FLORIDA DEPARTMENT OF TRANSPORTATION
State Materials Office
5007 NE 39th Avenue
Gainesville, Florida 32609

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Florida Method of Test
for
DIRECT SHEAR TEST OF SOILS UNDER CONSOLIDATED DRAINED CONDITIONS

Designation: FM 3-D3080

FM 3-D3080 is identical to ASTM D 3080 (2011) except for the following provisions:

1. The following referenced documents in section 2 shall be replaced with the corresponding FM or AASHTO equivalents:

   1.1. ASTM D422 = AASHTO T-88
   1.2. ASTM D698 = AASHTO T-99
   1.3. ASTM D1557 = FM 1-T 180
   1.4. ASTM D1587 = AASHTO T-207
   1.5. ASTM D2216 = AASHTO T-265
   1.6. ASTM D2435 = AASHTO T-216
   1.7. ASTM D4318 = AASHTO T-89 & T-90

2 To meet the requirements of sections 6.2.1 and 6.2.2, samples can be either crushed to reduce the maximum particle diameter or sieves can be used to separate and remove oversized particles.

3 For each series of tests performed, a minimum of three normal forces shall be used (exclusive of zero) with at least one replicate sample tested for each normal force. Replicate samples should have no greater than 10% difference in the peak shear force.

4 For the design of Mechanically Stabilized Walls (MSE), when the friction angle depicted in the shop drawings exceeds 30 degrees for sand backfill or 34 degrees for lime rock backfill, perform three series of direct shear tests per soil type. The design friction angle shall be the lowest friction angle obtained from the three series of tests. All of the samples for the direct shear tests must be compacted to a density not greater than the minimum requirements established in Section 548 of the Specifications.

5 For verification testing of the Mechanically Stabilized Wall (MSE) backfill materials, when the friction angle depicted in the shop drawings exceeds 30 degrees for sand backfill or 34 degrees for lime rock backfill, perform one direct shear test per soil type. The Engineer will obtain this verification sample at the point of placement on the project. The samples for the direct shear tests must be compacted to a density not greater than the minimum requirements established in Section 548 of the Specifications.