




Memorandum From Purchasing Department

Letter of Instruction For RFP #251-23-542

To: Prospective Parties

Thank you for your interest in the Wake County Public School System. Please review the following instructions prior to submitting your proposal.

- A pre-proposal conference will be held N/A .
- All submittals must be organized and indexed according to the section number and required subject matter. The information contained in your submittal should be indexed and easily accessed by WCPSS. WCPSS is not required to seek clarification on any proposal that does not meet these minimum requirements.
- Prior to submitting and executing the proposal, please make sure you read and understand the terms and conditions referenced. All proposals are subject to the terms and conditions outlined herein. All responses will be controlled by such terms and conditions and the submission of other terms and conditions, price lists, catalogs, and/or other documents as part of an offeror's response will be waived and have no effect either on this Request For Proposals or on any contract that may be awarded resulting from this solicitation. The attachment of any other terms and conditions by the Offeror may be grounds for rejection of that proposal. Offeror specifically agrees to the conditions set forth in the above paragraph by signature to the proposal.
- WCPSS will adhere to strict deadlines as indicated in the solicitation document and thus will not make exceptions to these dates and times.
- Please read carefully the section titled **CONFIDENTIALITY AND PROHIBITED COMMUNICATIONS DURING THE RFP PROCESS**. All questions should be directed to Jim Jaeger at: jjjaeger@wcpss.net
- Offerors are cautioned that this is a request for offers, not a request to contract, and WCPSS reserves the unqualified right to reject any and all offers when such rejection is deemed to be in the best interest of WCPSS.
- In submitting a proposal the Offeror agrees not to use the results there from as part of any news release or commercial advertising.
- **Submit: one (1) signed, original executed proposal response, along with 1 photocopy and 1 electronic copy** (emails not accepted) of your proposal simultaneously to the address identified below.
Clearly mark each package with: (1) Vendor name; (2) the RFP number; and (3) the due date. Address the package(s) for delivery as shown in the table below. If Vendor is submitting more than one (1) proposal, each proposal shall be submitted in separate envelopes and marked accordingly. For delivery purposes, separate envelopes from a single Vendor may be included in the same outer package. Proposals are subject to rejection unless submitted with the information above included on the outside of the proposal package.
- **Public opening to start at 2:00 p.m. on May 12, 2023 at:**
WCPSS Purchasing Dept. 1551 Rock Quarry Road, Building F Raleigh, NC 27610

 WAKE COUNTY PUBLIC SCHOOL SYSTEM WCPSS Purchasing Dept. 1551 Rock Quarry Rd – Bldg. F Raleigh, NC 27610	Request For Proposal # 251-23-542	
Refer <u>ALL</u> Inquiries in email form to: Jim Jaeger	Proposals will be due: MAY 12, 2023 2:00 PM	
E-Mail: jjaeger@wcpss.net	Contract Type: COMMODITY PURCHASE	
	Commodity: CHILLER REPLACEMENT UNIT-MCHS	
	Using Agency Name: WAKE COUNTY PUBLIC SCHOOL SYSTEM	
	Pre-Proposal Meeting: N/A	

NOTICE TO VENDORS

Sealed Proposals, subject to the conditions made a part hereof, will be received at this office (1551 Rock Quarry Road, Bldg. F, Raleigh, NC) until **2:00 p.m.** on the day of opening and then publicly opened, for furnishing and delivering the commodity/service as described herein. Refer to page 3 for proper mailing instructions.

Proposals submitted via Email or facsimile (FAX) machine in response to this Invitation for Proposals **will not** be acceptable. Proposals are subject to rejection unless submitted on this form.

EXECUTION

In compliance with this request for Proposals, and subject to all the conditions herein, the undersigned offers and agrees to furnish and deliver any or all items upon which prices are proposed, at the prices set opposite each item within the time specified herein. By executing this proposal, I certify that this proposal is submitted competitively and without collusion.

Failure to execute/sign proposal prior to submittal may render bid invalid. Late proposals are not acceptable.

VENDOR:		FEDERAL ID OR SOCIAL SECURITY NO.	
STREET ADDRESS:		P.O. BOX:	ZIP:
CITY & STATE & ZIP:		TELEPHONE NUMBER:	TOLL FREE TEL. NO (800)
PRINCIPAL PLACE OF BUSINESS ADDRESS IF DIFFERENT FROM ABOVE			
TYPE OR PRINT NAME & TITLE OF PERSON SIGNING:		FAX NUMBER:	
AUTHORIZED SIGNATURE:	DATE:	E-MAIL:	

Offer valid for 60 days from date of proposal opening unless otherwise stated here: ____ days Prompt Payment Discount: ____ % ____ days.

Submit **one (1) signed, original executed** proposal response, *along with **one (1) photocopy and 1 electronic copy (flashdrive)** if possible*, (emails not accepted) of your proposal simultaneously to the address identified above. **Clearly mark each package with:** (1) Vendor name; (2) the RFP number; and (3) the due date and (4) buyer name. Address the package(s) for delivery as shown in the table above. If Vendor is submitting more than one (1) proposal, each proposal shall be submitted in separate envelopes and marked accordingly. For delivery purposes, separate envelopes from a single Vendor may be included in the same outer package. Proposals are subject to rejection unless submitted with the information above included on the outside of the proposal package.

MAILING INSTRUCTIONS: Mail/Courier only as specified above, unless otherwise instructed, and only one proposal package with copies per envelope. **Address envelope and include proposal number as shown below.** It is the responsibility of the Vendor to have the proposal in this office by the specified time and date of opening.

<u>DELIVER SEALED PROPOSAL TO: JIM JAEGER</u>
PROPOSAL NO. RFP 251-23-542 Wake County Public School System Purchasing Department 1551 Rock Quarry Road – Bldg. F Raleigh NC 27610-4145

RFP SCHEDULE

The table below shows the *intended* schedule for this RFP. WCPSS will make every effort to adhere to this schedule.

Event	Responsibility	Date and Time	
Issue RFP	WCPSS	APRIL 25, 2023	by 5:00 p.m.
Questions submitted to: jjaeger@wcpss.net (Reference RFP # in subject line)	Vendor/WCPSS	MAY 3, 2023	by 5:00 p.m.
Response to Questions Posted to Websites	WCPSS	MAY 5, 2023	by 5:00 p.m.
Submit Proposal Deadline and Public Bid Opening (At above location)	Vendor/WCPSS	Due: MAY 12, 2023	2:00 P.M ET

PROPOSAL QUESTIONS

Upon review of the RFP documents, Vendors may have questions to clarify or interpret the RFP in order to submit the best proposal possible. To accommodate the Proposal Questions process, Vendors shall submit any such questions, in written form by the above due date. WCPSS will not respond to questions via telephone or telephone message(s). Written questions shall be emailed to at date and time specified above. Vendors should enter "RFP #251-23-542 Questions" as the subject for the email. Questions submittals should include a reference to the applicable RFP section and be submitted in a format shown as follows:

Reference	Vendor Question
RFP Section, Page Number	Vendor question ...?

Questions received prior to the submission deadline date, WCPSS' response, and any additional terms deemed necessary by WCPSS will be posted in the form of an addendum to the Interactive Purchasing System (IPS), <http://www.ips.state.nc.us> and WCPSS Purchasing website <http://www.wcpss.net/domain/101>, and shall become an Addendum to this RFP. No information, instruction or advice provided orally or informally by any WCPSS personnel, whether made in response to a question or otherwise in connection with this RFP, shall be considered authoritative or binding. **Vendors shall rely *only* on written material contained in an Addendum to this RFP.**

Proposal Evaluation

All proposals will be evaluated by representatives of WCPSS. WCPSS may, at its sole discretion, ask for additional information and/or elect to conduct interviews with finalists to clarify information provided in the proposals. The services that are the subject of this RFQ/P are not required to be bid under North Carolina law, and none of the statutory requirements regarding public bidding apply to this RFQ/P. This document, and not those statutes, will govern the selection process.

