The University of North Carolina at Charlotte
Capital Projects
Facilities Management
9151 S Cameron Blvd.
Charlotte, N.C. 28223-0001
TEL: 704-687-0615

PROJECT: **UNC Charlotte Kennedy Chiller/Condenser Water System Renewal Design Services Code:42326 Item:322**

Thank you for your interest in the subject project. This information is being provided to all firms which express an interest in the design of the project. Limit the size of your submittal document to no greater than 12½ inches in height and 9½ inches in width **maximum 30 pages – including standard forms**. Submittals are due in my office by 2:00 p.m., **July 3rd 2024** Do not transmit any submittal information via email.

Submittals **must** include the cover sheet, Sections I and II of the Standard Form 330, the Designer's Supplemental Information Form, along with any additional information considered appropriate. Please deliver one copy of the submittal, along with **one** electronic copy in pdf format USB to my office at the address noted above. Each hard copy should be bound together as a document and the digital submission should be assembled into a single file.

All submittals will be reviewed by the University Designer Evaluation Committee. The preliminary evaluation process will be completed by **July 17th 2024** and firms winnowed for interviews will be notified at that time.

Please deliver all submittals to me at the address written above

Sincerely,

LaKeya Hewlin

The University of North Carolina at Charlotte
Kennedy Chiller/Condenser Water System Renewal
Design Services
Code:42326
Item:322

PROJECT DESCRIPTION: Kennedy Chiller/Condenser Water system Renewal

The project will include the design scope of the following items:

Mechanical System

1. Air-Cooled Chiller (Option - 1: Roof Level)
    a. Replacement of the existing water-cooled chiller with an air-cooled chiller.
    b. The air-cooled chiller could be installed at the existing structural dunnage serving the cooling tower. The existing cooling tower shall be demolished. Evaluate the existing dunnage for structural support capacity for the air-cooled chiller.
    c. Consider primary and secondary pumping arrangements in the existing water-cooled chiller room.
2. Air Cooled Chiller (Option - 2: Ground Level)
    a. Install a new air-cooled on the ground to replace the abandoned Friday's Cooling Tower in the Mechanical/Electrical yard.
    b. The existing cooling tower in the mechanical yard shall be accessed for salvage use or to be demolished.
    c. Install underground chilled water distribution piping from the mechanical yard to the facility.
3. Water-Cooled Chiller (Option - 3: Mezz/Roof Level)
    a. Replacement of the existing water-cooled chiller with in-kind with the exception of a variable flow system for the chiller and cooling tower.
    b. Consider the evaluation and the installation of a waterside economizer since the existing AHUs (with the exception of AHU-2) do not have air-side economizing capacity.
4. Evaluate and provide a report for the initial and long-term cost of executing either option 1, 2 and 3.
5. If an air-cooled chiller is selected, consider evaluating the screw air-cooled chiller type.
6. Consider a resilient and redundant approach as practically possible.
7. The existing water-cooled chiller, cooling tower and associated equipment shall be demolished.

8. Provide variable flow pump(s) as applicable and install two (2) - way valves (Preferably Belimo Energy Valves or approved equal) at the existing Cold & Hot Deck Air Handling Units. Provide chiller plant bypass for minimum flow maintenance. The intent is to provide the infrastructure for a future replacement of the existing Air-Handling Units to VAV AHUs with air-side economizing capability.
9. Before construction starts, provide a temporary cooling system or means and method to provide a cooling system to the facility.
    a. Consider installing temporary service taps for the chiller pipes prior to the beginning of construction.
    b. Consider verifying the existing power availability for the rental chiller.

Control System

1. Integrate new DP sensors, BTU meters as applicable and all necessary instrumentation and control devices for a complete and functional system.
2. All systems shall be integrated to the BAS.

Electrical System

1. Provide new Variable Frequency Drives (VFD) at new pumps.
2. If funding is available, provide new VFDs for the existing AHUs.
3. Provide all necessary power requirements for a fully functional project.

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EXPECTATIONS OF THE DESIGNER:

The Design team must include professionals who can demonstrate high standards of accomplishments and knowledge in the following areas:

- North Carolina State Construction Office and Department of Insurance requirements

and procedures.
- Demonstrated experience with the design of chilled water systems including primary-secondary chilled water systems and associated controls, building control sensors, AHU repairs, and sequence of operations design.
- Success in working with other required disciplines for project design deliverables.

SCOPE OF WORK:

The Designer shall be responsible for, but not limited to, the following items:

- Review all data furnished by the University including existing building documents, reports and records as well as onsite evaluation of the existing HVAC and controls.
- Meet with the University Engineering and Maintenance Operations Department to review design requirements and expectations for the project success.
- Prepare SD/DD and CD plans and specifications in accordance with the NC SCO requirements.
- Provide bidding, contracting assistance and construction administration services.

DESIGNER SELECTION CRITERIA

As detailed in the North Carolina Administrative Code (01 NCAC 30D .0303), the University's Design Selection Committee will use the following in evaluating qualifications:

(1) Specialized or appropriate expertise in the type of project.
(2) Past performance on similar projects.
(3) Adequate staff for the proposed project design team.
(4) Current workload and State projects awarded.
(5) Proposed design approach for the project.
(6) Recent experience with project costs and schedules.
(7) Construction administration capabilities.
(8) Proximity to and familiarity with the area where the project is located.
(9) Record of successfully completed projects without major legal or technical problems.
(10) Other factors that may be appropriate for the project.

Note: One designer will be selected to furnish design for Kennedy Chiller/Condenser Water System Renewal

SCHEDULE:

The designer must be able to complete all requirements of the contract and complete the Construction Document submission for this project in January 2026.

BUDGET:

The total budget for this project is $1,400,000.00 which must provide for design support services, design fees, Construction Administration, and construction of the project scope described above.

This sheet is to be the cover sheet for the submission. If the submittal is bound in a binder, this will be the top sheet visible upon opening the binder cover.

SUBMITTAL DESIGN
July 3rd 2024

UNC CHARLOTTE
Kennedy Chill/Condenser Water System Renewal

FIRM INFORMATION

Engineering Firm	Location (Headquarters & Office Serving this Project)
Add others as needed	Location (Headquarters & Office Serving this Project)

Kennedy Chiller/Condenser
Water System Renewal
UNC CHARLOTTE
Code:42326 Item:322

Design Firm ___

Contact Name _____

Phone: _____
Email: _____

DESIGNER'S STAFFING INFORMATION (To follow cover sheet)

Instructions: Provide information listed below regarding personnel who will be assigned to this project. One person may be assigned to more than one responsibility. Add additional sheets as necessary. In addition to this form, design firms are requested to submit Standard Form 330 for all personnel who will work on the project.

PRINCIPAL IN CHARGE

Name: _____ License # _____ Office Location _____
List of most recent North Carolina State-owned projects on which this person has participated:

Past or Current Projects	% Complete	Location	Responsibility

DESIGN LEADER

Name: _____ License # _____ Office Location _____
List of most recent North Carolina State-owned projects on which this person has participated:

Past or Current Projects	% Complete	Location	Responsibility

CONSTRUCTION ADMINISTRATOR

Name: _____ License # _____ Office Location _____
List of most recent North Carolina State-owned projects on which this person has participated:

Past or Current Projects	% Complete	Location	Responsibility

Submitted by: _____

Signature: _____