

## Chapter A-E 7

### MINIMUM STANDARDS FOR PROPERTY SURVEYS

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**A-E 7.01 Scope.** The minimum standards of this chapter apply to every property survey performed in this state except:

(1) If other standards for property surveys are prescribed by statute, administrative rule, or ordinance, and the standards are more restrictive than those in this chapter, the more restrictive standards govern; and,

(2) The professional land surveyor and his or her client may agree in a signed statement to exclude any land surveying work from the requirements of this chapter except the preparation of a U.S. public land survey monument record and a map of work performed unless there is an existing map and a survey report is filed in lieu of a map. The map prepared by the professional land surveyor for the client shall include:

(a) A note which states that an agreement to exclude work from the requirements of this chapter has been made and a list of those exclusions and the names of the parties making the agreement along with the signature of each party.

(b) The accuracy of linear measurements between points, if the minimum accuracy established by s. A-E 7.06 (2) has been waived.

(c) The relative positional accuracy in decimal feet, if the minimum positional accuracy established by s. A-E 7.06 (3) has been waived.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (2), Register, May, 1989, No. 401, eff. 6-1-89; am. (2), cr. (2) (a) to (c), Register, December, 1993, No. 456, eff. 1-1-94; CR 15-036: am. (2) (intro.) Register January 2016 No. 721, eff. 2-1-16; CR 15-039: am. (2) (intro.), (a), (c), r. (2) (d), (e) Register May 2016 No. 725, eff. 6-1-16.

**A-E 7.02 Definitions.** For the purposes of this chapter:

(1) "Practice of professional land surveying" has the meaning given in s. 443.01 (6s), Stats.

(2) "Relative positional accuracy" means the length of the semi-major axis, expressed in feet or meters, of the error ellipse representing the uncertainty due to random errors in measurements in the location of the monument, or witness, marking any corner of the surveyed property at the 95 percent confidence level, 2 standard deviations; and is estimated by the results of a correctly weighted least squares adjustment of the survey.

(3) "Survey report" means a report that may be prepared when there is an existing map recorded or filed within the last 6 years and no new monuments are established in the survey.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; CR 15-039: r. and recr. Register May 2016 No. 725, eff. 6-1-16.

**A-E 7.025 Survey report, requirements.** A survey report as defined in A-E 7.02 (3), shall include the purpose of the survey, information concerning the documents that were examined for the survey, the measurements that were made to verify the locations of the monuments found, and a copy of the map that was recorded or filed. The survey report shall be in compliance with all sections of this chapter except s. A-E 7.05 (1), (2), (3), and (4).

**History:** CR 15-039: cr. Register May 2016 No. 725, eff. 6-1-16, correction made under s. 35.17, Stats., Register May 2016 No. 725.

**A-E 7.03 Boundary location.** Every property survey shall be made in accordance with the records of the register of

deeds as nearly as practicable. The professional land surveyor shall acquire data necessary to retrace record title boundaries such as U.S. Public Land Survey Monument Records, deeds, surveys, maps, certificates of title, highway, and center line or right-of-way lines, and other boundary line locations. The professional land surveyor shall make field measurements necessary for the location of the parcel and shall analyze the data and make a careful determination of the position of the boundaries of the parcel being surveyed. The professional land surveyor shall set monuments marking the corners of the parcel unless monuments already exist at the corners.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; CR 15-036: am. Register January 2016 No. 721, eff. 2-1-16; CR 15-039: r. and recr. Register May 2016 No. 725, eff. 6-1-16.

**A-E 7.04 Descriptions.** Descriptions defining land boundaries created by a professional land surveyor for conveyance or to more accurately delineate land boundaries, or for other purposes shall be complete, providing unequivocal identification of lines or boundaries. The description shall contain necessary references to adjoining together with data and dimensions sufficient to enable the description to be mapped and retraced and shall describe the land surveyed by government lot, recorded private claim, quarter-quarter section, section, township, range, and county. The forms of descriptions of property shall be one of the following:

(1) By metes and bounds commencing with a monument at a section corner or quarter section corner of the quarter section in which that land is located or a monument established by the U.S. Public Land Survey that it is not the center of the section, or commencing with a monument at the end of a boundary line of a recorded private claim or federal reservation in which the land is located. Descriptions shall meet the requirements in s. A-E 7.06 (3).