WCPSS shall not be required to award the contract to the lowest proposed compensation; nor shall WCPSS have any obligation to explain its decision to recommend or not to recommend any particular vendor or to invite or exclude any particular vendor from consideration at any stage of the process. Instead of recommending that contracts be awarded to one or more vendors who presented proposals, WCPSS may, at its sole discretion, reject the proposals and repeat the process, enter into direct contract negotiations with one or more vendors (possibly including vendors who have not previously submitted proposals) or take any other action WCPSS deems advisable under all the circumstances.

WCPSS is expected to make any final selection(s) based upon any factors or considerations WCPSS deems relevant. Factors often considered include qualifications, relevant experience, fee, and ability to perform work in a timely manner. WCPSS retains sole discretion to award the contract to the vendor(s) it believes will best serve the interests of WCPSS and may consider any factors, documents, or information it deems relevant in making that determination. WCPSS shall not have any obligation to explain its decision to select or not select any individual vendors or to invite or exclude any individual vendors from consideration at any stage of the process. The decision of WCPSS to accept or reject any proposals and to award contract(s) to any one or more vendor(s) shall be final and not subject to further review.

Vendors are subject to *immediate disqualification* at any stage of the selection process for any of the following:

- The submission of false or misleading information in the vendor's proposal.
- Any efforts to dissuade or discourage other vendors from submitting proposals.
- Any efforts to influence, dictate, or change the terms of another vendor's proposal.
- Any form of bid collusion or bid rigging.

Scope of Work

Refer to "Project" pages included with this RFP.

The Wake County Public School System (WCPSS) is the nation's sixteenth largest school district and the largest in the state of North Carolina. With 112 elementary schools, 38 middle schools, 28 high schools and 5 special schools, we serve over 160,000 students.

Minimum Requirements

Vendor shall identify and provide all requested rates and confirm part markup restrictions.

Vendor must complete and return all required attachments. Additional information may be included that effect the total cost to WCPSS.

It shall be mandatory that the selected vendor enforce the following employee requirements:
All employees are subject to the required background checks as described in the terms and conditions section of the solicitation. Any employee of awarded vendor that does not meet the requirements and are scheduled for ANY move will subject.

Vendor must disclose third party contractors

Qualifications

THE VENDOR shall be licensed and approved to do business in the State of North Carolina.

No fewer than five years experience in performing the required duties will be accepted.
Please provide references.

Insurance requirements referenced within as well as any Federal, State and Local requirements shall be required and maintained

Present sufficient qualified personnel to carry out the project in a timely fashion. Please include staffing information.

Demonstrated experience in performing similar projects.

Experience with the service and material supply referenced in this RFP.

Vendor will be disqualified for consideration if they are listed on either the State of North Carolina debarred vendor registry or the Federal Government debarred vendor registry. (Federal Government)
<https://www.sam.gov/SAM/pages/public/searchRecords/searchResults.jsf>

(State of North Carolina)
<https://ncadmin.nc.gov/documents/nc-debarred-vendors>

Proposal Evaluation

All proposals will be evaluated by representatives of WCPSS. WCPSS may, at its sole discretion, ask for additional information and/or elect to conduct interviews with finalists to clarify information provided in the proposals.

The services that are the subject of this RFQ/P are not required to be bid under North Carolina law, and none of the statutory requirements regarding public bidding apply to this RFQ/P. This document, and not those statutes, will govern the selection process.

WCPSS shall not be required to award the contract to the lowest proposed compensation; nor shall WCPSS have any obligation to explain its decision to recommend or not to recommend any particular vendor or to invite or exclude any particular vendor from consideration at any stage of the process. Instead of recommending that contracts be awarded to one or more vendors who presented proposals, WCPSS may, at its sole discretion, reject the proposals and repeat the process, enter into direct contract negotiations with one or more vendors (possibly including vendors who have not previously submitted proposals) or take any other action WCPSS deems advisable under all the circumstances.

WCPSS is expected to make any final selection(s) based upon any factors or considerations WCPSS deems relevant. Factors often considered include qualifications, relevant experience, fee, and ability to perform work in a timely manner. WCPSS retains sole discretion to award the contract to the vendor(s) it believes will best serve the interests of WCPSS and may consider any factors, documents, or information it deems relevant in making that determination. WCPSS shall not have any obligation to explain its decision to select or not select any individual vendors or to invite or exclude any individual vendors from consideration at any stage of the process. The decision of WCPSS to accept or reject any proposals and to award contract(s) to any one or more vendor(s) shall be final and not subject to further review.

Vendors are subject to *immediate disqualification* at any stage of the selection process for any of the following:

- The submission of false or misleading information in the vendor's proposal.
- Any efforts to dissuade or discourage other vendors from submitting proposals.
- Any efforts to influence, dictate, or change the terms of another vendor's proposal.
- Any form of bid collusion or bid rigging.

AWARD OF CONTRACT: It is the general intent to award this contract to a single vendor, unless otherwise described in the RFP. The right is reserved, however, to make awards to multiple vendors, if such shall be considered by Wake County Public School System to be most advantageous or to constitute its best interest. Vendors should show any required unit prices, but are requested also to offer a lump sum price where appropriate.

RFP EVALUATION: Proposals are requested for the services in the RFP. Wake County Public School System reserves the right to reject any proposal for any reason. Vendor(s) are cautioned that any/all information furnished or not furnished on this proposal may be used as a factor in determining the award of this contract.

DEVIATIONS: Any deviations from specifications and requirements herein must be clearly pointed out by vendor. Otherwise it will be considered that the services offered are in strict compliance with these specifications and requirements, and successful vendor will be held responsible therefor. Deviations must be explained in detail below or on an attached sheet. However, no implication is made by Wake County Public School System that deviations will be acceptable. Vendor is advised that the response (or lack thereof) on this question does not take precedence over specific responses or non-responses provided elsewhere in this RFP.

FIRM PROPOSAL: Prices and any other entry made hereon by the vendor shall be considered firm and not subject to change or withdrawal.

WCPSS Purchasing Department Ethics Policy and Standards of Conduct shall apply to this RFP.

CONFIDENTIALITY AND PROHIBITED COMMUNICATIONS DURING EVALUATION: During the proposal process from the date proposals are issued through the date the contract is awarded—each Vendor submitting a proposal (including its representatives, sub-contractors and/or suppliers) is prohibited from having any communications with any Wake County Board of Education member, any employee of WCPSS, or any other person in any way involved in the award of this contract, if the communication refers to the content of Vendor's proposal or qualifications, the contents of another Vendor's proposal, another Vendor's qualifications or ability to perform the contract, and/or the transmittal of any other communication of information that could be

reasonably considered to have the effect of directly or indirectly influencing the evaluation of proposals and/or the award of the contract. A Vendor not in compliance with this provision shall be disqualified from contract award. A Vendor's proposal may be disqualified if its sub-contractor and supplier engage in any of the foregoing communications during the time that the procurement is active (i.e., the issuance date of the procurement to the date of contract award). Only those discussions, communications or transmittals of information authorized or initiated by WCPSS for this RFP or general inquiries directed to the purchaser regarding requirements of the RFP (prior to proposal submission) or the status of the contract award (after submission) are excepted from this provision. Notwithstanding the above, the vendor may direct any written concerns, questions or issues to Debra Wallace at dwallace2@wcpss.net.

