SOIL PROFILE AT DYNAMIC COMPACTION AREA IN KERTEH, TERENGGANU

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BY

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DECLARATION BY THE CANDIDATE

I, Mahathir B. Mohamad, 2001498550 confirm that this work is my own and that appropriate credit has been given where reference has been made to the work of others.

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(Mahathir B. Mohamad)
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ABSTRACT

Dynamic Compaction (DC) is a recognized and an accepted technique for stabilization of loose or granular soil conditions. This method has been used to improve bearing capacity. The technique involves dropping weights from cranes at specified heights. The purpose of dropping the weight is to transmit compaction energy to the soil mass for densification. This method works best in loose sands, fills, rubble, and landfills (Vipulanandan, 1998). This study was done to find out the fine content of soil improved by dynamic compaction. The sampled soil obtained adjacent to Kemaman-Kertih Railway track by using wet borehole technique. The borehole was driven at 12 different locations. For each borehole, the sample was collected at every 0.5 m interval until sufficient 1Kg was sampled and depth reached 7.5 m. Based on BS 1377, laboratory testing procedures such as for moisture content, wet sieve and dry sieve were conducted to determine the moisture content as well as soil classification. Laboratory testing took place at UiTM Pulau Pinang Laboratory. The percentages of fine content for every chainage were calculated and the soil profiles at study area were drawn by AUTOCAD. Based on result, the relationship between soil profile and suitability of ground improvement technique was discussed.

Keywords: Dynamic compaction (DC), Soil Classification, moisture content determination, sieve analysis and soil profile.