Statement of Work (SOW)

Project Title: Multi-Building HVAC Controls Upgrade

Project Number: DDPM262611

Location: 136th Airlift Wing, Naval Air Station Joint Reserve Base, Fort Worth, TX 76127

Date: June 12, 2026

1. Background: This project will upgrade the HVAC control systems in Buildings 1670 and 1671 at the 136th Airlift Wing to integrate with the base's Niagara system. It will also address failed or end-of-life HVAC components across multiple buildings.

2. Objectives: The Government's intent is for the Contractor to perform all necessary construction services, including mechanical, plumbing, and electrical modifications, to achieve seamless integration of HVAC systems with the wing's Niagara Direct Digital Control (DDC) infrastructure. The Contractor shall furnish all labor, materials, equipment, and services required to remove obsolete HVAC control components and install new, fully integrated systems in Buildings 1670 and 1671, in strict accordance with applicable specifications. The Contractor shall also address failed or end-of-life HVAC components across multiple buildings on the installation. These include high velocity units (HVUs), variable air volume (VAV) boxes, boiler pumps, air handling units (AHUs), and variable frequency drives (VFDs), all of which must be tied into the Niagara system and are essential to maintaining environmental control and energy efficiency. All work shall comply with applicable federal, state, and local codes, regulations, industry best practices, manufacturer recommendations, and standards, including but not limited to the Unified Facilities Criteria (UFCs) referenced in Section 10.

3. Scope of Work: The Contractor shall be solely responsible for identifying and providing all components, hardware, software, and equipment necessary for complete HVAC control system replacement and integration across designated buildings. This includes controllers, sensors, actuators, wiring, piping, and ductwork modifications to ensure full functionality and compliance. Work in Buildings 1670 and 1671 will focus on removing obsolete controls and installing systems integrated with the Niagara DDC infrastructure. Additionally, the Contractor shall address Government-identified failed or end-of-life HVAC components, such as HVUs, VAV boxes, boiler pumps, and VFDs, in other buildings as part of CLIN 003. Replacement of major equipment like chillers, boilers, and air handlers are excluded from this scope. Existing system details in Section 4 are informational only and do not relieve the Contractor of verification responsibilities. All quotes must reflect a thorough understanding of site conditions and SOW requirements. The Contractor shall perform the following tasks for each building:

   3.1. Site Survey and System Assessment: Any interested parties are advised to attend the scheduled site survey and conduct a thorough assessment of the existing HVAC systems to identify all components requiring replacement or modification. This assessment should include, but is not limited to:

      3.1.1. Verification of existing system components against the information provided in Section 4 (Existing System Information).

      3.1.2. Identification of any discrepancies or deficiencies in the existing documentation, including mismatches between documented system information and actual field conditions.

      3.1.3. Determination of all materials, equipment, and labor necessary for completing the objectives and requirements of this SOW.

   3.2. Removal: Remove existing HVAC control systems and equipment as necessary, including all hardware and software components.

   3.3. Mechanical/Plumbing/Electrical Modifications: Perform all necessary mechanical, plumbing, and electrical modifications to accommodate the new control systems and equipment. This includes, but is not limited to:

      3.3.1. Electrical:

         3.3.1.1. Installation of new wiring for controllers, sensors, actuators, and equipment, including low-voltage control wiring and power wiring as required.

         3.3.1.2. Modifications to existing electrical panels and circuits to accommodate new control system components and equipment.

         3.3.1.3. Installation of conduit and raceways for new wiring.

         3.3.1.4. Connection of new control systems to existing power sources.

3.3.2. Mechanical:

3.3.2.1. Modifications to existing ductwork and piping to accommodate new sensors and actuators. This may include adding or relocating dampers, valves, and other components.

3.3.2.2. Installation of new mounting hardware and support for control devices and equipment.

3.3.2.3. Calibration and adjustment of existing HVAC equipment to ensure compatibility with the new control systems.

3.3.3. Plumbing:

3.3.3.1. Modifications to existing piping systems to accommodate new sensors and control valves, including adding or relocating valves and piping as needed.

3.3.3.2. Installation of new piping and fittings for control system components.

3.3.3.3. Insulation of new and existing piping as required.

3.4. Installation: Install new controllers, sensors, actuators, and other components necessary to meet project requirements and ensure full integration with the base's Niagara system. This includes work in Buildings 1670 and 1671, as well as additional installation efforts in other buildings where HVAC components have failed or reached the end of their service life. All proposed equipment must support Niagara compatibility and long-term system performance. The Contractor shall be solely responsible for verifying functionality across all affected locations and providing detailed specifications for all proposed equipment as part of the quote.

