Guidelines for Addressing Permeability of Superpave Mixes in NM
NM11MSC-04

**Budget:** $220,000  **Duration:** 24 months

**Project Summary**
The project objective is to development of a new specification for permeability in Superpave mix in New Mexico. This project is intended to determine the reasonable maximum permeability of Superpave mixes below which NMDOT pavements are not susceptible to moisture infiltration/damage. The study will also determine whether NMDOT’s Superpave mixes more highly permeable than traditional dense graded mixes, and which mix selection guidelines would assist designers in the selection of a desired level of permeability for Superpave mixture design.

**Justification**
Very little to no attention has been devoted so far to the permeability requirements of Superpave mixes in New Mexico. Recent studies have shown that many of the NMDOT pavements including US 70 and US 550 have moisture damage/stripping problems due to use of high permeable HMA mixes. Department engineers have determined that there is an urgent need to specify its mix permeability at the design stage to avoid significant and costly issues with moisture damage and/or stripping. This research has been the highest priority project of the Materials Bureau for past couple of years; however it was not funded due to budget constraints

**Anticipated Benefits**
Moisture infiltration leads to many types of problems including fatigue and rutting. This project is directly related to safety and extending the life of pavements. This project is expected to result in new specifications that will mitigate costly problems associated with less than optimal pavement designs.

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