TERMS AND CONDITIONS

1. **READ, REVIEW AND COMPLY:** It shall be the vendor's responsibility to read this entire document, review all enclosures and attachments, and comply with all requirements specified herein. Vendor shall review WCPSS's Purchasing Department Ethics Policy and Standards of Conduct and shall refrain from any actions that would cause an employee to be in violation of the policies.
2. **NOTICE TO VENDORS:** All proposals are subject to the provisions of special terms and conditions specific to this RFP, the specifications. Wake County Public School System (WCPSS) objects to and will not evaluate or consider any additional terms and conditions submitted with a vendor's response. This applies to any language appearing in or attached to the document as part of the vendor's response. **DO NOT ATTACH ANY ADDITIONAL TERMS AND CONDITIONS.** By execution and delivery of this document, the vendor agrees that any additional terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect.
3. **EXECUTION:** Failure to sign under EXECUTION section will render proposal invalid.
4. **ORDER OF PRECEDENCE:** In cases of conflict between specific provisions in this RFP, the order of precedence shall be (1) special terms and conditions specific to this RFP, (2) specifications, and (3) Instructions to Vendors.
5. **TIME FOR CONSIDERATION:** Unless otherwise indicated on the first page of this document, vendor's proposal shall be valid for 45 days from the date of proposal opening. Preference may be given to responses allowing not less than 45 days for consideration and acceptance.
6. **SPECIFICATIONS:** Any deviation from specifications indicated herein must be clearly pointed out; otherwise, it will be considered that items offered are in strict compliance with these specifications, and vendor will be held responsible therefore. Deviations shall be explained in detail. The vendor shall not construe this paragraph as inviting deviation or implying that any deviation will be acceptable.
7. **CLARIFICATIONS/INTERPRETATIONS:** Any and all questions regarding this document must be addressed to the WCPSS representative named on the cover sheet of this document. Do not contact the school or department directly. Any and all revisions to this document shall be made only by written addendum from WCPSS Purchasing Department. The vendor is cautioned that the requirements of this RFP can be altered only by written addendum and that verbal communications from whatever source are of no effect.
8. **ACCEPTANCE AND REJECTION:** WCPSS reserves the right to reject any and all proposals, to waive any informality in proposals and, unless otherwise specified by the vendor, to accept any item in the proposal.
9. **AWARD OF CONTRACT:** Qualified proposals will be evaluated and acceptance may be made to the proposal most advantageous to WCPSS as determined upon consideration of such factors as: prices offered; the quality of the services offered; the general reputation and performance capabilities of the vendors; the substantial conformity with the specifications and other conditions set forth in the RFP; the suitability of the services; the date or dates of delivery and performance; and such other factors deemed by WCPSS to be pertinent or peculiar to the services in question. WCPSS also reserves the right to reject any and all proposals.
10. **HISTORICALLY UNDERUTILIZED BUSINESSES:** Pursuant to General Statute 143-48 and Executive Order #150, WCPSS invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled.
11. **CONFIDENTIAL INFORMATION:** As provided by statute and rule, WCPSS will consider keeping trade secrets which the vendor does not wish disclosed confidential. Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL" by the vendor. Cost information shall not be deemed confidential. In spite of what is labeled as a trade secret, the determination whether it is or not will be determined by North Carolina law.
12. **AWARD PROCEDURES:** Contract award notice shall be posted on WCPSS website. Contract award notices are sent only to those actually awarded contracts, and not to every person or firm responding to this solicitation.
13. **RECIPROCAL PREFERENCE:** G.S. 143-59 establishes a reciprocal preference law to discourage other states from applying in-state preferences against North Carolina's resident vendors. The "Principal Place of Business" is defined as the principal place from which the trade or business of the vendor is directed or managed.
14. **DEFAULT AND PERFORMANCE BOND:** In case of default by the vendor, WCPSS may procure the articles or services from other sources and hold the vendor responsible for any excess cost occasioned thereby. WCPSS reserves the right to require performance bond or other acceptable alternative guarantees from successful vendor without expense to WCPSS.
15. **GOVERNMENTAL RESTRICTIONS:** In the event any Governmental restrictions are imposed which necessitate alteration of the services prior to their delivery, it shall be the responsibility of the vendor to notify in writing WCPSS, indicating the specific regulation which required such alterations. WCPSS reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the contract.
16. **TAXES:** Any applicable taxes shall be invoiced as a separate item.

17. **SITUS:** The place of this contract, its situs and forum, shall be Wake County, North Carolina, where all matters, whether sounding in contract or tort, relating to its validity, construction, interpretation and enforcement shall be determined.

18. **GOVERNING LAWS:** This contract is made under and shall be governed and construed in accordance with the laws of the state of North Carolina.

19. **INSPECTION AT VENDOR'S SITE:** WCPSS reserves the right to inspect, at a reasonable time, the equipment, plant or other facilities of a prospective vendor prior to contract award, and during the contract term as necessary for WCPSS determination that such services conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the contract.

20. **PAYMENT TERMS:** Payment terms are Net not later than 30 days after receipt of correct invoice or acceptance of goods, whichever is later. Payment may be made by procurement card and it shall be accepted by the vendor for payment if the vendor accepts that card (Visa, Mastercard, etc.) from other customers.

21. **PATENT:** The vendor shall hold and save WCPSS, its officers, agents and employees, harmless from liability of any kind, including costs and expenses, on account of any confidential information, copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this contract, including use by WCPSS or disclosure of any information pursuant to the NC Public Records Act.

22. **ASSIGNMENT:** No assignment of the vendor's obligations nor the vendor's right to receive payment hereunder shall be permitted. However, upon written request approved by the purchasing department and solely as a convenience to the vendor, WCPSS may: a. Forward the vendor's payment check directly to any person or entity designated by the vendor, and b. Include any person or entity designated by vendor as a joint payee on the vendor's payment check. In no event shall such approval and action obligate WCPSS to anyone other than the vendor and the vendor shall remain responsible for fulfillment of all contract obligations.

23. **INSURANCE:**

a. Worker's Compensation including Occupational Disease and Employer's Liability Insurance. Statutory - Amount and coverage as required by state of North Carolina Worker's Compensation laws. Employer's Liability - At least

Part A Bodily Injury Statutory Limits

Part B By Accident \$500,000 each accident

By Disease \$500,000 policy limit

\$500,000 each employee

b. Public liability and Property Damage Insurance - The Vendor shall procure insurance coverage for direct operations, contractual liability and completed operations with limits not less than those stated below:

Occurrence:

General Aggregate \$2,000,000

Premises Operations \$1,000,000

Personal & Advertising Injury \$1,000,000

c. Comprehensive Automobile Liability Insurance, including coverage for owned, hired and non-owned vehicles: A Combined Single Limit for bodily injury and property damage limit of not less than \$1,000,000; and \$2,000 medical payments.

d. Certificates of Insurance acceptable to WCPSS shall be filed with WCPSS prior to commencement of the Work. These Certificates shall contain a provision that coverage afforded under the policies will not be canceled until at least thirty (30) days' prior written notice has been given to WCPSS, and that the Wake County Board of Education is listed as additional insured on general liability.

The successful vendor agrees to hold harmless and indemnify the Wake County Board of Education (WCBOE) for any liability that may arise from the negligent or illegal acts of the vendor's employees or agents.

24. **GENERAL INDEMNITY:** The vendor shall hold and save WCPSS, its officers, agents, and employees, harmless from liability of any kind, including all claims and losses, accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the vendor in the performance of this contract and that are attributable to the negligence or intentionally tortious acts of the vendor. The vendor represents and warrants that it shall make no claim of any kind or nature against WCPSS agents who are involved in the project. This section shall survive the termination or expiration of this contract.

