

**193C—11.6(542B) Measurements.**

**11.6(1)** Measurements may only be made with instruments and methods capable of attaining the required accuracy for the particular problem involved.

**11.6(2)** Measurements as placed on the plat shall be in conformance with the capabilities of the instruments used.

**11.6(3)** The unadjusted closure for all closed traverse surveys shall be not greater than 1 in 5,000 and, for subdivision boundaries, 1 in 10,000.

**11.6(4)** In a closed traverse, the sum of the measured angles shall agree with the theoretical sum by a difference not greater than 30 seconds times the square root of the number of angles.

**11.6(5)** The unadjusted error of field measurements shall not be greater than 1 in 5,000.

**11.6(6)** The relative positional tolerance at the 95 percent confidence level shall be as follows:

*a.* For subdivision boundaries:  $\pm(0.13 \text{ feet} + 1:10,000)$

*b.* For all other land surveying:  $\pm(0.26 \text{ feet} + 1:5,000)$

**11.6(7)** Bearings or angles on any property survey plat shall be shown to the nearest one minute; distance shall be shown to the nearest one-tenth foot.

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