card on the existing Tridium N4 Server. The Control Contractor will ensure that all BacNet points that are available on the chiller will be accessible on the N4 server and FX 70, FX 80 or N4 Jaces (whichever Jace exists on site). Contractor shall provide necessary wiring to control the new chiller from existing controller. If additional inputs/outputs are required, contractor is responsible for providing a new Vanguard controller and integration of new controller on existing Jace. Graphics for new chiller are to be updated on UCPS Tridium N4 Server to reflect data from new chiller.
- UCPS is to maintain factory controls while integration to UCPS Tridium front end. This is the responsibility of the control contractor and equipment manufacturer. If they cannot do this, they are to submit in writing during the bid process. The single prime (mechanical contractor) is responsible for making sure the integration is provided by their control contractor and equipment manufacturer.

DUAL TEMPERATURE PLANT SEQUENCE OF OPERATION (Upgrade on Existing DT Systems Only – Not for new construction):

The dual temperature plant will run any time the Building is in the occupied mode or the outdoor air drops to a temperature below 20 degrees (Adj) at which time the plant will start the hot water pumps (secondary and primary) and the building will be set to occupied to provide freeze protection. The dual temperature system will be Auto changeover based upon an adjustable outside air temperature that will be set from the graphic for the dual temperature plant. The dual temperature plant will be in the summer mode when the outdoor temperature is above 55 degrees (Adj) and will be in the winter mode when the temperature drops below 50 degrees (Adj). The dual temperature system will be allowed to automatically transition from the heat mode to cool mode or from the cool mode to the heat mode based upon the outdoor air conditions. The dead band for the dual temperature plant will be 5 degrees and be adjustable from the Dual Temperature Graphic page.

When the Dual Temperature Supply is above 70 (ADJ) degrees, the valve mode that is passed to the units in the building (Fan Coils, Unit Ventilators, Air Handler Units, Control Valves etc.) will be indexed to Winter.

When the Dual Temperature Supply is below 70 (ADJ) degrees, the valve mode that is passed to the units in the building (Fan Coils, Unit Ventilators, Air Handler Units, Control Valves etc.) will be indexed to Summer.

To further clarify, the plant mode (summer/winter mode) is based upon the outdoor air temperature and the building occupancy. The valve mode is based upon the current dual temp supply water temperatures.

HOT WATER PLANT SEQUENCE OF OPERATION:

The plant controller will start the primary hot water pumps and the boiler when the outdoor air temperature is below 50 degrees (Adj). The controller starts the hot water pumps, the boiler, and opens the hot water valve. The valve feeding the dual temp loop remains closed until the hot water loop rises to 90 degrees (Adj). Once the hot water loop reaches the desired set point, the dual temp valve modulates to provide hot water to the dual temp loop based upon the outside air/ hot water reset (Adj) The DTS temperature set point is inversely reset from outside air temperature based upon the following scale: Outdoor Air = 30 DTS = 160; Outdoor Air = 60 DTS = 90 (Adj). When the outdoor temp is below 20 (Adj) the hot water plant and the dual temp pumps are energized for freeze protection.

CHILLED WATER PUMP SEQUENCE OF OPERATION:

Secondary chilled water pumps are normally enabled and disabled by zone demand for chilled water. H-O-A switch on pump starter shall be kept in "AUTO" position. "HAND" and "OFF" shall only be used for maintenance

The primary and secondary chilled water pumps will be energized when the outside air temperature is above 60 degrees Fahrenheit (adj.) and the BAS for the building is in the occupied mode.

The BAS will enable the chiller based upon the Building Schedule and outdoor air temperature set point (60 ADJ), the chiller will then be responsible for controlling the chiller pump.

The RPM of secondary chilled water pumps shall be determined by differential pressure transmitter located as indicated on drawings. Differential set-point is 15 psig (adj.). The transmitter shall be a "smart" zeroing type.

The secondary chilled water pumps shall be enabled when the BAS is in freeze protection mode based upon the outdoor air conditions (30 ADJ).