25. **LUNSFORD ACT/CRIMINAL BACKGROUND CHECKS:** The Vendor shall conduct at its own expense sexual offender registry checks on each of its employees, agents, ownership personnel, or contractors ("contractual personnel") who will engage in any service on or delivery of goods to school system property or at a school-system sponsored event. The checks shall include at a minimum checks of the state Sex Offender and Public Protection Registration Program, the state Sexually Violent Predator Registration Program, and the National Sex Offender Registry ("the Registries"). For the Vendor's convenience only, all of the required registry checks may be completed at no cost by accessing the North Carolina Sex Offender Registry website at <http://sexoffender.ncdoj.gov/>. The Vendor shall provide certification on Sexual Offender Registry Check Certification Form that the registry checks were conducted on each of its contractual personnel providing services or delivering goods under this Agreement prior to the commencement of such services or the delivery of such goods. The Vendor shall conduct a current initial check of the registries (a check done more than 30 days prior to the date of this Agreement shall not satisfy this contractual obligation). In addition, Vendor agrees to conduct the registry checks and provide a supplemental certification form before any additional contractual personnel are used to deliver goods or provide services pursuant to this Agreement. Vendor further agrees to conduct annual registry checks of all contractual personnel and provide annual certifications at each anniversary date of this Agreement. Vendor shall not assign any individual to deliver goods or provide services pursuant to this Agreement if said individual appears on any of the listed registries. Vendor agrees that it will maintain all records and documents necessary to demonstrate that it has conducted a thorough check of the registries as to each contractual personnel, and agrees to provide such records and documents to the school system upon request. Vendor specifically acknowledges that the school system retains the right to audit these records to ensure compliance with this section at any time in the school system's sole discretion. Failure to comply with the terms of this provision shall be grounds for immediate termination of the Agreement. In addition, the school system may conduct additional criminal records checks at Vendor's expense. If the school system exercises this right to conduct additional criminal records checks, Vendor agrees to provide within seven (7) days of request the full name, date of birth, state of residency for the past ten years, and any additional information requested by the school system for all contractual personnel who may deliver goods or perform services under this Agreement. Vendor further agrees that it has an ongoing obligation to provide the school system with the name of any new contractual personnel who may deliver goods or provide

services under the Agreement. WCPSS reserves the right to prohibit any contractual personnel of Vendor from delivering goods or providing services under this Agreement if WCPSS determines, in its sole discretion, that such contractual personnel may pose a threat to the safety or well-being of students, school personnel or others.

26. **ACCESS TO PERSONS AND RECORDS:** WCPSS and its internal auditors shall have access to persons and records as a result of this contract. Vendor shall provide reasonable access to all documents, invoices, pay records and other materials involved in this contract.

27. **COMPLIANCE WITH E-VERIFY:** Vendor shall comply with all applicable laws and regulations in providing services under this Contract. In particular, Vendor shall not employ any individuals to provide services to the School System who are not authorized by federal law to work in the United States. Vendor represents and warrants that it is aware of and in compliance with the Immigration Reform and Control Act and North Carolina law (Article 2 of Chapter 64 of the North Carolina General Statutes) requiring use of the E-Verify system for employers who employ twenty-five (25) or more employees and that it is and will remain in compliance with these laws at all times while providing services pursuant to this Contract. Vendor shall also ensure that any of its subcontractors (of any tier) will remain in compliance with these laws at all times while providing subcontracted services in connection with this Contract.

28. **COMPLIANCE WITH AFFORDABLE CARE ACT:** Vendor is responsible for providing affordable health care coverage to all of its full-time employees providing services to the School System. The definitions of "affordable coverage" and "full-time employee" are governed by the Affordable Care Act and accompanying IRS and Treasury Department regulations.

29. **Restricted Companies Lists.** Vendor represents that as of the date of this Contract, Vendor is not included on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C. Gen. Stat. § 147-86.58. Vendor also represents that as of the date of this Contract, Vendor is not included on the list of restricted companies determined to be engaged in a boycott of Israel created by the North Carolina State Treasurer pursuant to N.C. Gen. Stat. § 147-86.81.

30. **Termination for Default.** At any time, the School System may terminate this Contract immediately and without prior notice if Vendor is unable to meet goals and timetables or if the School System is dissatisfied with the quality of services provided. The Vendor shall reimburse the School System for any for any costs and expenses incurred by the School System resulting from the Vendor's default. In the event of a termination pursuant to this section, the school system reserves its rights to pursue all remedies to which it may be entitled at law or in equity.

31. **Termination for Convenience.** The School System may terminate this Contract at any time at its complete discretion upon twenty (20) calendar days' notice in writing from the School System to Vendor prior to the date of termination. In addition, all finished or unfinished documents and other materials produced by Vendor pursuant to this Contract shall, at the request of the School System be turned over to it and become its property. If the Contract is terminated by the School System in accordance with this section, the School System will pay Vendor for all services performed and accepted as of the date of termination.

WCPSS Purchasing Department Ethics Policy and Standards of Conduct

All purchasing department employee conducting business transactions on the behalf of the Wake County Public School System hold positions of public trust which dictates that their actions be governed by the highest standards of personal and business conduct. Each employee must exhibit the highest standards of honesty, integrity, and fairness when engaging in any activity concerning the school system, particularly in relationships with vendors, suppliers, the public and other employees.

Employees shall perform their jobs in a competent and ethical manner without violating the public trust or applicable law, policies, and regulations.

Conflict of Interest:

The following acts are deemed by state law and/or the Board of Education to be in conflict with the interests of the Wake County Public School System.

1. An employee shall not, for personal financial gain, solicit or sell or have any pecuniary (financial) interest in the supplying of any goods, wares, merchandise materials, supplies, services, or equipment to the Wake County Public School System. Approved extended employment shall not be a violation of this.
2. An employee shall not, for personal financial gain, solicit or sell or have any pecuniary (financial) interest in the sale of any goods, wares, merchandise, materials, supplies, equipment, or services to students or employees of this school system at school, on school premises, or any Wake County Public School System facility.
3. An employee shall not act as an agent for any manufacturer, merchant, dealer, publisher, or author seeking to sell any goods, wares, merchandise, materials, supplies, services, or equipment to the Wake County Public School System.
4. An employee shall not receive or accept any gift, reward, gratuity, or other compensation from any manufacturer, merchant, dealer, publisher, or author for influencing or recommending to the school system or any school that it use a seller's goods, wares, merchandise, materials, supplies, services, or equipment.

An employee shall not use for personal financial gain, any school facilities, supplies, equipment, or student labor (student labor during regular school hours), in the manufacture, creation, or repair of any goods, wares, or merchandise for sale, or for the providing of services to the general public. However, this provision shall not prohibit the renting of school facilities to school employees in accordance with Community Schools' policies and regulations. 6. Except as allowed by state law (N.C.G.S. §§14-234, 143-58.1), no employee shall use the powers, policies, and procedures of the State's Division of Purchase and Contract or the school system's Purchasing Division to purchase or procure any property or service for private use or benefit.

Nepotism:

No employee shall approve any contract with or purchase any goods or services from any immediate family member without disclosure to and approval of the Chief Business Officer. In addition, no employee shall recommend the employment of or directly supervise or evaluate any immediate family member without disclosure to and approval of the Assistant Superintendent of Human Resources. Immediate family includes employee's spouse, parents, children, stepchildren, brothers, sisters, mother-in-law, father-in-law, sons-in-law, daughters-in-law, brothers-in-law, and sisters-in-law. In addition, for the purpose of this regulation, anyone living in the same household with the employee is considered a member of the immediate family.

Gifts to Employees:

School system employees shall not accept any gifts except token gifts of insubstantial value. School system employees shall not accept any gift, reward, gratuity, or other compensation from any manufacturer, merchant, dealer, publisher, or author for the purpose of influencing or recommending to the school system or any school the use of a seller's goods, wares, merchandise, materials, supplies, services, or equipment. Refer to Policy: 3243/4243

Company Name (include dba): _____

Phone number: _____ Fax: _____ E-mail: _____

Contact: _____

Corporate Office Address: _____

Wake County Office Address (if different from Corporate): _____

Web Address: _____

Length of time in business: _____ Number of permanent employees: _____

DOT #: _____ MC License #: _____

Insurance Contact: _____ Phone: _____

The Wake County Public School System reserves the right to reject or disqualify any and all vendors, waive informalities and irregularities in the bid process, and to accept vendors, which are considered to be in the best interest of the School System.

