

# UNC – Ross Hall Chiller Replacement

## ADDENDUM #1

### CRA# 2023-275

### November 13, 2024

Project: UNC - Ross Hall Chiller Replacement  
UNC Project Number: 2024-041M23

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This Addendum forms a part of the original contract documents, drawings and specifications for the above referenced project. All parts of the original drawings and specifications shall remain in force except as noted below.

BIDDING CONTRACTORS SHALL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM 01 ON THEIR BID FORM.

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#### ROSS HALL - QUESTIONS & ANSWERS

1. I have been looking for the attendance list for the mandatory job walk to be posted but as of this morning no addenda posted. When do you think this will be out?
  - a. Response: **The attendance list is currently posted on the UNC Planning and Construction web site.**
2. Is there a geotechnical report available?
  - a. Response: **There is no Geotech report that we are aware of.**
3. If a tree has to be removed, what is the criteria for replacement?
  - a. Response: **The replacement for one mature tree is two new trees (2 to 1). The new trees to have 2 to 2.5 inch trunks. The existing trees are spring snow crab apples.**
4. If we stay out of the radius of the tree canopy but encounter roots will there be any liability for the survival of the tree?
  - a. Response: **All root damage shall be inspected by UNC to determine tree survivability.**

5. We assume stored items in the mechanical room with chillers will be removed prior to construction. Please confirm.
  - a. Response: **UNC will clear out the stored items prior to construction. Contractor to coordinate space requirements with UNC.**
6. Can you provide manufacturer and breaker type information for the existing MDS switchboard.
  - a. Response: **The existing MDS circuit breakers are Square D, 65kAIC rated breakers.**
7. On Sheet C1.0, there appears to be a note regarding underground electrical and irrigation that should be reinstalled after excavation near the building. Please confirm either size of conduit and wiring or intent of this underground electrical feed that is assumed to be disturbed?
  - a. Response: **Irrigation appears to be just 1" PVC laterals with heads on the south side of the sidewalk (main is on the north side) based on existing drawings. Electrical in area is assumed to be 1 ¼" PVC conduit that feeds pedestrian lighting and emergency phone based on existing drawings. Sleeves for both appear to cross the sidewalk.**
8. Please confirm if there are seismic restraint requirements for this project?
  - a. Response: **There are no seismic requirements on this project.**
9. Please confirm the extent of coordination drawings and modeling required by the electrical contractor?
  - a. Response: **Refer to spec section 26 05 00 for coordination drawing requirements.**
10. Please confirm if there will be any electrical coordination study required for this project?
  - a. Response **Since the new breakers added to the MDS are over 150A, the new breakers shall be adjustable-trip type, and a coordination study is required per spec section 26 28 004.:**
11. Will the existing chemical feed for the condenser water system need to be replaced?
  - a. Response: **No.**
12. Are there existing coupon racks on the open and closed systems?
  - a. Response: **Yes**
13. Will you provide in detail the exact work that needs to be completed on the cooling towers?
  - a. Response: **See sheet M1.0. The scope of work for the cooling tower rebuild is indicated there.**