AIR HANDLING UNIT CONTROL SEQUENCE (SINGLE ZONE):

On a rise in space temperature, the AHU chilled water valve will be open/closed. The reverse will occur on a fall in temperature (set-point is 72oF adj.). On a decrease in space temperature, the hot water valve shall modulate to maintain space temperature; on an increase in temperature; the reverse shall occur. The dead band between cooling and heating shall be 2oF (adj.)

Unit freeze protection all units: If the mixed air temperature falls below 38 degrees Fahrenheit, the unit supply air fan shall shut off and outside air dampers shall close. The chilled and hot water control valves shall open. A signal shall be sent to dual temp water pumps to be enabled and remain enabled until the low limit is reset.

A float switch located in the AHU drain pan shall disable the unit when energized.

AHU's That Serve VAV's:

- The AHU will have 2 coils. A HW coil in the preheat position and a CW Coil.
- The preheat coil will be used for morning warmup and freeze protection.
- On the CW Coil, it must have a modulating valve that can provide supply air reset and be adjustable.
- The valve will modulate based on discharge air temp to supply the space.
- VFD's are required on all AHU's and should be controlled by static pressure on VAV systems.
- VFD's are required on non-VAV systems due to static pressure and motor protection.

AHU's on Multi-Zone's without VAV Boxes:

- A multi-zone AHU will require 3 coils:
 - Preheat (morning warmup)
 - HW Coil (reheat & dehumidification in summer)
 - CW Coil
 - A VFD is required and a bypass to control static pressure.

When smoke is detected by unit duct smoke detectors, the supply air fan shall shut-off; control/smoke dampers shall close and an alarm signal shall be transmitted to the fire alarm system. The AHU unit shall restart when the fire alarm circuit is reset and all control/smoke dampers, and valves shall return to their normal position.

VAV'S SYSTEMS:

- There should be no VAV's on a dual temp system.
- On VAV systems on 4-pipe systems, the VAV's should have reheat along with the air flow dampers.

FAN COIL and UNIT VENTILATORS (DUAL-TEMP SYSTEMS):

- The units shall run continuously when they are in the occupied mode.
- The control valves will be 2 position on/off, 24vac.
- The face/bypass damper (if present) will be open to the face on a call for heating or cooling.
- When the System is in Summer Mode, on a rise in space temperature, the fan coil unit dual temp valve is open. The reverse will occur on fall in temperature (set point is 72oF adj.).

- When the System is in the Winter Mode, on a decrease in space temperature, the dual temp valve shall close to maintain space temperature; on an increase in temperature; the reverse shall occur. The dead band between cooling and heating shall be 2oF (adj.)
- When BAS is in Freeze Protection Mode, control valves shall open and outside air damper to be closed.

A float switch located in the fan coil unit drain pan shall disable the unit when energized.

When smoke or fire alarm system is in alarm; the supply air unit shall shut-off. The units shall restart when the fire alarm circuit is reset and valves shall return to their normal position.

ROOFTOP UNITS:

Rooftop units will be run only when the building is in the occupied mode. If the unit is equipped with a factory control board, once the unit receives a start/stop from the BAS, the unit will be controlled by the factory control board. The unit shall cycle the heat/cool based upon the space temperature set point (adj). The dead band between heat/cool shall be 2 degrees F (adj). The fan will run continuously in the occupied mode but the BAS will have the capability of cycling the supply fan if necessary.

The BAS shall monitor and display the supply air temperature, return air temperature, supply fan status, and the compressor status from the factory control board if the points can be integrated. If the factory control board cannot be integrated to provide SAT, RAT, SF Status & compressor status, the control contractor is responsible for providing the hardware (controllers, sensors & CT's) and software to display these points.

1.6 SUBMITTALS

A. Product Data: Include manufacturer's technical literature for each control device. Indicate dimensions, capacities, performance characteristics, electrical characteristics, finishes for materials, and installation and startup instructions for each type of product indicated.

1. Each control device labeled with setting or adjustable range of control.

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required Clearances, method of field assembly, components, and location and size of each field connection.