WAKE COUNTY PUBLIC SCHOOL SYSTEM BID PROTEST PROCEDURE

PURPOSE

To ensure fairness and to promote open competition, Wake County Public School System shall be consistent in responding to an offeror's protest over contract awards.

PROCEDURE

Any party which is a prospective bidder, offeror, or contractor that may be aggrieved by the solicitation must submit a written protest within five (5) calendar days prior to the opening of the Request for Bid, Request for Proposal.

Any party which is an actual bidder, offeror, or contractor that may be aggrieved by the award of a contract, must submit a written protest within five (5) calendar days of Wake County Public School System's transmitting via fax or email the announcement of intent to award.

The protest must be addressed to the Senior Director of Purchasing, Building F, 1551 Rock Quarry Road, Raleigh, NC 27610 and must include all of the following information:

1. Name, address, telephone number, facsimile number and e-mail of the protester.
2. Signature of the protester or authorized agent.
3. The bid name and number.
4. A detailed statement of the legal and factual grounds of protest including copies of relevant documents.
5. Any supporting exhibits, evidence, or documents to substantiate any claims.
6. All information establishing that the protester is an interested party for the purpose of filing a protest.
7. The form of relief requested.

After careful consideration of all relevant information the Senior Director of Purchasing shall make a written decision. Any and all costs incurred by a protesting party in connection with a protest shall be the sole responsibility of the protesting party.

HISTORICALLY UNDERUTILIZED BUSINESSES: Pursuant to General Statute 143-48 and Executive Order #150, WCPSS invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled. (<https://ncadmin.nc.gov/businesses/hub>)

MBE INFORMATION: (Required)

Please provide the following data in order for WCPSS to provide it to the Office for Historically Underutilized Businesses, NC Department of Administration.

I certify the status as a minority business (at least 51% of business is owned by) as recognized by the State of NC: (<https://ncadmin.nc.gov/businesses/hub>)

(Check all that apply)

- ☐ Black, African American (B)
- ☐ Hispanic (H)
- ☐ Asian American (AA)
- ☐ American Indian (IA)
- ☐ Socially and Economically Disadvantaged (SE)
- ☐ Female (F)
- ☐ Not Applicable

Bidding Company Name: _____

Vendor Signature: _____

Date: _____

Print Name: _____

IDENTIFICATION OF HISTORICALLY UNDERUTILIZED BUSINESS PARTICIPATION

Bid / Solicitation Number: _____

Bid / Solicitation Description: _____

I, _____,
(Name of Bidder)

Do hereby accept that on this project, we will use the following certified Historically Underutilized Businesses (HUBs) as vendors, suppliers, subcontractors or providers of professional services.

Self-Performing: Check here if bidder will be doing all work with no subcontractors or suppliers: _____

Bidder's HUB Certification Status: HUB Certified? (Circle one) **Yes** **No**

Sub-Contract HUB Firm Name, Address and Phone #	Type of Work	\$ Amount*	HUB Category**

* HUB Certification with the NC HUB Office required to be counted toward state participation goals.

Minority categories: Black / African American (B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**), Socially and Economically Disadvantaged (**D**), Disabled Business Enterprise (**DBE**), Nonprofit Work Center for the Blind and Severely Disabled (**NPWC**)

Total value of Certified HUB sub-contracting will be (\$)_____.

Total Bid Amount (\$): _____

HUB Participation Percentage: $\frac{\text{Total value of Certified HUB sub-contracting}}{\text{Total Bid Amount}} = \text{_____}\%$

UNIFORM GUIDANCE

The Contractor is notified that this project may be financed with federal funds. The Contractor shall ensure that all subcontracts and other contracts for goods and services for a federally funded project have the mandated provisions of this directive in their contracts. By submission of a proposal, Contractor agrees to comply with the following provisions. Failure to comply with any and all provisions herein may be cause for the contracting agency to issue a cancellation notice to a contractor.

Remedies for Breach

When federal funds are expended by Wake County Board of Education (the School System), the School System reserves all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.

Termination for cause and for convenience by the School System

When federal funds are expended by the School System, the School System reserves the right to immediately terminate any agreement in excess of \$10,000 resulting from this procurement process in the event of a breach or default of the agreement by Contractor, in the event Contractor fails to: (1) meet schedules, deadlines, and/or delivery dates within the time specified in the procurement solicitation, contract, and/or a purchase order; (2) make any payments owed; or (3) otherwise perform in accordance with the contract and/or the procurement solicitation. The School System also reserves the right to terminate the contract immediately, with written notice to Contractor, for convenience, if the School System believes, in its sole discretion that it is in the best interest of the School System to do so. The Contractor will be compensated for work performed and accepted and goods accepted by the School System as of the termination date if the contract is terminated for convenience of the School System. Any award under this procurement process is not exclusive and the School System reserves the right to purchase goods and services from other vendors when it is in the best interest of the School System.

Equal Employment Opportunity

Except as otherwise provided under 41 CFR Part 60, when funds will be expended by the School System on a contract that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3, Contractor certifies it will comply with the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Davis-Bacon Act, as amended (40 U.S.C. 3141-3148)

During the term of an award for all contracts and subgrants for construction or repair, the Contractor certifies it will be in compliance with all applicable Davis-Bacon Act provisions. In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The School System will report all suspected or reported violations to the Federal awarding agency. Contractor certifies it will comply with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The School System will report all suspected or reported violations to the Federal awarding agency.

Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

The Contractor certifies that during the term of an award for all contracts in excess of \$100,000 that involve the employment of mechanics or laborers, the Contractor will be in compliance with all applicable provisions of the Contract Work Hours and Safety Standards Act. Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

Rights to Inventions Made Under a Contract or Agreement

If the Federal award meets the definition of "funding agreement" under 37 CFR §401.2 (a) and Contractor wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," Contractor agrees to comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387) Compliance

The Contractor certifies that during the term of an award for all contracts by the School System resulting from this procurement process in excess of \$150,000, the Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251- 1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

Debarment and Suspension

Contractor certifies that during the term of an award for all contracts by the School System resulting from this procurement process, the Contractor certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

Compliance with Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

When federal funds are expended by the School System for an award exceeding \$100,000, the Contractor certifies that during the term and after the awarded term of an award for all contracts by the School System resulting from this procurement process, the vendor certifies that it is in compliance with all applicable provisions of the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). The Contractor further certifies that:

No Federal appropriated funds have been paid or will be paid for on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

The Contractor shall require that the language of this certification be included in the award documents for all covered sub-awards exceeding \$100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Compliance with Solid Waste Disposal Act

In the event the Contract involves the purchase of more than \$10,000 in items designed by guidelines of the Environmental Protection Agency at 40 C.F.R. Part 247, Contractor agrees to comply with the requirements of section 6002 of the Solid Waste Disposal Act. In particular, the Contractor certifies that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by applicable specifications or other contractual requirements. Prohibition on certain telecommunications and video surveillance services or equipment

As detailed in 2 CFR § 200.216, Contractor certifies that any equipment, services, or systems provided through this contract shall not use covered telecommunications equipment or services as a substantial or essential component of a system or as part of any system.

Domestic Preference

As detailed in 2 CFR § 200.322, as appropriate and to the extent consistent with law, Contractor certifies that, to the greatest extent practicable, the goods, products, or materials furnished through this award will be produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).

Records Retention Requirements

The Contractor certifies that it will comply with the record retention requirements detailed in 2 CFR § 200.334. The Contractor further certifies that Contractor will retain all records as required by 2 CFR § 200.334 for a period of three years after grantees or subgrantees submit final expenditure reports or quarterly or annual financial reports, as applicable, and all other pending matters are closed.

Certification of Non-Collusion Statement

Contractor certifies under penalty of perjury that its response to this procurement solicitation is in all respects bona fide, fair, and made without collusion or fraud with any person, joint venture, partnership, corporation or other business or legal entity.

