

## LAND SURVEYORS SECTION MEETING AGENDA

February 9, 2022

1:00 p.m.

Department of Professional & Occupational

Regulation 9960 Mayland Drive

Richmond, Virginia 23233

(804) 367-8514

1. Call to Order
2. Public Comment Period\*
3. Regulation 18VAC10-20-370
4. Regulation 18VAC10-20-380
5. Conflict Interest Forms / Travel Vouchers
6. Adjourn

\*Five-minute public comment, per person, with the exception of any open disciplinary or application files. Persons desiring to participate in the meeting and requiring special accommodations or interpretative services should contact the Department at 804) 367-8514 at least ten days prior to the meeting so that suitable arrangements can be made for an appropriate accommodation. The Department fully complies with the Americans with Disabilities Act.

➤ **Call to Order**

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Materials contained in this agenda are proposed topics for discussion  
And are not to be construed as regulation or official board position  
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# ➤ **Public Comment**

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**18VAC10-20-370. Minimum standards and procedures for land boundary surveying practice.**

- A. The minimum standards and procedures set forth in this section are to be used for land boundary surveys performed in the Commonwealth of Virginia. The application of the professional's seal, signature, and date as required by these regulations shall be evidence that the land boundary survey is correct to the best of the professional's knowledge, information, and belief and complies with the minimum standards and procedures set forth in this chapter.
- B. Research procedure. The professional shall search the land records for the proper description of the land to be surveyed and obtain the description of adjoining land as it pertains to the common boundaries. The professional shall have the additional responsibility to utilize such other available data pertinent to the survey being performed from any other known sources. Evidence found from all known sources, including evidence found in the field, shall be carefully compared in order to aid in the establishment of the correct boundaries of the land being surveyed. The professional shall clearly identify on the plats, maps, and reports inconsistencies found in the research of common boundaries between the land being surveyed and the adjoining land. It is not the intent of this regulation to require the professional to research the question of title or encumbrances on the land involved.
- C. Minimum field procedures.
1. Angular measurement. Angle measurements made for traverse or land boundary survey lines will be made by using a properly adjusted transit-type instrument that allows a direct reading to a minimum accuracy of 20 seconds of arc or equivalent. The number of angles turned at a given station or corner will be the number that, in the judgment of the professional, can be used to substantiate the average true angle considering the condition of the instrument being used and the existing field conditions.
  2. Linear measurement. Distance measurement for the lines of traverse or lines of the land boundary survey shall be made (i) with metal tapes that have been checked and are properly calibrated as to incremental distances or (ii) with properly calibrated electronic distance measuring equipment following instructions and procedures established by the manufacturer of such equipment. All linear measurements shall be reduced to the horizontal plane, and other necessary corrections shall be performed before using such linear measurements for computing purposes.
  3. Field traverse and land boundary closure and accuracy standards. For a land boundary survey located in a rural area, the maximum permissible error of closure for a field traverse shall be one part in 10,000 (1/10,000). The attendant angular closure shall be that which will sustain the one part in 10,000 (1/10,000) maximum error of closure. For a land boundary survey located in an urban area, the maximum permissible error of closure for a traverse shall be one part in 20,000 (1/20,000). The attendant angular

closure shall be that which will sustain the one part in 20,000 (1/20,000) maximum error of closure.

The maximum permissible positional uncertainty based on the 95% confidence level of any independent boundary corner or independent point located on a boundary that has been established by utilizing global positioning systems shall not exceed the positional tolerance of 0.07 feet (or 20 mm ~~±%2B~~ 50 ppm).

4. Monumentation. As a requisite for completion of the work product, each land boundary survey of a tract or parcel of land shall be monumented with objects made of permanent material at all corners and changes of direction on the land boundary with the exceptions of meanders, such as meanders of streams, tidelands, lakes, swamps and prescriptive rights-of-way, and each such monument, other than a natural monument, shall, when physically feasible, be identified by a temporary witness marker. Where it is not physically feasible to set actual corners, appropriate reference monuments shall be set, preferably on line, and the location of each shall be shown on the plat or map of the land boundary.

All boundaries, both exterior and interior, of the original survey for any division or partition of land shall be monumented in accordance with the provisions of this subdivision, when such monumentation is not otherwise regulated by the provisions of a local subdivision ordinance.

5. For land boundary surveys providing for a division when only the division, in lieu of the entire parcel, is being surveyed, any new corners established along existing property lines shall require that those existing property lines be established through their entire length. This shall include the recovery or reestablishment of the existing corners for each end of the existing property lines.