1. Schematic flow diagrams showing fans, pumps, coils, dampers, valves, and control devices.
2. Wiring Diagrams: Power, signal, and point to point control wiring. Differentiate between manufacturer-installed and field-installed wiring.
3. Details of control panel faces, including controls, instruments, and labeling.
4. Written description of sequence of operation.
5. Schedule of valves including leakage and flow characteristics.

PART 2 - PRODUCTS

2.1 Products

The Basis of design is the Facility Explorer system from JCI, Approved manufactures may bid based on meeting all requirements of the specification and receiving written approval from UCPS during the bid process. A paragraph by paragraph comparison of the base bid specified system versus alternative systems with three references of similar projects (including project name, contact, phone number, location, consultant, value of contract and a brief description of the control system and how it operates) shall be submitted during the bid process. The manufacture must have a working system in the school system for consideration.

2.2 Software

A. All field controllers must be fully programmable with windows based software with the following requirements:

1. Software must be windows 7 and 10 compatible
2. Software must not require hardware or software keys or licensing to operate
3. Software must not depend on any other software to operate
4. Connection to field controllers must be available via BACnet IP and Bluetooth

2.3 Sensors

Note: All existing sensor and devices must be removed and walls and ducts must be repaired and sealed properly

A. Temperature and humidity sensors as follows:

1. Space-Temperature Sensors: 1k Nickel Blank Stainless plate or Network sensor with no Set-point knob or Display.
2. Duct-Mounted or Immersion-Type Temperature Sensors: 1k Nickel with Double encapsulated sensor and Easy open/close latch system (no screws)
3. Averaging-Element Sensors 1k Nickel with copper averaging element and Easy open/close latch system (no screws)
4. Outdoors: Provide 1k Nickel sensor with 3% RH 0-10vdc transmitter with sun shield
5. Space and Duct Humidity Transmitters: 1k Nickel sensor with 3% RH 0-10vdc transmitter
6. Differential-Pressure Transmitters: Provide 0-10vdc transmitters with display

B. Equipment operation sensors as follows:

1. Status Inputs for Fans: Differential-pressure switch with adjustable range of 0 to 5 inches wg (0 to 1243 Pa).

2. Status Inputs for Pumps: Differential-pressure switch piped across pump with adjustable pressure differential range of 8 to 60 psig (55 to 414 kPa).

3. Status Inputs for Electric Motors: Current-sensing relay with current transformers, adjustable and set to 175 percent of rated motor current.

C. Water-Flow Switches: Pressure-flow switches of bellows-actuated mercury or snap-acting type, with appropriate scale range and differential adjustment, with stainless-steel or bronze paddle. For chilled water applications, provide vapor proof type.

D. Room Thermostat Cover Construction: Manufacturer's standard locking covers to match existing.

E. Electric Low-Limit Duct Thermostat: Snap-acting, single-pole, single-throw, manual-reset switch that trips if temperature sensed across any 12 inches (300 mm) of bulb length is equal to or below set point.

1. Bulb Length: Minimum 20 feet (6 m).

2.4 CONTROL VALVES

Note: Retrofit Kits not allowed all control valves to be replaced

A. Control Valves: Factory fabricated, of type, body material, and pressure class based on maximum Pressure and temperature rating of piping system, unless otherwise indicated.

B. Valves NPS 2 (DN 50) and Smaller: Bronze body, bronze trim, CCV style with screwed ends

C. Valves NPS 2-1/2 (DN 65) and Larger: Iron body, bronze trim, rising stem, plug-type disc, Flanged ends, and renewable seat and disc.

D. Hydronic system valves shall have the following characteristics:

1. Rating: Class 125 for service at 125 psig (862 kPa) and 250 deg F (121 deg C) operating conditions.

2. Internal Construction: Replaceable plugs and seats of stainless steel or brass.

a. Single-Seated Valves: Cage trim provides seating and guiding surfaces for plug on top and bottom of guided plugs.

b. Double-Seated Valves: Balanced plug; cage trim provides seating and guiding surfaces for plugs on top and bottom of guided plugs.

3. Sizing: 5-psig (35-kPa) maximum pressure drop at design flow rate.

4. Flow Characteristics: Two-way valves shall have equal percentage characteristics; three-way valves shall have linear characteristics. Operators shall close valves against pump shutoff head.

