
Special Specification 4067

Horizontal Drains



1. DESCRIPTION

This Item governs for the furnishing and installation of horizontal drain pipe as established by the plans and this special specification. The horizontal drains must conform to the lines and grades shown on the plans or as directed by the Engineer.

2. MATERIALS

Materials must conform to the following requirements:

Plastic Drain Pipe: Drain pipe must consist of 1.5 in. diameter Schedule 80 Polyvinyl Chloride (PVC) in accordance with ASTM D 1785. The pipe must have two (2) rows of slots centered on two (2) of the third points (120 degrees apart) cut around the circumference of the pipe. The slots must be 0.020 in. wide. The slot spacing must be approximately 1/2 in. to produce a minimum total opening per linear foot of pipe of 0.46 sq. in. The minimum total opening must be measured on the inside of the pipe. The final five (5) ft. outlet section of pipe must be non-slotted.

The drain pipe sections must couple in such a manner as to produce a smooth inside and outside surface. The coupling may be either solvent weld or threaded.

3. CONSTRUCTION

- 3.1. **Drilling.** The equipment used for drilling must be capable of drilling holes at least three (3) in. in diameter 50 ft. long to the designated lines and grade required.

Should excessive water drainage occur during the drilling process causing surface instability, steel pipe must be installed prior to drilling the hole in order to stabilize the mouth of the hole. The pipe must be of a suitable diameter to allow for the passage of the drill stem.

- 3.2. **Drain Pipe Installation.** The drain pipe sections must be joined in accordance with the manufacturer's recommendations. The entrance end of the pipe must be plugged or capped securely. The pipe must be installed with the slots on top unless otherwise directed by the Engineer.

The drain pipe may be installed by inserting through the center of the drill stem, and then retracting the drill stem so that the hole is cased for the full length.

The space between the drilled hole and drain pipe must be tightly plugged with soil for a length of at least two (2) ft. at the outlet end of the hole.

4. MEASUREMENT

The horizontal drains will be measured by the linear foot of acceptable drain in place.

5. PAYMENT

The work performed and material furnished as prescribed by this Item, measured as provided under "Measurement," will be paid for at the unit price bid for "Horizontal Drains." This price is full compensation for all drilling, furnishing and placing both slotted and non-slotted plastic drain pipe, supplying and installing steel surface pipe, and for all labor, tools, equipment and incidentals necessary to complete the work.