Prohibition on Gifts

Contractor certifies that it will comply with the prohibition against giving gifts, gratuities, favors or anything of monetary value to an officer, employee, or agent of the School System. Contractor understands and agrees that violation of these standards will result in termination of the contract and may result in ineligibility for future contract awards.

Rev. 9/21

DELIVER SEALED VIA DELIVERY/COURIER TO: Jim Jaeger

Due by: May 12, 2023 2:00 pm ET

EMAIL: jjjaeger@wcpss.net

QUOTE NO.: 251-23-542

Wake County Public School System

Purchasing Department

1551 Rock Quarry Rd. Bldg. F

Raleigh NC 27610-4145

Please provide a quote for the following items in the template below. This request is a purchase only request and all information should be included below. If allowed and you are quoting a substitute model, you must indicate such on your response and attach all specifications, drawings and information in order for the end user to compare and review. Quotes submitted without the proper documentation will not be considered. Any miscellaneous fees or charges for this quote must be listed below. **Bidding vendor must be a Manufacturer's full-service distributor. No RFQ's from third party brokers will be accepted. Any new bidding vendor to WCPSS should include information on being an authorized vendor for the manufacturer.**

Qty.	Description	Approved Manufacturer Specific-See Spec	Unit Price	TOTAL PRICE
*IMPORTANT NOTES	Provide price for purchase of two (2) 280 Ton nominal capacity Air Cooled Screw Chillers as per attached Chiller schedule and Chiller specification. Price shall include Factory startup and specified 5 year Parts and Labor Warranty. Chiller and accessories must not be delivered prior to September 29th, 2023. Delivery to be coordinated with successful low bid contractor TBD.		\$ IMPORTANT NOTE:	\$ SPECIFICATION SHEETS MUST BE INCLUDED WITH YOUR RFQ SUBMISSION
IMPORTANT *NOTE*	QUOTE DELIVERED PRICING			DELIVERED PRICE
VENDOR NOTE:	IMPORTANT NOTE: ALL BIDDING VENDORS MUST BE "FULL SERVICE DISTRIBUTORS" FOR THE ABOVE REQUESTED PRODUCTS. RFQ'S SUBMITTED FROM BROKERS, 3 rd PARTY AGENTS WILL NOT BE ACCEPTED. BIDDING COMPANIES MUST WORK DIRECTLY WITH THE MANUFACTURER. WITH A SUBMITTED RFQ TO WCPSS, DOCUMENTATION OF BEING AN AUTHORIZED MANUFACTURER VENDOR SHOULD BE PROVIDED, IF NOT CURRENTLY DOING BUSINESS WITH WCPSS. THE AWARDED VENDOR WILL BE EXPECTED TO PROVIDE THE ALL COMMODITIES IN A TIMELY MANNER, COORDINATE DELIVERY, HANDLE ANY AND ALL PRODUCT ISSUES RELATED TO ANY WCPSS ORDER RESULTING FROM THIS RFQ AWARD.			
	FOR: MCHS (FAL)	NO SUBSTITUTIONS-MANUFACTURER SPECIFIC AS SPECIFIED	TOTAL:	\$

Note: Please do not include Sales Tax in the above quote. WCPSS is not tax exempt. N.C. Sales Tax will be added automatically on the awarded purchase order.

Please State Availability: (Date of delivery must be included)

DELIVERY DETAILS: TO BE COORDINATED WITH WCPSS M & O FAL DEPT. AND CONTRACTED MECHANICAL CONTRACTOR

Any Misc. fees or charges must be specified above.

WCPSS reserves the right to amend quantities or cancel bid or an undelivered purchase order due to changes in funds availability

Bidding Company Name: _____ **Date:** _____

Company Rep (Print): _____ **Signature:** _____

AIR-COOLED CHILLER SCHEDULE

MARK	SERVICE	MANUFACTURER / MODEL	REFRIGERANT	CHILLED WATER		PERFORMANCE						ELECTRICAL				EVAP HEATER		PIPING HEAT TRACE		DIMENSIONS AND WEIGHT		NOTES	
				TYPE	NOM. CAPACITY (TONS)	DESIGN CAPACITY (TONS)	FLOW (GPM)	MIN-FLOW (GPM)	SWT (°F)	LWT (°F)	MAX. WPD (°F/H2O)	WTR. FLTR @ 4HR (BEER BUW/M)	WTR. FLTR @ 4HR (BEER BUW/M)	WCA (A)	MCCP (A)	VOLTAGE / PHASE	REC'D (Y OR N)	REC'D (Y OR N)	FOOTPRINT (IN X IN)	HEIGHT (IN)	WEIGHT (LBS)		
CH-1	BUILDING CHW	CARRIER 200A090	R-134A	AND ROTARY SCREW	200	225	5.30	2.95	56	44	12	10.1	14.0	560	660	480/3	YES	YES	1201	379 x 48	91	17,022	1,2,3,4,5,6,7,8,9,10,11,12,13,14
CH-2	BUILDING CHW	CARRIER 200A090	R-134A	AND ROTARY SCREW	200	225	5.30	2.95	56	44	12	10.1	14.0	560	660	480/3	YES	YES	1201	379 x 48	91	17,022	1,2,3,4,5,6,7,8,9,10,11,12,13,14

NOTES

- REFER TO SECTION 2500 FOR ADDITIONAL REQUIREMENTS OF AIR-COOLED CHILLERS.
- SOUND PERFORMANCE IS BASED ON SOUND PRESSURE LEVELS MEASURED AT 30 FEET FROM UNIT AT FULL CAPACITY IN ACCORDANCE WITH AHRI 370.
- CHILLER SHALL INCLUDE TRANSFORMERS TO PROVIDE INTEGRAL POWER FOR CONTROLS & EVAPORATOR BARREL HEATER.
- PROVIDE DEDICATED CIRCUIT FOR PIPING HEAT TAPE FOR EACH CHILLER.
- CAPACITORS ARE BASED ON 0.00119 FOULING FACTORS FOR AIR-COOLED CHILLERS.
- PROVIDE CONCRETE PAD FOR OUTDOOR CHILLERS THAT IS 6 INCHES LONGER AND WIDER THAN UNIT FOOTPRINT AND 6 INCHES DEEP WITH 4 INCHES DEEP CRUSHED STONE BASE. REFER TO DETAIL.
- PROVIDE FACTORY INSTALLED CIRCUIT BREAKERS WATER FLOW SWITCH AND SINGLE POINT ELECTRICAL CONNECTION.
- PROVIDE OPTIONAL WIRE GUARD AROUND UNIT COMPRESSOR/ EVAPORATOR AREA AND CONDENSOR COIL COUVERS. PROVIDE INJECTION AND LIQUID LINE SERVICE VALVES.
- PROVIDE BACKWASH COMPLIANT CONTROLS R/FENFACE.
- PROVIDE WITH FREEZE PROTECTION, ISOLATION SERVICE VALVES, ENERGY MANAGEMENT MODULE, AL FILL/ CU TUBE IN/AT EXCHANGER, LOW SOUND PACKAGE, LOW AMBIENT HEAD PRESSURE CONTROL, MINIMUM LOAD CONTROL, COOL TRIM PANELS, DRI/LES (ALL SIDES) AND HAIL GUARDIA.
- PROVIDE HIGH EFFICIENCY CHILLER, MINIMUM SCHEDULED FULL LOAD BEER FLPV IN ACCORDANCE WITH AHRI 250/90.
- CONTRACTOR SHALL PROVIDE FUSED SERVICE ENTRANCE RATED DISCONNECT SWITCH. PROVIDE EXTERNAL MOUNTED SURGE PROTECTIVE DEVICE.
- PROVIDE MANUFACTURER'S 5-YEAR PARTS AND LABOR WARRANTY. PROVIDE MANUFACTURER'S FACTORY STARTUP.
- CONDENSER COILS SHALL BE CONSTRUCTED OF COPPER TUBES MECHANICALLY BONDED TO ALUMINUM FINS.

