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WILLIAM R. SHAW, P.E., P.S.
COUNTY ENGINEER

OFFICE - (740) 385-8543
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February 27, 2004

TO: Professional Surveyors
FROM: Bill Shaw, Hocking County Engineer
RE: Minimum Survey Standards

As you know, the "Minimum Standards for Boundary Surveys in the State of Ohio" were revised 11-01-03.

These minimum standards have been included in standards governing conveyances of real property in the county adopted under Section 319.20.3 of the Revised Code.

Attached, is a copy of the new State Minimum Standards as well as our revised Hocking County Standards.

Any questions should be addressed to Frank Nelson, Head Draftsman.

WRS:cm
Attachment



**FRANK NELSON - HEAD DRAFTSMAN
WESLEY BARBER - DRAFTSMAN
CHARLES WORTHINGTON - DRAFTSMAN**

**1 East Main Street
Logan, Ohio 43138
Office- (740) 385-8546 Fax- (740) 385-8547
E-mail fnelson@co.hocking.oh.us**

TO: Professional Surveyors

**FROM: Frank Nelson - Head Draftsman
Hocking County Drafting Department**

RE: Minimum Survey Standards

**Original letter 03-01-04
Revised 06-20-06**

Because of changes to the “Minimum Standards for Boundary Surveys in the State of Ohio” this office will be taking a closer look at surveys, the following are some of the things which have changed or been overlooked in the past:

- Boundary monuments set must be capped, stating material size and type noting how said cap is stamped.**
- Boundary monuments found must state type, diameter and if capped must give cap information.**
- All corners are to be monumented (exceptions: mid-courses along stream and road centerlines) even when a monument is found close to a corner. A monument must be set on-line if corner cannot be monumented. If a monument must be set on-line instead of on a property corner, the surveyor should attach a signed note with his survey (not on the plat or in the description) justifying the reason for the placement of said monument. The explanation should reasonably meet “IMPOSSIBLE or IMPRACTICABLE” as used in OAC 4733-37-03. The note will be attached to the survey and kept on file in the Hocking County Drafting Department in case a question should ever arise as to why the corner is not monumented. When a surveyed line intersects a stream or road centerline, monument offset is to be on-line (no note required in these cases).**
- Section lines, fractional lot lines, platted lot lines, quarter lines need to be called out whenever possible. (examples: beginning at section corner, to said fractional lot line, with said platted lot line, leaving said quarter-quarter section line)**
- When a tract lies in more than one section, across a platted lot line or corporation line area must be broke down and dimensions given showing where said lines cross.**
- Plat must show all owners names, deed volumes and pages of surveyed tract and surrounding tracts. (surrounding subdivisions need only show lot lines, lot numbers and subdivision name with recording information)**
- Curve data if any must include radius, central angle, curve length, chord bearing and distance.**



TO: Professional Surveyors

FROM: Frank Nelson - Head Draftsman
Hocking County Drafting Department

RE: Minimum Survey Standards

03-01-04

Attached please find:

- **Contacts for splitting property**
- **Ohio Administrative Code chapter 4733-37**
- **Minimum Standards for Boundary Surveys in the State of Ohio**
(as distributed by the PLSO)
- **Minimum Standards for Boundary Surveys in Hocking County**
- **Sample survey plat for Hocking County**
- **Sample survey description for Hocking County**
- **Survey plat checklist for Hocking County**
- **Survey description checklist for Hocking County**

This office checks all surveys and subdivisions for the Hocking County Engineer. The “Minimum Standards for Boundary Surveys in the State of Ohio” as taken from the “Ohio Administration Code” Chapter 4733-37 (effective 11-01-2003) and distributed by the PLSO is the guideline used by Hocking County for survey approvals. The sample survey and checklist for survey plats and descriptions for Hocking County are good representations of our requirements. We will not be drastically changing the way we check surveys, however there has been some changes to the “Ohio Administration Code” and we will be looking closer at things we may have let slide in the past.

Please read all of the attached information and make everyone in your office aware. If you should have any questions please contact this office.

