



Consolidated Technical Specifications

Revised February 28, 2022

All water system materials shall be as per Weir River Water System specifications.

1. Water mains to be class 52 ductile iron pipe, conforming to AWWA C150 and AWWA C151, with push on type joints and gaskets conforming to AWWA C111, double cement lined inside conforming to AWWA C104, and asphalt seal coated outside (coal tar coated outside conforming to AWWA 203 in areas where groundwater levels are above the pipe laying depth).
 - a. Ductile iron pipe and fittings shall be installed and tested in accordance with requirements of AWWA C600, latest edition. Water mains shall have a minimum of five feet (5') of cover.
 - b. Water main pressure testing shall consist of 200 psi for 10 minutes and 150 psi for 2 hours.
 - c. The contractor must provide a clean two (2) total coliform bacteria sample results from a laboratory certified by the Commonwealth of Massachusetts.
 - d. The minimum vertical and horizontal separation must be maintained for all water lines and other utilities: 18-inches vertical (water line 18-inches above) and 10 feet horizontal.
 - e. At no time shall a water main or service be installed greater than eight (8) feet below finished grade.
 - f. Water mains shall not be installed below concrete pads and concrete sidewalks and/or landscaped islands shall be avoided whenever possible.
2. All pipefittings shall be ductile iron, class 350 mechanical joint conforming to AWWA C153. All fittings shall be restrained with Series 1100 Megalug as manufactured by EBAA Iron, or approved equal.
3. All gate valves shall be "**OPEN RIGHT**" (clockwise to open) resilient wedge seated valves conforming to AWWA C509 (Mueller Co 2360 series or approved equal). Valves shall have corrosion resistant fusion bonded interior and exterior coatings. Valves are to have double O-ring seals, a non-rising stem, and 2 inch operating nut. An arrow indicating the opening position shall be cast into the operating nut.
4. Valve boxes shall be cast iron, asphalt coated, sliding type, adjustable, together with cast iron covers with the word "**WATER**" plainly cast in relief on the top surface. A minimum 6-inch overlap is required between sliding sections. The inside diameter of the bottom section shall be at least 5 1/4 inches and shall have a belled base. The top section shall be at least 6-1/8-inches and have top flanges. The bottom section shall be at least 36-inches in length. The top section shall be at least 26-inches in length and have a plain bottom.
5. Tapping sleeves and valves shall have resilient wedge gate valves as specified above with the following exceptions. Tapping sleeve shall be Mueller Co. Stainless Steel Tapping Sleeve Model H-304SS. Sleeves shall meet ANSI/NSF 61 standards. Sleeve outlet shall have a 3/4" testing port with a 3/4" NPT brass test plug. Tapping valves shall be full port opening and above specified.

6. Hydrants shall be **"OPEN RIGHT"** (clockwise to open) Mueller Super Centurion A-423 (see attached), conforming to AWWA C502 (Dry Barrel Hydrants) and painted red. G. Fire hydrants shall have mechanical joint shoes, 5'6" bury (street level shoulder areas) or 6'-0" bury (raised sidewalk) and marked with an arrow and the word "open" to indicate the direction to turn the stem to open the hydrant.
7. Unless otherwise approved, all water service line piping shall be Type K annealed (soft) copper tubing, conforming to ASTM B-88, and shall be seamless in manufacture. The water service pipe diameter shall be as specified by Aquarion to meet the projected use.
 - a. Corporation stops shall meet the most recent revision of the AWWA C800. Corporation stops shall be brass compression-type with taper type inlet thread. Corporations shall **open Left**. All corporations larger than 1" on ductile-iron water mains shall be installed with saddles. Corporation stops shall be Mueller B25008.
 - b. Curb stops shall meet the most recent revision of the AWWA C800. Curb stops shall be brass compression-type. Curb Stops shall **open Left**. The inlet and outlet shall have compression connections. Curb stops shall be Mueller Model B25209.
 - c. Curb stop boxes shall be cast iron Buffalo type with recessed lid with pentagon bolt and the word "water" cast on top, and adjustable sliding type with arch pattern. Curb stop boxes shall be domestically manufactured Bingham and Taylor.

ALL WATER INFRASTRUCTURE MUST BE INSTALLED PER THE WEIR RIVER WATER SYSTEM RULES AND REGULATIONS, CONSTRUCTION SPECIFICATIONS, AND SUBJECT TO INSPECTION BY THE MANAGING DIRECTOR/SUPERINTENDENT OR ITS DESIGNEE.