(2) By land boundaries being surveyed as a platted lot or outlot in a recorded subdivision or recorded addition to a recorded subdivision, the lots or outlots in that plat shall be described by the name of the plat and the lot or outlot and the block in the plat for all purposes.

(3) By land boundaries being surveyed as an existing lot, outlot or parcel, on a recorded certified survey map, the survey shall be described by lot, outlot or parcel number and certified map number for all purposes.

(4) By the parcel described as an aliquot part of a section from the public land system.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. Register, May, 1989, No. 401, eff. 6-1-89; CR 15-039: r. and recr. Register May 2016 No. 725, eff. 6-1-16.

**A-E 7.05 Maps.** A map shall be drawn for every property survey, unless a survey report is filed as provided in s. A-E 7.02 (3), showing information developed by the survey. The map shall:

(1) Be drawn on media with the minimum size of 8 1/2 x 11 inches and to a commonly accepted scale which shall be clearly stated and graphically illustrated by a bar scale on each map sheet containing a graphical depiction of the survey unless otherwise required by law.

(2) Be referenced as provided in s. 59.73 (1), Stats., along with a north arrow and reference to a monumented line.

(3) Show the length and bearing of the boundaries of the parcels surveyed. Bearings, angles, and distances on any property survey map shall be in accordance with s. A-E 7.06 (5). Where the boundary lines show bearings, lengths or locations which vary from those recorded in deeds, abutting plats, or other instruments, there shall be the following note placed along such line, "recorded as (show recorded bearing, length or location)". Curve data shall be shown by any 3 of the following: central angle, radius, long chord bearing and length, and arc length.

(4) Describe all monuments used for determining the location of the parcel boundary and show by bearing and distance their relationship to the surveyed parcel. All monuments shall be indicated by whether such monuments were found or set including a description of the monument with a legend for all symbols and abbreviations used on the map.

(5) Show observed evidence of possession or use by others in the parcel or across any perimeter line of the property.

(6) Show surveyed parcel bounded by water or inaccessible areas, the part shall be enclosed by a meander line showing complete data along all lines extending beyond the enclosure. The true boundary shall be clearly indicated on the map.

(7) Identify the professional land surveyor's name and address, the person or entity for whom the survey was made, completion date of the field work, and description of the parcel as provided in s. A-E 7.04.

(8) Bear the stamp or seal, name and address and signature of the professional land surveyor under whose direction and control the survey was made with a statement certifying that the survey complies with this chapter and is correct to the best of the professional land surveyor's knowledge and belief.

(9) Be filed as required by s. 59.45 (1), Stats., on media, or electronically if acceptable by the county.

(10) Identify boundary lines on the survey. Boundary lines shall be clearly differentiated from other lines on the map.

(11) Coordinate values when shown on the face of the map they shall comply with and be subject to the provisions of s. 236.18, Stats., and include coordinate system, datum and adjustment.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (4) and (5), cr. (7), Register, May, 1989, No. 401, eff. 6-1-89; correction in (6) made under s. 13.93 (2m) (b) 5., Stats., Register, March, 1993, No. 447; am. (1) to (5) and (7), Register, January, 1999, No. 517, eff. 2-1-99; CR 15-036; am. (6) Register January 2016 No. 721, eff. 2-1-16; CR 15-039; r. and recr. Register May 2016 No. 725, eff. 6-1-16; correction in (intro.), (9) made under s. 35.17, Stats., Register May 2016 No. 725.

**A-E 7.06 Measurements.** (1) Measurements shall be made with instruments and methods capable of attaining the required accuracy for the particular circumstances involved.

(2) The minimum accuracy of linear measurements between points shall be the larger of 2/100ths of a foot or better than 1 part in 3,000 on all lines of the survey.

(3) The maximum allowable deviation in relative positional accuracy for a survey is plus or minus 0.07 foot plus 50 parts per million, based on the direct distance between the two corners being tested. In certain circumstances, the size or configuration of the surveyed property, or the relief, vegetation or improvements on the surveyed property will result in survey measurements for which the maximum allowable relative positional precision may be exceeded at the discretion of the licensee performing the survey. The licensee shall provide justification for exceeding the maximum allowable relative positional accuracy.