E. Butterfly Valves: 200-psig (1380-kPa), 150-psig (1035-kPa) maximum pressure differential, ASTM A 126 cast-iron or ASTM A 536 ductile-iron body and bonnet, extended neck, stainless-steel stem, field-replaceable EPDM or Buna N sleeve and stem seals.

1. Body Style: Lug.

2. Disc Type: Aluminum bronze.

3. Sizing: 1-psig (7-kPa) maximum pressure drop at design flow rate.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify that conditioned power supply is available to control units and operator workstation.
- B. Verify duct-, pipe-, and equipment-mounted devices and wiring are installed before proceeding with installation.

3.2 INSTALLATION

- A. Install equipment level and plumb.
- B. Install software in control units and operator workstation. Implement all features of programs to specified requirements and as appropriate to sequence of operation.
- C. Connect and configure equipment and software to achieve sequence of operation specified.
- D. Verify location of space temperature sensors, and other exposed control sensors with plans and room details before installation. Locate all 60 inches (1524 mm) above the floor.
 - 1. Install averaging elements in ducts and plenums in crossing or zigzag pattern.
- E. Install guards on thermostats in the following locations:
 - 1. Entrances
 - 2. Public areas
- F. Install automatic dampers according to Division 15 Section "Duct Accessories."
- G. Install damper motors on outside of duct in warm areas, not in locations exposed to outdoor temperatures.
- H. Install labels and nameplates to identify control components according to Division 15 Section "Mechanical Identification."
- I. Install hydronic instrument wells, valves, and other accessories according to Division 15 Section "Hydronic Piping."
- J. Install duct volume-control dampers according to Division 15 Sections specifying air ducts

3.3 ELECTRICAL WIRING AND CONNECTION INSTALLATION

- A. Install raceways, boxes, and cabinets according to Division 16 Section "Raceways and Boxes."
- B. Install building wire and cable according to Division 16 Section "Conductors and Cables."
- C. Install signal and communication cable according to Division 16 Section "Control/Signal Transmission Media."
 - 1. Conceal cable, except in mechanical rooms and areas where other conduit and piping are exposed.
 - 2. Install exposed cable in raceway.
 - 3. Install concealed cable in raceway.

4. Fasten flexible conductors, bridging cabinets and doors, along hinge side; protect against abrasion. Tie and support conductors.

5. Number-code or color-code conductors for future identification and service of control system, except local individual room control cables.

D. Connect manual-reset limit controls independent of manual-control switch positions. Automatic duct heater resets may be connected in interlock circuit of power controllers.

E. Connect hand-off-auto selector switches to override automatic interlock controls when switch is in hand position but not to override manual or hard-wired interlock controls.

3.4 FIELD QUALITY CONTROL

Manufacturer's Field Service: Engage a factory-authorized service representative to inspect field assembled components and equipment installation, including piping and electrical connections. Report results in writing.

1. Start, test, and adjust control systems.
2. Demonstrate compliance with requirements, including calibration and testing, and control sequences.
3. Adjust, calibrate, and fine tune circuits and equipment to achieve sequence of operation specified.
4. After test and calibration, any defective mechanical equipment must be reported in writing to UCPS project manager for repair before job signoff will be completed.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain control systems and components.

1. Train Owner's maintenance personnel on procedures and schedules for starting and stopping, Troubleshooting, servicing, and maintaining equipment and schedules.
2. Provide operator training on data display, alarm and status descriptors, requesting data, executing commands, calibrating and adjusting devices, resetting default values, and requesting logs.
3. Review data in maintenance manuals. Refer to Division 1 Section "Operation and Maintenance Data."
4. Schedule training with Owner, through Architect, with at least seven days' advance notice.

3.6 ON-SITE ASSISTANCE

A. Occupancy Adjustments: Within one year of date of Substantial Completion, provide up to three Project site visits, when requested by Owner, to adjust and calibrate components and to assist Owner's personnel in making program changes and in adjusting sensors and controls to suit actual conditions.