D. Office procedures.

1. Computations. The computation of field work data shall be accomplished by using the mathematical routines that produce closures and mathematical results that can be compared with descriptions and data of record. Such computations shall be used to determine the final land boundary of the land involved.
2. Plats and maps. The following information shall be shown on all plats and maps used to depict the results of the land boundary survey:
  - a. The title of the land boundary plat identifying the land surveyed and showing the district, town, and county or city in which the land is located and scale of drawing.
  - b. The name of the owner of record and recording references.

- c. Names of all adjoining owners of record with recording references, or with subdivision name and lot designations and recording references.
- d. Inconsistencies found in the research of common boundaries between the land being surveyed and the adjoining land. The inconsistencies shall be clearly noted by the professional.
- e. Names of highways and roads with route number and widths of right-of-way or distance to the center of the physical pavement and pavement width, name of railroads, streams adjoining, crossing, or in close proximity to the boundary and other prominent or well-known objects that are informative as to the location of the land boundary.
- f. A distance to the nearest road intersection or prominent or well-known object. In cases of remote areas, a scaled position with the latitude and longitude must be provided.
- g. Items crossing any property lines such as, but not limited to, physical encroachments and evidence of easements such as utilities and other physical features pertinent to the boundary of the property.
- h. Bearings of all property lines and meanders to nearest one second of arc or equivalent.
- i. Adequate curve data to accomplish mathematical closures.
- j. Distances of all property lines and meanders to the nearest one hundredth (.01) of a foot or equivalent.
- k. Pursuant to subdivision C 5 of this section, the bearing and distances from the new corners to the existing corners on each end of the existing property lines.
  - l. For property located in rural areas, area to the nearest hundredth (.01) of an acre or equivalent.
  - m. For property located in urban areas, area to the nearest square foot or thousandth (0.001) of an acre or equivalent.
  - n. North arrow and source of meridian used for the survey.
  - o. For interior surveys, a reference bearing and distance to a property corner of an adjoining owner or other prominent object, including intersecting streets or roads.

- p. Tax map designation or geographic parcel identification number if available, for surveyed parcel and adjoining parcels.
- q. Description of each monument found and each monument set by the professional.
- r. A statement that the land boundary survey shown is based on a current field survey or a compilation from deeds, plats, surveys by others, or combination thereof. If the land boundary shown is a compilation from deeds or plats, or a survey by others, the title of the plat shall clearly depict that the plat does not represent a current land boundary survey.
- s. A statement as to whether a current title report has been furnished to the professional.
- t. A statement as to whether any or all easements, encroachments, and improvements are shown on the plat.
- u. Name, address, and contact information for the land surveyor or the registered business.
- v. The professional's seal, signature and date.
3. Metes and bounds description. The professional shall prepare a metes and bounds description in narrative form, if requested by the client or the client's agent, for completion of any newly performed land boundary survey. The description shall reflect all metes and bounds, the area of the property described, all pertinent monumentation, names of record owners or other appropriate identification of all adjoining, and any other data or information deemed as warranted to properly describe the property. Customarily, the metes and bounds shall be recited in a clockwise direction around the property. The professional shall clearly identify in the metes and bounds description any inconsistencies found in the research of common boundaries between land being surveyed and the adjoining land. For subdivisions, the professional shall prepare a metes and bounds description in narrative form for only the exterior boundaries of the property.

No metes and bounds description shall be required for the verification or resetting of the corners of a lot or other parcel of land in accordance with a previously performed land boundary survey, such as a lot in a subdivision where it is unnecessary to revise the record boundaries of the lot.

**Historical Notes:**

*Derived from VR130-01-2 § 5.10, eff. October 18, 1985; amended, Virginia Register Volume 4, Issue 8, eff. March 1, 1988; Volume 6, Issue 20, eff. September 1, 1990; Volume 7, Issue 14, eff. May 8, 1991; Volume 8, Issue 7, eff. February 1, 1992; Volume 10, Issue 15, eff. May 19, 1994; Volume 13, Issue 23, eff. October 1, 1997; Volume 18, Issue*

**18VAC10-20-380. Minimum standards and procedures for surveys determining the location of physical improvements; field procedures; office procedures.**

- A. The following minimum standards and procedures are to be used for surveys determining the location of physical improvements on any parcel of land or lot containing less than two acres or equivalent (sometimes also known as "building location survey," "house location surveys," "physical surveys," etc.) in the Commonwealth of Virginia. The application of the professional's seal, signature, and date as required by this chapter shall be evidence that the survey determining the location of physical improvements is correct to the best of the professional's knowledge, information, and belief and complies with the minimum standards and procedures set forth in this chapter.
- B. The professional shall determine the position of the lot or parcel of land in accordance with the intent of the original survey and shall set or verify permanent monumentation at each corner of the property, consistent with the monumentation provisions of subdivision C 4 of 18VAC10-20-370. All such monumentation, other than natural monumentation shall, when physically feasible, be identified by temporary witness markers.

