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As approved by PLSO Standards Committee
May 4, 2018

Chapter 4733-37 Standards for Boundary Surveys

4733-37-01 Preamble.

These rules are ~~intended to be~~ the basis for all surveys relating to the establishment or retracement of property boundaries in the state of Ohio. When the case arises where one or more provisions herein must be abridged due to local conditions, the abridgement shall be clearly indicated on plats and/or legal descriptions and reports. Where local or other prescribed regulations exist which are more restrictive than these rules, the survey shall conform to all local and state regulatory standards. When a client desires only a portion of his property surveyed, and this portion can be clearly isolated from the remainder of the property without affecting the interests of adjoining owners, these rules shall apply to the survey of only the desired portion.

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4733-37-02 Research and investigation.

~~(A) The surveyor shall consult deeds and other documents, including those for adjacent parcels, in order to assemble the best possible set of written evidence of every corner and line of the property being surveyed.~~

(A) When the deed description of the subject property and the deed descriptions of the adjoining properties do not resolve the unique locations of the corners and lines of the property being surveyed, the surveyor shall consult other sources of information in order to assemble the best possible set of written evidence of every corner and line of the property being surveyed. These sources included, but are not limited to: records of previous surveys, deed descriptions of adjacent properties, records of adjacent highways, railroads and public utility lines; also include subdivision plats, tax maps, topographic maps, aerial photographs, and other sources as may be appropriate.

(B) After all necessary written documents have been analyzed, the survey shall be based on a field investigation of the property. The surveyor shall make a thorough search for physical monuments, and analyze evidence of monumentation and occupation. In addition, the surveyor shall, when necessary, confer with the owner(s) of the adjoining property and the owner(s) of the property being surveyed.

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4733-37-03 Monumentation.

(A) The surveyor shall set boundary monuments so that, upon completion of the survey, each corner of the property and each referenced control station will be physically monumented. **Multiple monuments representing a corner should be avoided.**

(B) When it is impossible or impracticable to set a boundary monument on a corner, **such as within a tree, in a building or deep water, etc.,** the surveyor shall set a reference monument, similar in character to the boundary monument and preferably along one of the property lines which intersect at that corner. When such a reference monument is used, it shall be clearly identified as a reference monument on the plat of the property and in any new deed description which may be written for the property.

(C) Every boundary monument and/or reference monument set by the surveyor shall, when practicable:

- (1) Be composed of a durable material.
- (2) Have a minimum length of thirty inches.
- (3) Have a minimum cross-section area of material of 0.21 square inches.
- (4) Be identified with a durable marker bearing the surveyor's Ohio registration number and/or name or company name.
- (5) Be detectable with conventional instruments for finding ferrous or magnetic objects.

(D) When a case arises, due to physical obstructions such as pavements, large rocks, large roots, utility cables, etc., so that neither a boundary monument nor a reference monument can be ~~conveniently or~~ practicably set in accordance with paragraph (C) of this rule, then alternative monumentation, which is essentially as durable and identifiable (e.g., **chiseled chiselled** "X" in concrete, drill hole, **nail, spike**, etc.) shall be established for the particular situation. **When such an alternative monument is used, it shall be clearly identified on the plat of the property and in any new deed description which may be written for the property.**

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4733-37-04 Measurement specifications.

All measurements shall be made in accord with the following specifications:

(A) The surveyor shall keep all equipment used in the performance of surveying in proper repair and adjustment.

(B) Every determination of distance **and direction** shall be made either directly or indirectly in such a manner that the **linear** error in the distance **or direction** between any two points **(not necessarily adjacent points)** shall not exceed the reported distance divided by ten thousand (allowable **linear** error = reported distance divided by ten thousand, **or stated as a ratio, 1:10,000**) ~~and every angular measurement shall be made in such a manner that the allowable (directional) error, in radians, shall not exceed the allowable linear error divided by the reported distance (allowable (directional) error = allowable linear error divided by reported distance).~~ **Directional error thus shall not exceed 1/10,000 of a radian or 21 seconds of arc.** When the reported distance is less than two hundred feet, the linear **and angular** error shall not exceed 0.02 feet. The reported distance is the distance established by the survey.

(C) In all new descriptions and plats of survey, the lengths and directions of the lines shall be specified so that the mathematical error in closure of the property boundary does not exceed 0.02 feet in latitudes and 0.02 feet in departure.

(D) Surveys performed using metric measurements shall utilize the metric equivalents based upon the U.S. survey foot conversion factor.

Cite as Ohio Admin. Code 4733-37-04

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4733-37-05 Plat of survey.

~~(A) The surveyor shall prepare a scale drawing of every individual survey, or drawings comprising all of the surveys when they are contiguous, in which the surveyor retraces previously established property lines or establishes new boundaries.~~

(A) The surveyor shall prepare a scale drawing of every survey in which the surveyor retraces previously established property lines or establishes new boundaries.

(B) A copy of this drawing shall be given to the client. When required, another copy shall be filed with the appropriate public agencies.

(C) The surveyor shall include the following details:

(1) A title such that the general location of the survey can be identified. The title shall include, but not be limited to: state, county, civil township or municipality, and original land subdivision description.

