UNIVERSITY MEDICAL CENTER OF SOUTHERN NEVADA
BID NO. 2016-13

TRAUMA BUILDING COOLING TOWER REPLACEMENT
Addendum Date: October 5, 2016

ADDENDUM NO. 2

Additional Information

1. UMC will host an ***OPTIONAL*** site walk on Friday, Oct. 7, 2016 from 1 – 2 p.m. If you would like to attend, please meet representatives from UMC in the Trauma Building lobby at 1 p.m. sharp (800 Hope Place, Las Vegas, NV 89102). No questions will be answered at this site walk; rather, it is an opportunity for interested Bidders to review existing conditions based on the information provided in the Questions and Answers section of this Addendum.

2. This Addendum contains responses to all questions related to this Bid that were received by UMC by the September 28 deadline. See "Questions and Answers" section below.

3. Reminder: Bids are due on or before **Wednesday, October 12, 2016**, at **2:00:00 p.m.**, based on the time clock at UMC's Materials Management front desk. Bids will be accepted by UMC's Materials Management department, located in the Delta Point building, 901 Rancho Lane, Suite 200, Las Vegas, NV 89106. Please review Section 8 ("Submission of Bids") of the "Instructions to Bidders" section of the Bid Document for more information regarding Bid acceptance and delivery methods.

   Bids will be opened immediately thereafter in IT Training Room #4, located in the Delta Point building, 901 Rancho Lane, Suite 200, Las Vegas, NV 89106.

Questions and Answers

Attention Bidders: The responses in this section address questions received by UMC in reference to the above-mentioned Bid. They are intended to clarify information contained in the Bid Document. Some questions have been edited for clarity, grammar and/or spelling.

1. Will this project be engineered for electrical, mechanical, & structural? Have roof loads been verified and will this be engineered?

Structural Engineering is currently in process, and will be designed to hold the anticipated load of the Baltimore Aircoil Company ("BAC") unit utilized as the Basis of Design in the Scope of Work. Any work needed to support this unit will be completed by UMC prior to installation of the new units. Any additional support and/or engineering needs required by a Bidder's submission of an alternate model will need to be covered by the Bidder making such request.

Electrical and Mechanical Engineering oversight and design, which will be provided by UMC, will be needed to add electrical and piping for the additional (fourth) pump. It will be assumed that the new cooling towers will utilize existing circuitry. This will be confirmed/designed by engineering consultants retained by

UMC. UMC will provide power to the new motor disconnect. Final Connection of motor to electrical disconnect within 10 feet will be the responsibility of the winning Bidder. The winning Bidder will also be responsible for connection of motor to hydronic piping as described in Question 20 below.

2. **Have the electrical points of connection been determined? Where will power be fed from?**

   Existing power sources for the current towers will be used for the new towers. Three (3) pumps will use existing circuiting. The fourth will require new electric and piping. The winning Bidder will be responsible for connection of piping for the new pump into the existing piping (as described in Question 20 below). Bidders should also include final connection for electrical from motor to disconnect up to 10 feet in their Bids.

   The new towers will use existing power sources. Three (3) pumps will use existing circuiting; the fourth may require new electric and piping. If UMC's engineers determine that additional circuits are required for the additional pump, UMC will address that issue once the electrical requirements have been established.

3. **Will a temporary cooling tower be required?**

   If new tower installation is completed prior to March 15, 2017, there will be no need for temporary cooling for this project. There is a chilled water loop supplied from the Central Power House ("CPH") during winter months.

4. **At the pre job walk conference it was indicated that the desire is to double the size of each cooling tower in order to have redundancy and be able to run one cooling tower with both chillers and remain within the same footprint. Is this still the case?**

   No. Please use the Basis of Design information provided in Section 3.1.3.1.1 of the revised Scope of Work issued with Addendum 1; that design neither doubles the capacity nor increases the size of piping. The BAC model used as the Basis of Design fits the existing footprint.

