6-8-2026

Statement of Work
HVAC Replacement
Duplex 93/91 River Road, Sudbury, MA
Eastern MA NWR Complex
US Fish and Wildlife Service

1. **General Information**
    a. The project is located at 93/91 River Road, Sudbury, MA, of the Eastern MA National Wildlife Refuge Complex. The building is a duplex residence, each (of two) apartments is approximately 1,030 sq. ft. of living space, built around the year 2000. The HVAC equipment appears to be original.
    b. This statement of work requires removal and replacement of the two indoor air handlers/gas furnaces and two outdoor condensing units that serve the two apartments. The basement contains two air handling units/gas furnaces. The two existing thermostats, located on the first floor of each apartment, are to be replaced. The full scope of the project is described below.
    c. The installing Contractor's shop must be within reasonable commuting distance (60 miles) of the project site. The Contractor must be a licensed mechanical contractor in the State of Massachusetts and must use licensed and certified workers and subcontractors for all trades involved in the installation.
    d. Physical Security: The contractor shall be responsible for safeguarding all government equipment, information and property provided for contractor use. At the close of each work period, government facilities, equipment, and materials shall be secured.

2. **Scope**
    a. In accordance with the work requirements below, the Contractor shall remove the two existing air handler/gas furnaces/outdoor units and install new high efficiency, Energy Star compliant systems, including new programmable thermostats, condensate pumps, ductwork cleaning, ductwork modifications as necessary, air registers, air filters, new equipment pads as necessary, pipe and duct insulation as necessary, all associated electrical power and control wiring, air balancing, and pricing for alternate items described below.
    b. The Contractor shall visit the building, review the existing conditions, and provide a proposal to furnish and install the two replacement HVAC systems. The existing HVAC units and associated items shall be disconnected, and removed from the project site. Any existing refrigerants or hazardous waste must be properly disposed of in accordance with State and Federal regulations.

3. **Work Requirements**
    a. The contractor shall remove and legally dispose of existing air handlers, condensing units**,** ductwork as necessary for installation of the new system**,** and any other unused components and materials. Disposal of all unused equipment,

materials, and refrigerants shall be in accordance with State and local regulations and recycled to the extent possible.

b. Electrical cables, conduit, disconnect switches, circuit breakers, or other electrical devices serving the existing units may be reused only if found to be in good condition by the installing licensed electrician.
c. Two new exterior condensing units and matching indoor air handling units shall be provided, with heating and cooling capacities equal to the existing units as follows.
    i. Existing Indoor unit: ADP Model HA04242D220B180180, S/N 6000B19851, HCFC-22 evaporator coil, and forced air furnace RGU90A100D14-3A, natural gas fired, 90,000 Btu/hr output.
    ii. Existing Outdoor unit: Concord RC10B42A-1A, 42,000 Btu/hr (3.5 ton) condensing unit, HCFC-22
    iii. The heating system was converted from propane to natural gas about 10 years ago when natural gas service was brought in from the street.
    iv. New equipment shall utilize refrigerant meeting new national and state code requirements.
d. Install new equipment with a minimum Seasonal Energy Efficiency Rating (SEER) of 15, and Energy Star Rated. Install the new outdoor units on new equipment pads if necessary to accommodate the new equipment dimensions. Provide elevated equipment stand if recommended by the manufacturer for this climate.
e. Install the indoor air handling units/gas furnaces and connect to the existing ductwork and natural gas piping. Select units to fit existing ductwork configuration. Contractor shall provide any required ductwork and hanger modifications or new ductwork necessary to connect to the existing duct system. Provide and install all incidental materials required for a complete HVAC system, including but not limited to piping, valves, sensors, alarms, controls, all electrical wiring and plumbing.
f. Existing refrigerant piping shall be replaced. Provide new filter-driers.
g. Insulation of ductwork and piping at the air handler and condensing units' connections that is missing or disturbed, shall be included. Refrigerant piping insulation shall have all weather jacket and UV protection.
h. The existing distribution ductwork insulation at the basement ceiling is in good condition with only minor tears and gaps and shall remain in place. Contractor shall repair any existing tears and gaps in the insulation.
    i. In the basement ceiling of Apt. 5 there is section of round flex duct, approx. 8-inch diameter and 2 feet long, that is torn and must be replaced to match existing.
i. Contractor to inspect all existing ductwork and insulation (including above hung ceilings) for signs of air leakage, uninsulated ductwork, open duct joints, and ruptured insulation vapor barriers. Test ductwork joints for tightness, as per

