ABSTRACT

THE COMPARISON OF CLAY BEARING CAPACITY VALUE BASED ON DYNAMIC CONE PENETROMETER, LABORATORY CBR AND UNCONFINED COMPRSSIVE STRENGTH TEST RESULTS

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Soil bearing capacity could be determined with several kind of test, that could produce different test result for same sample in accordance to characteristics of test equipment and main objectives of each test equipment in determining soil parameters. This research aimed to compare characteristics of soil bearing capacity that obtained from between DCP (Dynamic Cone Penetrometer) test, Laboratory CBR test, and UCS (Unconfined Compressive Strength) test.

The soil sample which tested on this research was from Margakaya village and Palputih village, District of Jati Agung, South Lampung and Blimbing Sari village, District of Jabung, East Lampung. Soil sample for Laboratory CBR test was made by compaction. Meanwhile, soil samples for UCS test was undisturbed soil and remoulded sample.

The result of research showed that the CBR value of DCP test result was greater than the Laboratory CBR test result by margin less than 1%. The CBR value was directly proportional to the compressive strength of its soil. Meanwhile, the DCPI value of DCP test result was inversely proportional to the design CBR value and the compressive strength of its soil.

Kata kunci: California Bearing Ratio, clay, compressive strength, DCPI