

Special Specification 7226

Force Main



1. DESCRIPTION

Furnish and install or replace encasement and piping for proposed force main, and supporting materials in conformance to the North Central Texas Council of Governments (NCTCOG) Fifth Edition (2017) requirements and details shown on the plans. Provide testing as necessary, and request inspection of the completed force main lines before being placed in service.

- 1.1. **Prequalification.** The Contractor will demonstrate to the Engineer that they have experience working on similar projects that involve the installation of HDPE force main. The statement of qualification must include a minimum of 3 references.

2. MATERIALS

Furnish all materials in accordance with the requirements shown on the plans or pick-up and deliver materials furnished by utility companies to the project site. See Section 4: Measurements, Table 1: Force Main

3. CONSTRUCTION

Protect all sewer lines, vaults and appurtenances at all times during construction. Promptly repair, at no cost to Palo Pinto County Water Control and Improvement District Number 1 (PPWCID NO. 1), any damage to the existing sewer system and/or any interruption to the services such as line stoppages or breakage caused by Contractor's operation.

- 3.1. **Specifications.** Perform the work in such a manner consistent with NCTCOG standards and specifications. Reference the following attached Specifications for the work to be performed:

- 3.1.1. Specifications listed below are included for this project by reference and can be obtained through NCTCOG.org:

- 105.4 Construction Stakes
- 107.22 Working Area
- 201.2 Determining Location and Protection of Existing Structures and Utilities
- 203 Site Preparation
- 501.1 General
- 501.21 Solid Wall Polyethylene Plastic Pipe for Water, Wastewater, and Pipe Rehabilitation
- 502.6.3 Air Valves
- 503.3 Methods of Jacking, Boring or Tunneling
- 504.4 Backfill-General Requirements
- 504.5 Embedment
- 504.6 Final Backfill
- 507.5 Tests and Inspections
- 601 Pipeline Rehabilitation

3.2 Bypass Pumping.

3.2.1 The design, installation and operation of the temporary bypass pumping system will be the Contractor's responsibility. The work involved with the design and implementation of the bypass pumping system will be considered subsidiary to the various bid items of the contract. The Contractor will employ the services of a vendor who can demonstrate to the Engineer that they specialize in the design and operation of temporary bypass pumping systems. The system must be in accordance with the applicable standards of NCTCOG Section 601 and TCEQ Chapter §217.

3.2.2 Design Requirements.

Peak Flow: 0.10 MGD

Receiving Structure: 6" HDPE force main

3.3 Inspection and Submittals.

3.3.1 **Inspection.** All force mains and their appurtenances will be inspected by Zack Washburn (940-329-0685). His decision of acceptability of the installation will be final. PPCWCID NO. 1 will hold one (1) final inspection. Engineer, Contractor, and inspectors are to be present.

3.3.2 **Submittals.** The Contractor must review, approve, and submit all Shop Drawings, Product Data, and Samples required by the Contract Documents according to Section 105.3 Shop Drawings, Product Data and Samples of NCTCOG, with reasonable promptness and in such sequence as to cause no delay in the Work or in the Work of PPCWCID NO.1 or any separate Contractor.

4. MEASUREMENT

Force Main replacement items will be measured as follows:

Table 1: Force Main

Bid Item Description	Unit	NCTCOG Spec Number
Remove Existing 6" Force Main	LF	203
Install 6" HDPE DR 9 Force Main Pipe by Open Cut	LF	501.21, 507
Install 6" HDPE DR 9 Force Main Pipe by other than Open Cut	LF	501.21, 503
Concrete Pipe Encasement	LF	504.5.2.13
Connect to Existing Force Main	EA	502.11

5. PAYMENT

The work performed and materials furnished in accordance to this item and measured as provided by under "Measurement" will be paid for at the unit price bid for the various items specified in the plans. This price is for full compensation for furnishing all labor, tools, equipment, testing, and incidentals necessary to satisfactorily complete the work as detailed on the plans including excavation, embedment, and backfill.