

204-R-700 GEOTECHNICAL INSTRUMENTATION

(Adopted 09-19-19)

The Standard Specifications are revised as follows:

SECTION 204, BEGIN LINE 22, DELETE AND INSERT AS FOLLOWS:

Bentonite-cement grout shall consist of a mixture with the ratio of 25 lb of bentonite with 94 lb of Portland Cement, †Type I in accordance with 901.01(b) and a 30 gal. of water.

SECTION 204, BEGIN LINE 58, DELETE AND INSERT AS FOLLOWS:

(b) Instrument Readings and Settlement Period

During the construction of the embankment, elevation readings will be taken on all settlement plate extension pipes and settlement stakes at the end of each seven-day period, or more frequently if required. After the embankment is constructed to *the bottom of the subgrade elevation*, additional readings will be taken every seven days until the settlement rate per week is 1/4 in. or less for four consecutive weeks. The monitoring period may be reduced as directed by the Department's Geotechnical ~~Section~~*Division*.

If the results of any readings indicate that the new embankment has settlement greater than 1/4 in., the monitoring period will be extended until the settlement requirements are met.

Settlement stakes will be used to measure the vertical movement, in conjunction with settlement plates if specified. Settlement stakes and settlement plates will be monitored at the same time and interval. Measurements will be made to the nearest 1/4 in. Settlement data will be sent electronically to the Department's Geotechnical ~~Section~~*Division* within one day of the readings for approval.

Lateral stakes will be used to monitor horizontal movement of the ground or new fill. If lateral movement is noticed during the construction of the fill, the work will be suspended and ~~corrective measures taken as directed~~*the Department's Geotechnical Division will be contacted*. Measurements will be made to the nearest 1/4 in.

Settlement plates, extension pipes, cover pipes, and stakes shall be protected during construction operations and during the monitoring period.

(c) Protection and Maintenance

The settlement stake and settlement plate shall remain in a vertical position. The Contractor shall ensure that settlement plates and settlement stakes are not damaged or displaced. Settlement stakes and settlement plates deviating from a vertical position, becoming uncoupled, or broken shall be repaired or replaced by the Contractor, as directed by the Engineer.

The Contractor will not be held responsible for repair or replacement of any settlement plate assembly which is damaged as a result of instability of the embankment caused by factors beyond the control of the Contractor, as determined by the Engineer.