

Regional Engineers

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Special Provision for Mechanically Stabilized Earth Retaining Walls

July 24, 2020

This special provision was developed by the Central Bureau of Materials to update the Department's specifications for fine and coarse aggregate for select fill used in permanent retaining wall applications utilizing steel soil reinforcement. This is a response to inconsistent test results obtained by independent laboratories supplying material certifications to the Department. The intent is to clarify the test methods employed so the results obtained will be consistent and reproducible. It has been revised to update the material acceptance procedures.

This special provision should be inserted into contracts requiring mechanically stabilized earth (MSE) retaining walls.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the November 6, 2020 and subsequent lettings. The Project Coordination and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory July 24, 2020.

80418m

MECHANICALLY STABILIZED EARTH RETAINING WALLS (BDE)

Effective: November 1, 2019

Revised: November 1, 2020

Revise Articles 1003.07(f)(2) and 1004.06(f)(2) of the Standard Specifications to read:

“(2) The chlorides shall be a maximum of 100 parts per million according to Illinois Modified AASHTO T 291.”

Revise Articles 1003.07(f)(3) and 1004.06(f)(3) of the Standard Specifications to read:

“(3) The sulfates shall be a maximum of 200 parts per million according to Illinois Modified AASHTO T 290.”

Revise Articles 1003.07(g) and 1004.06(g) of the Standard Specifications to read:

“(g) Testing Protocol. Prior to the start of and during construction, the internal friction angle and pH shall be determined in order to demonstrate the select fill material meets the specification requirements. Resistivity, chlorides, sulfates, and organic content test results shall also be determined if steel reinforcement is used. Testing shall be according to the current Bureau of Materials Policy Memorandum “Fine and Coarse Aggregates Used as Select Fill in MSE Walls Acceptance Procedures for Approved/Qualified Aggregate Sources”.”