

April 8, 2013

ERRATA

“Simplified Techniques for Evaluation and Interpretation of Pavement Deflections for Network-Level Analysis”

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Dear customer:

An editorial correction was made to this report after the report was originally published. The following table shows the modification that was made to this report.

Location	Correction
Page ‘a’	Replace forward page with attached copy

FOREWORD

Effectively managing pavement infrastructure assets requires not only knowledge of the pavement condition indicators that can be seen (e.g., cracking or rutting) or felt (e.g., roughness), but also knowledge of the pavement's structural capacity. Increased use of structural capacity information with agency-wide coverage has the potential to enhance decision making and enable a more efficient and effective preservation and rehabilitation program. The falling weight deflectometer (FWD) has long been used to determine the structural characteristics of the pavement structure. While there are many viable techniques for evaluating the structural capacity of pavements using FWD data for project-level analysis, many of these techniques are time consuming and require an experienced analyst. As a result, using pavement deflection testing for network-level analysis has been limited to date. In order to solve this problem, the Long Term Pavement Performance (LTPP) program conducted a study to develop techniques that could be used to interpret and evaluate deflection data for network-level pavement management system (PMS) applications. Information and data from the LTPP program provide a consistent, high quality data set that covers the entire United States, has been collected in a consistent manner over a long time period, and includes a variety of pavement structures. The first part of this research focused on identifying and evaluating existing techniques for interpreting pavement deflections with an emphasis on those that are simple, reliable, and easy to incorporate into current PMS practices. The second part of the research detailed the development of guidelines for the application of recommended techniques, along with procedures for determining optimum FWD test spacing and data collection frequency. The findings presented in this report suggest that it is possible and advantageous to define simplified techniques for the evaluation and interpretation of pavement deflections for network-level analysis. This report is intended for pavement managers and pavement investment decision makers across the United States.

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AMENDED April 8, 2011