3.5. Integration: Integrate the new control systems and equipment with the base's Niagara system, ensuring seamless communication and data exchange.

3.6. Testing and Commissioning: Test and commission the new systems to ensure proper operation and performance. Include functional testing of all components, integration testing with the Niagara system, and performance testing to verify system efficiency.

3.7. Training: Provide at a minimum four hours of training to designated Government personnel on the operation and maintenance of the new systems.

3.8. Documentation: Provide complete as-built drawings, system manuals, and other necessary documentation, including a detailed list of all installed equipment and components. Electronic versions are required.

4. Existing System Information. The following information regarding the existing HVAC systems in each building is provided for informational purposes only and does not constitute a complete or guaranteed representation of the existing conditions. The Contractor is solely responsible for verifying the accuracy and completeness of this information and for fully identifying all existing components, equipment, and conditions necessary for the successful completion of this project. Discrepancies between this information and actual site conditions shall not be grounds for changes to the contract price or schedule.

4.1. CLIN 0001, Building 1670:

4.1.1. Existing System Information: Building 1670's (approximately 14,200 SF) HVAC system is believed to consist of approximately one AHU with chilled water (CHW) and hot water (HW) valves, one VFD, static pressure controls, OSA (Outside Supply Air) damper controls, supply, return, OSA, and mixed air sensors, freezestats, smoke detectors, and fourteen sensors for space temperature, humidity, and CO_2 control. There are also approximately fourteen VAV boxes with associated zone sensors, one Carrier chiller and associated pump, and one Bryan boiler with an associated pump. The chiller and its associated pump are currently controlled by an existing JACE (Java Application Control Engine.). All other HVAC components are controlled by legacy MicroZone II controllers.

4.1.2. Specific Requirements: The new system shall be fully integrated with the base's Niagara system and configured for standalone operation during communication failures. The Contractor shall retain the existing JACE for chiller and pump control and replace all remaining MicroZone II controllers with new Distech controllers. The Contractor shall provide and install BACnet MS/TP wiring, Distech sensors, current transformers (CTs), and all necessary drivers/cards to interface with the existing Bryan boiler and the DDC network. All programming and graphics, including imported floor plans, shall be provided. The system should be thoroughly tested and commissioned to ensure proper operation and integration.

4.2. CLIN 0002, Building 1671:

4.2.1. Existing System Information: Building 1671's (approximately 21,200 SF) HVAC system is believed to consist of one air handling unit (AHU) with CHW and HW valves, static pressure controls, OSA damper controls, supply, return, OSA, and mixed air sensors, freezestats, and smoke detectors; approximately nine VAV boxes with associated zone sensors; one Lochinvar boiler with associated pump; one outside air fan; and eight split systems. The chiller and its associated pump are currently controlled by an existing JACE. All other HVAC components are controlled by legacy MicroZone II controllers, except for six of the split systems, which are controlled by a Trane Tracer controller.

4.2.2. Specific Requirements: The new system shall be fully integrated with the base's Niagara system and configured for standalone operation during communication failures. The Contractor shall retain the existing JACE for chiller and pump control and replace all remaining MicroZone II and Trane Tracer controllers with new Distech controllers. The Contractor shall provide and install BACnet MS/TP wiring, Distech sensors, and all other necessary components, including drivers and interface cards, to ensure proper system functionality and integration of all HVAC components, including the split systems. All required programming and graphics, including imported floor plans, shall be provided. The system shall be thoroughly tested and commissioned to ensure proper operation and integration.

4.3. CLIN 0003, Wing-Wide HVAC Component Repairs or Replacements:

4.3.1. Existing System Information: Multiple buildings across the installation currently contain HVAC components that are either malfunctioning or have reached the end of their service life. These include HVUs,VAV boxes, boiler pumps, AHUs, and VFDs. The affected systems are integrated with the base-wide Niagara control infrastructure and are critical to maintaining environmental control and energy efficiency. These systems are currently controlled via existing JACE controllers and are partially integrated with the Niagara framework. Failures in these components have led to inconsistent zone control, reduced efficiency, and increased maintenance burden.