SMACNA standards and seal as necessary. Repair and install ductwork insulation where missing.

j. About half of the floor registers in the apartments are rusted and should be replaced with similar type and color registers.
k. Install new digital programmable, 7-day night setback, thermostats for each zone, compatible with the new HVAC units.
l. Provide individual condensate pumps and discharge piping to code compliant locations (washer drain).
m. Maintain and protect existing facilities from damage during demolition work. Protect building structure and interior from weather and water leakage and damage.
n. Provide MERV 13 minimum pleated air filters in new air handlers.
o. The complete existing ductwork system, including diffusers and registers, are to be professionally cleaned of all dust and mold by a National Air Duct Cleaners Association (NADCA) certified company.
p. Testing and balancing of the existing ductwork system shall be provided after installation of the new air handlers/heat pumps.
q. All work performed under this Contract shall be in accordance with equipment manufacturers' specifications.
r. The Contractor shall provide all labor, materials, tools and supervision for removal of existing HVAC equipment and installation of new HVAC equipment. Make all duct, electrical, plumbing, condensate, and control connections for a complete installation. Remove all unnecessary existing ductwork, piping, plumbing and electrical devices not required for the new HVAC systems. If using existing duct materials, ducts must be cleaned by a certified cleaner.
s. Cutting and patching included. Seal exterior wall penetrations to be weather and insect proof.
t. Upon completion of the installation, the HVAC system shall be complete and fully operational. Perform startup operations with the presence of Refuge personnel and teach required maintenance for new HVAC system to Refuge personnel.
u. The Contractor will be responsible for the scheduling and coordination of work on the site with the Refuge Manager.

4. **Warranty**
   a. The following minimum warranty periods must be included in the Contractor's pricing:
      i. One year warranty on complete installation including parts and labor.
      ii. Manufacturer's compressor warranty minimum of 5 years.

5. **Standards**

a. All materials, work and testing shall be in accordance with the International Mechanical Code (IMC), all applicable local building codes, and the latest versions of the following performance standards. If there is a conflict between standards the more rigorous standard will apply:
   i. 1. American Society of Mechanical Engineers (ASME)
   ii. 2. American Society for Testing Materials (ASTM)
   iii. 3. National Electric Code (NEC)
   iv. 4. Air-Conditioning, Heating, and Refrigeration Institute (AHRI)
   v. 5. American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)
   vi. National Fire Protection Association (NFPA)
   vii. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
   viii. Energy Star Certification

6. Submittals:

a. Material submittals consisting of manufacturer's technical product specifications shall be provided for Government approval before any materials are ordered or installed on this project.
b. On site field investigation and measurements shall be made prior to procurement of the HVAC units, to ensure that the proposed mechanical equipment will fit the site of the installation.

7. Deliverables:

a. The contractor shall provide all labor, material, technical knowledge and expertise to meet the necessary requirements.
b. Provide all Operations and Maintenance Manuals to the Refuge, including warranty information on all parts.
c. Provide and install all materials required to install the HVAC system. Upon completion of the installation, the HVAC units shall be fully operational.
d. The contractor shall remove and properly dispose of all old equipment and materials and leave the site without any debris around it. Receipts for proper disposal will be required.
e. Provide training to Refuge staff in operation and programming of all equipment, including thermostats, in all seasonal modes, and including recommended routine maintenance.

8. Alternate Pricing

a. <u>Heat Pump Option</u>: Eliminate the use of natural gas for heating, and install a heating/cooling heat pump outdoor unit with matching indoor air handler. Provide as needed an additional electrical circuit required for a supplemental electric heating coil in the air handler for low outdoor temperatures. A licensed electrician is required to perform this work and propose any necessary additional

work. Each apartment is served by a 200 Amp panel which should be sufficient and must be confirmed by the electrician

9. Period of Performance:

a. To be determined. If any delays are expected, the Contractor shall notify the Refuge Manager as soon as possible.

10. Inspection and Acceptance

a. The Government reserves the right to inspect any and all phases of the work performed under this Contract and will conduct a final inspection prior to acceptance of the work. The Contractor shall notify the Refuge Manager at least five business days prior to scheduling the final inspection. Contractor shall perform training of Refuge staff in all aspects of systems operation, temperature control, and routine maintenance.
b. Evaluation and Acceptance will be determined by the COR and CO.

11. Project Safety

a. The Contractor shall be responsible for strict compliance with all provisions of Occupational Safety and Health Administration (OSHA) requirements 29 CFR 1910 and 29CFR 1926 during the performance of the work.