

ANALYSIS AND DESIGN OF BITUMINOUS PAVEMENTS

3-0-0-0-9

Mechanical modeling of pavement materials - bound and unbound materials, stress-dependent and time-dependent response (with reference to modeling of bituminous mix, aggregates and soil). Analysis of elastic half-space; analysis of bituminous pavement - load stress and thermal stress. Introduction to design concepts. Structural design of bituminous pavement (as new pavement and overlay). Cost and reliability considerations. Distresses in bituminous pavements, evaluation, maintenance measures.