

# ADDENDUM No. 1

## RFP No. 17-08

### Annual Service for HVAC Units and Chillers

#### Due Date and Time: April 21, 2017 by 2:00 P.M. (Local Time)

The following adjustments shall be made to the Request for Proposal for Annual Service for HVAC Units and Chillers, RFP No. 17-08 on which proposals are to be received on/or before April 21, 2017 by 2:00 P.M. (local time).

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes seven (7) pages.**

**Offeror is to acknowledge receipt of this Addendum No. 1, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered nonconforming.**

The following forms provided within the RFP Document must be included in submitted proposal:

- City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance
- City of Ann Arbor Living Wage Ordinance Declaration of Compliance
- Vendor Conflict of Interest Disclosure Form

**Proposals that fail to provide these completed forms listed above upon proposal opening will be deemed non-responsive and will not be considered for award.**

## I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the Bid documents which are outlined below are referenced to a page or Section in which they appear conspicuously. The Bidder is to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

<u>Section/Page(s)</u>	<u>Change</u>
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Page 9	Add the following language to the last sentence of Section II, I. Overview: "An allowance of \$30,000 per year will be included in the professional services agreement for corrective maintenance tasks approved by the City at the rate included in the Proposal."
Pages 13-16	Replace Pages 13, 14, 15 and 16 within the RFP Document with the updated Pages 13, 14, 15 and 16 attached hereto.

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## II. QUESTIONS AND RESPONSES

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Is the condenser coil cleaning included for table 1 equipment or just table 2 equipment (it is only stated in the Trane chiller tasking on page 15)?

Response 1: We want coils cleaned on all air conditioning condensers. There are 9 air handlers with condensers and a Trane chiller condenser.

Question 2: Can you provide the sign in sheet for the pre-bid meeting?

Response 2: Yes, see attached hereto.

Respondents are responsible for any conclusions that they may draw from the information contained in the Addendum.

### III. OZONE TRANE CHILLERS

#### **Ozone Trane Liquid Rotary Chiller (180 ton)**

The following work is to be performed during the Start-up, mid-season inspection and checkout three (3) times per year:

##### **a) Start Up- 1-per year**

- 1) General Assembly
  - a) Repair minor leaks as required (e.g. valve packing, flare nuts).
- 2) Controls and Safeties
  - a) Inspect the control panel for cleanliness.
  - b) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - c) Verify all settings in the electronic control panel.
  - d) Test the operation of the chilled water pump and condenser water pump starter auxiliary contacts.
  - e) Verify the setting of the current control device.
- 3) Lubrication System
  - a) Test oil for acid content, and discoloration. Make recommendations to the customer based on the results of the test.
- 4) Motor and Starter
  - a) Clean the starter and cabinet.
  - b) Inspect wiring and connections for tightness and signs of overheating and discoloration.
  - c) Check condition of the contacts for wear and pitting.
  - d) Check contactors for free and smooth operation.
  - e) Check the mechanical linkages for wear, security and clearances.
  - f) Check tightness of motor terminal connections.
  - g) Meg the motor and record readings.
  - h) Verify the operation of the electrical interlocks.
  - i) Measure voltage and record. Voltage should be nominal voltage  $\pm 10$  percent.

##### **b) Mid-season - 1 per year:**

- 1) Verify the operation of the oil heater.
- 2) Verify full water systems including the cooling tower, the condenser, and the evaporator.
- 3) Verify clean cooling tower and strainers.
- 4) Start the condenser water pump, the chilled water pump, and the cooling tower fan(s).
- 5) Test all flow-proving devices on the chilled water and the condenser water circuits.
- 6) Verify flow rates through the condenser and the evaporator.
- 7) Start the chiller.
- 8) Verify the starter operation, amperage, and voltage.
- 9) Verify the operation of all timing devices.
- 10) Check the set point and sensitivity of the chilled water temperature control device - verify the operation.
- 11) Verify the operation of the condenser water temperature control device.
- 12) Check the refrigerant charge per Trane specifications.

- 13) Log the operating conditions after the system has stabilized.
- 14) Review operating procedures with operating personnel.
- 15) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

**c) Check-out - 1 per year**

- 1) Check the general operation of the unit.
- 2) Log the operating temperatures, pressures, voltages, and amperages.
- 3) Check the operation of the control circuit.
- 4) Check the operation of the motor and starter.
- 5) Analyze the recorded data. Compare the data to the original design conditions.
- 6) Review operating procedures with operating personnel.
- 7) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

**IV. Ozone Trane Air Cooled Scroll Chillers (60 ton)**

- a) The following work is to be performed during the Start-up and mid-season inspection three (3) times per year:

