

1. General

- A. Provide all labor, materials, tools, equipment, and supervision necessary to perform work at buildings shown on drawings, and defined in specifications, and as described herein.

2. Scope of Work Subtask Summary

This project is divided into the following subtasks:

- 1.111 Elevator Equipment Rooms AC
- 2.111 Upgrade MRI VAVs
- 3.70C BioMed AHU Replacement

3. Requirements

- A. Work Requirements: The work requirements are defined in the Statement of Work (SOW), Available Drawings and Specifications. Offerors are highly encouraged to attend the Pre-bid site visit, including walk-throughs of each work location. Reasonable accommodations will be made to allow contractor access to ceilings, utility spaces at a time separate from the general walk-through, by request only.
- B. Sole Source Items: The following sole-source items are required:
 - a. HILTI Fire Stop System (firestopping)
 - b. Johnson Controls Metasys System Interface (HVAC control systems)
 - c. Systec (fire alarm system contractor)
- C. Basis of Design: The following items are used as a basis of design, the contractor shall provide as shown in the plans and specifications or VA-approved equivalent:
 - a. Carrier – 24AHA460A005 / 40MKCB54F543 (outdoor/indoor) 53,000 BTU/hr Ductless Mini Splits (room condensing/conditioning units)
 - b. Carrier – 40RUAA16T1A6 (BioMed indoor AHU)
 - c. Carrier – 38AUZBC16A0A5 (BioMed Outdoor Compressor)
- D. Pre-Construction Conference: A Pre-construction conference will be conducted prior to commencement of each individual subtask.
- E. Coordination: The contractor shall coordinate all work with other projects in the area and with the VA. All work shall be performed in accordance with VA Standards and Specifications. Submittals, RFIs, and CBs shall be transmitted between the contractor and the VA using the Buzzsaw website. Access information and instruction will be provided prior to Notice to Proceed (NTP).
- F. Schedule: The contractor shall provide a separate Project Schedule and Weekly Short Interval Production Schedule for each subtask included in this contract. Schedules shall be completed in accordance with Specifications Section 01 12 16 Work Schedule and Section 01 32 16.15 Project Schedules.

G. Outages and Shutdowns: All shutdowns and outages shall be coordinated and approved two (2) weeks in advance and shall take place during off duty hours between 1900 and 0430 hours, unless otherwise indicated. All work will be completed to minimize downtime.

H. Performance Period: The contract performance period for all subtasks defined is 365 days.

Statement of Work

Subtask 001 111 Elevator Equipment Rooms AC

Provide all labor, materials, tools, equipment, and supervision necessary to provide a new air conditioning system in the 'A', 'B', and 'C' bank elevator equipment rooms located on the 12th floor.

Item No.	Description of Work
1	<p>Submit:</p> <ul style="list-style-type: none"> • Project schedule, initially, and monthly updates • Safety plan Activity Hazard Analysis for high locations, including tie-off points, lanyard and harness specs, and other fall protection devices • Product data <ul style="list-style-type: none"> ○ Product data for ductless wall fans ○ Product data for condenser units ○ Product data and schematics for controls devices and tie-in to existing system.
2	<p>Disconnect the three (3) existing heat pumps assigned to each equipment room and abandon units in place.</p>
3	<p>Mechanical equipment installation, including:</p> <ul style="list-style-type: none"> • Six (6) mini-split condensers on the roof of 111-A wing • Two(2) mini-split wall fan units in the A Bank elevator equipment room • Two(2) mini-split wall fan units in the B Bank elevator equipment room • Two(2) mini-split wall fan units in the electrical equipment room directly below B Bank elevator equipment room • Two (2) mini-split condensers on the roof of 111-C wing • Two(2) mini-split wall fan units in the C Bank elevator equipment room <p>Mechanical piping, including:</p> <ul style="list-style-type: none"> • Refrigerant piping to and from each condensing unit to its associated fan • Long line refrigerant piping extension kits where applicable • Condensate piping from each wall unit to the nearest condensate drain <p>Electrical/Low Voltage Cabling, including:</p> <ul style="list-style-type: none"> • Conduit and 208/230V wiring from panel PH 110-1 to condensing units on roof • Conduit and 208/230V wiring from panel PH 110-1 to fan units in equipment rooms • Control cabling from nearest cabinet to condensing units

	<ul style="list-style-type: none">Control cabling from nearest cabinet to equipment fan units
4	Provide as-builts and O&M manuals

Note: The contractor shall maintain accountability for all tools on jobsite. Tools shall remain in contractor's possession or within a secured container at all times.

Statement of Work

Subtask 002 111 Upgrade MRI VAVs

Provide all labor, materials, tools, equipment, and supervision necessary to provide eight (8) new DDC controlled electric VAV boxes serving the MRI area of Bldg 111, B-wing 2nd floor.

Item No.	Description of Work
1	Submit: <ul style="list-style-type: none">Project schedule, initially and monthly updatesSafety plan Activity Hazard AnalysisProduct data<ul style="list-style-type: none">VAV boxesHW isolation valvesDirect digital control devicesDamper actuators
2	Disconnect and remove existing pneumatic VAV boxes. Remove existing pneumatic tubing back to control panel. Disconnect HW supply and return pipes terminations.
3	Mechanical equipment installation, including: <ul style="list-style-type: none">Eight (8) DDC controlled VAV boxes Mechanical piping, including: <ul style="list-style-type: none">HW supply and return isolation valves at each VAV connection. Terminate existing take-offs at each VAV box. Electrical/Low Voltage Cabling, including: <ul style="list-style-type: none">Control cabling from nearest cabinet to each VAV box utilizing existing conduit
4	Provide programming for VAV controls. Demonstrate functionality to VA and provide commissioning work per specifications.

5	Perform air Test and Balance for all (13) VAVs in the modified system.
6	As-builts and O&Ms.

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Statement of Work

Subtask 003 70C BioMed AHU replacement

Provide all labor, materials, tools, equipment, and supervision necessary to replace the CW/Steam indoor AHU with an air cooled condenser and new DX/Steam AHU in the BioMed Engineering offices in C-9. Existing ductwork is to be replaced with a new duct distribution.

Item No.	Description of Work
1	<p>Submit:</p> <ul style="list-style-type: none">• Project schedule, initially and monthly updates• Safety plan Activity Hazard Analysis• Product data<ul style="list-style-type: none">○ Condensing Unit○ Air handling unit○ Steam condensate pump○ Controls wiring, devices, and raceways○ Electrical wiring, devices, and raceways
2	<p>Disconnect and remove existing indoor AHU and steam condensate pump. Demolish CW piping back to main and cap. Demolish exhaust fan and retain exterior wall opening for re-use in new duct distribution.</p>
	<p>Mechanical equipment installation, including:</p> <ul style="list-style-type: none">• Air-cooled condenser located on the ground exterior to the unit• Indoor DX/Steam AHU with economizer• Steam condensate pump• New ducting layout for supply, return, relief, and outside air intake. <p>Mechanical piping, including:</p> <ul style="list-style-type: none">• Refrigerant piping to and from the condensing unit to the indoor fan• Condensate piping from the indoor unit to the nearest condensate drain <p>Electrical/Low Voltage Cabling, including:</p> <ul style="list-style-type: none">• Conduit and 208/230V wiring from Rm C-17 to condensing unit• Conduit and 208/230V wiring from Rm C-17 to AHU• Control conduit and cabling from nearest cabinet to condensing unit• Control conduit and cabling from nearest cabinet to AHU
3	<p>Systec Services:</p> <ul style="list-style-type: none">• Terminate wires at new duct smoke detector device

4	As-builts and O&Ms.
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