ADDENDUM 1 – March 29, 2022

RE:  Rinard Orchid Greenhouse Mechanical Cooling Improvements
     Project No. 2022-025.01 GH1
TO:    Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 14, 2022, as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form Supplements. Failure to do so may subject Bidder to disqualification.

This Addendum is issued in accordance with the provisions of the Instructions to Bidders (AIA A701, 2018 Ed.) and Supplementary Instructions to Bidders Documents of the Project Manual.

This Addendum consists of 11 Page(s), including the attachments listed.

CHANGES TO PRIOR ADDENDA:
1. Not Applicable

CHANGES TO BIDDING REQUIREMENTS:
2. Notice to Bidders: The Bid Date has been changed to April 19, 2022 at 2 p.m.

3. Section 00 43 00 – Bid Form Supplements: Replace Page 3 with the attached Page 3. The Bidder shall provide an expected Date of Substantial Completion

CHANGES TO CONDITIONS OF THE CONTRACT:
4. None
CHANGES TO THE SPECIFICATIONS

5. In Section 01 10 00 – Summary, revise paragraph 1.2-E.2 to read as follows:

   “2. Date of Substantial Completion: No later than six weeks after delivery of the longest lead-item material or equipment.”

6. In Section 23 81 03 – Packaged Rooftop Air Conditioning Units – Small Capacity, add the following to Article 1.11:

   “C. Manufacturer to provide two years of field service on installed DOAS unit’s: manufacturer to assist with adjusting units to optimize environmental controls.”

7. In Section 23 81 03 – Packaged Rooftop Air Conditioning Units – Small Capacity, revise paragraph 2.1-D to read as follows:

   “D. Configuration: horizontal air delivery”.

8. In Section 23 81 03 – Packaged Rooftop Air Conditioning Units – Small Capacity, replace paragraph 2.1-Q with the following:

   “Q. Controls:
   1. Direct Digital Controller (DDC):
      a. BACnet\textsuperscript{12} protocol capable.
      b. Control program options shall include multiple variations for control priority, night set back and selectable overrides for field selection.
      c. Unit shall include factory supplied supply air temperature and R.H. sensor (field install), entering coil or outdoor air temperature and R.H. sensor, and evaporator leaving air temperature sensor.
      d. Shall provide and display a current alarm list and an alarm history list.
      e. Compressor minimum run time (5 minutes) and minimum off time (5 minutes) shall be provided.
      f. Shall have service run test capability.
      g. Shall have a service Diagnostic mode.
      h. Single circuit systems shall have a mechanical method of capacity modulation and dual circuit system shall have at least (1) compressor with a mechanical method of capacity modulation controlled with system logic to maintain supply-air temperature set point.
      i. Unit shall be complete with self-contained low voltage control circuit.
   2. Thermostat:
      a. Programable thermostat.
      b. Thermostat to be installed on location indicated on the drawings.
      c. Thermostat shall be corrosion resistant for harsh environment.”

\textsuperscript{1}BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

\textsuperscript{2}LonWorks is a registered trademark of Echelon Corporation.
9. In Section 23 81 03 – Packaged Rooftop Air Conditioning Units – Small Capacity, add the following to paragraph 2.1-R:

“6. Unit shall be equipped and connected to shutoff when building fire alarm control panel is tripped by fire control sensors.”

10. In Section 23 81 03 – Packaged Rooftop Air Conditioning Units – Small Capacity, replace paragraph 2.2-A with the following:

“DOAS_1:
1. 1.5 hp rated load and 2.2 amperes.
2. 460 volts, single, and three phase, 60 Hz.
3. 40 amperes maximum fuse size.
4. 30.6 minimum circuit ampacity.

DOAS_2:
1. 1 HP rated load and 1.4 amperes.
2. 460 volts, single, and three phase, 60 Hz.
3. 30 amperes maximum fuse size.
4. 18.8 minimum circuit ampacity.”

11. In Section 23 81 03 – Packaged Rooftop Air Conditioning Units – Small Capacity, replace Schedule A with the following:

