MH TWO STAGE FORCED AIR GAS FIRED FURNACE 95%+ w/ ECM w/o AC – REPLACEMENT

Equipment Requirements

- Furnish and install a 2-stage furnace with AFUE rating of 95%+ with EC motor as per manufacturer's installation instructions, state mechanical code and per the following specifications:
  - Furnace is to be sized per mobile home data plate or same size of existing unit.
  - Furnace is to be specifically designed and rated for use in a mobile home and shall be sized to provide sufficient BTU output rating to maintain 70°F interior at -20°F exterior.
- Have a minimum 10-year heat exchanger warranty.
- Remove and properly dispose of existing equipment.
- Install a new programmable thermostat. Wire thermostat to operate at both stages.
- **Picture of sealed plenum is required with invoice**.

Venting

- Two pipe, sealed combustion fresh air intake system is required. Furnish and install intake and exhaust system per manufacturer's specifications and per the following;
  - To ensure air sealing, seal around old flue in furnace compartment where it goes through interior ceiling of home with metal flashing and seal any small gaps with high temperature caulk.
  - All PVC connections on the furnace must be cleaned with purple cleaner.
  - Intake must terminate a minimum of 12" above the average snow accumulation.
  - Test holes must be sealed with a stainless steel or PVC plug.
- Condensate drain line must be installed and terminated at a plumbing drain. Draining condensate below home is unacceptable.
- Condensate pump must be installed inside furnace cabinet.

NOTE: If not existing: sheet rock the furnace closet cabinet for fire break or if clearances required by code.

Gas line

- Furnish and install all new state approved, if copper L grade, gas supply as per state mechanical code.
- Determine gas supply by the length of run from the meter and avoid pressure drop inconsistent with the furnace burner design.
- Install a new manual in-line gas approved shut-off valve on the supply side of the union, a ground joint type union, and a gas drip tee leg.

NOTE: If ward flex or Gastite gas line will remain, it must be bonded by a licensed Electrician as per manufacturer's instructions and per code.

Distribution System

- Examine all mobile home supply and return air ducts to ensure that no gaps, loose joints or dropped ducts are evident. Ensure that the heating supply is balanced and is adequate to all rooms.
- Fasten furnace to the existing plenum/duct connector and seal with fiberglass mesh tape and mastic per SWS.
- If existing furnace closet door is to remain, provide for the minimum free area to provide required return air as per manufacturer's installation instructions.
- The appliance must be secured per manufacturer's instructions.
- **Picture of sealed plenum is required with invoice**.
- A new filter of the highest MERV rating that can be installed without being overly restrictive is required as part of this installation.

Electrical

- Wiring of the furnace by a licensed electrician is included as part of this contract.
- Service supply must be on a separate circuit that is controlled and identified at the service panel.

Homeowner info/education

- Leave all manuals, all warranties, and instructions on equipment operation.
- Prominently display the contractor's contact information on new unit.
- **Educate household on proper operation and maintenance of system.**
  - **filter replacement; MERV rating, size, frequency**
  - **proper use and programming of thermostat**

Work to be performed in accordance with the Standard Work Specifications developed by the National Renewable Energy Laboratory for the Weatherization Assistance Program along with state, local and municipal codes and in a professional manner. These standards can be referenced at the website: https://sws.nrel.gov/.