

## **DIRECTIONS**

All new and retrofit tankless water heater permit applications must contain the following information:

- Supply gas pipe sizing calculations, BTUs and pipe distances (see the isometric diagram on page 2 for a sample).
- The manufacturer, model number and BTUs required for the unit to be installed (specification sheets).
- An electrical source must also be provided.
- Plans must be legible.

## **GENERAL REQUIREMENTS**

- Water heaters located in garages must be protected from mechanical damage. This means placing them out of the path of vehicular traffic or providing a protective post or partition. (CPC508.14.2)
- Provide a temperature and pressure relief valve as required by the manufacturer. Hard pipe plumb to the outside and directed to the ground and terminate a minimum of 6" and a maximum of 24" above grade. When replacing an existing tank type water heater, the T & P must be re-installed to drain to the outside. Relief valve may not discharge into a secondary drain pan. (CPC 508.5)
- All lines shall be insulated if using a recirculation pump system.
- A water heater located above habitable space, where damage may occur if a leak developed, a secondary pan with a ¾" minimum drain line to the outside is required. (CPC 508.4)

## **PROHIBITED LOCATIONS**

- Gas tankless water heaters must not be installed in a room used or designed to be used for sleeping purposes. They must not be installed in clothes closets or in a closet or other confined space opening into a bath or bedroom. The exception to these rules is a direct vent type tankless water heater which is listed for installation in these types of spaces or an electric tankless water heater.
- Water heaters located in a bedroom or bathroom are required to:
  - A) Be installed in a dedicated closet with a listed, gasketed door assembly and a self-closing device.
  - B) All combustion air shall be obtained from the outside. (CPC 505.1)

## **FUEL GAS**

- Fuel gas piping must be sized for the demand upon it. (CPC 508.20)

## **COMBUSTION AIR**

- Tankless water heaters shall be provided with combustion air per the manufacturer's installation instructions.
- Tankless water heaters located within habitable space will require submittal of the manufacturer's specifications for combustion air supply and venting.

## **VENTING**

- Tankless water heaters shall be provided with proper venting per the manufacturer's installation instructions.

## CLEARANCES

- Clearances for most water heaters are found on the appliance label.
- Please note the front and top clearance is usually greater than the side and rear.
- Access and working space must be provided.
- The opening must be at least 24" wide and large enough to remove the tankless water heater.
- Tankless water heaters installed in a garage must be elevated 18" above the floor unless it is listed as having a sealed combustion chamber (CPC508.14) Note that electric water heaters with a switch and/or heating element located less than 18" above the base must also be elevated.
- Tankless water heaters located over 8 feet above the floor must have a permanent stair or ladder for access (CPC 511.2)

## SAMPLE ISOMETRIC DIAGRAM

