

**REMOVAL OF WATER**

1. **APPLICABILITY**

Construction Specification 11 is applicable to the temporary diversion of surface water and dewatering of the borrow and construction areas during the construction period.

2. **MATERIAL SPECIFICATIONS**

There are no material specifications complementary to Construction Specification 11.

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

- a. Special requirements or restrictions for the diversion system and/or method of diverting surface water.
- b. Special requirements for dewatering the construction site that may affect quality of work and/or construction safety (such as lowering water table prior to performing excavations and maintaining a maximum water level during construction operations).
- c. Special requirements for dewatering borrow areas such as removal of surface water and subsurface drainage to contribute to proper soil moisture conditions during borrow excavation operations. A contract bid item should be included if water problems may be expected in the borrow area and additional work, such as installation and operation of a pumping system, could be expected.
- d. Information on alternate borrow sources that may not require dewatering.
- e. Special requirements for the control of erosion and water pollution. Requirements included in this specification should be directly associated with dewatering and be compatible with Construction Specification 5, Pollution Control, if also used as a contract bid item.
- f. Waiver of the requirement that the Contractor furnish a site-specific plan outlining procedures to divert surface water and dewatering the construction site, if a plan in writing is not necessary.
- g. Depending on the magnitude and complexity expected, diverting surface water and dewatering may require separate bid items.
- h. For Section 6, Removal of Temporary Works, if pollution of the ground water is a concern when clean gravel is used as backfill, specify other backfill procedures in Section 8.
- i. Provisions for payment, if payment is to be made on a unit price basis, for pumping to dewater borrow areas and construction sites as follows:

- (1) Contract bid item for pumping to dewater borrow areas or construction sites.
- (2) At least one lump sum contract bid item that will include compensation for the work and cost of preparation for pumping.

#### 4. DISCUSSION OF METHODS

##### a. Section 7, Measurement and Payment

- (1) Method 1 is intended when removal of water is to be covered by one or more lump sum contract bid items. The procedures that will be used to determine progress payments should be outlined in Section 8.
- (2) Method 2 is intended for use when pumping to dewater borrow areas is to be measured and paid for as a unit price bid item of work.

When specifications are prepared using electronic procedures and all but one method are deleted for use in the contract specification, delete "All Methods The following provisions apply to all methods of measurement and payment." and left justify the remaining text.