COMPARING LIGHT WEIGHT DEFLECTOMETERS TO STANDARDIZE THEIR USE IN THE COMPACTION CONTROL

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ABSTRACT
The evaluation of the in situ bearing capacity is evolving from traditional load plate test (LPT) to dynamic plate testing with deflectometric equipments (LWD). The rapidity and simplicity of tests implementation allow to reach levels of hourly productivity up to 30 stations per hour, which correspond to a considerable reducing of distance between points or to an extension of the investigated area. The various LWD equipments on the market, conceptually similar, may record different results. In this study a comparison between two types of LWD, together with tests to validate two procedures for the assessment of the compaction level, were undertaken. The comparison was made using data acquired from several trial sites, with varying materials, thicknesses and levels of compaction. It was found that the differences between the instruments and their testing procedures produce results not always congruent. The use of these deflectometric devices for Qc/Qa calls for the development of instrument-related test procedures, taking into account the variability of site conditions.

KEY WORDS: Light Weight Deflectometer, Non Destructive Testing, Continuous Compaction Control.