3.7 JOB COMPLETION AND SIGNOFF

A. Job will be considered complete when all items of specifications are met and owner has satisfactorily completed in house commissioning.

COST PROPOSAL/EXECUTION OF PROPOSAL

Sun Valley Middle School
HVAC Renovation
BID NO. 4-97362029

By submitting this proposal, the potential contractor certifies the proposal is signed by an authorized representative of the firm.
The cost and availability of all equipment, materials, and supplies associated with performing the services described herein have been determined and included in the proposed cost.
All labor costs, direct and indirect, **sales tax, etc.** have been determined and included in the proposed cost.
The offeror is aware of prevailing conditions associated with performing these services.
The potential contractor has read and understands the conditions set forth in this bid and agrees to them with no exceptions.

Therefore, in compliance with this Request for Proposals, and subject to all conditions herein, the undersigned offers and agrees, if this proposal is accepted within **60** days from the date of the opening, to furnish the subject services for a cost not to exceed:

BASE BID (COOLING TOWER)	\$ _____	_____ *CCD
ALTERNATE 1 (CHILLER)	\$ _____	_____ *CCD
ALLOWANCE FUNDS	\$ 10,000.00	
ALL INCLUSIVE TCH5 @	\$ _____	_____ *CCD

*CCD: Consecutive Calendar Days required to achieve Final Completion from issuance of Notice to Proceed

ADDENDA ACKNOWLEDGEMENT

ADDENDUM 1: _____ ADDENDUM 2: _____ ADDENDUM 3: _____

EXECUTION

OFFEROR: _____ FEDERAL ID NO. _____
LICENSE DESCRIPTION: _____ LICENSE NO. _____
ADDRESS: _____ CITY, STATE, ZIP _____
TELEPHONE NUMBER: _____ MOBILE: _____ EMAIL: _____

BY: _____ DATE: _____ TITLE: _____
(Signature)

(Typed or printed name)



Purchasing and Contract Division

201 Venus Street
Monroe, NC 28112
Phone 704.296.6320 Fax 704.283.2371
www.ucps.k12.nc.us

Board Members
Kathy Heintel - Chairperson
Jimmy H. Bention, Sr. - Vice Chairperson
Sandra Greene
Matt Helms
John J. Kirkpatrick, IV
Sarah May
Joseph Morreale
Todd Price
Gary Sides

Superintendent
Dr. Andrew G. Houlihan

ADDENDUM 1

**PROJECT: Sun Valley Middle School-HVA C Renovation
4-97362029**

DUE DATE: 3:30 PM January 18, 2024

Contractor shall fulfill all requirements listed within the bid documents, including additions and changes noted below.

REVISED: Bid Due Date has been extended to 3:30 PM January 18, 2024

Add: Cooling Tower Requirements:
Galvanized steel support frame.
Outdoor Variable Speed Drive is required.
Stainless Steel Basin is required.

Chiller Requirements:
Existing Electrical Disconnect is to remain.

Alternate 2
Chiller Pump : 288 GPM, 35' HD, Inline, 460V/30, 1725 RPM, 5HP (Field verify all components)

Clarification: Direct Digital Controls Specifications is used for general purposes and are to be followed for areas of applicability.

End of Addendum

Growing Possibilities.

In compliance with federal law, UCPS administers all educational programs, employment activities and admissions without discrimination against any person on the basis of gender, race, color, religion, national origin, age or disability.

COST PROPOSAL/EXECUTION OF PROPOSAL

Sun Valley Middle School
HVAC Renovation
BID NO. 4-97362029

By submitting this proposal, the potential contractor certifies the proposal is signed by an authorized representative of the firm.
The cost and availability of all equipment, materials, and supplies associated with performing the services described herein have been determined and included in the proposed cost.
All labor costs, direct and indirect, **sales tax, etc.** have been determined and included in the proposed cost.
The offeror is aware of prevailing conditions associated with performing these services.
The potential contractor has read and understands the conditions set forth in this bid and agrees to them with no exceptions.

