UNDERGROUND PLUMBING CHECKLIST

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

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%, when pre-approved by Administrative Authority. [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 313.10.1]

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 twenty (20) feet from an access door, trap door or crawl space access. [CPC 707.9]
- 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 12” in front of the clean out. [CPC 707.9]
- Piping larger than 2” shall have not less than 18” 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 7-5]

WATER SERVICE:
☐ Copper tube for water piping shall be not less than Type L. [CPC 604.2]
  ☐ 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) 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 1209.5.2.1 & 1209.5.4]
☐ Gas piping in contact with earth or other material that could corrode the piping shall be protected against corrosion in an approved manner. [CPC 1211.1.3]
☐ 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 1211.15.2]
☐ No gas piping shall be installed underground beneath any building slab on grade or structure unless installed in a gastight conduit. [CPC 1211.1.6]
  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 1211.1.6]
  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 1211.1.6]
  5. Where the conduit terminates within the building, it shall be readily accessible. [UPC 1211.1.6]
  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 1211.1.6]