4.3.2. Specific Requirements: The Contractor shall repair or replace the listed HVAC components and restore full operational functionality. All new components shall be compatible with the existing Niagara system and configured for standalone operation in the event of communication failure. The Contractor shall retain the existing JACE controllers and integrate all new components accordingly. The Contractor shall provide and install all necessary hardware, including replacement units, BACnet MS/TP wiring, sensors, actuators, and interface cards. Functional testing and recommissioning of all repaired and replaced systems shall be performed to verify proper operation and integration.

4.3.3. The following components have been identified for replacement:

4.3.3.1. Building 1671: Two (2) HVUs

4.3.3.1.1. Unit #1, Trane: Model # GSND015AD-M, located in the shop area CE warehouse.

4.3.3.1.2. Unit #2, Trane: Model # GSND015AD-M, located in the shop area CE warehouse.

4.3.3.2. Building 1672: Four (4) VAV units

4.3.3.2.1. Unit # 1, Tempmaster: Model # HVFBE2 E, located in room # 211

4.3.3.2.2. Unit # 3, Tempmaster: Model # HVFBE2 E, located in room # 112

4.3.3.2.3. Unit # 28, Tempmaster: Model # HVFBE2 E, located in room # 232

4.3.3.2.4. Unit # 30, Tempmaster: Model # HVFBE2 E, located in room # 245

4.3.3.3. Building 1674: Two (2) Boiler Pumps with circulating pumps, located on boiler

4.3.3.3.1. Boiler Pumps 1 and 2, T. Gray Electric: Model # R7762 and the circulating pump for Boiler #3, Baldor: Model # VL1307, located in 1674 mechanical room #149

4.3.3.4. Building 4175: One (1) VFD

4.3.3.4.1. AHU #2, Robicon: Model # ID-454GT 10HP, located in 4175 mechanical room basement room # 101

5. Government Furnished Property: The Government will provide electrical power and water at existing designated connection points within each building.

6. Security: The Contractor is responsible for obtaining and maintaining all necessary base access for its personnel, including subcontractors. The Contractor shall submit all base access requests to the Government point of contact no less

than fourteen (14) business days prior to the required access date. The Government is not responsible for delays related to processing base access requests.

6.1. Access may be denied to individuals deemed security risks, including, but not limited to, those with:

6.1.1. Active arrest warrants or felony convictions

6.1.2. Illegal drug involvement

6.1.3. Registration on a sexual offender registry

6.1.4. Convictions/charges related to disrespect for the law

6.1.5. Lack of proper documentation for non-U.S. citizens

6.2. The installation utilizes the following access procedures :

6.2.1. Daily/Weekly/Monthly Visitor Passes: Obtained at the NAS JRB Fort Worth Visitor Control Center (VCC). The Contractor is responsible for any delays associated with this process. Contact the Visitor Control Center at 817-782-3058 for hours of operation .

6.2.2. Pass requests are submitted to VCC via 136 CES. Duration of issued pass is determined by contract length and access request methods .

6.3. Concealed carry, open carry, and personal firearms of any kind are NOT allowed on base. Vehicles may be searched upon entering the installation.

7. Cultural Resources: The Contractor shall halt any ground disturbance activity if any Native American or other historical artifacts, fossils, human remains, unmarked graves, or burial sites are found. Report any possible observations to the Contracting Officer. The Contracting officer shall suspend performance at the site of work and notify the Base Civil Engineer and Environmental Office. Performance cannot resume until directed by the Contracting Office.

8. Non-hazardous waste or debris shall be removed from the base by the Contractor and disposed of at an appropriately permitted off-base disposal facility.

9. Place of Performance: Contractor shall perform all work at the 136th Airlift Wing located on Naval Air Station Joint Reserve Base Fort Worth in Texas (76127). The normal business hours for the 136th Airlift Wing are 6:30AM to 5:15PM, Tuesday through Friday.