5. **What are the design conditions of the existing cooling towers? (i.e.: ____GPM from ____F EWT to ___F LWT @ ____F WBT)**

   675 GPM from 95 F EWT, 85 F LWT @ 75 F WBT

6. **What are the condenser water requirements for each chiller? (i.e.: ____GPM from ____F EWT to ___F LWT)**

   675 GPM from 55 F EWT to 45 F LWT

7. **At the pre job walk conference it was indicated that the piping was to be totally reconfigured from the chillers to the cooling towers. Is there an isometric drawing available that would indicate how UMC would like the piping configured? This would allow an "apples to apples" comparison between bids and ensure that UMC gets the finished product that you desire.**

   The BAC model used as the Basis of Design does not require larger piping. Estimates should be based on using the existing piping from towers to chillers.

8. **Is the new condenser water piping to be insulated?**

   Any new piping is required to be insulated.

9. **If no insulation, is the new condenser water piping to be painted?**

   Please provide insulated piping.

10. **The most accessible point for the crane is in the parking lot directly below the cooling towers. Is this an acceptable location to set up the crane?**

    Yes. The winning Bidder will be required to schedule the lift timing with UMC's Public Safety, Safety and Engineering departments a minimum of two (2) weeks in advance of the need.

11. **Related to Question 10 above, are there restricted hours that the parking lot can be used as most of the spaces will be inaccessible during the lifts?**

    As mentioned in the response to Question 10 above, scheduling of lift timing with UMC's Public Safety, Safety and Engineering departments will be required a minimum of 2 weeks in advance of the need.

12. **Scope of Work Section 3.1.3.1.1 references Manufacturer: Baltimore Aircoil Company, Marley or equal. Basis of design is BAC model # XES3E-8518-06K. We would like to offer an alternative.**

    Any substitutions must, at a minimum, meet the same capacities and accessories specifically identified in the revised Scope of Work issued with Addendum 1.

13. **Section 3.1.3.1.5 of the revised Scope of Work mentions that block fill media is not acceptable. Is this still accurate?**

    Yes, this is still accurate. Block fill media is not acceptable. It cannot be properly cleaned and maintained. This specification will remain in place.

14. **Section 3.1.3.1.7 of the revised Scope of Work mentions FRP side panels and inlet louvers. Is this still accurate?**

    The addition of stainless steel side panels is acceptable as long as the overall cost of the project is maintained.

15. **Is the velocity recovery stack referenced in Section 3.1.3.1.18 of the revised Scope of Work required?**

    All specifications listed in the revised Scope of Work are required, unless changed via the "Questions and Answers" section of this Addendum 2. The velocity recovery stack is necessary as a function of safety and must extend above the working deck a minimum of 42 inches.

16. **There is no noise level requirement in the specifications. Typically a hospital will indicate the maximum decibel level at so many feet from the cooling tower to ensure patient comfort. Please advise and modify the Specifications as necessary should UMC choose to add a noise level requirement.**

    Please see the charts below for required noise level specifications:

Top Sound Pressure (dB)		
Octave Band	Distance 5 ft.	Distance 50 ft.
1	79	68
2	79	69
3	78	68
4	74	62
5	72	58
6	66	53
7	61	49
8	60	46
A-wgtd	77	65

Air Inlet Sound Pressure (dB)		
Octave Band	Distance 5 ft.	Distance 50 ft.
1	78	64
2	80	63
3	78	65
4	72	62
5	66	57
6	61	49
7	56	43
8	53	40
A-wgtd	74	63

End Sound Pressure (dB)		
Octave Band	Distance 5 ft.	Distance 50 ft.
1	73	66
2	74	61
3	71	63
4	65	57
5	61	53
6	53	44
7	47	39
8	44	35
A-wgtd	67	59

