B RESIDENTIAL WATER HEATER REQUIREMENTS

CITY OF STOCKTON

COMMUNITY DEVELOPMENT DEPARTMENT – BUILDING & LIFE SAFETY DIVISION
501 W WEBER AV BLDG 2, STOCKTON, CA 95203 • (209) 937-8561 • www.stocktonca.gov/building

PERMIT REQUIREMENTS:

- A permit is required for the replacement of an existing or installation of a new water heater.
- Permits are issued to either the property owner with a completed Owner/Builder form *or* to a California licensed **C-4 or C-36** contractor with a current City of Stockton Business License.
- **Residential water heater permits are now available to apply, pay, and receive online via our online permit portal at: https://aca-prod.accela.com/STOCKTON. A free user account must be created to use this service.**
- Permits can also be obtained at the Community Development Department, Building & Life Safety Division.
  - Located at 501 W Weber Av Bldg 2, Stockton, CA 95203
  - Office hours are from 8:00 a.m. to 4:30 p.m. Monday through Friday, closed alternate Fridays.

SUBMITTAL CHECKLIST:

- ☐ A. Building Permit Application
- ☐ B. Manufacturer's Specifications (not required for like-for-like replacements)
- ☐ C. Gas Pipe Sizing Calculations (if applicable)
- ☐ D. Owner/Builder Form (if applicable)
- ☐ E. Authorization Letter from the licensed contractor for the individual picking up the permit (if applicable)

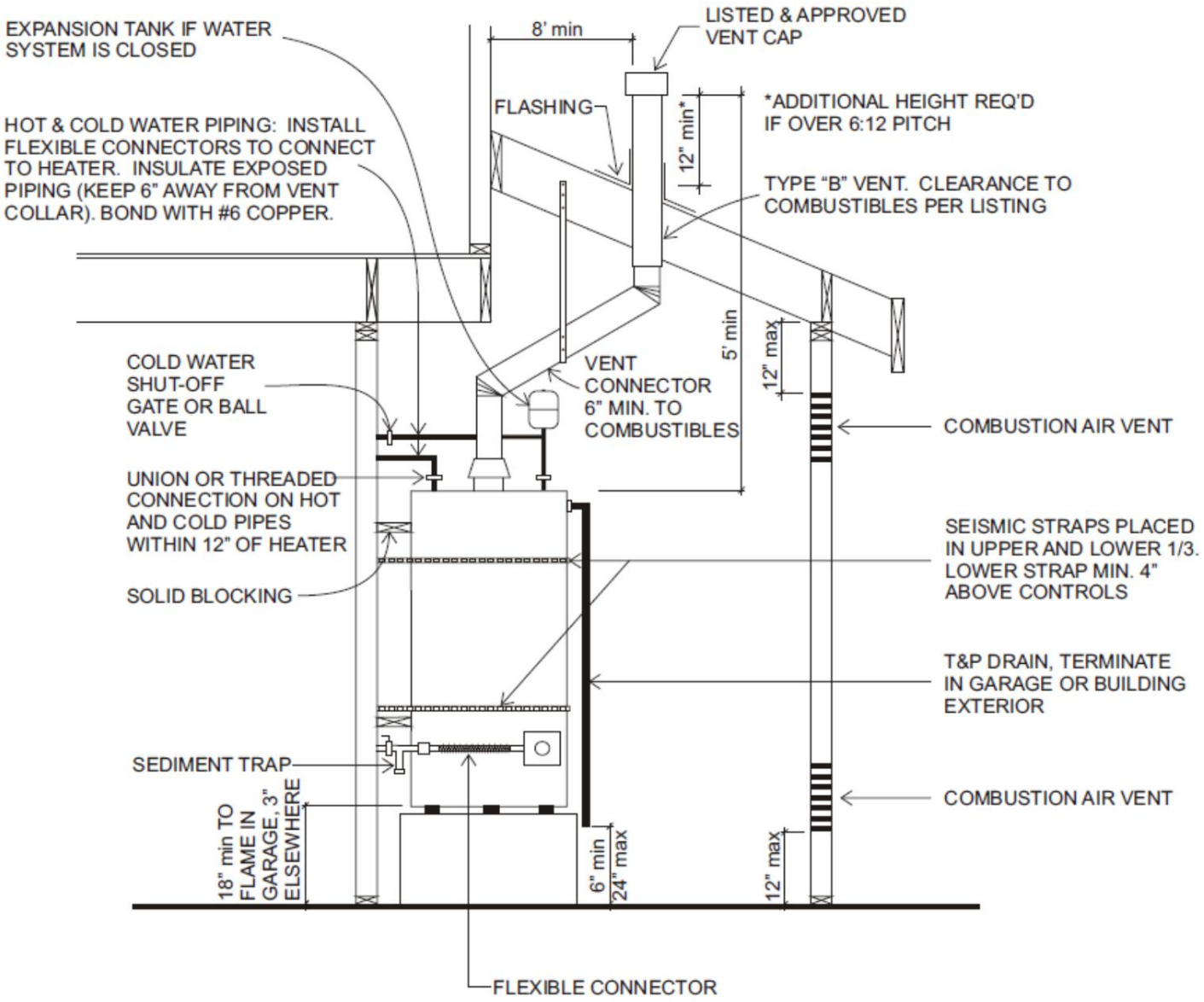
INSTALLATION REQUIREMENTS:

