



# Standard Test Procedures Manual

Section: SOILS

Subject: SUBGRADE CONSTRUCTION CONTROL

## 1. SCOPE

### 1.1 Description of Test

This method describes sampling for moisture content and proctor density for quality control during the construction of a new subgrade.

## 2. APPARATUS AND MATERIALS

### 2.1 Equipment Required

100 mm hand auger.

Suitable bags and sampling containers such as tares to retain the natural moisture content.

Large cotton bags (with tags).

## 3. PROCEDURE

### 3.1 Test Procedure

#### 3.1.1 Obtaining Moisture Sample

Take moisture samples to a depth of 150 mm every 200 m for each 150 mm lift using a 100 mm hand auger. Samples will be taken diagonally across the grade from both shoulder and lanes.

Place approximately 1 kg of sample material in a plastic bag. Record the location and depth on 2 tags. Place 1 tag inside the bag and securely seal the bag to prevent any moisture loss with the second tag stapled on the outside.

Use STP 205-3 for moisture contents.

#### 3.2.2 Obtaining Proctor Density Sample

Take proctor density samples from the new grade during the disking/mixing operation for every change in soil type.

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Place approximately 25 kg of sample in a large cotton bag by taking small samples at locations diagonally across the road. Material gathered must originate from the same source.

Record control section, stationing over which the sample was taken and also the location of the borrow pit on two tags. Place one tag inside the bag and secure the second to the outside of the bag.

Use STP 205-5 for moisture density, proctor.

## 4. RESULTS AND CALCULATIONS

### 4.1 Reporting Results

This data is used for quality control of compacted subgrades in conjunction with STP 205-6, density-in-place by sand cone, and STP 205-7, density in place by nuclear gauge to ensure compaction specifications are met.

## 5. ADDED INFORMATION

### 5.1 Sample Retention

All samples should be clearly marked and well defined.

Any material changes must be clearly defined, as proctor density will vary with different materials when running quality control checks.

Ensure moisture samples are sealed securely and stored in place away from the elements.

Color coding and pennetrometer readings are not required.

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STP 104-4

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## APPROVAL SHEET

New  Revision  Date of Previous Document 82-04-01

Effective Date: - -

Description of Revision (Reason for Revision):

Format of test procedure updated.

Review/Implementation Process:

Reviewed by the Materials Section of the Technical Standards and Policies  
Branch.

Other Manuals/Policies Affected:

Nil

Follow Up/Training Required:

Nil

Comments/Concerns/Implications (Budget/Environment/Stakeholders):

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Electronic File Updated  
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