End Sound Pressure (dB)		
Octave Band	Distance 5 ft.	Distance 50 ft.
1	73	66
2	74	61
3	71	63
4	65	57
5	61	53
6	53	44
7	47	39
8	44	35
A-wgtd	67	59

Air Inlet Sound Pressure (dB)		
Octave Band	Distance 5 ft.	Distance 50 ft.
1	78	64
2	80	63
3	78	65
4	72	62
5	66	57
6	61	49
7	56	43
8	53	40
A-wgtd	74	63

Sound Power (dB)		
Octave Band	Center Frequency (Hertz)	Lw
1	63	98
2	125	97
3	250	97
4	500	93
5	1000	88
6	2000	81
7	4000	76
8	8000	73

17. I can assume that no interruption in service is required in this project.

- **Is a temporary cooling tower or temporary air cooled chiller required or can the chilled water loop be supplied by another building?**
- **If temporary cooling equipment is required, what are the design conditions that the equipment should be sized for?**

As described in the response to Question 3 of this "Questions and Answers" section, there will be no need for temporary cooling if the new tower installation is completed prior to March 15, 2017. The chilled water loop is supplied by the CPH during winter months.

18. Will UMC need assistance with an application to modify the facility's minor source air permit after replacing the cooling tower?

No.

19. Will there be engineering done for structural of the existing cooling tower pedestals, pump pads, and solid separator pad?

UMC will assess these areas for structural integrity to accommodate the new towers and equipment. This work will be performed prior to and/or in conjunction with installation of the new towers and equipment. UMC will perform any needed corrections or additions to the structural support system to accommodate the BAC model used as the Basis of Design. Any additional needs due to a Bidder's submission of an alternate model will need to be covered by the Bidder making such request.

20. **There are (4) 800 GPM pumps called out. Are they to be piped two pumps per cooling tower and dedicated each cooling tower to each chiller? Can you provide more detail for the new pump and cooling tower piping?**

    Two (2) pumps per cooling tower run at lead/ lag (one for redundancy) with variable speed drives installed for each pair so no circuit setters are necessary. Pipe back to common header with valving to allow either set of pumps to run from either cooling tower.

21. **We were told to pipe towers and chillers together in order to run two chillers on one cooling tower. Is this still the case?**

    No. Increasing capacity to allow this to happen would exceed the footprint of the structural supports and weight bearing limits of the structural steel framing.

22. **What is the purpose of increasing the cooling tower size to 288 tons when the current load is 225 ton (one chiller) and 450 tons (two chillers)?**

    UMC desires excess capacity.

23. **How long will the West parking lot be available for staging and crane time?**

    This work and its duration will be carefully coordinated with UMC's Public Safety department. Staging needs will likely utilize the planter area between the parking garage and the parking lot.

24. **Will the current roof drain handle the discharge from the new solid separators?**

    UMC will have an engineer assess this, and if changes are required UMC will make them prior to or in conjunction with the project.

25. **The existing pump pads and solid separator pads are cracked and in poor condition. Will they need to be replaced or can we add the extra pad? Structural engineering?**

    UMC will assess these areas for structural integrity to accommodate the new towers and equipment. This work will be performed by UMC prior to or in conjunction with the new tower and equipment installation.

26. **Should cooling tower have "factory installed" piping for solid separators?**

    Yes.

27. **How many solid separators? One per cooling tower (total of two) or one solid separator alternating (automatic valves and alternator) between the two cooling towers?**

    One solid separator alternating with automatic valves between the two (2) cooling towers.

Changes / Clarifications

Other than the items included previously in this Addendum, there are no further changes or clarifications.

Issued by

Should you have any questions, please contact me at (702) 207-8868 or via email at ashley.kordestani@umcsn.com.

Issued by:

Ashley Kordestani
Senior Management Analyst, Contracts
UMC

Acknowledgement

*****All Proposals submitted shall include a signed copy of this addendum acknowledging receipt and understanding.***

Signature: _____

Title: _____

Company Name: _____

Date Received: _____