- **Building Codes –** All work shall comply with the current edition of the California Residential Code (CRC), California Building Code (CBC), California Electrical Code (CEC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Energy Code, California Green Building Code, and the Stockton Municipal Code.
- Listed water heaters shall be installed in accordance with their listings and the manufacturer's instructions.
- **Location:**
  - Water heaters, except direct vent type, shall be located as close as practical to the vent.
  - A fuel burning (gas) water heater may be installed in a closet located in a bathroom or bedroom only if installed in accordance with CPC Section 504.1.
  - Installation shall be such as to not interfere with combustion air, draft hood clearance, and accessibility for servicing.
  - Water heaters installed outdoors shall be listed for outdoor installation and installed in accordance with the listing.
- Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Two seismic straps are required; one located within the top 1/3 of the water heater unit, and one located within the bottom 1/3 of the unit. The bottom strap shall be located at least 4" above the water heater controls.
- Water heaters supported on the ground shall rest on level concrete or other approved base extending not less than 3" above the adjoining ground level.
- Water heaters located in a garage shall have the ignition source, or pilot light, elevated a minimum of 18" above the garage floor surface. If located in an area subject to damage, adequate barriers or bollards must be installed.
- For water heaters located in an attic, above a raised wood floor, or other space where damage could occur from a leaking water heater, a watertight pan of corrosion resistant materials shall be installed beneath the unit with a minimum 3/4" diameter drain to an approved location. The drain shall terminate at a readily visible location to draw attention to a possible leak.

INSTALLATION REQUIREMENTS (cont.):

- For water heaters located in an attic, above a raised wood floor, or other space where damage could occur from a leaking water heater, a watertight pan of corrosion resistant materials shall be installed beneath the unit with a minimum 3/4" diameter drain to an approved location. The drain shall terminate at a readily visible location to draw attention to a possible leak.
- **Water Heaters Installed in Attics:**
  - An attic access opening and passageway is required that is at least as large as the largest component of the appliance but not less than 22" x 30".
  - Where the height of the passageway is less than 6 feet, the distance from the access opening to the appliance shall not exceed 20 feet. The passageway shall be unobstructed with a solid flooring not less than 24" wide.
  - A level working platform not less than 30" x 30" shall be provided in front of the service side of the heater.
  - A permanent 120v receptacle outlet and light fixture shall be installed near the appliance. The light switch shall be located at the entrance to the passageway.
  - Provide seismic strapping/bracing and corrosion resistant pan as indicated above.
- **Combustion Air –** Fuel burning (gas) water heaters shall be assured a sufficient supply of air for proper fuel combustion and ventilation. When the appliance is located in a large room or space (e.g. garage) the combustion air may come from that area. When located in a closet, combustion air must be provided by one or more openings between the closet and a large room or space, directly to the outside, or to an area that communicates directly to the outside. Refer Section 506 of the CA Plumbing Code for complete combustion air requirements.
- **Venting –** A venting system shall be designed and constructed to develop a positive flow adequate to remove flue or vent gases to the outside atmosphere. Every factory-built chimney and Type B gas vent shall be installed in accordance with the manufacturer's instructions, the terms of its listing, and the applicable requirements of the code. Refer to Section 509 of the CA Plumbing Code for complete venting requirements.
  - Venting passing through a roof shall extend through the entire roof flashing, roof jack, or roof thimble and be terminated with a listed termination cap.
  - The vent shall terminate a minimum of 12" above the roof or 2 feet above a vertical wall or similar obstruction within 8 feet.
- All storage water heaters shall have an approved, listed, adequately sized combination pressure and temperature relief valve installed in an approved location per the manufacturer's instructions.
  - The valve shall be drained to the exterior and terminate toward the ground maintaining between 6" and 24" of clearance from the ground pointing downward. The diameter of the valve opening (generally ¾") must be maintained to the termination of the drain. When approved by the Building Department, such drain may terminate at other locations (i.e. laundry sink, floor sink, or floor drain).
- New installations or water heater replacements that are not like-for-like may require new gas piping to meet the demand of the appliance. New gas piping must be installed back to the meter or pipe sizing calculations must be provided to show the existing piping is adequately sized.
- Gas appliance connectors shall not be reused per manufacturer's installation instructions. Gas connectors shall be attached to a hand shut off type gas valve and properly sized to B.T.U. input rating of the water heater.
- A sediment trap shall be installed downstream of the shutoff valve and before the flex connector. The sediment trap shall consist of a "T" fitting and a minimum 3" in length with a cap.
- **Energy Code Requirements:**
  - Generally, a gas water heater cannot be replaced with an electric water heater unless the house has a photovoltaic system, or the new water heater is a single heat pump water heater meeting the Tier 3 or higher specifications of the Northwest Energy Efficiency Alliance. Documentation from the manufacturer must be provided indicating compliance with this standard.
  - Any newly installed piping must meet the mandatory insulation requirements in Section 150.0(j)2
  - Any accessible existing piping must be insulated in accordance with the following:
    - The first 5 feet of cold-water pipes from the storage tank
    - All hot water piping less than 3/4" that is associated with the hot water recirculation system, piping from the heating source to the kitchen, and piping from the heating source to the storage tank.

STANDARD WATER HEATER INSTALLTION:



HEATER IN GARAGE WILL REQUIRE PROTECTIVE BOLLARDS IF IT MIGHT BE DAMAGED BY VEHICLE. WATERTIGHT PAN UNDERNEATH WITH MIN. 3/4" DRAIN TO APPROVED LOCATION REQUIRED IF INSTALLED ON WOOD FLOOR, IN CEILING OR IN ATTIC.