

ABSTRACT

In recent years the Iowa Department of Transportation has shifted emphasis from the construction of new roads to the maintenance and preservation of existing highways. A need has developed for evaluating pavements structurally to select the correct rehabilitation strategy and to properly design a pavement overlay if necessary. Road Rater non-destructive testing has fulfilled this need and has been used successfully to evaluate pavement and subgrade conditions and to design asphaltic concrete overlays and portland cement concrete overlays. The Iowa Road Rater Design Method has been simplified so that it may be easily understood and used by various individuals who are involved in pavement restoration and management.

Road Rater evaluation techniques have worked well to date and have been verified by pavement coring, soils sampling and testing. Void detection testing has also been performed, and results indicate that the Road Rater can be used to locate pavement voids and that Road Rater evaluation techniques are reasonably accurate. The success of Road Rater research and development has made dynamic deflection test data an important pavement management input.