

LESSONS LEARNED ABOUT SUCCESSFUL FLEXIBLE PAVEMENTS

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ABSTRACT

Most of the time forensic investigation techniques are conducted to investigate the cause of pavement failures. These studies seek to learn valuable lessons to avoid the same mistakes in the future. Lessons learned about pavement performance are used to modify technical specifications to reduce the likelihood of failure. Relatively little, however, has historically been done to learn equally valuable information from pavements that have performed successfully. The high end of the performance spectrum presents equally promising opportunities to learn more about how pavements function, how they should be specified, and how they should be constructed. This paper describes the research study conducted for the Texas Department of Transportation (TxDOT) about successful flexible pavements and documented in the Final Report FHWA/TX-08/0-5472-1. The study included a definition of “successful pavements”, and a methodology to identify premium pavements. A database was developed with information collected for a group of pavement sections identified as successful. Pavement evaluation field and lab studies were conducted to gain insights into pavement characteristics resulting in superior performance.