10. The Contractor shall adhere to the latest edition of all applicable regulations, standards, specifications, UFCs, and UFGSs. References of particular importance include, but are not limited to:

10.1. NFPA 101, Life Safety Code

10.2. International Building Code (IBC)

10.3. National Fire Protection Association (NFPA)

10.4. UFC 1-200-01 DOD Building Code (General Building Requirements)

10.5. UFC 3-401-01 Mechanical Engineering

10.6. UFC 3-410-01 Heating, Ventilating, and Air Conditioning Systems

10.7. UFC 3-410-02 Direct Digital Control for HVAC and Other Building Control Systems

10.8. UFC 3-420-01 - Plumbing Systems

10.9. UFC 3-430-01FA Heating and Cooling Distribution Systems

10.10. UFC 3-520-01 - Interior Electrical Systems

10.11. UPC – Uniform Plumbing Code

10.12. UFGS 01 30 00 Admin Requirements

10.13. UFGS 01 33 00 Submittal Procedures

10.14. UFGS 01 35 26 Governmental Safety Requirements

10.15. UFGS 01 45 00 Quality Control

10.16. UFGS 01 45 35 Special Inspections

10.17. UFGS 01 74 19 Construction Waste Management and Disposal

10.18. UFGS 01 78 00 Closeout Submittals

10.19. UFGS 01 78 23 Operations and Maintenance Data

10.20. Air National Guard Engineering Technical Letter (ANGETLs)

10.21. International Fuel Gas Code (IFGC)

10.22. International Mechanical Code (IMC)

11. Pricing and Contract Line Item Numbers (CLINs). The Contractor shall submit a firm-fixed-price proposal, clearly separated into the following Contract Line Item Numbers (CLINs). Each CLIN shall include all labor, materials, equipment, and services necessary to complete the specified work for that building, including but not limited to the tasks outlined in this Statement of Work.

    11.1. CLIN 0001: Building 1670 HVAC Control System Upgrade

    11.2. CLIN 0002: Building 1671 HVAC Control System Upgrade

    11.3. CLIN 0003: Wing-Wide HVAC Unit Replacements

12. General Requirements: The Contractor shall perform the tasks below which will remain consistent across all CLINs

    12.1. Period of Performance: The base period of performance for this effort is 60 calendar days after issuance of a notice to proceed.

    12.2. Site Visit: It is recommended that interested parties attend the scheduled site visit prior to submitting any quote/offer. The 136th Civil Engineer Squadron (CES) will coordinate site visit access and provide necessary base passes.

    12.3. Field Verification: All Government-provided information, drawings, and as-built documents are for reference only. The Contractor is solely responsible for field verifying all existing conditions and dimensions.

    12.4. Safety: The Contractor shall comply with all applicable Occupational Safety and Health Administration (OSHA) and state safety regulations.

    12.5. Site Maintenance and Restoration: The Contractor shall maintain a clean job site daily and is responsible for the off-site disposal of all demolition debris and excess material, unless otherwise directed by the Government. The project site shall be restored to its original condition prior to final acceptance.

    12.6. Inspections: The Contractor shall coordinate inspections as required by the Contracting Officer or Contracting Officer's Representative (COR). The completion of a Government inspection does not relieve the Contractor of its responsibility for compliance with project documents, codes, and quality standards.

    12.7. Pre-Final Inspection: The Contractor shall request a Pre-Final Inspection from the Contracting Officer. The Government may develop a punch list of any deficiencies. The Contractor shall correct all punch list items before requesting the Final Acceptance Inspection.

    12.8. Final Acceptance Inspection: The Contractor shall request a Final Acceptance Inspection from the Contracting Officer at least 14 days in advance. The request shall include the Contractor's assurance that all punch list items and remaining work are complete and compliant.

13. Deliverables: The Contractor shall provide the following deliverables:

    13.1. Proof of insurance.

    13.2. Meeting minutes for any progress meeting.

    13.3. Letter of Guarantee that warrants the project against defects in materials and workmanship for one (1) year from the date of final acceptance.

    13.4. Minimum one (1) year on all workmanship and standard manufacturer’s warranty on products.

14. Government Points of Contact:

    14.1. Base Contracting Officer: Captain Jake Crabtree, (817) 852-3307, donald.crabtree.3@us.af.mil

    14.2. Project Engineer: Major Nate Norton, PE, (817) 852- 3327, nathaniel.norton@us.af.mil

14.3. Project Manager: Mr. David Shamburger, (817) 852-3328, david.shamburger.5@us.af.mil

14.4. Civil Engineer Operations Manager: MSgt David Jones, (817) 852-3345, david.jones.233@us.af.mil

14.5. Civil Engineer Operations Manager: MSgt Michael Meeks, (817) 852-3336, michael.meeks@us.af.mil

END OF SECTION