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SUBGRADES OR SUB-BASES LAYERS STABILISED BY HIGH CALCIUM FLY ASH OR/AND CEMENT

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ABSTRACT

The effectiveness of using high calcium fly ash and cement in stabilizing fine-grained clayey soils (CL,CH) was investigated in the laboratory. Strength tests in uniaxial compression and in indirect (splitting) tension were carried out with various percentages of fly ash (5,10,20). 90-days soaked CBR values are also reported. Pavement structures incorporating subgrades improved by in-situ stabilization with fly ash and cement were analyzed for construction traffic and operating traffic. These pavements were compared with conventional flexible pavements without improved subgrades and the results clearly show the benefits obtained by stabilizing clayey soils with fly ash and cement.

KEY WORDS: *Stabilisation, Fly ash, Subgrade, Subbase, Stress-Strain Analysis*