SECTION 221100 - WATER DISTRIBUTION SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section shall consist of furnishing and installing the following:

1. Potable water distribution pipe and fittings.

1.2 DEFINITIONS

A. GSP: Galvanized Steel Pipe.

B. HDPE: High Density Polyethylene plastic.

C. NPWL: Non-potable waterline (includes sewerline).

D. PVC: Polyvinyl chloride plastic.

1.3 SUBMITTALS

A. Product Data: For the following:

1. Pipe sleeve material product data.

1.4 QUALITY ASSURANCE

A. All work is to be completed according to applicable Federal, State and Local codes. This work includes, but is not limited to, materials, installation, testing and disinfection

B. Piping materials shall bear label, stamp, or other markings of specified testing agency.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.

B. Protect stored piping from moisture and dirt. Elevate above grade.

C. Protect flanges, fittings, and specialties from moisture and dirt.

D. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

1.6 PROJECT CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by the Government or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Do not proceed with utility interruptions without the Contracting Officer's written permission.

1.7 COORDINATION

A. Coordinate other utility impacts.

1.8 MEASUREMENT AND PAYMENT

A. Payment will be as listed for the following items:

1. Pipe Sleeves: Linear Feet of pipe sleeve, of the type and size indicated including trench excavation, backfill, and 2x4 placement.

PART 2 - PRODUCTS

2.1 GENERAL

A. All waterlines, pipes, and fittings shall be new and unused, of the type, pressure rating or class, and size specified and as shown on the Drawings.

2.2 PIPES AND FITTINGS

A. Galvanized Steel: ASTM A53, Schedule 40, threaded ends meeting ASME B1.20.1.

1. Fittings: Threaded, ASTM A 338.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Refer to Section 312000 "Earthwork" for excavating, trenching, bedding, and backfilling with regards to pipe sleeve installation.

3.2 PIPE SLEEVE INSTALLATION

A. Install pipe sleeves before aggregate or asphalt are placed.

B. Where waterline crosses road paving install waterline in pipe sleeve. Extend pipe sleeve a minimum of three feet beyond edge of pavement or to a length as shown on the plans.

C. Install pipe sleeve at the required depth as shown on plans.

D. End Seals

1. The sleeves shall be plugged with an end seal or threaded cap to provide a positive seal against a hydrostatic head and prevent soil from entering the space.
2. Install one 2x4 on each end party buried so ends can be located in the future.

END OF SECTION 221100
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