**Wake County Public School System
MIDDLE CREEK HIGH SCHOOL
HVAC RENOVATION**

SECTION 23 64 26 – AIR-COOLED CHILLERS

PART 1 - GENERAL

1.1. SUMMARY

- A. Section includes packaged, air-cooled, electric motor driven chillers.

1.2. SUBMITTALS

A. Product Submittals:

1. Product Data: For each type of product indicated include refrigerant, rated capacities, operating characteristics, furnished specialties, and accessories.
 - a. Performance at ARI standard conditions and at conditions indicated.
 - b. Performance at ARI standard unloading conditions.
 - c. Minimum evaporator flow rate.
 - d. Refrigerant capacity of chiller.
 - e. Oil capacity of chiller.
 - f. Fluid capacity of evaporator.
 - g. Characteristics of safety relief valves.
 - h. Minimum entering condenser-air temperature.
 - i. Maximum entering condenser-air temperature.
 - j. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - k. Detail equipment assemblies and indicate dimensions, weights, load distribution, required clearances, method of field assembly, components, and location and size of each field connection.
 - l. Wiring Diagrams: For power, signal, and control wiring.

B. Close-Out Submittals:

1. Operation and Maintenance Data: For each chiller to include in emergency, operation, and maintenance manuals.

**Wake County Public School System
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1.3. EXTRA MATERIALS

- A. Extra Stock: Provide owner with the following extra materials:
 - 1. Quart container of paint used in application of topcoat to use in touchup applications.

1.4. QUALITY ASSURANCE

- A. ARI Certification: Certify chiller according to AHRI 590 certification program(s).
- B. ASME Compliance: Fabricate and label chiller to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1, and include an ASME U-stamp and nameplate certifying compliance.
- C. Efficiencies shall comply with the State Energy Conservation Code.
- D. Electrical Components, Devices and Accessories: UL listed and labeled as defined by NFPA 70, the National Electric Code, or equivalent by a qualified testing agency marked for the intended location and application and accepted by the Authority Having Jurisdiction and Engineer.
- E. Mechanical Equipment and Materials: UL listed and labeled as defined by State Building Codes or equivalent by a qualified testing agency marked for the intended location and application and accepted by the Authority Having Jurisdiction and Engineer.
- F. Testing and listing laboratories of mechanical and electrical equipment shall be accredited by the North Carolina Building Code Council (NCBCC).

1.5. DELIVERY, STORAGE, AND HANDLING

- A. Ship each chiller with a full charge of refrigerant. Charge each chiller with nitrogen if refrigerant is shipped in containers separate from chiller.
- B. Ship each oil-lubricated chiller with a full charge of oil.

1.6. COORDINATION

- A. Coordinate sizes and locations of concrete bases with actual equipment provided. Cast anchor-bolt inserts into bases.

1.7. WARRANTY

- A. Special Warranty: Manufacturer's complete machine parts, labor and refrigerant warranty for 5-years from the date of Owner Acceptance.

PART 2 - PRODUCTS

**Wake County Public School System
MIDDLE CREEK HIGH SCHOOL
HVAC RENOVATION**

2.1. GENERAL REQUIREMENTS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following for screw-type compressor chillers:
 - 1. Carrier (30XA Series)
 - 2. Dunham Bush (AVX-A Series)
 - 3. Johnson Controls/York (YV/YC Series)
 - 4. Trane (ACR Series)

2.2. PACKAGED, AIR-COOLED CHILLERS

- A. Description: Factory-assembled and run-tested chiller complete with base and frame, condenser casing, compressors, compressor motors and motor controllers, evaporator, condenser coils, condenser fans and motors, electrical power, controls, and accessories.
- B. Cabinet: Chiller cabinet shall be manufacturer's standard galvanized steel construction with corrosion protection coating and exterior finish.
- C. Enhanced Sound-Reduction: Factory-provided package designed to reduce sound level without affecting performance.

2.3. CHILLERS WITH ROTARY SCREW COMPRESSORS

- A. Compressors: Positive displacement, direct-drive, semi-hermetic compressors with precision-machined cast-iron casing and manufacturer's standard single or dual rotor design. Each compressor shall be equipped with suction and discharge service valves, crankcase oil heater and suction strainer.
- B. Capacity Control:
 - 1. Constant-Speed Compressors: On-off compressor cycling and modulating slide-valve assembly or port unloaders combined with hot-gas bypass, if necessary, to achieve performance indicated. Maintain stable operation throughout range of operation. Configure to achieve most energy-efficient operation possible.
 - 2. Variable-Speed Compressors: Variable speed compressor control that does not require a slide-valve or capacity control valves to modulate capacity. Maintain stable operation throughout range of operation. Configure to achieve most energy-efficient operation possible.
 - 3. Operating Range: From 100 to 15 percent of design capacity.
 - 4. Condenser-Air Unloading Requirements over Operating Range: Drop-in entering condenser-air temperature of 5 deg F drop for each 10 percent in capacity reduction.

**Wake County Public School System
MIDDLE CREEK HIGH SCHOOL
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- C. Oil Lubrication System: Consisting of pump if required, filtration, heater, cooler, factory-wired power connection, and controls. Provide lubrication to bearings, gears, and other rotating surfaces at all operating, startup, shutdown, and standby conditions including power failure. Provide thermostatically controlled oil heater properly sized to remove refrigerant from oil; factory-installed and pressure-tested piping with isolation valves and accessories; oil compatible with refrigerant and chiller components; and positive visual indication of oil level.
- D. Vibration Control: Balance chiller compressors and drive assemblies to provide a precision balance that is free of noticeable vibration over the entire operating range. Mount individual compressors on vibration isolators.
- E. Compressor Motors: High-torque, induction type motors with inherent thermal-overload protection on each phase and hermetically sealed and cooled by refrigerant suction gas.
- F. Compressor Motor Controllers: Wye-Delta, reduced-voltage controller: NEMA ICS 2, closed transition.
- G. Refrigerant Circuits:
 - 1. Refrigerant: R-134A
 - 2. Refrigerant Compatibility: Chiller parts exposed to refrigerants shall be fully compatible with refrigerants, and pressure components shall be rated for refrigerant pressures.
 - 3. Refrigerant Circuit: Each shall include a thermal- or electronic-expansion valve, refrigerant charging connections, a hot-gas muffler, compressor suction and discharge shutoff valves, a liquid-line shutoff valve, a replaceable-core filter-dryer, a sight glass with moisture indicator, a liquid-line solenoid valve, and an insulated suction line.
 - 4. Pressure Relief Device: ASME-rated, spring-loaded, single- or multiple-reseating type pressure relief valve that complies with requirements in ASHRAE 15 and in applicable portions of ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
- H. Evaporator:
 - 1. Description: Shell-and-tube design. Tested and stamped according to ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
 - 2. Shell Material: Carbon steel.
 - 3. Shell Heads: Removable carbon-steel heads located at each end of the tube bundle.
 - 4. Fluid Nozzles: Terminated with flanged end connections for connection to field piping.
 - 5. Tube Construction: Individually replaceable copper tubes with enhanced fin design, expanded into tube sheets.

