

## Mole Drain (ft)

### Definition

An underground conduit constructed by pulling a bullet-shaped cylinder through the soil.

### Scope

This standard covers the requirements for the planning and the installation of a system of subsurface earthen channels and its facilitating and protecting appurtenances.

### Purpose

To establish a system of subsurface channels for removal of trapped surface and subsurface water from land where the use of buried drains is physically or economically impractical to complete the drainage required.

### Conditions where practice applies

Mole drains may be used in hayland and cropland in highly cohesive or fibrous soils that are free of stones, gravel, or sand lenses if the area served is small and if an outlet is available or can be constructed to provided continuously free outfall from the drains. They may also be used as a supplement to other drains.

### Planning considerations

#### Water Quantity

1. Effects on runoff, infiltration, deep percolation, and potential ground water recharge.
2. Effects of increased drainage waters on downstream baseflow.

#### Water Quality

- 1 Effects of increase in dissolved substances that may be discharged to streams.
2. Effects on aquifer recharge water quality.

3. Reduction in the yields of sediment or sediment-attached substances, and effects on downstream water quality and water use.

4. Downstream temperature changes.

5. Effects on the visual quality of downstream waters.

### Design criteria

Mole drains shall be installed according to an approved plan, or as modified by an authorized technician at the site.

The location, grade, length of line, depth, spacing and size of drains, and the outlet protection for such drains shall meet requirements of Section 16, Soil Conservation Service National Engineering Handbook, or as modified by approved local drainage guide.

### Plans and specifications

Plans and specifications for installing mole drains shall be in keeping with this standard and shall describe the requirements for proper installation of the practice to achieve its intended purpose.