Therefore, in compliance with this Request for Proposals, and subject to all conditions herein, the undersigned offers and agrees, if this proposal is accepted within **60** days from the date of the opening, to furnish the subject services for a cost not to exceed:

BASE BID (COOLING TOWER)	\$ _____	_____ *CCD
ALTERNATE 1 (CHILLER)	\$ _____	_____ *CCD
ALTERNATE 2 (CHILLER PUMP)	\$ _____	_____ *CCD
ALLOWANCE FUNDS	\$ 10,000.00	_____ *CCD
ALL INCLUSIVE TOTAL	\$ _____	_____ *CCD

*CCD: Consecutive Calendar Days required to achieve Final Completion from issuance of Notice to Proceed

ADDENDA ACKNOWLEDGEMENT

ADDENDUM 1: _____ ADDENDUM 2: _____ ADDENDUM 3: _____

EXECUTION

OFFEROR: _____ FEDERAL ID NO. _____
LICENSE DESCRIPTION: _____ LICENSE NO. _____
ADDRESS: _____ CITY, STATE, ZIP _____
TELEPHONE NUMBER: _____ MOBILE: _____ EMAIL: _____

BY: _____ DATE: _____ TITLE: _____
(Signature)

(Typed or printed name)



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Sandra Greene
Matt Helms
John J. Kirkpatrick, IV
Sarah May
Joseph Morreale
Todd Price
Gary Sides

Superintendent
Dr. Andrew G. Houlihan

ADDENDUM 2

PROJECT: Sun Valley Middle School-HVAC, 4-97362029

DUE DATE: 3:30 PM February 22, 2024

Contractor shall fulfill all requirements listed within the bid documents, including additions and changes noted below.

This project is considered a rebid.

Bid Date and Time has been changed to 3:30 p.m., February 22, 2024. All other requirements remain unchanged.

End of Addendum

Growing Possibilities.

In compliance with federal law, UCPS administers all educational programs, employment activities and admissions without discrimination against any person on the basis of gender, race, color, religion, national origin, age or disability.

COST PROPOSAL/EXECUTION OF PROPOSAL

Sun Valley Middle School
HVAC Renovation
BID NO. 4-97362029

By submitting this proposal, the potential contractor certifies the proposal is signed by an authorized representative of the firm.

The cost and availability of all equipment, materials, and supplies associated with performing the services described herein have been determined and included in the proposed cost.

All labor costs, direct and indirect, sales tax, etc. have been determined and included in the proposed cost.

The offeror is aware of prevailing conditions associated with performing these services.

The potential contractor has read and understands the conditions set forth in this bid and agrees to them with no exceptions.

Therefore, in compliance with this Request for Proposals, and subject to all conditions herein, the undersigned offers and agrees, if this proposal is accepted within 60 days from the date of the opening, to furnish the subject services for a cost not to exceed:

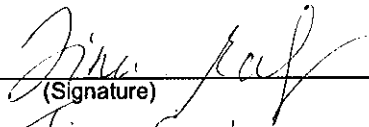
BASE BID (COOLING TOWER)	\$ <u>136,759.00</u>	<u>112</u> *CCD
ALTERNATE 1 (CHILLER)	\$ <u>149,806.00</u>	<u>238</u> *CCD
ALTERNATE 2 (CHILLER PUMP)	\$ <u>6,534.00</u>	<u>56</u> *CCD
ALLOWANCE FUNDS	\$ <u>10,000.00</u>	
ALL INCLUSIVE TOTAL	\$ <u>303,099.00</u>	<u>238</u> *CCD

*CCD: Consecutive Calendar Days required to achieve Final Completion from issuance of Notice to Proceed

ADDENDA ACKNOWLEDGEMENT

ADDENDUM 1: ✓ ADDENDUM 2: ✓ ADDENDUM 3:

EXECUTION

OFFEROR: E2 Mechanical & Refrigeration LLC FEDERAL ID NO. 30-0021918
 LICENSE DESCRIPTION: Mechanical/HVAC LICENSE NO. 10296
 ADDRESS: 4933 Brookshire Blvd. CITY, STATE, ZIP Charlotte, NC 28216
 TELEPHONE NUMBER: 980-365-7615 MOBILE: EMAIL: tearly@e2mechanical.com
 BY:  DATE: 1/18/2024 TITLE: President
 (Signature)
Tina Early
 (Typed or printed name)

Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid

State of North Carolina AFFIDAVIT A – Listing of Good Faith EffortsCounty of Mecklenburg

(Name of Bidder)

Affidavit of E2 Mechanical LLC

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

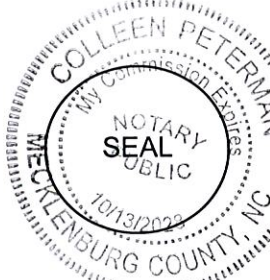
Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

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

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

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

Date: 1/8/24 Name of Authorized Officer: Josh Charlott
 Signature: [Signature]
 Title: CEO



State of NC, County of Mecklenburg
 Subscribed and sworn to before me this 8 day of Jan 2023
 Notary Public [Signature]
 My commission expires 10.13.2023

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond**CONTRACTOR:***(Name, legal status and address)*

E2 Mechanical, LLC
 4933 Brookshire Blvd.
 Charlotte, NC 28216

SURETY:*(Name, legal status and principal place of business)*

Arch Insurance Company
 Harborside 3, 210 Hudson Street Suite 300
 Jersey City, NJ 07311-1107
Mailing Address for Notices

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

OWNER:*(Name, legal status and address)*

Union County Public Schools

 Monroe, NC

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

BOND AMOUNT: 5% Five Percent of Amount Bid

PROJECT:*(Name, location or address, and Project number, if any)*

Sun Valley Middle School - HVAC Renovation

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 11th day of January, 2024.

(Witness)

E2 Mechanical, LLC

*(Principal)**(Seal)*By: *(Title)*

Arch Insurance Company

*(Surety)**(Seal)*By: *(Title)* Katherine Fowler, Attorney-in-Fact

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Note, Loan, Letter of Credit, Currency Rate, Interest Rate or Residential Value Guarantees.

POWER OF ATTORNEY

Know All Persons By These Presents:

That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

Katherine Fowler

its true and lawful Attorney(s)-in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed: Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding One hundred and Fifty Million Dollars (150,000,000.00). Any and all bonds, undertakings, recognizances and other surety obligations.

Surety Bond Number: Bid Bond
Principal: E2 Mechanical, LLC
Obligee: Union County Public Schools

This authority does not permit the same obligation to be split into two or more bonds in order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

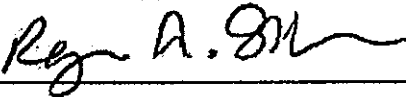
This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on August 31, 2022, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:

"**VOTED**, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on August 31, 2022:

VOTED, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on August 31, 2022, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company. In Testimony Whereof, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this 31st day of August, 2022

Attested and Certified



Regan A. Shulman, Secretary



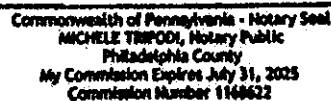
Arch Insurance Company

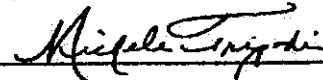


Stephen C. Ruschak, Executive Vice President

STATE OF PENNSYLVANIA SS COUNTY OF PHILADELPHIA SS

I, Michele Tripodi, a Notary Public, do hereby certify that Regan A. Shulman and Stephen C. Ruschak personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.



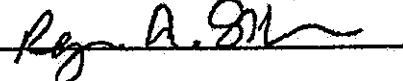


Michele Tripodi, Notary Public
My commission expires 07/31/2025

CERTIFICATION

I, Regan A. Shulman, Secretary of the Arch Insurance Company, do hereby certify that the attached Power of Attorney dated August 31, 2022 on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said Stephen C. Ruschak, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this 11th day of January, 2024.



Regan A. Shulman, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated.

PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:

Arch Insurance - Surety Division
3 Parkway, Suite 1500
Philadelphia, PA 19102

To verify the authenticity of this Power of Attorney, please contact Arch Insurance Company at SuretyAuthentic@archInsurance.com. Please refer to the above named Attorney-in-Fact and the details of the bond to which the power is attached.

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