Project number LKTC 25-1044

Statement of Work

HVAC Replacement B225

Creech AFB, NV

1.0 BACKGROUND

The Contractor shall replace the three (3) existing evaporative cooling units serving Building 225 with a modern, reliable, and energy-efficient HVAC system that complies with all applicable State of Nevada codes, UFC criteria, NEC, IMC, IBC, IECC, NFPA, ASHRAE, and Creech AFB Installation Facilities Standards (IFS). The Contractor shall remove the existing evaporative cooling units and provide three (3) new packaged HVAC units, including all mechanical, electrical, structural, and control system components necessary to deliver a fully functional and compliant system. The Contractor shall ensure that all work supports mission-critical operations within the RSSII Vehicle Maintenance Facility and minimizes disruption to Government activities.

2.0 DESIGN-BUILD OBJECTIVE

The Contractor shall perform all design and construction activities necessary to deliver a complete HVAC replacement solution. The Contractor shall develop full design documents at the **35%, 65%, 95%, and 100%** stages and incorporate Government comments at each stage. The Contractor shall ensure that all design drawings, specifications, load calculations, structural verifications, electrical analyses, and mechanical system designs are stamped and signed by a **Nevada-licensed Professional Engineer** for each discipline.

The Contractor shall **not** begin any construction, demolition, procurement, or field activity until the Government has formally approved the **100% design package** in writing. The Contractor shall ensure the final design meets all applicable codes, standards, and Creech AFB requirements.

3.0 DESIGN REQUIREMENTS

The Contractor shall prepare a complete design package that includes mechanical, electrical, structural, civil, architectural, and control system components. The Contractor shall develop a **Basis of Design (BOD)** that identifies system capacities, equipment selections, control strategies, and compliance pathways. The Contractor shall provide:

- NEC-compliant electrical load calculations
- IMC-compliant ventilation and airflow calculations
- UFC-compliant mechanical system layouts
- IBC-compliant structural analyses

- IECC-compliant energy performance documentation

The Contractor shall coordinate all design elements to avoid prevent trades conflicts and ensure constructability. The Contractor shall ensure that all design documents comply with:

- UFC 3-410-01 (HVAC Systems)
- UFC 3-401-01 (Mechanical Engineering)
- UFC 3-501-01 / 3-520-01 (Electrical Systems)
- UFC 3-301-01 (Structural Engineering)
- AFMAN 32-1084
- Nellis/Creech Installation Facilities Standards (IFS)
- Valley Electric Association (VEA) requirements

4.0 PRE-CONSTRUCTION REQUIREMENTS

The Contractor shall conduct a site visit to verify existing conditions, dimensions, utilities, structural elements, and access constraints. The Contractor shall prepare a detailed work plan that includes:

- A construction schedule
- A phasing and sequencing plan
- A safety plan compliant with EM 385-1-1
- An environmental protection plan
- An outage coordination plan

The Contractor shall submit all required bonds, safety documentation, and design schedules prior to Notice to Proceed (NTP). The Contractor shall attend a pre-construction conference after 100% design approval to review all final documents, submittals, and construction sequencing.

5.0 DEMOLITION REQUIREMENTS

The Contractor shall remove the three (3) existing evaporative cooling units, including all associated ductwork, water lines, electrical connections, supports, and penetrations. The Contractor shall safely disconnect all utilities and in compliance with NFPA, NEC, and environmental regulations. The Contractor shall remove all debris, rubbish, hazardous waste, and unusable materials from Government property and dispose of them in accordance with Federal, State of Nevada, and local regulations.