(2) A north arrow with a clear statement as to the basis of the reference direction used.

(3) The control station(s) or line(s) cited in the description and the relationship of the property to this control must be referenced to an established monumented point of beginning such as, but not limited to: centerline intersection of streets or highways **of** record, section or quarter section corners, Virginia military survey corners **or lines**, or platted lot corners. The type of monuments set or found at the control stations shall be noted. **All evidence used to establish the boundaries shall be shown or noted.**

(4) A notation at each corner of the property stating that the boundary monument **specified in the deed description** was found **or set, or that a boundary monument was set**, or a legend of the symbols used to identify monumentation. **Each monument found or set shall be described as to its size, material and character. The origin of each monument shall be reported, if known. In addition, there shall be a statement describing the material and size of every monument found or set.**

(5) A general notation describing the evidence of occupation that may be found along every boundary line or occupation line.

(6) The length and direction of each line as specified in the description of the property or as determined in the actual survey if this differs from what is stated in the deed description by more than the tolerance specified in paragraph (B) of rule [4733-37-04](#) of the Administrative Code. The length and direction shall be stated as follows:↵

- (a) Bearings expressed in degrees, minutes and seconds **(to nearest second)** and distances expressed in feet **(to nearest .01 foot) and decimal parts thereof** on each course. If a metric equivalent distance is stated, it shall be stated to the third decimal place.
- (b) All curved lines shall indicate the radius, central angle, curve length, chord bearing and chord distance.
- (c) Each course shall show other common lines such as centerline of roads, rivers, streams, section lines, quarter section lines, half section lines or other pertinent common lines of record.
- (7) A citation of pertinent documents and sources of data used as a basis for carrying out the work. The citation shall include, but not be limited to: current deeds as of the date of the survey, prior deeds or other documents of record, and available deeds of record for adjoining parcels along each boundary line of the survey. If the adjoining parcel is a recorded subdivision, only the subdivision name, recording information and lot numbers need to be shown.
- (8) The written and graphical scale of the drawing.
- (9) The date of the survey.
- (10) The surveyor's printed name and Ohio registration number, signature and seal (in a form which may clearly reproduce on any copies which may be made of the original drawing).
- (11) The area contained within the perimeter of the surveyed parcel.
- (12) All references to roads or railroads contiguous to the surveyed parcel shall use current names or names of record and applicable right of way widths, if available.
- (13) All references to rivers or streams shall use current names of record, if available.

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4733-37-06 Descriptions.

(A) When a surveyor is called upon to prepare a new description, either to replace an existing description which is inadequate or to create a new piece of property, said description shall include the following items:

- (1) Sufficient caption so that the property can be adequately identified.
- (2) A relationship between the property in question and clearly defined control station(s).
- (3) The basis of the bearings.
- (4) A citation to the public record of the appropriate prior deed(s).
- (5) The surveyor's name, Ohio registration number and date of writing and/or survey.

(B) A metes and bounds description shall include, in addition to paragraph (A) of this rule:

- (1) A description of the boundary monument used as the initial point of the description.
- (2) A series of calls for successive lines bounding the parcel, each of which specifies:
 - (a) The intent in regards to adjoiners or other existing features.
 - (b) The direction of the line relative to the direction of the basis of bearing.
 - (c) The length of the line.
 - (d) A description of the boundary monument (or reference monument) and whether found or set to identify the end of the particular line.
 - (e) All curved lines shall indicate the radius, central angle, curve length, chord bearing, chord length and direction of the curve.
 - (f) The reported boundary data shall meet the closure requirements of paragraph (C) of rule [4733-37-04](#) of the Administrative Code.

(3) The area of the parcel.

(C) Descriptions other than metes and bounds descriptions may be a reference to a recorded survey plat or a parcel on a recorded survey plat and shall include sufficient and adequate legal and technical wording so that the property can be definitely located and defined.

(D) A statement shall appear indicating that either: the description was made in accordance with a recent survey and the date thereof, or the description was made based on a previous

survey, of a certain date, and date of description, or the description was not based on a survey.

(E) When the surveyor knows a new description is to be used for a fee transfer, the surveyor shall base the description on a current or updated survey of the property.

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4733-37-07 Subdivisions.

When a subdivision is created from a piece of property, or several adjoining pieces, the following rules shall apply:

(A) Rule [4733-37-02](#) of the Administrative Code shall apply to the original tract(s) of land prior to being subdivided.

(B) Rule [4733-37-03](#) of the Administrative Code shall apply to the outside perimeter of the original tract(s) of land and to the outside perimeter of the newly created subdivisions. All newly created lots, blocks, rights of way, angle points, points of curvature and points of tangency shall be monumented according to local regulations. Street rights of way may be monumented with monuments on the centerline instead of right of way monuments. Centerline or right of way monuments shall be set at all intersections, angle points, points of curvature and points of tangency.

(C) All newly created subdivisions shall comply with rules [4733-37-04](#) and [4733-37-05](#) of the Administrative Code.

(D) All easements within a newly created subdivision shall be accurately dimensioned so that each easement line can be reproduced without ambiguity.

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