

# **Valparaiso City Utilities – Water Department Specifications Technical Division: Specifications and Engineering Requirements for the Installation of Water Mains and Appurtenances**

## **GENERAL PROVISIONS**

### **SECTION 02110 SCOPE AND INTENT**

#### A. Description

The work to be done includes the furnishing of all labor, materials, equipment, and services and the performance of all work included for the installation of water mains and appurtenances by the Valparaiso Department of Water Works. Water main shall be ductile iron pipe unless special circumstances require the use of alternate materials.

#### B. Work Included

The Valparaiso City Utilities shall furnish all labor, superintendence, and other means of construction necessary or proper for performing and completing the work. The Valparaiso City Utilities shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property, and in strict accordance with this Specification. The Valparaiso City Utilities shall clean up the work area and maintain it during and after construction, and shall do all work and pay all costs incidental thereto. The Valparaiso City Utilities shall repair or restore all structures and property that may be damaged or disturbed during performance of the work.

#### C. Definitions

Under this Specification the following definitions apply:

Department Representative: The person or persons assigned the responsibility, as agent of the Valparaiso City Utilities, to supervise or inspect the installation of water system.

Ductile Iron: Cast ferrous material in which a major part of the carbon content occurs as free carbon in nodules or spheroidal form.

Mechanical Joint: The gasket and bolted joint as detailed in AWWA C111.

Owner: Valparaiso City Utilities, its successors and assigns which will own and operate the completed piping system. Valparaiso City Utilities may designate agents for specific responsibilities in connection with piping projects constructed under this Specification.

Push-On-Joint: The single rubber gasket joint as described in AWWA C111. Joints shall be Tyton™ or Fast Tite.

Compacted select fill material – "B" borrow sand compacted to a minimum 95% standard Proctor density

HDPE – High density polyethylene

#### D. Permits and Fees

The Valparaiso City Utilities or its Contractor or its Developer shall obtain and pay for all required permits and fees. Decision to be made by Distribution Manager.

#### E. Reference of Standards

This Specification references the following documents. They form a part of this Specification to the extent specified herein. In any case of conflict, the requirements of this Specification shall prevail. The latest edition of these standards shall control.

- (1) AWWA C104 — Cement-Mortar Lining for Ductile Iron Pipe and Fittings
- (2) AWWA C105 — Polyethylene Encasement for Ductile Iron Piping
- (3) AWWA C110 — Ductile Iron Fittings, 3 in. through 48 in.
- (4) AWWA C111 — Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings
- (5) AWWA C115 — Flanged Ductile Iron Pipe with Threaded Flanges
- (6) AWWA C116- Protective Fusion-Bonded Epoxy Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings For Water Supply Service
- (6) AWWA C150 — Thickness Design of Ductile Iron Pipe
- (7) AWWA C151 — Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Liquids Molds, for Water or Other Liquids
- (8) AWWA C153 — Ductile Iron Compact Fittings for Water and Other Liquids
- (9) AWWA C500 — Gate Valves
- (10) AWWA C504 — Rubber-Seated Butterfly Valves
- (11) AWWA C509 — Resilient — Seated Gate Valves

- (12) AWWA C550 — Protected Epoxy Interior Coatings for Valves and Hydrants
- (13) AWWA C600 — Installation of Ductile Iron Water Mains and Appurtenances
- (14) AWWA C651 — Disinfecting Water Mains
- (15) AWWA C800 — Underground Service Line Valves and Fittings
- (16) AWWA C906 – Polyethylene Pressure Pipe and Fittings, 4 in. Through 63 in. for Water Distribution and Transmission
- (16) AWWA C20104 — Handbook Occupational Safety and Health Standards for Water Utilities
- (17) AASHTO T-99 — Standard Method of Test for Moisture-Density Relationship for Soils
- (18) Indiana Cross Connection — 327 IAC 8-10, Effective 7/19/85
- (19) "10 State Standard" — Great Lakes Upper Mississippi River Board of State Public Health & Environmental Manager — Recommended Standards for Water Works
- (20) ANSI — The American National Standards Institute

END OF SECTION