

Effect of the "Reliability" factor on the design of
flexible pavements thickness

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ABSTRACT

The effect of the "reliability" factor, which appears in the new AASHTO design equation (1986) as a product $Z_R \cdot S_o$, is examined. With Z_R is denoted the Poisson's possibility distribution for a given value of the reliability level (R) for the design of a project and S_o is the combined standard error or deviation from the initial evaluation of the pavement's serviceability.

A brief notion is made to the term "reliability" and to the criteria posed for the selection of the reliability level by the engineer who designs a pavement structure.

A computer program has been developed for the calculation of the structural number (SN) for each layer, depending on the materials used and the corresponding thicknesses were calculated for 18 different reliability levels. The results are presented in the form of diagrams.