<table>
<thead>
<tr>
<th>Drawing Code</th>
<th>DOAS-1</th>
<th>DOAS-2</th>
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<tr>
<td>Location</td>
<td>(N.W.) G.H.</td>
<td>(N.E.) G.H.</td>
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<tr>
<td>Manufacturer</td>
<td>Carrier Spec</td>
<td>Carrier Spec</td>
</tr>
<tr>
<td>Model</td>
<td>62X series</td>
<td>62X series</td>
</tr>
<tr>
<td>Unit voltage</td>
<td>460 V</td>
<td>460 V</td>
</tr>
<tr>
<td>Altitude</td>
<td>860+</td>
<td>860+</td>
</tr>
<tr>
<td>Supply Fan</td>
<td>2050 CFM</td>
<td>1200 CFM</td>
</tr>
<tr>
<td>Outside airflow</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>External Static Pressure</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fan Motor</td>
<td>1.5 HP</td>
<td>1 HP</td>
</tr>
<tr>
<td>Cooling</td>
<td>15 TON</td>
<td>8 TON</td>
</tr>
<tr>
<td>Total Cooling Capacity</td>
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<td>104 MBH</td>
</tr>
<tr>
<td>Sensible Cooling Capacity</td>
<td>65 MBH</td>
<td>38 MBH</td>
</tr>
<tr>
<td>Entering air temperature (dry bulb)</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Entering air temperature (wet bulb)</td>
<td>88</td>
<td>86</td>
</tr>
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</table>

a) CHANGES TO DRAWINGS:

12. Sheet G001: General Notes:
A. Delete Note 11.
B. Add Note 16 to read as follows:
C. “16. DESIGN INTENT: THESE SYSTEMS ARE DESIGNED TO SUPPLEMENT THE EXISTING GREENHOUSE EVAPORATIVE COOLING SYSTEMS.
D. 16.1. CONSERVATORY 106: PROVIDE SUPPLEMENTAL COOLING TO MAINTAIN DRY BULB TEMPERATURE AT 82 DEG. ± 3 DEG.
E. 16.2. COOL HOUSE 108: PROVIDE SUPPLEMENTAL COOLING TO MAINTAIN DRY BULB TEMPERATURE AT 75 DEG. ± 5 DEG.”

13. Sheet A101, Replace Sheet A101 with Revised Sheet A101-R1

ATTACHMENTS:

Pre-Bid Agenda Minutes
Pre-Bid Agenda Attendance List
Revised Drawing Sheets A101-R1, M101-R1, M701-R1

END OF ADDENDUM 1
Pre Bid Conference – Agenda

Ball State University
Facilities Planning & Management
Pre-Bid Conference

AGENDA

Rinard Orchid Greenhouse Mechanical Cooling Improvements
Ball State University
BSU Project No. 2022-025.01 GH1
March 24, 2022

I. Project Team
A. Owner’s Representative(s):
   David Chadburn, Facilities Planning & Mgmt, 765-285-5628, email: david.chadburn@bsu.edu
   Stephanie Dodds, Facilities Planning & Mgmt, 765-285-5639, email: stephanie.dodds@bsu.edu
   Greg Graham, Facilities Planning & Mgmt, 765-285-2828, email: ggraham@bsu.edu
   Kelly Knable, Facilities Planning & Mgmt, 765-285-0585, email: kknable@bsu.edu
   Ryan Koenker, Facilities Planning & Mgmt, 765-285-2821, email: rkoenker@bsu.edu
   Paul Sternberg, Facilities Planning & Mgmt, 765-285-2823, email: pmsternberg@bsu.edu
   June Sanders, Purchasing, 765-285-1548, email: jasanders3@bsu.edu

B. Consultant’s Representative(s):
   Stephen Culbert, P.E., Loftus Engineering, Inc., (317) 352-5822, email: sculbert@loftusengineering.com

A. Availability of Contract Documents.
B. Interpretation of Contract Documents.
C. Addenda.
D. Substitutions.

III. Bidding Procedures.
A. Bidding Date: April 5, 2022 @ 2 p.m.
   Location: Purchasing Conference Room
   Service & Stores Building
   3401 N. Tillotson Avenue
   Muncie, Indiana 47306

B. Bidding Form and Other Documents.
   1. Indiana Form 96 (Revised 2013).
      a. Fill out Part II., Section I. Experience Questionnaire
      b. Fill out Part II., Section II. Plan and Equipment Questionnaire
      c. Attach Part II., Section III. Contractor’s Financial Statement.
      d. Fill out Part II., Section IV. Contractors Non – Collusion Affidavit
      e. Fill out Part II., Section V. Oath and Affirmation

   2. Bid Form Supplements, Document 00 43 00
      Appendix A.
      (1) Acknowledgment of Receipt of Addenda.
      (2) Project Completion
      Appendix B. Alternatives,
      Appendix C. Unit Prices,
      Appendix D. Principal Subcontractors
      Appendix E. Supplementary General Construction Information
      Appendix F. Supplementary Mechanical Information
      Appendix G. Supplementary Electrical Information
      Appendix H. Supplementary Telecommunications Information

   3. Representations and Certifications, Document 00 45 00
      Appendix 1. Nondiscrimination Compliance Statement
      Appendix 2. Contractors Certification of Self Performance
      Appendix 3. Contractors Certification of Authorized Employment
      Appendix 4. Drug Testing Plan
      Appendix 5. Contractors Certification of Training Program Compliance
      Appendix 6. Contractors Certification of Pre-Qualification Compliance
      Appendix 7. Bidder’s Check List
4. MBE/WBE/Veteran Participation Plan, Document 00 45 39
   MBE / WBE / Veteran Subcontractor Plan
   Documentation of Effort to Meet MBE / WBE / Veteran Participation
   MBE / WBE / Veteran Letter of Intent to Perform

   Bid Security, Document 00 43 13.