The Contractor shall:

- Provide hazardous waste manifests and C&D waste documentation
- Repair all penetrations and disturbed surfaces to UFC/IBC standards
- Avoid damaging finishes, utilities, or structural elements
- Replace any damaged materials at no cost to the Government
- Use hydro-excavation outside the building and hand-excavation inside

- Maintain a clean worksite and remove debris daily

6.0 MECHANICAL INSTALLATION REQUIREMENTS

The Contractor shall furnish and install three (3) packaged HVAC units sized appropriately to meet the facility's cooling and ventilation load requirements. The Contractor shall provide all required ducting, transitions, plenums, and airflow distribution components. Mechanical installation shall include:

- SMACNA-sealed ductwork
- IECC-compliant insulation
- Vibration isolation and equipment supports
- New curbs, stands, and penetrations
- BAS integration with approved control sequences
- Condensate drainage systems with traps and insulation

The Contractor shall verify airflow performance and ensure proper balancing of supply, return, and exhaust balance. The Contractor shall perform full **Testing, Adjusting, and Balancing (TAB)** in accordance with NEBB or AABC standards and provide certified reports. The Contractor shall perform commissioning, including:

- Functional performance testing
- Verification of control sequences
- Documentation of all system settings
- Startup reports

7.0 ELECTRICAL INSTALLATION REQUIREMENTS

The Contractor shall provide all electrical work required to support the installation of the new HVAC units. Electrical installation shall include:

- New homeruns in EMT conduit
- New copper conductors sized per NEC
- Lockable, visible-open disconnect switches
- Permanent labeling of disconnects, panels, and circuits
- NEC-compliant load calculations
- Phase balancing and panel capacity verification
- Grounding and bonding of all equipment
- Firestopping, sleeves, and weatherproofing

The Contractor shall coordinate with **Valley Electric Association (VEA)** if transformer or service upgrades are required. The Contractor shall update panel schedules and provide complete electrical as-built documentation.

8.0 STRUCTURAL REQUIREMENTS

The Contractor shall provide and install three (3) reinforced concrete equipment pads designed to support the weight, footprint, and vibration characteristics of the new HVAC units. Structural work shall comply with:

- UFC 3-301-01
- IBC (latest edition)
- ACI concrete standards
- Creech AFB structural requirements

The Contractor shall verify that existing structural elements can support the new equipment loads and shall notify the Government of any deficiencies. The Contractor shall ensure all penetrations or structural modifications are sealed, reinforced, and restored to meet UFC and IBC standards.

9.0 ENVIRONMENTAL AND SAFETY REQUIREMENTS

The Contractor shall protect existing utilities, structures, and the environment. The Contractor shall minimize dust, vapors, and emissions and implement appropriate pollution-prevention measures. The Contractor shall comply with:

- RCRA hazardous waste requirements
- CE Environmental guidance
- EM 385-1-1 safety standards
- NFPA 70E electrical safety requirements

10.0 TESTING, TAB, AND COMMISSIONING

The Contractor shall conduct functional performance testing for each installed HVAC unit, verifying:

- Refrigerant charge
- Airflow
- Thermostat operation
- BAS communication
- System performance under load

The Contractor shall perform full TAB and provide certified reports. The Contractor shall provide a commissioning plan as part of the 100% design and shall execute commissioning during construction. The Contractor shall provide operator training to Government personnel.

11.0 SUBMITTALS AND DELIVERABLES

The Contractor shall provide:

- 35%, 65%, 95%, and 100% design packages
- Equipment submittals

- Load calculations
- Structural analyses
- TAB reports
- Commissioning reports
- O&M manuals
- Warranty documentation
- Complete as-built drawings

The Contractor shall allow fourteen (14) calendar days for Government review of each submittal package.

12.0 PERIOD OF PERFORMANCE

The Contractor shall complete all design and construction activities within **180 calendar days** from Notice to Proceed (NTP). Construction may not begin until the Government approves the **100% design package**.

13.0 CLOSEOUT

The Contractor shall notify the Government upon completion of work and participate in a final inspection. The Contractor shall correct all deficiencies identified during inspection. The Contractor shall submit all required closeout documentation, including warranties, O&M manuals, and as-built drawings, prior to final payment.