

GENERAL:

1. The objective of this guideline is to provide minimum standards for the design and installation of plumbing piping and specialties including:
 - 1.1. Water Supply and Distribution
 - 1.2. Sanitary Drainage
 - 1.3. Vents
 - 1.4. Traps
 - 1.5. Special Piping
 - 1.6. Roof Drains
 - 1.7. Floor Drains
 - 1.8. Hose Bibs
 - 1.9. Wall Hydrants

DESIGN GUIDELINES:

1. Refer section 220000
2. Water supply and distribution shall be one of the following:
 - a. Copper pipe and fittings, hard drawn, type L
 - b. Galvanized steel pipe and galvanized cast iron fittings
 - c. Ball valves, 2 piece, full port bronze
 - d. Butterfly valves, lug-type, ductile iron, aluminum bronze or neoprene coated ductile iron disc
3. Sanitary waste and venting, above grade, shall be one of the following:
 - a. No-Hub cast iron pipe and fittings
4. Sanitary waste, below grade shall be one of the following:
 - a. Hub and spigot cast iron pipe and fittings
5. Laboratory Waste and vent, above grade shall be one of the following:
 - a. Fuse seal Polypropylene pipe and fittings
 - b. Lab waste piping shall be used only on the piping from the sink to the nearest main riser.
6. Traps
 - a. See section 224000 for information on fixture traps for standard fixtures.
 - b. Laboratory sink traps shall have 2 slip joints and/or two piece trap for ease of trap maintenance
7. Storm drainage, above grade, shall be one of the following:

- a. No-Hub cast iron pipe and fittings
8. Storm drainage, below grade, shall be one of the following:
 - a. Hub and spigot cast iron pipe and fittings
 - b. Piping shall be a minimum of 4" diameter
 9. Special piping
 - a. Distilled water – polypropylene piping shall be used
 - b. RO water - polypropylene piping shall be used
 - c. DI water - polypropylene piping shall be used
 10. Roof drains
 - a. Minimum roof drain shall be 4" diameter
 - b. Piping shall be supported at each drain
 11. Floor drains
 - a. Minimum floor drain shall be 3" diameter
 12. Hose bibs
 - a. Vacuum breaker shall be built into hose bib
 13. Wall Hydrants
 - a. Keyed type with recessed door
 14. Water Hammer Arresters
 - a. Diaphragm type only. Shall be accessible

References