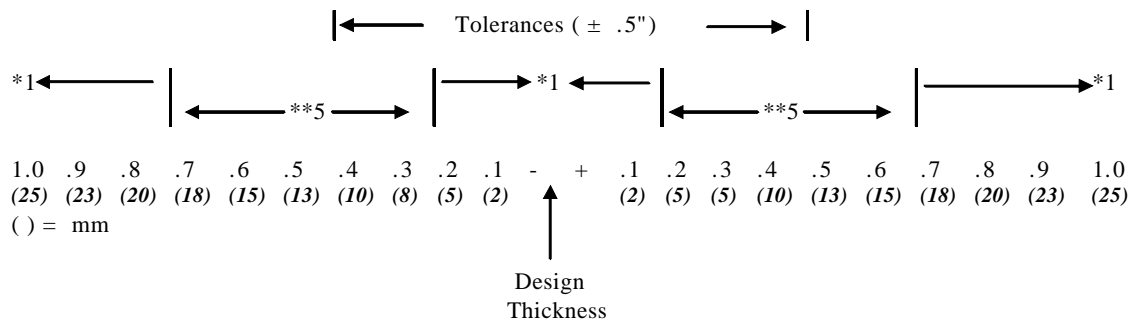


## METHOD OF MEASURING LENGTH OF DRILLED CORES

1. SCOPE: This method covers the procedure for determining the length of a core drilled from portland cement or bituminous concrete pavement, or a portland cement concrete structure.
2. APPARATUS: The apparatus shall be a calipering device that will measure the length of axial elements of the core, and shall be marked with clear, definite, accurately spaced graduations. The spacing of the graduations shall be 0.1 in. or a decimal part thereof.
3. TEST SPECIMENS: Cores used as specimens for length measurement shall be representative of the pavement or structure from which they are obtained. The specimen shall be drilled with the axis normal to the surface of the pavement or structure and the ends shall be free from all conditions not typical of the surfaces of the pavement or structure. Cores that show abnormal defects or that have been damaged appreciably in the drilling operation shall not be used.
4. PROCEDURE: Each measurement shall be read directly to 0.05 in. either directly or by estimation. Make the initial measurement at the center of the core.
  - 4.1. Bituminous Concrete Pavement Cores: If the initial measurement is within  $\pm 0.3$  inch or beyond  $\pm 0.7$  inch of design thickness, no additional measurements are required. If the initial measurement is beyond  $\pm 0.3$  inch but within  $\pm 0.7$  inch of design thickness, take four additional measurements at equal intervals around the circumference of the core. (See Example 1)
  - 4.2. Portland Cement Concrete Pavement Cores: If the initial measurement is equal to or greater than the design thickness no additional measurements are required. If the initial measurement is less than design thickness, take four additional measurements at equal intervals around the circumference of the core.
  - 4.3. Portland Cement Concrete Structure Cores: Take four additional measurements at equal intervals around the circumference of the core.
5. REPORT: When 5 measurements are taken, the individual measurements shall be recorded to the nearest 0.05 in. and the average of the five measurements expressed to the nearest 0.1 in. shall be reported as the length of the core. When only one measurement is taken, it shall be recorded to the nearest 0.05 inch and reported to the nearest 0.1 inch. The even number rule will be used for rounding off measurements in all cases.

# EXAMPLE 1



THIS GRAPH SHOWS TOTAL NUMBER OF THICKNESS MASUREMENTS  
 REQUIRED FOR BITUMINOUS PAVEMENT CORES. REFER TO SECTION 4.1

\* Number or measurements required is one.

\*\* Number of measurements required is five.

APPROVED

DIRECTOR  
 DIVISION OF MATERIALS

DATE

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