14. So, the official question that I had was regarding the BAS accepted manufacturers. We are a reliable controls dealer and with the equipment we provide, we have an open protocol with Tridium. I understand that Schneider and Niagara are listed under section "A", but listed in section "B" it states Tridium as the network controller. I just wanted to confirm if Reliable controls would or would not be acceptable for the system.
  - a. Response: **Controls shall be provided by Dynamic Controls Inc. See sheet M3.0.**
15. Is it possible to schedule another site visit to revisit a few items in the basement mechanical room. We would not need to see the other mechanical rooms.
  - a. Response: **UNC is not inclined to schedule another site walk at this time.**
16. Can the three trees that are most likely to be damaged be spaded out and maintained on sight then replaced after construction? If not, what is the minimum acceptable caliper of tree for replacement?
  - a. Response: **If pursued, the contractor to coordinate with UNC the tree maintenance and moving. See question # 3 above for the replacement tree size.**
17. Will the excavation contractor be able to remove and haul off the demolished foundation wall?
  - a. Response: **The general contractor to coordinate the activities of the sub-contractors.**
18. The electrical contractor will pre-emptively move the 911 callbox and light and cut and cap the electrical during construction. Do we need to create a temporary location for a call box, or can that be replaced when construction is completed?
  - a. Response: **The callbox and light can be temporarily taken out of service. The disruption to be minimized, 3 weeks maximum**
19. Who is the mechanical controls vendor?
  - a. Response: **Controls to be provided by Dynamic Controls Inc. See sheet M3.0.**
20. Submittal Checklist Schedule on specification 230500 Section 1.32 requires training on site for Specification Section 230509 "Mechanical Fire Stopping". Please confirm this is required.
  - a. Response: **Contractor's option- Submit evidence that the actual personnel installing firestopping have been properly trained by the manufacturer. This option is in place of training on site.**
21. Submittal Checklist Schedule on specification 230500 Section 1.32 requires extra material for Specification Section 230553 "Mechanical Identification", but there is no mention of a requirement for extra materials inside the actual specification. Please confirm this is required and provide a list of the extra materials needed.

- a. Response: **No extra material is required under Mechanical Identification.**
22. Please confirm if the intention is to completely drain the CHW system or it is possible to isolate the system on areas that will need to be intervened?
- a. Response: **The chilled water system to be completely drained down, flushed, and filled. The contractor to work with UNC to refill system and purge air.**
23. Please confirm if the intention is to completely drain the HTHW system or it is possible to isolate the system on areas that will need to be intervened?
- a. Response: **This is a campus utility. It is envisioned that only a limited drain down will be needed. The contractor to coordinate extent with UNC.**
24. Please confirm if the intention is to completely drain the CW system or it is possible to isolate the system on areas that will need to be intervened?
- a. Response: **The condenser water system to be completely drained. This is to accommodate pipe cleaning and the tower rebuild.**
25. Please confirm if the intention is to replenish enough Propylene Glycol solution to achieve the scheduled concentration or to provide enough Propylene Glycol to fill up the entire system.
- a. Response: **Replace the propylene glycol in the chilled water system to achieve the scheduled value of 30%.**
26. Please confirm if there is an existing Glycol feeder serving this system or if the intention is to provide a new glycol feeder with this project.
- a. Response: **No permanent glycol feeder is required. UNC manually feeds glycol into the chilled water system. The contractor may use a temporary fill station during construction, if desired.**
27. Please confirm if the Mechanical Commissioning is being performed by the owner.
- a. Response: **UNC to provide the commissioning authority. The contractors to support the commissioning process as outlined in spec section 230800.**
28. Control Valve schedule references Add Alternate #2 but it seems the PICV should be part of Add Alternate #1. Please confirm if the PICV are part of Add Alternate #1 or #2.
- a. Response: **The control valves are to be a part of Add Alternate #1.**
29. Please confirm the minimum labor and materials warranty for the new chillers is six years.
- a. Response: **See spec section 236420.1.6 for the chiller warranty.**
30. Please confirm which method to use for measuring deflection and isolation efficiency for each major item of equipment, as depicted on specification 230540 section 3.7.

- a. Response: **Contractor to propose measurement method. Method to be consistent with manufacturer's recommendations and industry standards.**
31. Please confirm other approved vendors for rebuilding of cooling towers.
- a. Response: **No additional vendors have come forward. Sys-Kool is the only known vendor at this time.**
32. Is the cleaning of the existing condenser water piping mentioned on sheet M1.0 project note #6 part of the base bid or Add Alternate #2?
- a. Response: **Base bid.**
33. Can it be assumed the HTHW system will be shut-down at the same the existing absorption chiller, after October 31 of 2025? Or will it be turned off before that?
- a. Response: **The contractor to coordinate the schedule. The HTHW is utilized by the existing absorption chiller and has to remain operational to keep the chiller operational. See Project Note #10 on sheet M1.0 for more information.**
34. It appears the limits of disturbance for the excavation will intersect with the root system of neighboring trees. Will the University's Arborist verify the requirements of trees that are impacted?
- a. Response: **All root damage shall be inspected by UNC to determine tree survivability**
35. If root systems are irreparably damaged will the University be responsible for tree removal and replacement?
- a. Response: **The contractor is responsible for tree replacement.**
36. The Multiple Project Form that was issued with the bid documents refers to two different chillers. Was this form erroneously issued?
- a. Response: **The multiple project form is no longer applicable.**
37. The drawings do not show any required reinforcement for the knock out we are demolishing for removal and installation of chillers. Please confirm none is required.
- a. Response: **Temporary bracing or other means of strengthening the concrete around the knock out wall is not structurally required.**
38. The drawings do not show any required reinforcement for the duct penetrations in the exterior concrete wall. Please confirm none is required.
- a. Response: **Structurally confirmed.**
39. SECTION 262800 LOW-VOLTAGE CIRCUIT PROTECTIVE DEVICES. Section 1.3 C&D. Has UNC had a recent Arc/coordination study completed for Ross Hall Electrical system and if so are those results in an electronic version?

