

SECTION 02718
SMALL DIAMETER
WATER SERVICE ASSEMBLIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. All new residential domestic service lines shall be a minimum of 1-inch from the main to the meter unless otherwise approved by the WSD.
- B. All new residential domestic meter assemblies shall be a minimum of 3/4-inch unless otherwise approved by the WSD. Meters can be smaller than service line size for residential services.
- C. All new residential fire sprinkler assemblies shall be a minimum of 1-inch unless otherwise noted.
- D. The City will supply all new water meters to be installed by the Contractor.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. All service assembly components in contact with potable water shall be certified No Lead or Lead Free.
- B. The service assembly shall include a corporation cock, PEXa, linesetter, meter, meter box with cover, and tapping saddle as required.
- C. CORPORATION STOPS: The corporation stop shall be of solid bronze suitable for tapping into the water main at a vertical angle. This stop shall be Ford FB-1000-4-TA-Q-NL.
- D. SERVICE PIPE:
 - 1. PEX; (1" through 2") crosslinked polyethylene (PEXa), Type A rated for 160 psi working pressure at 73.4°F. PEX pipe shall meet the requirements of ANSI/NSF 61 and AWWA C904 and be rated for buried installation. Pipe shall be Rehau, Municipex® or equal. PEXa shall be blue or white in color. All PEXa pipe shall be installed with insert stiffeners to prevent the collapse of water service tubing. Stiffeners shall be MARS Company, A Division of Floyd S. Salser Jr. & Associates. The use of PEXa pipe for water services is limited to single-family residential locations. PEXa pipe is not permitted in commercial, multi-family or institutional meter applications.

- E. LINESETTERS: Linesetters shall be Ford LSVBHH41-444W-Q-NL.
- F. WATER METERS:
 - 1. All water meters for shall be furnished by the City to the Contractor for installation.
- G. METER BOXES: Meter boxes for water service assemblies shall be plastic, rectangular meter boxes traffic rated, with non-locking cover and auto-read opening. Boxes shall be as follows:
 - 1. $\frac{3}{4}$ " or 1" Meter Size – Oldcastle/Carson HW-1324-BCF w/ Fiberlyte Lid (Cover) with AMI/TR hole for Sensus Smartpoint 520m.
- H. TAPPING SADDLES: Tapping saddles shall be used for tapping all PVC pipe and shall be Ford S70 series, Style A, and shall be AWWA threaded to accept the corporation cock specified above. Tapping saddle body and strap shall be made of brass alloy and shall be joined together with stainless steel pin and a silicon bronze hex head bolt. Product shall conform to AWWA C800, NSF Standard 61 and be rated for 150 psi working pressure.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Make no taps on dry lines without approval from the WSD. Taps in newly installed water lines and existing lines shall be made by the Contractor.
- B. The service line shall have a minimum of 18 inches cover. Prior to connecting meter, blow any accumulated trash out of the pipe.

3.02 INSTALLATION

- A. All service lines to be installed under existing paved roads will be bored and jacked. A 2-inch schedule 40 PVC casing pipe may be provided for new bored services or new services under roadways if directed by the Department. Service line casing shall extend to a point 2 feet behind the sidewalk on each side of the roadway. No couplings shall be used on new service lines.
- B. In general, install the meter box as near the ROW line as possible at the street right-of-way. Minimum horizontal spacing between water service and sewer service shall be 10 feet. Set plumb approximately 1 inch above the existing or proposed grade and so that surface drainage will not enter it. Fill from the existing or proposed grade to the top of the meter box at a slope of 1 inch in 12 inches. When the cut or fill slopes on streets extend beyond the street right-of-way, install the meter box at the top or toe of slope, as applicable, or as directed

by the Owner. Meter boxes/covers, meters, smartpoint transmitter, service line and linesetter damaged by home builder will be responsibility of the home builder to reset or replace.

- C. The service main shall not be taut from stop to cock. A gooseneck shall be left at the connection to the water main.
- D. All PEXa pipe shall be installed with 12 gauge, THHN solid copper wire with coating installed in such manner that detection with WSD equipment is possible. The detection wire shall be continuous and shall be connected to the corporation stops, meter boxes, and/or valve boxes to facilitate connection to the WSD location equipment.

3.03 ABANDONMENT OF OLD SERVICE CONNECTIONS

- A. If a service line is abandoned and the existing water line is ductile iron, then the service line shall be disconnected at the corporation stop and the stop closed.
- B. If a service line is abandoned and the existing water line is PVC, then the service tap saddle shall be removed and a Smith-Blair full-circle repair clamp (15" length) placed atop the old service connection point.

END OF SECTION