Water Heater Requirements

1. All water heaters shall be anchored or strapped to resist horizontal displacement. Strapping shall be at points within the upper 1/3 and lower 1/3 of the heater’s vertical dimension. (See attached details for proper strapping methods) U.P.C. Sec. 510.5

2. Water heaters located in garages shall be elevated at least 18 inches above the finish floor level. U.P.C. Sec. 510.1

3. Water heaters shall be assured a sufficient supply of combustion air for proper fuel combustion and ventilation. (Refer to TABLE 5-1 of the Uniform Plumbing Code) U.P.C. Sec. 507.1

4. All copper tubing used for water piping shall have a weight of not less than Type L. U.P.C. Sec. 604.2 and City Bldg. and Fire Code Sec. 3212.06

5. A fullway valve/shut-off valve shall be installed on the cold water supply pipe to each water heater at or near the water heater. U.P.C. Sec. 605.3

6. All storage water heaters shall be equipped with a combination pressure and temperature relief valve. The relief valve drain shall extend outside to a point not more than 2 feet nor less than 6 inches above the ground. U.P.C. Sec. 608.3, 608.5

7. Water heater storage tanks shall be wrapped with external insulation having a R-Value of at least R-12; or internal insulation of at least R - 16. Calif. Energy Commission Residential Manual Sec. 118 (d) 2

8. The first 5 feet of the cold inlet and hot outlet piping from the water heater storage tank shall be insulated with minimum R-4 pipe insulation. (this requirement is for non-recirculating systems) Calif. Energy Commission Residential Manual Sec. 150 (j)

9. Single wall metal vent connectors shall be supported and joints fastened with sheet metal screws, rivets or other approved means. U.P.C. Sec. 514.2

10. Single wall metal vent connectors shall be provided with clearances from combustible material of not less than 6 inches. U.P.C. Sec. 516.5

11. Water heater vents shall terminate not less than 5 feet above the highest vent collar which it serves. U.P.C. Sec. 517.2

12. New Type B water heater vents 12 inches and smaller shall be located at least 8 feet from a vertical wall or similar obstruction. (Existing vents may be a minimum of 4 feet from a vertical wall or similar obstruction) U.P.C. Sec. 517.3
Water Heater Seismic Support Detail

Support at wall

1. Sheathwall with plywood, drywall or
2. Solid block at the strap levels.

Wall must be at least two studs with top and bottom plates secured to the floor above and below.

Straps to be minimum of 16 ga and at least 1" wide fastened to each stud with two 1/4" lag screws. Lagged to at least two studs.

Side View

(Anything less than this will not pass inspection)

Plan View