AASHTO re:source (formerly AMRL)

Soil California Bearing Ratio Samples 185 (A) and 186 (B)
Instructions for Testing and Reporting

Closing Date: May 12th, 2022

All tests should be conducted on each of the two samples per the AASHTO or ASTM methods indicated. Report the results of a single determination only, not the average of two or more. For any tests you do not choose to perform, leave the appropriate spaces on the data sheet blank.

To permit an estimate of single-operator precision, the same operator should conduct an individual test on both samples. It is not necessary that the same person conduct all the tests.

During penetration, be sure to use a load cell having an appropriate capacity. Preliminary testing of the materials used for this round of testing indicated that the penetration load could reach approximately 3000 pounds when tested to 0.500 inches of penetration.

Treat each sample as you would treat a typical "production-type" sample. Any special handling or preparation needs will be included below.

California Bearing Ratio of Laboratory-Compacted Soils (T193-13 or D1883-21): Determine the "as received" water (moisture) content of each of the two samples and report the results to the nearest 0.1%. Use AASHTO T265 or ASTM D2216 to determine the water content. ***Once the moisture content as received is determined, add additional moisture to accurately achieve the target moisture contents below (as exact as possible).***

Prepare one specimen per sample using the rammer specified in T99 or D698 [5.5-lb (2.5-kg)] to compact the soil in **3 layers** using **56 blows** per layer.

Compact **sample 185 (A)** at a total water content of **7.5 percent**.
Compact **sample 186 (B)** at a total water content of **7.5 percent**.

Determine the water content of the material immediately before compaction and the water content of the unused remaining material immediately after compaction and report the results to the nearest 0.1%.

Before soaking the compacted specimen, determine the mass of the mold and specimen and calculate (using the **average** of the water content of the material immediately before compaction and the water content of the unused material immediately after compaction) the dry unit weight of the compacted specimen before soaking. Report the dry unit weight to the nearest 0.1 lb/ft^3.

Use a 10-lb surcharge for soaking and penetration. Soak the specimen for 96 hours. Report the specimen swell to the nearest 0.01 percent of the initial specimen height. (Indicate a decrease in specimen height as a negative number.)

Report the CBR (use graphically corrected load, or stress, values if the load-penetration curve is concave upward near the origin) of the specimen at 0.1 in. and at 0.2 in. of penetration to the nearest 0.1 CBR unit. For the purposes of this round of testing, it is not necessary to rerun the test if the bearing ratio at 0.2 in. of penetration is greater than the bearing ratio at 0.1 in.

re:
P: 240.436.4900 | F: 240.436.4899
4441 Buckeystown Pike, Suite A
Frederick, Maryland 21704-7507