- 2) General Assembly
- 3) Inspect for leaks and report results.
- 4) Repair minor leaks as required (e.g. valve packing, flare nuts).
- 5) Visually inspect condenser coils for cleanliness.
  - i) Lubricate the condenser fan bearings, if applicable.
- 6) Controls and Safeties
- 7) Inspect the control for cleanliness.
- 8) Inspect wiring and connections for tightness and signs of overheating and discoloration.
- 9) Verify the working condition of all indicator/alarm lights, if applicable.
  - i) Test the low evaporator pressure safety device. Calibrate and record setting.
- 10) Lubrication System
- 11) Check oil level in the compressor(s).
- 12) Test oil for acid content and discoloration. Make recommendations to the customer based on the results of the test.
  - i) Verify the operation of the oil heater.
- 13) Motor and Starter
- 14) Clean the starter and cabinet.
- 15) Inspect wiring and connections for tightness and signs of overheating and discoloration.
- 16) Check the condition of the contacts for wear and pitting.
- 17) Check the contactors for free and smooth operation.
- 18) Check the tightness of the motor terminal connections.
- 19) Meg the motor(s) and record readings.
- 20) Verify the operation of the electrical interlocks.
  - i) Measure voltage and record. Voltage should be nominal voltage  $\pm 10\%$ .

## **b) Mid-Season**

- 1) Verify the operation of the oil heater(s), if applicable.
- 2) Start the unit.
- 3) Verify the starter operation.
- 4) Verify smooth operation of the compressors and fans.
- 5) Verify the operation of all timing devices.
- 6) Check the set point and sensitivity of the discharge temperature control device.
- 7) Verify the operation.
- 8) Verify the operation of the condenser fan control device(s).
- 9) Verify the operation of the low ambient dampers, if applicable.
- 10) Check the superheat and sub cooling of the refrigerant circuit(s).
- 11) Verify full refrigerant circuit(s). Check sight glasses, if applicable.
- 12) Test the operation of the high condenser pressure safety device. Calibrate and record setting, if applicable.
- 13) Log the operating conditions of the unit after the system has stabilized.
- 14) Review operating procedures with operating personnel.
- 15) Provide a written report of the completed work, operating log, and indicate any uncorrected deficiencies detected.
- 16) Record settings on controller, if applicable.

## **c) Check-out Inspection (1 time per year)**

Check the general condition of the unit.

- 1) Check the operation of the control circuit.
- 2) Check the operation of the motor(s) and starter(s).
- 3) Log the operating conditions after the system has stabilized.
- 4) Analyze the recorded data. Compare the data to the original design conditions.
- 5) Review operating procedures with operating personnel.
- 6) Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

## **V. Condenser Cleaning**

The following work is to be performed during the Start-up and mid-season inspection two (2) times per year:

### **a) Air Cooled Condensers (1-10 Tons) CDS-220A**

- 1) Clean air-cooled condenser, using pressurized water.

**Table 2: Ozone Chillers to be serviced for start-up, mid-season and checkout**

<b>Description</b>	<b>Location</b>	<b>Make</b>	<b>Model</b>	<b>Serial</b>	<b>Tasks</b>
<b>180 Ton Chiller</b>	Ozone Building Upper Level East Unit	Trane	RTHB180	U95F08235	All
<b>Trane Chiller Condensing Unit</b>	Outside Ozone Building by Basin 4 Serves 60 ton chiller	Trane	CAUCC60	C99D05520M	All associated
<b>60 Ton Chiller</b>	Ozone Building Upper Level West Unit	Trane	RTHB60	Unknown	All

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# HVAC - Pre Bid Meeting

Zachery Devine Dunbar Mechanical 2806 Reynolds Rd Toledo OH 43635  
zdevine@dunbarmechanical.com

Cameron Lewis Metro Controls CLewis@metrocontrols.com

Jim Gout Harpco Mechanical 248-790-9628 harpco\_mechjg@yahoo.com

Joe Thomas Trane 734-788-1819 JOE.THOMAS@TRANE.COM

Thomas Wheaton Hayes Mech. 989-401-5599  
T.wheaton@hayesmechanical.com

Vaughn Brattol Northstar Mech. 586-899-5920  
VAUGHN@NORTHSTAR-HVAC.COM

Gwen Pettit Siemens 734-892-9569  
gwen.doty@siemens.com

Eric Marowsky Johnson Controls 734-780-5430  
Eric.Marowsky@jci.com

Bryan Vartanian Johnson Controls 734-97474-1823  
bryan.d.vartanian@jci.com

Brian Rogers WEA

Mike Swigabey WTP

Tera Wierenga Pleune 616-293-2040  
twierenga@pleuneservice.com

BRIAN STEGLITZ CITY OF AA bsteglitz@azgov.org