



Underground Plumbing Checklist

This is to be used as a general checklist; it is not inclusive of all code requirements and inspection criteria.

Per 2016 California Plumbing Code (CPC)

BACKWATER VALVE:

- Required when drainage piping has the flood level rim located below the elevation of the next upstream manhole covers. CPC 710.1
- Backwater valve shall be accessible for repair and service. CPC 710.6
- All fixtures above upstream manhole cover shall not discharge through the backwater valve.
- CPC 710.1
- Discharge piping from ejector or pump shall have backwater and gate valve, and be a minimum of 2" in diameter. CPC 710.3.2

DRAIN GRADE:

- Horizontal drainage piping shall be run in practical alignment of a slope of not less than ¼ " per foot or 2% CPC 708.0
- Piping 4" and larger in diameter may have a slope of 1/8 inch per foot or 1%, where first approved by the Authority Having Jurisdiction. CPC 708.0
- Horizontal drainage lines connecting with other horizontal drainage lines shall enter through 45-degree wye branches or other approved fitting of equivalent sweep. CPC 706.3
- Vertical drainage lines connecting to horizontal drainage lines shall enter through 45 degree Wye branches or other approved fitting of equivalent sweep. CPC 706.4 Sleeves shall be provided to protect all piping through concrete or masonry exterior or bearing walls. (minimum ½" clearance around pipe.) CPC 313.10

CLEAN-OUTS:

- Required at upper terminal and each run of piping over 100 feet. CPC 707.4
- No under floor cleanouts shall be located more than five (5) feet from an access door, trap door or crawl space access. CPC 707.4
- Additional clean outs required for each aggregate horizontal change of direction exceeding 135 degrees. CPC 707.9
- Piping 2" or less shall be so installed that there is a clearance of not less than 18" in front of the clean out. CPC 707.9
- Piping larger than 2" shall have not less than 24" in front of the clean-out. CPC 707.9

DRAIN & VENT TEST:

- No section shall be tested with less than a ten (10) foot head of water for 15 minutes. CPC 712.2 Test must be on prior to inspector's arrival.
- Air test the system under a uniform gage pressure of five (5) pounds per square for fifteen (15) minutes. (not allowed for ABS) 712.3 Test must be on prior to inspector's arrival.
- Drain and vents may be tested in its entirety or in sections. CPC 712.2

WATER CLOSETS:

- Not more than three water closets on any horizontal branch or drain. Table 703.2

WATER SERVICE:

- Copper tube for water piping shall be not less than Type L. CPC 604.3
 - Exception: Type M copper tubing may be used for water piping aboveground in or on a structure or underground outside of structures.
- Water piping shall be at least twelve (12) inches below grade. CPC 609
- The bottom of the water pipe, at all points, shall be at least twelve (12) inches above the sewer or drain line (if clay pipe). CPC 609.2.1
- Tested and proved tight under a water pressure not less than the working pressure which is to be used. A fifty (50) pound per square inch air pressure may be substituted for the water test. CPC 609.4
- In either method of test, the piping shall withstand without leaking for a period of not less than fifteen (15) minutes. CPC 609.4

GAS LINES:

- Factory coated standard weight wrought iron or steel and approved PE pipe may be buried in exterior locations. CPC 1208.5.2.1 & 1208.5.9
- Gas piping in contact with earth or other material that could corrode the piping shall be protected against corrosion in an approved manner. CPC 1210.1.3
- Plastic gas piping shall have at least eighteen (18) inches of earth cover.
- An electrically continuous corrosion-resistant tracer wire shall be buried with the plastic pipe to facilitate locating. One end shall be brought above ground at building wall or riser. CPC 1211.2
- No gas piping shall be installed underground beneath any building slab on grade or structure unless encased in an approved conduit. CPC 1210.1.6
 1. The conduit shall be of material approved for underground and not less than Schedule 40 pipe.
 2. The interior diameter of the conduit shall be not less than ½ inch larger than the outside diameter of the gas piping.
 3. The conduit shall extend at least (4) inches outside of the building. CPC 1210.1.6.1
 4. The outer end shall be vented above grade to the outside and be installed so as to prevent the entrance of water and insects. CPC 1210.1.6.1
 5. Where the conduit terminates within the building, it shall be readily accessible. CPC 1210.1.6.2
 6. Within the building the space between the conduit and the gas piping shall be sealed to prevent leakage of gas into the building. CPC 1210.1.6.1