### Computer Room AC Unit

<table>
<thead>
<tr>
<th>Model</th>
<th>QTY</th>
<th>Description</th>
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<tbody>
<tr>
<td>LIEBERT MCL-110</td>
<td>1</td>
<td>Computer Room AC Unit</td>
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**Notices:**
- Computer Room AC Unit shall include the following features, options and accessories:
  - 10" Seismic Rated Floor Stand
  - Factory Microprocessor Controls with Display Panel and BACnet Communication to interface with BAS
  - Single Point Power with Factory Disconnect
  - 65KA SCR
  - 14 Gauge, Welded Frame, with AutoPhoretic Coating
  - Front Service Access
  - Dual Refrigeration Circuits with Liquid Line Filter Driers, Refrigerant Sight Glasses, Expansion Valves, and Liquid Line Solenoid Valves
  - Factory Installed Dual Float Condensate Pump with Unit Alarm Indication and Unit Shutdown Upon
  - Stainless Steel Drain Pan

### Computer Room Outdoor Condensing Unit

<table>
<thead>
<tr>
<th>Model</th>
<th>QTY</th>
<th>Description</th>
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<tbody>
<tr>
<td>LIEBERT MCL-055</td>
<td>1</td>
<td>Computer Room Outdoor Condensing Unit</td>
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</table>

**Notices:**
- Computer Room Outdoor Condensing Unit shall include the following features, options and accessories:
  - Factory Microprocessor Controls to Communicate with Indoor Unit via Field Installed Comm Cable.
  - Single Point Power with Factory Disconnect
  - 65KA SCR
  - Dual Refrigeration Circuits
1. REMOVE SUPPLY AND RETURN AIR DUCTWORK, AIR OUTLETS, AND ALL ASSOCIATED SUPPORTS. CAP REMAINING DUCT WHERE INDICATED. REPLACE CEILING TILES.

2. REMOVE AND/OR CUT RAISED FLOOR TILES TO ACCOMMODATE NEW AC UNIT.
1. Refrigerant piping consists of two gas pipes and two liquid return pipes. Trap gas piping at bottom of riser. Sizes per manufacturer. Refer to detail M5.01.
2. Existing chilled water AC unit. See tab notes on M0.01.
3. Extend 50x34 return duct up to ceiling plenum. Fit ceiling grid to duct.
4. Extend 80x24 return duct up to ceiling plenum. Fit ceiling grid to duct.
5. 22x22 grille (price 610) open to ceiling plenum. Refer to airflow diagram 1/M5.01.

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Project No.
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PROVISIONAL STAMP:
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ELECTRICAL-MECHANICAL ENGINEERING BUILDING (EEME)
COMPUTER ROOM COOLING
DEBBA

ISDA FIRM:
CONSULTANTS:

ISSUED FOR BID:
04/19/24

FIRST FLOOR - HVAC

FIRST FLOOR - HVAC

1/8" = 1'-0"
1. Refrigerant piping consists of two gas pipes and two liquid return pipes. Trap gas piping at bottom of riser. Sizes per manufacturer. Refer to detail 3/M5.01.
2. Rack on wall with Unistrut and cover exposed section with metal shrouds (12"W x 4"D) painted to match wall color.
REFRIGERANT PIPING CONSISTS OF TWO GAS PIPES AND TWO LIQUID RETURN PIPES. ROUTE DOWN THROUGH ROOF (SEE DETAIL 5/M5.01). TRAP GAS PIPING AT MIDPOINT AND BOTTOM OF RISER (SEE DETAIL 3/M5.01). SIZES PER MANUFACTURER.
Server Room Cooling Diagram

**Server Room Cooling Control Intent**

1. **Intent of Operations:**
   - The existing thermal load serves from the building HVAC system and should be minimized as much as possible to the space. The existing control system should be used in an attempt to control the room temperature to the setpoint as closely as possible.

2. **Factory Controller:**
   - The factory controller monitors and controls the system to ensure the proper operation of the equipment.

3. **Electrical and Mechanical Control:**
   - The electrical and mechanical control system should be used to provide backup control if the factory controller fails.

**Server Room AC Piping Diagram**

1. **Indoor AC Unit Detail (ACU-3)**

**Indoor Computer Room (CRAC)**

- Supply air through plenum
- Return air through plenum
- Supply air through plenum
- Return air through plenum

**Not to Scale**

**Design Firm:**

Washington State University

**Project No.:**

M5.01

**File No.:**

TBD

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