



## Planning & Research Problem Statement

## Design & Construction

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**Problem Title :** Calibrate and Validate the Inputs Needed to Implement the Mechanistic-Empirical Pavement Design Guide

**Problem Statement:**

Calibrate and validate the inputs needed to implement the Mechanistic-Empirical Pavement Design Guide (MEPDG). A sensitivity analysis should be performed to identify the order of importance of these inputs and limit this phase of research to those inputs most crucial to obtaining a proper design.

The MEPDG is a new product resulting from the efforts initiated by the AASHTO Joint Task Force on Pavements and the National Cooperative Highway Research Program (NCHRP) to enhance and improve existing pavement design procedures. This Design guide will eventually replace the AASHTO 1993 Guide that is currently being used by most states (including ODOT).

The MEPDG performance models were calibrated and validated primarily using data from the Long Term Pavement Performance (LTPP) program. Each agency has to also undertake a local calibration effort to verify the accuracy of the national calibration coefficients for the specific local conditions, and recalibrate the models if necessary. This is not a simple task and will require a great deal of effort to evaluate the inputs needed to accurately reflect the uniqueness of pavement needs for the Oklahoma system.

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