(4) Any closed traverse depicted on a property survey map shall have a latitude and departure closure ratio of less than 1 in 3,000.

(5) Bearings or angles on any property survey map shall be shown to at least the nearest 30 seconds. Distances shall be shown to the nearest 1/100th foot.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (5), Register, May, 1989, No. 401, eff. 6-1-89; CR 15-039; am. (1) to (3), (5) Register May 2016 No. 725, eff. 6-1-16.

**A-E 7.07 Monuments.** The type and position of monuments to be set on any survey shall be according to s. 236.15 (1), Stats., unless determined by the nature of the survey, the permanency required, the nature of the terrain, the cadastral features involved, and the availability of material. Coordinate values are not acceptable in lieu of monuments.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; CR 15-039; am. Register May 2016 No. 725, eff. 6-1-16.

**A-E 7.08 U.S. public land survey monument record.**

(1) **WHEN MONUMENT RECORD REQUIRED.** A U.S. public land survey monument record shall be prepared and filed with the county survey records as part of any land survey within 60 days of setting or accepting the corner which includes or requires the perpetuation, restoration, or use of a U.S. public land survey corner and when any of the following situations arise:

(a) There is no U.S. public land survey monument record for the corner on file in the office of the county surveyor or the register of deeds for the county in which the corner is located; or,

(b) The professional land surveyor who performs the survey accepts a location for the U.S. public land survey corner which differs from that shown on a U.S. public land survey monument record filed in the office of the county surveyor or register of deeds for the county in which the corner is located; or,

(c) The witness ties or U.S. public land survey monument referenced in an existing U.S. public land survey monument record have been destroyed or disturbed, except where the witness ties and the U.S. public land survey monument referenced in an existing U.S. public land survey monument record have been found and verified and a note stating this has been placed on the property survey.

(2) **FORM REQUIRED.** A U.S. public land survey monument record shall be prepared on the board-approved form or on a form substantially the same as the board-approved form which includes all the elements required by this section. A form used for this purpose shall be entitled, "U.S. Public Land Survey Monument Record".

**Note:** A copy of the board-approved form is available from the Department of Safety and Professional Services, 1400 East Washington Avenue, P.O. Box 8935, Madison, Wisconsin 53708.

(3) **MONUMENT RECORD REQUIREMENTS.** A U.S. public land survey monument record shall show the location of the corner and shall include all of the following elements:

(a) The identity of the corner, as referenced to the U.S. public land survey system.

(b) A description of any record evidence, monument evidence, occupational evidence, testimonial evidence or any other material evidence considered by the professional land surveyor, and whether the monument was found or placed.

(c) Reference ties to at least 4 witness monuments. Witness monuments shall be concrete, natural stone, iron, bearing trees or other equally durable material, except wood other than bearing trees.

(d) A plan view drawing depicting the relevant monuments and reference ties which is sufficient in detail to enable accurate relocation of the corner monument if the corner monument is disturbed.

(e) A description of any material discrepancy between the location of the corner monument as restored and the monument location of that corner as previously established.

(f) Whether the corner was restored through acceptance of an obliterated evidence location or a found perpetuated location.

(g) Whether the corner was determined through lost-corner-proportionate methods.

(h) The directions and distances to other public land survey corners which were used as evidence or used for proportioning in determining the corner location.

(i) The stamp and signature or seal and signature of the profes-

sional land surveyor under whose direction and control the corner location was determined and a statement certifying that the U.S. public land survey monument record is correct and complete to the best of his or her knowledge and belief.

**History:** Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (1) and (3) (c), Register, May, 1989, No. 401, eff. 6-1-89; am. (3) (a) to (h), Register, January, 1999, No. 517, eff. 2-1-99; reprinted to restore dropped copy in (1) (intro.) Register November 2007 No. 623; CR 15-036: am. (1) (b), (3) (b), (i) Register January 2016 No. 721, eff. 2-1-16; **CR 15-039: am. (1) (intro.), (c), (3) (e), (f) Register May 2016 No. 725, eff. 6-1-16.**