5. Documents that must be submitted by the Awarded Contractor prior to mobilization.
   Section 00 61 00 – Bond Forms: AIA Document A312 - Performance Bond and Payment Bond
   Section 00 73 73 – Escrow Agreement: Owner will provide document after the award of the project.

IV. Scope of Project.
   A. Summary of Work.
   B. Project Schedule.
   C. Access to Project Area.
   D. Coordination with Other Projects.
   E. Coordination with Owner Occupancy.

V. Questions.

VI. Tour of Project Site.

   Parking is available in Lot R-11. Access from University Avenue and park on the south side of the Power Plant / West Quad buildings.

End of Agenda
<table>
<thead>
<tr>
<th>NAME</th>
<th>REPRESENTING</th>
<th>PHONE NUMBER</th>
<th>EMAIL ADDRESS</th>
</tr>
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<tbody>
<tr>
<td>Doug Featherston</td>
<td>Sidney Electric</td>
<td>765-808-4200</td>
<td><a href="mailto:featherston@sidneyelectric.com">featherston@sidneyelectric.com</a></td>
</tr>
<tr>
<td>Jane Sanders</td>
<td>BSU Nicholas</td>
<td>765-285-1945</td>
<td><a href="mailto:jsanders3@bsu.edu">jsanders3@bsu.edu</a></td>
</tr>
<tr>
<td>Stephanie Dodds</td>
<td>BSU</td>
<td></td>
<td><a href="mailto:stephanie.dodds@bsu.edu">stephanie.dodds@bsu.edu</a></td>
</tr>
<tr>
<td>Stephen Culpit</td>
<td>Loftus Engineering</td>
<td>317-352-5822</td>
<td><a href="mailto:sculpet@loftusengineering.com">sculpet@loftusengineering.com</a></td>
</tr>
<tr>
<td>Paul Sternberg</td>
<td>BSU FPM</td>
<td>765-285-2823</td>
<td><a href="mailto:pmsternberg@bsu.edu">pmsternberg@bsu.edu</a></td>
</tr>
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</table>
APPENDIX A - RECEIPT OF ADDENDA/PROJECT COMPLETION

1. ADDENDA

The Bidder acknowledges receipt of the following Addenda:

Addendum No. _____ Dated ________________
Addendum No. _____ Dated ________________
Addendum No. _____ Dated ________________
Addendum No. _____ Dated ________________
Addendum No. _____ Dated ________________

2. PROJECT COMPLETION

If this Bid is accepted, we will:

Commence on site work on the 18th day of April, 2022 and
Substantially Complete the Work by the _____ Day of _____________, 202__.

3. MBE/WBE/VBE PARTICIPATION PLAN

The Bidder has read MBE/WBE/Veteran Business Participation Plan, Document 00 45 39, and understands that failure to include the completed MBE/WBE/VBE Contractor, Subcontractor, Material Supplier Plan (page 3) and Documentation of Effort to Meet MBE/WBE/Veteran Participation (page 4) WILL result in rejection of the Bid.

(Initialed by signing officer)
**PACKAGE OR UNIT SCHEDULE**

<table>
<thead>
<tr>
<th>UNIT DATA</th>
<th>DRAWN THROUGH SUPPLY FAN DATA</th>
<th>COILS COIL DATA</th>
<th>FILTERS</th>
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<tbody>
<tr>
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<td>MODEL</td>
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<td>11010</td>
<td>CMR</td>
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<td>240-240</td>
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</table>

**SEQUENCE OF OPERATIONS**

**DOCK 1:** Unit to operate with 115 V AC.
- All fans in fan zones programmed to close above 78°F (26°C) to prevent overheating of fixtures (units)
- Supply air to the system

**DOCK 2:** Unit to maintain 80°F (27°C) with 115 V AC.
- All fans in fan zones programmed to close above 78°F (26°C) to prevent overheating of fixtures (units)
- Supply air to the system

**ALARMS:**
- Expired HVAC system to turn off all units using auxiliary power by default
- Connections to alarm systems to meet all local and state codes.