

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
OREGON

CONSTRUCTION SPECIFICATION

CS-52 CONDUITS AND PIPELINES

52.1 SCOPE

The work shall consist of furnishing and placing circular, arched or elliptical pipe and necessary appurtenances.

52.2 MATERIALS

Pipe and fittings shall conform to the requirements of the applicable NRCS Material Specifications for the type and grade of material being used. Where connecting bands are used, they shall withstand the internal pressure of the installation without leakage.

52.3 MATERIAL HANDLING

The material shall be delivered and handled in a manner that will not damage or reduce its strength or damage the coating. All special handling requirements of the manufacturer shall be adhered to. When handling and placing coated or plastic pipe, care shall be taken to prevent damage resulting from metal surfaces or rocks.

52.4 LAYING AND BEDDING

Unless otherwise specified, the pipe shall be installed in accordance with the manufacturer's recommendations.

Perforated pipe shall be laid with the perforations down and oriented symmetrically about a vertical center line. Perforations shall be clear of any obstructions at the time the pipe is laid.

Elliptical pipe and pipe with elliptical or quadrant reinforcement shall be laid so that the vertical axis, as indicated by markings on the pipe, is in the vertical position.

During backfilling the pipe shall be sufficiently loaded around the sides to prevent its separation from the bedding. The pipe shall be laid so the pipeline barrel is uniformly supported, which may require special excavation for bells and/or couplings.

52.5 STRUTTING

When required, struts or horizontal support ties shall be installed as specified on the drawings. Struts and ties shall remain in place until the backfill has been placed to a height of 5 feet above the top of the pipe, or has been completed if the finished height is less.

52.6 JOINTS

Pipe joints shall conform to the details prescribed by the manufacturer and shown on the drawings. Pipe joints shall be sound and watertight at the pressure specified on the drawings. The joints shall be made in a manner so that the inside of the pipe is free from obstructions.

52.7 COATINGS

All coatings shall be inspected after final placement and just prior to backfill. Any pinholes and/or damage shall be repaired with a material that is recommended by the manufacturer.

52.8 TESTING

The system shall be given an operational test at the time of installation if water is available or as soon thereafter when water is available. This test shall consist of filling the pipe with water at a rate of no more than one-third the design flow rate, taking care to bleed all air from the pipe. All of the system components shall operate properly at and below the design pressure and flow rate. Leakage or defects caused by poor materials or workmanship shall be replaced or repaired.

52.9 ITEMS OF WORK AND CONSTRUCTION DETAILS FOR THIS PROJECT