
Standard Recommended Practice for Statistical Procedures

AASHTO Designation: R 4-97 (2005)



**American Association of State Highway and Transportation Officials
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1. SCOPE

- 1.1. This recommended practice is to provide guidance in the use and application of statistical procedures in the precision analysis of sampling, testing, and acceptance of construction materials.

2. GENERAL PROVISIONS

- 2.1. It is recommended that AASHTO specifications for materials and for sampling and testing incorporate accepted statistical standard procedures. The following ASTM designations provide guidance in this area and their latest published revisions are adopted as a recommended practice for the development of AASHTO standards.
- ASTM C 670, Standard Practice for Preparing Precision and Bias Statements for Test Methods for Construction Materials
 - ASTM C 802, Standard Practice for Conducting an Interlaboratory Test Program to Determine the Precision of Test Methods for Construction Materials
 - ASTM D 2915, Standard Practice for Evaluating Allowable Properties for Grades of Structural Lumber
 - ASTM D 3665, Standard Practice for Random Sampling of Construction Materials
 - ASTM D 4460, Standard Practice for Calculating Precision Limits Where Values are Calculated from Other Test Methods
 - ASTM E 105, Standard Practice for Probability Sampling of Materials
 - ASTM E 122, Standard Practice for Calculating Sample Size to Estimate, With a Specified Tolerable Error, the Average for a Characteristic of a Lot or Process
 - ASTM E 141, Standard Practice for Acceptance of Evidence Based on the Results of Probability Sampling
 - ASTM E 177, Standard Practice for Use of the Terms Precision and Bias in ASTM Test Methods
 - ASTM E 178, Standard Practice for Dealing with Outlying Observations
 - ASTM E 456, Standard Terminology Relating to Quality and Statistics
 - ASTM E 1488, Standard Guide for Statistical Procedures to Use in Developing and Applying Test Methods
 - ASTM G 16, Standard Guide for Applying Statistics to Analysis of Corrosion Data