2005 CALIBRATION OF FIELD MARSHALL COMPACTION HAMMER

2005.1 SCOPE

The Marshall compaction hammer must be calibrated before each construction season by qualified personnel of the District Materials office. New hammers must also be checked prior to use.

2005.2 REQUIREMENTS

All Marshall compaction hammers shall meet the following requirements:

Α.	Weight of hammer	= 4,536 ± 9g (10 ± 0.02 lbs.)

- B. Height of drop = 457.2 ± 1.524 mm (18 ± 0.06 ")
- C. Diameter of foot = 98.4mm $\pm 400\mu$ m (3.875 ± 0.016 ")

2005.3 PROCEDURE

- A. Weight of Hammer
 - 1. Remove the handle and slide hammer off the rod.
 - 2. Weigh the hammer on a laboratory balance. (Be sure the balance has a minimum capacity of 5000 grams.)
 - 3. Adjust weight as necessary.
- C. Height of Drop
 - 1. Measure the distance between top of hammer and the handle.
 - 2. The "foot" assembly encloses a coil spring which may be worn. Hold the foot assembly securely and lift on the handle. If there is any vertical movement without compressing the enclosed spring, the whole unit is probably not repairable, and only the handle & 4,536g (10 lb.) hammer have any salvage value as repair parts.

- D. Diameter of Foot
 - 1. The foot of the assembly may become peened over, through long usage. This peened edge should be filed off before measuring. Hammers that meet requirements shall be marked O.K. and dated (month & year) using tape or other marking method.

2005.4 MARSHALL HAMMER CALIBRATION FORM

Specifications:

Height of Drop= 457.2 ± 1.524 mm (18 ± 0.06 ")Diameter of Foot= 98.4mm $\pm 400 \mu$ m (3.875 ± 0.016 ")Weight of Hammer= $4,536 \pm 9g$ (10 ± 0.02 lbs.)

HAMMER	HEIGHT	DIAMETER	WEIGHT	REQUIREMENT		DATE
NUMBER	OF DROP	OF FACE	OF HAMMER	MEETS	FAILS	CHECKED