When the professional finds discrepancies of sufficient magnitude to warrant, in his opinion, the performance of a land boundary survey (pursuant to the provisions of 18VAC10-20-370), he shall so inform the client or the client's agent that such land boundary survey is deemed warranted as a requisite to completion of the physical improvements survey.

The location of the following shall be determined in the field:

1. Fences in near proximity to the land boundary lines and other fences that may reflect lines of occupancy or possession.
  2. Other physical improvements on the property and all man-made or installed structures, including buildings, stoops, porches, chimneys, visible evidence of underground features (such as manholes, catch basins, telephone pedestals, power transformers, etc.), utility lines, and poles.
  3. Cemeteries, if known or disclosed in the process of performing the survey; roads or traveled ways crossing the property that serve other properties; and streams, creeks, and other defined drainage ways.
  4. Other visible evidence of physical encroachment on the property.
- C. The plat reflecting the work product shall be drawn to scale and shall show the following, unless requested otherwise by the client and so noted on the plat:



1. The bearings and distances for the boundaries and the area of the lot or parcel of land shall be shown in accordance with record data, unless a current, new land boundary survey has been performed in conjunction with the physical improvements survey. If needed to produce a closed polygon, the meander lines necessary to verify locations of streams, tidelands, lakes, and swamps shall be shown. All bearings shall be shown in a clockwise direction, unless otherwise indicated.
2. North arrow, in accordance with record data.
3. Fences in the near proximity to the land boundary lines and other fences that may reflect lines of occupancy or possession.
4. Improvements and other pertinent features on the property as located in the field pursuant to subsection B of this section.
5. Physical encroachment, including fences, across a property line shall be identified and dimensioned with respect to the property line.
6. The closest dimension (to the nearest 0.1 foot or equivalent) from the front property line, side property line, and if pertinent, rear property line to the principal walls of each building. Also, all principal building dimensions (to the nearest 0.1 foot or equivalent).
7. Building street address numbers, as displayed on the premises, or so noted if no numbers are displayed.
8. Stoops, decks, porches, chimneys, balconies, floor projections, and other similar type features.
9. Street names, as posted or currently identified and as per record data if different from posted name.
10. Distance to nearest intersection from a property corner, based upon record data. If not available from record data, distance to nearest intersection may be determined from best available data, and so qualified.
11. Building restriction or setback lines per restrictive covenants if shown or noted on the record subdivision plat.
12. The caption or title of the plat shall include the type of survey performed; lot number, block number, section number, and name of subdivision, as appropriate, or if not in a subdivision, the names of the record owner; town, county, or city; date of survey; and scale of drawing.

13. Adjoining property identification.
  14. Easements and other encumbrances set forth on the record subdivision plat, and those otherwise known to the professional.
  15. A statement as to whether or not a current title report has been furnished to the professional.
  16. Inconsistencies found in the research or field work of common boundaries between the land being surveyed and the adjoining land shall be clearly noted.
  17. Name, address, and contact information for the individual or entity for whom the survey is being performed.
  18. Professional's seal, signature, and date.
  19. Name, address, and contact information for the land surveyor or registered business.
- D. In performing a physical improvements survey, a professional shall not be required to set corner monumentation on any property when:
1. It is otherwise required to be set pursuant to the provisions of a local subdivision ordinance as mandated by § 15.2-2240 of the Code of Virginia or by subdivision A 7 of § 15.2-2241 of the Code of Virginia;
  2. Eventual placement is covered by a surety bond, cash escrow, set-aside letter, letter of credit, or other performance guaranty;
  3. Exempt by § 54.1-407 of the Code of Virginia.
- E. A professional performing a physical improvements survey when monumentation is not required as stated in subsection D of this section shall clearly note on the plat "no corner markers set," the reason why it is not required, and the name of guarantors.

***Historical Notes:***

*Derived from VR130-01-2 § 5.11, eff. October 18, 1985; amended, Virginia Register Volume 4, Issue 8, eff. March 1, 1988; Volume 6, Issue 20, eff. September 1, 1990; Volume 7, Issue 14, eff. May 8, 1991; Volume 8, Issue 7, eff. February 1, 1992; Volume 10, Issue 15, eff. May 19, 1994; Volume 13, Issue 23, eff. October 1, 1997; Volume 18, Issue 7, eff. March 1, 2002; Volume 23, Issue 1, eff. February 1, 2007; Volume 25, Issue 3, eff. December 1, 2008; Volume 32, Issue 6, eff. January 1, 2016; Volume 37, Issue 24, eff. September 2, 2021.*

**18VAC10-20-382. Minimum standards and procedures for surveys determining topography; field**

- **Conflict of Interest Forms /  
Travel Vouchers**
- **Adjourn**

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