WATER HEATER INSTALLATION REQUIREMENTS

LOCATION

- Access cannot be through a bedroom, bathroom, toilet room or storage closet
- All water heater shall be capable of being removed without removing a permanent portion of the building structure.

WATER PIPING REQUIREMENTS

- A cold water shut-off valve shall be installed to isolate only the water heater.
- Flexible water line connections must be UPC listed.
- Pressure and temperature relief piping must be rigid pipe. NO PVC or plastic pipe.
- Pex water lines must not come within 18” of the water heater nor less than 6” to the side or less than 12” above the water heater metal vent.

VENTING REQUIREMENTS

- Adequate combustion air is required for fuel-fired appliances. It may require additional louvers or air to brought in from outside. 50 cubic feet of combustion air must be provide for each 1,000 Btu input of the water heater.
- Single wall metal venting must have 6” clearance to combustible materials.
- Double wall B-vent material must have 1” clearance to combustible materials.
- Single wall galvanized sheet metal shall be minimum 26 gauge. Aluminum vent connectors must be 22 gauge.
- Single wall metal venting shall have 3 screws per joint, NO TAPE OF ANY KIND.
- Metal water heater vent joints must be installed in the direction of flow.
- Water heater vent connectors must be sloped upward toward vent or chimney a minimum ¼” per foot.

GAS PIPING

- Gas piping drops to the water heater must be black iron pipe. No CSST (corrugated stainless steel tubing) or flex gas line piping shall be used as a gas drop to the water heater.
- No new yellow jacketed CSST is to be installed.
- If your existing gas line has CSST that has not been bonded, bonding will be required at this time.
- If flexible gas range connectors are used to connect water heater to the gas piping system, the connector must be downstream of the gas shutoff valve, drip leg and the gas drop to the water heater must be rigidly supported.

TANKLESS WATER HEATERS

- If a tankless water heater is selected to be used all manufacturer’s installation instructions shall apply. GAS PIPE SIZE MAY NEED TO BE INCREASED TO HANDLE ADDITIONAL BTU REQUIREMENT FOR THE TANKLESS WATER HEATER.

PERMIT & INSPECTION REQUIREMENTS

1. Obtain a permit for the water heater installation. Homeowners can obtain permits for work on their own residence, otherwise a STATE licensed plumbing/ mechanical contractor is required.
2. Notify the Permit and Development Center to schedule an inspection when installation is complete.
3. Schedule a final inspection at least 24 hours in advance (Please have your permit number available)

You can reach the Permit and Development Center between the hours of 8 am and 4 pm at 515-283-4200.
Water Heater Details

Class B vent when passing through floors with one-inch clearance to combustibles

Metal fire stop device

6" clearance to any combustible for single wall vent connector

Vent to slope upward at least 1/4" per foot

Sheet metal screws (single wall vent connector) x 3

3/4" minimum water supply line

Full flow valve

Actual unit may be reverse

Temperature and pressure relief
OR
valve in top 6" of tank

Vent connector sizing per applicable Plumbing and Mechanical Code

3/4" pipe with no threads on end DO NOT CAP OR PLUG

Combustion Air Requirement
50 cubic ft. per 1,000 Btu Input

Example: 50 x 50,000 Btu Water Heater/ 1000 = 2,500 cu. ft.

Minimum 6 inches above floor and no more than 24 inches above floor

Full port gas shutoff valve within 6 feet of water heater

Ground union if iron pipe

Drip tee

Minimum 1/2 " Black iron fuel gas pipe - NO CSST allowed for this pipe drop

1/2" Black iron fuel gas - NO CSST allowed for this pipe drop

DO NOT CAP OR PLUG

Cold Hot

Actual unit may be reverse

Example: 50 x 50,000 Btu Water Heater/ 1000 = 2,500 cu. ft.

3/4" pipe with no threads on end DO NOT CAP OR PLUG

Combustion Air Requirement
50 cubic ft. per 1,000 Btu Input

Example: 50 x 50,000 Btu Water Heater/ 1000 = 2,500 cu. ft.

Minimum 6 inches above floor and no more than 24 inches above floor

Full port gas shutoff valve within 6 feet of water heater

Ground union if iron pipe

Drip tee

Minimum 1/2 " Black iron fuel gas pipe - NO CSST allowed for this pipe drop

DO NOT CAP OR PLUG