

2009 Codes

This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions. References are to the 2009 Uniform Plumbing Code (UPC) and the 2009 International Residential Code (IRC).

Please verify the following before calling for a plumbing final inspection.

Permits and Plans

- Job address is posted in a visible location. (R319.1)
- Permit and approved plans are on site and accessible to the inspector. (UPC 103.3.2)
- Permit information is correct (address, permit number, scope of work, etc).
- Confirm on OTC (over the counter) and E-permits only, that all plumbing fixtures are included.
- When a separate sewer or septic permit is required, confirm that it has been signed off by the authority having jurisdiction.
- Water service and storm drainage system has been inspected and signed off.
- Review the notes from the previous plumbing inspections. Common notes might be that an air admittance valve has been installed which will require a grill to be installed at the location, or that shock arresters need to be installed at the final.
- When an irrigation system is installed check to see that it has been signed off. If it is not signed off see checklist for irrigation DCVA (double check valve assembly).
- It is required to have adequate backflow prevention when the building has a fire sprinkler system unless an approved combination system is used per standards. (UPC 603.4.16.1) A RPBP (reduced pressure backflow preventer) is required when there is a water supply to a hydronic heat boiler. If a backflow device such as an RPBP or DCVA is within the lot, verify that it has been tested and signed off. (UPC 603.1)

Plumbing Vents

- Plumbing vents shall extend at least 6" above the roof and to be 10' away or 3' above windows that open. When doing a walk through, look down on the roof below and check for test plugs left in the vent pipes. (UPC 906)

Hosebibs

- All hosebibs shall have non-removable vacuum breakers of a self-draining type. Clothes washers and hot water tanks do not require vacuum breakers. (UPC 603.4.7)
- Exterior hosebibs to have integral vacuum breakers and to be frostproof and caulked and secured at exterior walls. (UPC 313.8, 314.5, & 603.4.7)
- Check water pressure at any hose bib to verify that it is 80 psi or less. If it is greater than 80 psi, a pressure-reducing valve is required. (UPC 608.2)

Electric Water Heaters

- See Construction Tip Sheet 7, Water Heaters, for additional information.
- If a gas water heater has been installed which doesn't include any plumbing pipe modifications, it is a mechanical inspection and will be covered on the Residential Mechanical Final Checklist. If a electric water heater has been installed or a gas water heater including pipe modifications it will require a plumbing inspection.
- Temperature and pressure relief valve to be installed per manufacturer's instructions or listing. Typically within the top 6" of the tank. (UPC 506.2)

- The drain from the relief valve must be able to drain by gravity. No part of drain to be trapped. (UPC 608.5 as amended by Washington State)
- The pipe for the drain to be hard and full sized, no flex connectors or pex piping. (UPC 608.5)
- The drain needs to terminate outside the building 6" - 24" above grade and shall have a soldered/glued on elbow as needed to direct the flow toward the ground or shall terminated at an approved drain. It may not be directly connected to a sanitary sewer. Retrofit water heaters may discharge 6" – 24" off of floor when a relief drain is not available. (UPC 608.5 as amended by WA State)
- Gas water heaters located in a garage need to be raised so that the heating elements and switches (source of ignition) are at least 18" above the floor unless listed as flammable vapor ignition resistant (FVIR). (UPC 508.14)(IRC G2408.2)
- Seismic strapping will be installed per Construction Tip Sheet 7, Water Heaters. Two straps, 1 in lower 1/3 and 1 in upper 1/3 and ¾" wide. Straps to be 22 gauge metal with strap ends lag bolted onto two different studs. (UPC 508.2)
- A water heater when installed in the normal path of a vehicle requires protection in the form of a wheel stop, bollard or by elevating. (UPC 508.14)
- Water heaters in attics, attic-ceiling assembly, floor-ceiling assembly, or floor-subfloor assembly where damage may result from a leaking water heater, a watertight pan of corrosion resistant material shall be installed with a ¾" drain that is piped to an approved location. (UPC 508.4)
- An expansion tank is only required when the public main pressure exceeds 120 psi or when the house is on a closed system. A closed system occurs when a check valve, backflow preventer or pressure regulating device is installed. Install per manufacturer's specifications. (UPC 608.3)
- When a mechanical room has a floor drain or a standpipe to receive discharge from a condensate drain or water heater relief drain, a trap primer is required. The trap primer valve is accessible. Check to see that it is working by verifying water is in the trap. (UPC 1007)

Plumbing Fixtures, Caulking & Drains

- Run water at all fixtures and check for leaks. (UPC 103.5.3) The water temperature shall not exceed 120° F
- Fixture hot water control located on the left hand side of the fixture or per manufacturer's installation instructions. On soaking tubs, the hot water control is required on the left side as seen from inside of the tub. (UPC 415 & 601.3)
- Hand held sprayers at soaking tub valves shall default to the spout or be protected by other approved backflow device. (UPC 602.1 & 602.3)
- Motors on jetted tubs require access. (UPC 414.1)
- All fixtures caulked watertight. (UPC 407.2)
- Water closets require a minimum 21" clear space in front and 15" measured from the centerline of toilets to the finished wall on either side. (UPC 408.6)
- Shower door openings require a minimum 22" clear opening. (UPC 411.6)
- No underfloor cleanout to be located more than 20feet from a crawl access door or trap door. (UPC 707.9)

Dishwashers

- Dishwashers require an air gap. An air gap can be a deck mount or a Johnson tee type with required trim vent. (UPC 807.4 310.4 & 314.0 with exceptions per manufacturer)
- Dishwashers are to be anchored to the countertop, typically with (2) screws. (UPC 314.5 and manufacturer's installation instructions.)

Insulation

- Insulate all hot and cold water piping in unheated spaces to protect from freezing. (UPC 313.6) Insulation in unheated areas to be minimum R-3. Water pipes in attics or exterior locations are required to have adequate provisions to protect from freezing, such as heat traced and insulated. (UPC 313.6 as amended by WA State)
- Hot water circulating systems require R-4 minimum, or ¾" wall pipe insulation on the entire loop. (WAC 51-11-504.7)