

**SP-090146  
(New)**



**Iowa Department of Transportation**

**SPECIAL PROVISIONS**

**FOR**

**DEWATERING**

**Woodbury County**

**IM-29-7(51)149--13-97**

**Effective Date**

**July 19, 2011**

**THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING  
MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND SHALL PREVAIL  
OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

## **PART 1 GENERAL**

### **1.01 REGULATORY REQUIREMENTS**

- A. Conform with all city, county, state, and federal requirements and obtain permits for the control and discharge of water from dewatering operations.
- B. Coordinate with Contracting Authority, other Contractors, Sub-contractors and governmental bodies.
- C. Secure all necessary permits to complete the requirements of this Section.

### **1.02 SUBMITTALS**

- A. Prior to excavation, submit a detailed plan, operation and removal schedule for dewatering. Contractor may be required to demonstrate the system and to verify that adequate equipment, personnel, and materials are provided to dewater the excavations and trenches at all locations.
  - 1. Submit the dewatering plan for Contracting Authority and Engineer's record. Engineer's review not required.

### **1.03 QUALITY ASSURANCE**

- A. Contractor is responsible for controlling discharge rate and effect of the dewatering system.
- B. Establish, observe, and record reference points at frequent intervals to detect any settlement of structures adjacent to areas of proposed dewatering. The Contractor is responsible for protecting adjacent structures. Any costs associated with the repair, restoration, or replacement of damaged structures shall be the responsibility of the Contractor.

## **PART 2 PROCEDURE**

### **2.01 EQUIPMENT**

- A. Dewatering may include, but not limited to, wells, well points, sumps, temporary pipelines for water disposal, rock or gravel placement, or any combination. Maintain standby pumping equipment on the job site.
- B. Provide and remove all equipment necessary for dewatering. Provide dewatering systems with sufficient pumping equipment and machinery in good working condition and provide at all times, competent workmen for the operation of the systems. Keep adequate standby equipment available at all times to insure continuous and efficient dewatering and maintenance of dewatering operation.
- C. Maintain groundwater at least 2 feet below the bottom of any excavation or trench until entire structure is completed, backfilled, and building drainage system is operational. This includes any sump pumps or storm drains used as an outlet.
- D. Commence dewatering for structures and pipelines when groundwater is first encountered, and dewater continuously until such times as water can be allowed to rise in accordance with the provisions of this Section or other requirements.
- E. Provide drainage for the site grading at all times. Divert surface runoff from excavations and trenches. Collect surface runoff in shallow ditches around the perimeter, drain to sumps, and pump or drain by gravity to maintain a bottom free from standing water.
- F. Preserve the undisturbed bearing capacity of the subgrade soils at proposed bottom of excavation by dewatering.
- G. Excavate affected areas and replace with crushed rock, at no additional cost to the Contracting Authority, if foundation soils are disturbed or loosened by the upward seepage of water or an uncontrolled flow of water.

- H. Provide a clean coarse granular working mat as required to provide a stable working base for construction equipment and to facilitate construction. Any other granular material needed for drainage shall be in addition to the working base provided.
- I. Prevent flotation by maintaining a positive and continuous removal of water. Contractor is responsible and liable for all damages which may result from failure to adequately keep excavations and trenches dewatered.
- J. Adequately space well points or wells (if used) to provide the necessary dewatering. Sand-pack or by other means to prevent pumping of fine sands or silts from the subsurface. Continuously check to ensure that the subsurface soil is not being removed by the dewatering operation.
- K. Dispose of water in a suitable manner without damage to adjacent property. Do not drain water into Work built or under construction. Filter water using an approved method to remove sand and fine-sized soil particles before disposal into any drainage system.
- L. Release groundwater to its static level in such a manner as to maintain the undisturbed state of the natural foundation soils, prevent disturbance of compacted backfill and prevent flotation or movement of structures or pipelines.
- M. Provide groundwater monitoring wells as necessary.

### **PART 3 MEASUREMENT AND PAYMENT**

#### **3.01 METHOD OF MEASUREMENT**

- A. CONTRACTOR shall be paid a lump sum price for dewatering.

#### **3.02 BASIS OF PAYMENT**

- A. This shall be full compensation for furnishing all labor, materials, and equipment necessary to dewater all excavations and trenches in accordance with the requirements of the Contract Documents. Provide labor to remove all temporary material and equipment prior to contract closeout.

**END OF SECTION**