**Wake County Public School System
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6. Heater: Factory-installed heater with integral controls designed to protect the evaporator to 0 deg F.
- I. Air-Cooled Condenser: Plate-fin coil with integral sub-cooling on each circuit, rated at 450 psig. Coils shall be constructed of copper tubes mechanically bonded to aluminum fins.
 1. Fans: Direct-drive propeller type with statically and dynamically balanced fan blades, arranged for vertical air discharge.
 2. Fan Motors: Totally enclosed non-ventilating (TENV) or totally enclosed air over (TEAO) enclosure, with permanently lubricated bearings. Equip each motor with overload protection integral to either the motor or chiller controls.
 3. Fan Guards: Steel safety guards with corrosion-resistant coating.
 4. Hail Protection: Provide condenser coils with louvers, baffles, or hoods to protect against hail damage.
- J. Electrical Power: Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary shall provide a single-point field-power connection to chiller. House in a unit-mounted, NEMA 250, Type 3R enclosure with hinged access door with lock and key or padlock and key. Install factory wiring outside of an enclosure in a raceway.
 1. Disconnecting Means: Field-power interface shall be to a NEMA AB 1, instantaneous-trip circuit breaker with lockable handle. Disconnect means shall be interlocked with door operation. Minimum withstand rating shall be as required by electrical power distribution system, but not less than 65,000 A.
 2. Branch power circuit to each motor and to controls with fused disconnect switch or field-adjustable short-circuit trip set point circuit breaker.
 3. Provide each motor with overcurrent protection.
 4. Overload relay sized according to UL 1995 or an integral component of chiller control microprocessor.
 5. Phase-Failure and Undervoltage Relays: Solid-state sensing with adjustable settings.
 6. Control Transformer: Unit-mounted transformer with primary and secondary fuses and sized with enough capacity to operate electrical load plus spare capacity. Power unit-mounted controls where indicated.
 7. Control Relays: Auxiliary and adjustable time-delay relays.
 8. For chiller electrical power supply, indicate the following:
 - a. Current and phase to phase for all three phases.
 - b. Voltage, phase to phase, and phase to neutral for all three phases.
 - c. Three-phase real power (kilowatts).

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- d. Three-phase reactive power (kilovolt amperes reactive).
 - e. Power factor.
 - f. Running log of total power versus time (kilowatt-hours).
 - g. Fault log, with time and date of each.
- K. Control: Standalone and microprocessor based, with all memory stored in nonvolatile memory so that reprogramming is not required on loss of electrical power.
- 1. Enclosure: Unit mounted, NEMA 250, Type 4, hinged or lockable; factory wired with a single-point, field-power connection and a separate control circuit.
 - 2. Operator Interface: Multiple-character digital or graphic display with dynamic update of information and with keypad or touch-sensitive display located on front of control enclosure. In imperial units selectable through the interface, display the following information:
 - a. Date and time.
 - b. Operating or alarm status.
 - c. Operating hours.
 - d. Outdoor-air temperature if required for chilled-water reset.
 - e. Temperature and pressure of operating set points.
 - f. Entering and leaving temperatures of chilled water.
 - g. Refrigerant pressures in evaporator and condenser.
 - h. Saturation temperature in evaporator and condenser.
 - i. No cooling load condition.
 - j. Elapsed time meter (compressor run status).
 - k. Pump status.
 - l. Anti-recycling timer status.
 - m. Percent of maximum motor amperage.
 - n. Current-limit set point.
 - o. Number of compressor starts.
 - 3. Control Functions:
 - a. Manual or automatic startup and shutdown time schedule.
 - b. Entering and leaving chilled-water temperatures, control set points, and motor load limits. Chilled-water leaving temperature shall be reset based on outdoor air temperature.

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- c. Current limit and demand limit.
 - d. External chiller emergency stop.
 - e. Anti-recycling timer.
 - f. Automatic lead-lag switching.
 - g. Variable evaporator flow.
 - h. Thermal storage.
4. Manually Reset Safety Controls: The following conditions shall shut down chiller and require manual reset:
- a. Low evaporator pressure or high condenser pressure.
 - b. Low chilled-water temperature.
 - c. Refrigerant high pressure.
 - d. High or low oil pressure.
 - e. High oil temperature.
 - f. Loss of chilled-water flow.
 - g. Control device failure.
5. Trending: Capability to trend analog data of up to five parameters simultaneously over an adjustable period and frequency of polling.
6. Security Access: Provide electronic security access to controls through identification and password with at least three levels of access: view only; view and operate; and view, operate, and service.
7. Control Authority: At least four conditions: Off, local manual control at chiller, local automatic control at chiller, and automatic control through a remote source.
8. BAS Interface: Factory-installed hardware and software to enable the BAS to monitor, control, and display chiller status and alarms.
- a. BACnet per ASHRAE 135 communication interface with the BAS shall enable the BAS operator to remotely control and monitor the chiller from an operator workstation. All control features and monitoring points displayed locally at chiller control panel shall be available through the BAS.
- L. Insulation: Factory-applied closed-cell flexible elastomeric insulation, 3/4-inch minimum thickness, complying with Section 230719 over all cold surfaces of chiller capable of forming condensation. Seal all seams and joints to provide a vapor barrier. Paint exposed surfaces of insulation to match other painted parts.
- M. Accessories:
- 1. Factory-furnished, chilled-water flow switches for field installation.

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2. Individual compressor suction and discharge pressure gages with shutoff valves for each refrigerant circuit.

2.4. SOUND REDUCTION FEATURES

- A. Sound Reduction Features: Provide factory installed accessories from the chiller manufacturer designed to reduce noise from the standard product.
 1. Low Noise Condenser Fans
 2. Compressor Sound Enclosure
 - a. Enclosures must be easily removed and re-installed without special tools for compressor inspection and maintenance. Field-fabricated enclosures are not acceptable.

2.5. SOURCE QUALITY CONTROL

- A. Perform functional tests of chillers before shipping.
- B. Factory run test each air-cooled chiller with water flowing through evaporator.
- C. Factory test and inspect evaporator and condenser according to ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
- D. For chillers located outdoors, rate sound power level according to ARI 370.

PART 3 - EXECUTION

3.1. EXAMINATION

- A. Examine chillers before installation. Reject chillers that are damaged.
- B. Examine roughing-in for equipment support, anchor-bolt sizes and locations, piping, and electrical connections to verify actual locations, sizes, and other conditions affecting chiller performance, maintenance, and operations before equipment installation.
 1. Final chiller locations indicated on Drawings are approximate. Determine exact locations before roughing-in for piping and electrical connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2. CHILLER INSTALLATION

- A. Equipment Mounting:
 1. Install chillers on cast-in-place concrete equipment bases. Comply with requirements for equipment bases and foundations.

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- B. Maintain manufacturer's recommended clearances for service and maintenance.
- C. Charge chiller with refrigerant and fill with oil if not factory installed.
- D. Install separate devices furnished by manufacturer and not factory installed.

3.3. CONNECTIONS

- A. Comply with requirements for piping specified in Section 232113 and 232116. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to chiller to allow service and maintenance.
- C. Evaporator Fluid Connections: Connect to evaporator inlet with shutoff valve, strainer, flexible connector, thermometer, and plugged tee with pressure gage. Connect to evaporator outlet with shutoff valve, flexible connector, flow switch, thermometer, plugged tee with shutoff valve and pressure gage, and drain connection with valve. Make connections to chiller with a flange.

3.4. STARTUP SERVICE

- A. Engage a factory-authorized service representative to perform startup service.
 - 1. Complete installation and startup checks according to manufacturer's written instructions.
 - 2. Verify that refrigerant charge is sufficient and chiller has been leak tested.
 - 3. Verify that pumps are installed and functional.
 - 4. Verify that thermometers and gages are installed.
 - 5. Operate chiller for run-in period.
 - 6. Check bearing lubrication and oil levels.
 - 7. Verify proper motor rotation.
 - 8. Verify static deflection of vibration isolators, including deflection during chiller startup and shutdown.
 - 9. Verify and record performance of fluid flow and low-temperature interlocks for evaporator.
 - 10. Verify and record performance of chiller protection devices.
 - 11. Test and adjust controls and safeties. Replace damaged or malfunctioning controls and equipment.
- B. Inspect field-assembled components, equipment installation, and piping and electrical connections for proper assembly, installation, and connection.
- C. Prepare test and inspection startup reports.

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3.5. DEMONSTRATION

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

END OF SECTION