- a. Response: **There is no arc flash study that we are aware of.**
40. Drawing M2.0 Keynotes #9 & #13. Audible/Visible Alarm Devices. Are these part of the Mechanical/controls subcontractors responsibility? If it's Electrical, I'm not finding any specifications for device type etc.
- a. Response: **The indicated audible / visible alarms are part of the Refrigerant Leak Detection system. Refer to 230900 for more information.**
41. A-200 & S101: Detail A3/A-200 and 5/S101 show two different details on the top notch of the knock-out. Which is the correct and is the notch existing or is the expectation to saw cut the notch in?
- a. Response: **Based on the existing structural drawings, there is a notch as shown in the existing concrete beam, as reflected in 5/S401. This condition is to be confirmed in the field. If an existing notch does not occur, it is not expected that a new notch be cut in.**
42. Structural: Does the Bump Out footing and wall require any waterproofing or damp proofing?
- a. Response: **Sheet waterproofing required at wall & footing as noted in section A1/A-200. Fluid-applied waterproofing required at seams of knock-out wall as noted in section A3/A-200. HCM, 11/12/2**
43. Exteriors: Does the existing stonework / precast top cap require any modification or demolition before the bump out is constructed?
- a. Response: **No modification or demolition of existing stonework & cap. New wall construction to work around existing conditions, with sealant at joints adjacent to stone & cap. HCM, 11/12/24**
44. A-520: A backer rod and sealant is the only thing shown for expansion control at the bump out roof to existing brick wall. Is this also required at the vertical joints between the bump out brick walls and existing brick wall or is another form of expansion control required?
- a. Response: **Yes, locate backer rod & sealant at vertical joints. HCM, 11/12/24**
45. What is the thickness and/or weight rating of the Multi-Use concrete sidewalk running next to this project. Is it rated as a fire lane?
- a. Response: **There is unknown thickness and weight rating of the existing sidewalk. It should be assumed that it is rated as a fire lane and should be replaced to match existing if damaged/demolished.**
46. What are the parking fees per day/month for the parking lot just north of the project area?
- a. Response: **Refer to UNC Parking Services web site for more information.**

47. The Contract drawing E1.1 indicates providing (2) New 500A breakers for the New chillers. Is it possible to obtain the SQD name plate data off of the existing Switchboard MDS.
- a. Square D, Type= QED Power Style Switchboard, Enclosure Type= 1, Volts= 480Y/277, Hertz= 60, Max Supply Rating= 3000 A 3PH-4W, Max Section Rating= 3000 A 3PH-4W, Plant Code= 45, Catalog or Drawing No.= 14714321-001

## DRAWING CHANGES

### Sheet M1.1 Mechanical Schedules and Details

- The Control Valve Schedule is mislabeled. The control valves are part of Add Alternate\_#1. The 2-way pressure independent control valves are to be used to convert the chilled water system in Ross to a variable flow system.

**The preceding addendum shall be made a portion of the Contract Documents, and each bidder shall acknowledge receipt of the same in submitting bids. All other conditions and requirements of the Contract Documents will remain unchanged.**

**END OF ADDENDUM #1**

WOW/aqs  
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