Frank Nelson
Head Draftsman

Hocking County Drafting Department
1 East Main Street
Logan, Ohio 43138
Phone: 740-385-8546
Fax: 740-385-8547
fnelson@co.hocking.oh.us

HOCKING COUNTY
SURVEY CHECK LIST - PLAT

1. Title (so general location of survey can be identified)
2. North arrow.
3. Clear statement as to basis of bearings used.
4. Starting point at section corner, fractional lot corner, platted lot corner or some other permanently recorded and definable point. (we can accept a corner of a previous survey as a reference, if said survey has an acceptable point of beginning, we will not accept a road intersection as a reference)
5. Bearings and distances (curve data if any, shall include, radius, central angle, curve length, bearing and distance)
6. Boundary Monuments
 - a. Found or set
 - b. Monuments offset from un-monumented corners are to be set on line.
 - c. Description of material, size, and type of every monument whether found or set. (for pins and pipes, give diameter if found, diameter and length if set). All new iron pins or pipes set shall have a minimum cross section of .21 square inches and have a minimum length of 30 inches. They shall also describe some type of durable identification cap (size and type), and state how said cap is stamped.
7. A survey which lies across a section line, corporation line or platted lot line shall show acreage breakdown and dimensions showing where said lines cross.
8. Citation of pertinent documents and sources of data used as a basis for carrying out the work. (all names and deed volumes and pages of surveyed tract(s) and adjoining properties)
9. Written and Graphic Scales.
10. Date of survey.
11. Surveyor's printed name and Ohio registration number, signature and seal. (seal must be reproducible)
12. Each corner and each reference control station should be physically monumented. If a monument must be set on-line instead of on a property corner, the surveyor should attach a signed note with his survey (not on the plat or in the description) justifying the reason for the placement of said monument. The explanation should reasonably meet "IMPOSSIBLE or IMPRACTICABLE" as used in OAC 4733-37-03. The note will be attached to the survey and kept on file in the Hocking County Drafting Department in case a question should ever arise as to why the corner is not monumented.
13. Error in closure not to exceed 1 in 10000.

(There may be exceptions, determination to be made by the County Engineer.)

HOCKING COUNTY

SURVEY CHECK LIST - DESCRIPTION

- 1. Sufficient caption so property can be adequately identified.**
- 2. The basis of the bearings.**
- 3. Citation to the public record of the appropriate prior deeds.**
- 4. Description of the starting point of survey.**
- 5. Metes and bounds**
 - a. The intent in regards to adjoining properties or other existing features. (this includes but is not limited to county, section, platted lots, fractional lots, and fractional quarter lines)**
 - b. Bearings and distances (curve data if any, shall include, radius, central angle, curve length, chord bearing and distance)**
 - c. Description of boundary reference monuments, material and size of every monument whether found or set (as per plat).**
- 6. Area of parcel.**
- 7. Statement indicating that either:**
 - a. Description was made in accordance with a recent field survey giving surveyor's name, Ohio registration number, and date thereof, or**
 - b. Description was made based on a previous survey giving surveyor's name, Ohio registration number, and date thereof, or**
 - c. Description was not based on a survey.**
- 8. When a surveyor knows a new description is to be used for a fee transfer, or a land contract, the surveyor shall base the description on a current or updated field survey of the property.**

(There may be exceptions, determination to be made by the county engineer.)



THERE IS CURRENTLY NO ZONING OUTSIDE OF THE LOGAN CITY CORPORATION LIMITS, HOWEVER, TO SPLIT PROPERTY ANYWHERE IN HOCKING COUNTY YOU WILL NEED ONE OR MORE OF THE FOLLOWING APPROVALS:

- HOCKING COUNTY REGIONAL PLANNING COMMISSION APPROVAL
COUNTY PLANNER, 88 S.MARKET ST.
PHONE: 740-380-9634 FAX: 740-380-2094

- LOGAN CITY PLANNING COMMISSION APPROVAL
IF LOCATED INSIDE OF OR WITHIN A 3 MILE RADIUS OF LOGAN'S CORPORATION LIMITS
SERVICE DIRECTOR, 10 S. MULBERRY ST.
PHONE: 740-385-4060

- DRIVEWAY APPROVAL
ON A STATE ROUTE PHONE: 740-385-2629
ON A COUNTY OR TOWNSHIP ROAD PHONE: 740-380-2517
INSIDE LOGAN CORPORATION N/A

- NOTE: DRIVEWAY APPROVAL IS ALSO NEEDED TO OBTAIN A NEW ADDRESS FROM THE HOCKING COUNTY DRAFTING DEPARTMENT, SECOND FLOOR COURTHOUSE
PHONE: 740-385-8546 FAX: 740-385-8547

