

**TILE DRAINS**

1. **APPLICABILITY**

Construction Specification 46 is applicable to the installation of clay and concrete drain tile for land drainage.

2. **MATERIAL SPECIFICATIONS**

The following material specifications are complementary to Construction Specification 46:

- a. Clay Pipe and Drain Tile: Specification 544
- b. Non-Reinforced Concrete Pipe: Specification 543

3. **ITEMS TO BE INCLUDED IN CONTRACT SPECIFICATIONS AND DRAWINGS**

- a. Line and grade for tile/pipe. Include statement in items of work that pipe shall be installed so that there is no reversal of grade between joints unless specifically shown otherwise on the drawings.
- b. Kind, size and class of tile and/or pipe.
- c. Typical cross-sections, including typical bedding details.
- d. Special fittings, appurtenances, etc.
- e. Maximum and minimum trench widths.
- f. Procedures to use where unstable soils are encountered. Consider Contractor's responsibility for construction safety.
- g. Typical pipe outlets.
- h. Details of appurtenances.
- i. Location and details of any special tile/pipe bedding requirements.
- j. Use or restrictions of automatic backfillers.
- k. Location of required compacted backfill.
- l. Details of any special fittings.
- m. Type of joint required (including spacers where required).
- n. Type, kind and size of materials to be used to cover joint or pipe.
- o. Type of envelope or filter.

- p. Gradation of sand-gravel envelope or filter material. Note the limits of the moisture content of sand material so bulking will be avoided.
- q. Directions for covering pipe with envelope or filter material. Provide caution to avoid the dropping of gravel/rock materials directly on clay tile.

#### 4. DISCUSSION OF METHODS

Methods are included in Section 4, 5, and 7. The methods are self-explanatory.