Project# 19R016CN
MACC# 19-0451
MAXIMO# 4960142

TITLE: RR5 TEMPORARY HYDRONIC SKID

ATTACHMENTS

ATT (1) 19R016CN RR5 TEMPORARYHYDRONIC SKID GIS

ATT (2) 190R016CN RR5 TEMPORARY HYDRONIC SKID placement

ATT (3) 190R016CN RR5 TEMPORARY HYDRONIC SKID mechanical room 115 layout

ATT (4) 190R016CN RR5 PROPOSED TEMPORARY HYDRONIC SKID LAYOUT

General description- The contractor shall install hydronic boiler skid for building RR5.

SCOPE OF WORK: The contractor shall provide a hydronic skip rated for outdoor use that provides the following base line equipment: See attached schedule for more details.

- (3) Duplex SS Tank and HX Condensing Water Heaters
- (2) Aluminum HX Condensing Boilers with associated primary pumps
- Duplexed heating hot water pumps
- Duplexed chilled water pumps
- Dry pack transformer for varying voltages

Detailed Requirements and Specifications: The contractor shall:

Site work: Foundation of the skid shall consist of the following. 6oz geotextile fabric with crushed angular stone, a minimum of 6 inches. Stone and fabric shall extend 2 feet beyond exterior sides of skid. Skid shall be leveled with cribbing and shims.

Piping: All piping shall enter building through the window into mechanical room 115. See attachments for details. DHW (Domestic Hot Water) piping shall be of Type L Copper. All piping shall match diameter of piping on skid. HHW (Heating Hot Water) shall be steel pipe, minimum schedule 40. All joints shall be welded, except where connecting to the skid, which shall be "Victaulic" compression fitting. Piping shall be insulated with 2" polyisocyanurate and covered with aluminum UV cover outside the building.

Window: Remove window sashes and replace with an aluminum plate that shall be temporally sealed to the exterior of the window frame. Piping shall penetrate aluminum. It is

the government's intention to reuse the window after the skid is removed. Place sashes in mechanical room. Insulate the aluminum plate on the interior of the mechanical room with 1.5' styrene board. Seal with bedding material that can be removed without damaging window.

Electrical feed: Skid will have a weather head feeding disconnect panel. CLNC shall provide an overhead power drop from a separate pole.

Hydronic Skid Specifications:

- (3) Duplex SS Tank and HX Condensing Water Heaters 3 unit with 700K input each (Minimum 120 gallons storage/each).

- (2) Aluminum HX Condensing Boilers, 399 Mbh/each

- (1) Thermostatic Mixing Valve

- (1) Recirculation HWR Pump

- (2) Dual Pumps in single volute as shown on detail drawing for chilled water and heating hot water. PUMPS shall have internal controls that respond to torque and rpm that follow a preprogramed pump curve.

- (2) Boiler Inlet Pumps (Primary for boilers)

- (2) Air separator for chilled water and heating hot water

- (1) Domestic Expansion Tank

- (2) Expansion Tanks chilled water and heating hot water

- (2) Shot Feeders chilled water and heating hot water

- Single Point Power connection with transformers and power distribution to all equipment

- Overall package is 420" x 84" (must be road legal)

- CW, HW and DHW Headers and Connections in center of package

- Domestic, HHW and Chilled water piping system

- Gas piping header, distribution, and regulators. (Valves shall be set up for LP and or NG) Save regulator springs

- Additional Panel for storage

- Heat trace for make-up water assembly with addiontal 20' of heat trace for make-up water connections

- (2) Make Up water assemblies to include PRV, Backflow preventers, gauges, and valves.

- Unit to include 2" Aluminum Enclosure with embossed exterior.

- 2" Foam insulation R13, (2) Two Lights and (1) GFI receptacle.

-Unit Heater. Intake Louver. Boiler and WH stacks.

- Exhaust stack shall be stainless steel.

- Skid will have a dry pack transformer capable of handling 480v or 208v output

- Piping will be supported with all thread rod and pipe stand.

- All components on the skid shall have stand-alone controls.

Pump Schedules:

Pump	GPM	Head in feet
CW	**150-300**	**80**
HHW	**100**	**40**

Sketches, measurements, and quantities are provided for reference only. Contractor shall take his own measurements and count total quantity of hardware to be installed.

SPECIAL CONDITIONS:

- All welding operations must be shielded from public viewing by a welding curtain
- All welding operations will require a fire watch

Point of Contact:

PWD Mark.Maddox@USMC.MIL CELL 910-340-7891

SPECIAL SCHEDULING AND ACCESS:

1. Contractor shall ensure all employees and subcontractors have access and fully vetted to Stone Bay.
2. Contractor shall coordinate work schedules with the S4 of RR5.

Submittals:

All equipment shall /must be approved. Summit all proposals to the ROICC and PWD for consideration. The contractor shall be required to submit work schedules to POC for approval.

1. The contractor shall submit to the Contracting Officer, the manufacturer's product specifications, complete with technical product data. The product specifications shall, as a minimum, provide technical details on the following items:
    a. Manufacturer's name and product line.
    b. Manufacturer's Warranty