

20 June 2022

AMENDMENT 5

CONSTRUCTION SPECIFICATIONS FOR WATERLINE EXTENSIONS

Add paragraph 320.2 below to Section 300, Construction Specifications for Waterline Extension.

302 Pipe & Fittings

302.1 Ductile Iron Pipe & Fittings

Ductile iron pipe shall conform to ANSI A21.50-14 (AWWA C 150). The pipe shall be designed for an internal working pressure of 350 psi and external loading produced by laying condition "A" (flat bottom trench, without blocks, untamped backfill). The pipe shall be Thickness Class 51 or greater.

Joints shall be push-on type, single rubber gasket, with cast or mechanical gasket socket recessed bell with a tapered annular opening and flared socket; plain spigot ends shall be suitably beveled to permit easy entry into the bell, centering the gasket and compression of the gasket. The push-on type joints shall be "Fastite" as manufactured by the American Cast Iron Pipe Company or "Tyton" as manufactured by U.S. Pipe or approved equal.

Fittings shall be Mechanical-Joint Fittings with body thickness and radii of curvature conforming to ANSI/AWWA C 110 and joints in accordance with ANSI/AWWA C 111/A21.11-17, Class 350 ductile iron in sizes 6" through 48". Bolts and taps shall be ductile iron.

Pipe and fittings shall be tar coated outside and shall receive a standard cement lining with bituminous seal coat on the inside in accordance with the ANSI A21.4-16 (AWWA C 104).

302.2 Polyvinyl Chloride Pressure Pipe

302.2 Polyvinyl Chloride Pressure Pipe

This specification covers PVC pipe in 6-inch, 8-inch, and 12-inch nominal diameters with Ductile Iron / Cast Iron equivalent outside diameters.

PVC pipe shall be manufactured in accordance with AWWA C900 and C905, either by J.M. Eagle, Diamond Plastics, or approved equal, with the following additional requirements or exceptions:

The pipe must conform to AWWA C900 pressure class 235 psi (DR 18) and or 305 psi (DR 14).

It must carry approval of ANSI/NSF Standard 61, UL 1285 and FM 1612.

Pipe joints shall be made using an integral bell with an elastomeric gasket push-on type joint. Installers should exercise caution when bellling the pipe to insure over bellling does not occur.

PVC pipe shall be of a rated pressure class 235 psi (DR18) or greater.

Pipe furnished under this Specification shall have a nominal laying length of 20-feet. Random lengths are not acceptable.

The Manufacturers shall submit a written statement that the inspection and all specified tests have been completed and that results comply with the requirements of these standards.

Components in contact with potable water shall be certified to comply with NSF/ANSI 61, and a copy of the NSF/ANSI 61 certification shall be provided to WMU, if requested.

Minimum bury depth shall be 36 inches. Maximum bury depth shall be 6 feet. All backfill shall comply with the manufacturer's recommendations or paragraph 313.11 of this manual.

All deflections shall be made using mechanical joint fittings and restraints. There shall be no pipe bending.

Thrust restraint requirements as previously specified in this chapter and SDW-01 through SDW-04 still apply.

PVC pipe buried beneath roadways, parking lots or parking lot entrances shall meet AWWA Specification C900 or C905, latest revision. All 6" to 12" pipe in such locations shall be a minimum of Class 305 (DR 14).

NOTE: High pressure areas in the water distribution system will require appropriate rated materials as approved by WMU.