- HEALTH DEPARTMENT APPROVAL
ON ALL SPLITS LESS THAN 5.00 ACRES (PRIOR TO DEED TRANSFER)
ON ANY NEW WELL OR SEPTIC SYSTEMS (PRIOR TO INSTALLATION)
132 HOCKING MALL
PHONE: 740-380-3030

- SURVEY AND DEED APPROVAL
HOCKING COUNTY ENGINEER'S OFFICE
DRAFTING DEPARTMENT, SECOND FLOOR COURTHOUSE
PHONE: 740-385-8546 FAX: 740-385-8547

NOTE: FEES MAY APPLY

MINIMUM STANDARDS FOR BOUNDARY SURVEYS

HOCKING COUNTY, OHIO

These standards are intended to be the basis for all surveys relating to the establishment or retracement of property boundaries in Hocking County, Ohio. 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 standards shall apply to the survey of only the desired portion.

SURVEYS REQUIRED

(A) Any division of a parcel of land into two (2) or more parcels shall require a new survey. Excepted from this are parcels which may be readily definable without a metes and bounds description.

(B) 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 up-dated field survey of the property.

RESEARCH AND INVESTIGATION

(A) When the deed description of the subject property and the deed descriptions of 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 include, 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, analyze evidence of occupation and confer with the owner(s) of the property being surveyed. In addition, the surveyor shall, when necessary: confer with the owner(s) of the adjoining property and take statements.

MONUMENTATION

(A) When necessary in accordance with the accepted surveying practice and legal requirements, 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.

(B) When it is impossible or impracticable to set a boundary monument on a corner, 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 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 or 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 "X" in concrete, drill hole, etc.) shall be established for the particular situation.

MEASUREMENT SPECIFICATIONS

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

(A) The surveyor shall keep his equipment in such repair and adjustment as to conform to the requirements stipulated by the director of agriculture in Sections 1327.46 to 1327.99, of the revised code. The specifications, tolerances, and regulations published in the "National Bureau of Standards Handbook 44" shall be the Specifications, tolerances, and regulations for commercial weighing and measuring devices of the state.

(B) Every measurement of distance shall be made either directly or indirectly in such a manner that the linear error in the distance between and 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) 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.) When the reported distance is less than two hundred feet, the linear error shall not exceed 0.02. The reported distance is the distance established by the survey.

(C) In all new deed descriptions and plats of surveys, the lengths and directions of lines shall be specified so that the mathematical error in closure of the property boundary is not less than the following:

- (1) Surveys in the County. 1 in 10,000
- (2) Surveys in the County within 3 miles of City. 1 in 10,000
- (3) Subdivision Plats. 1 in 10,000

PLAT OF SURVEY

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

(B) The surveyor shall include the following details on all plats submitted to the Hocking County Engineer's Office for approval:

- (1) A title such that the general location of the survey can be identified.
- (2) A north arrow.
- (3) A clear statement as to the basis of the bearings used.
- (4) A starting point at a section corner or some other permanently recorded and definable point. This does not include the intersection of roads.
- (5) Adjacent property owners shall be shown.
- (6) If the property includes acreage in two or more sections, the acreage in each section must be shown on the plat.
- (7) The control station(s) or line cited in the deed description and the relationship of the property to this control.
- (8) A notation at each monument stating that the boundary monument specified was found or set, and a description of the material, size, position and condition of every monument found or set. All new iron pins or pipes set after January 1, 1981, shall have some type of durable identification cap and shall be so described on the plat or in a legend of symbols.
- (9) A general notation describing the evidence of occupation that may be found along every boundary line and/or occupation line.
- (10) The length and direction of each line as specified in the deed 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) "MEASUREMENT SPECIFICATIONS".
- (11) A citation of pertinent documents and sources of data used as a basis for carrying out the work.
- (12) The written and graphical scale of the drawing.

(13) The date of the survey.

(14) 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).

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 adjoining boundaries 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, and in cases with iron pins or pipes set after January 1, 1981, a description of the identification cap.
 - (e) Sufficient mathematical data shall be given for each curved line so that the curve can be reproduced without ambiguity.
 - (f) The reported boundary data shall meet the closure requirements of paragraph (C) of "MEASUREMENT AND SPECIFICATIONS".
- (3) The area of the parcel, broken down by each section if the parcel lies in two or more sections.

(C) Descriptions other than the metes and bounds form 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.

SUBDIVISION PLATS

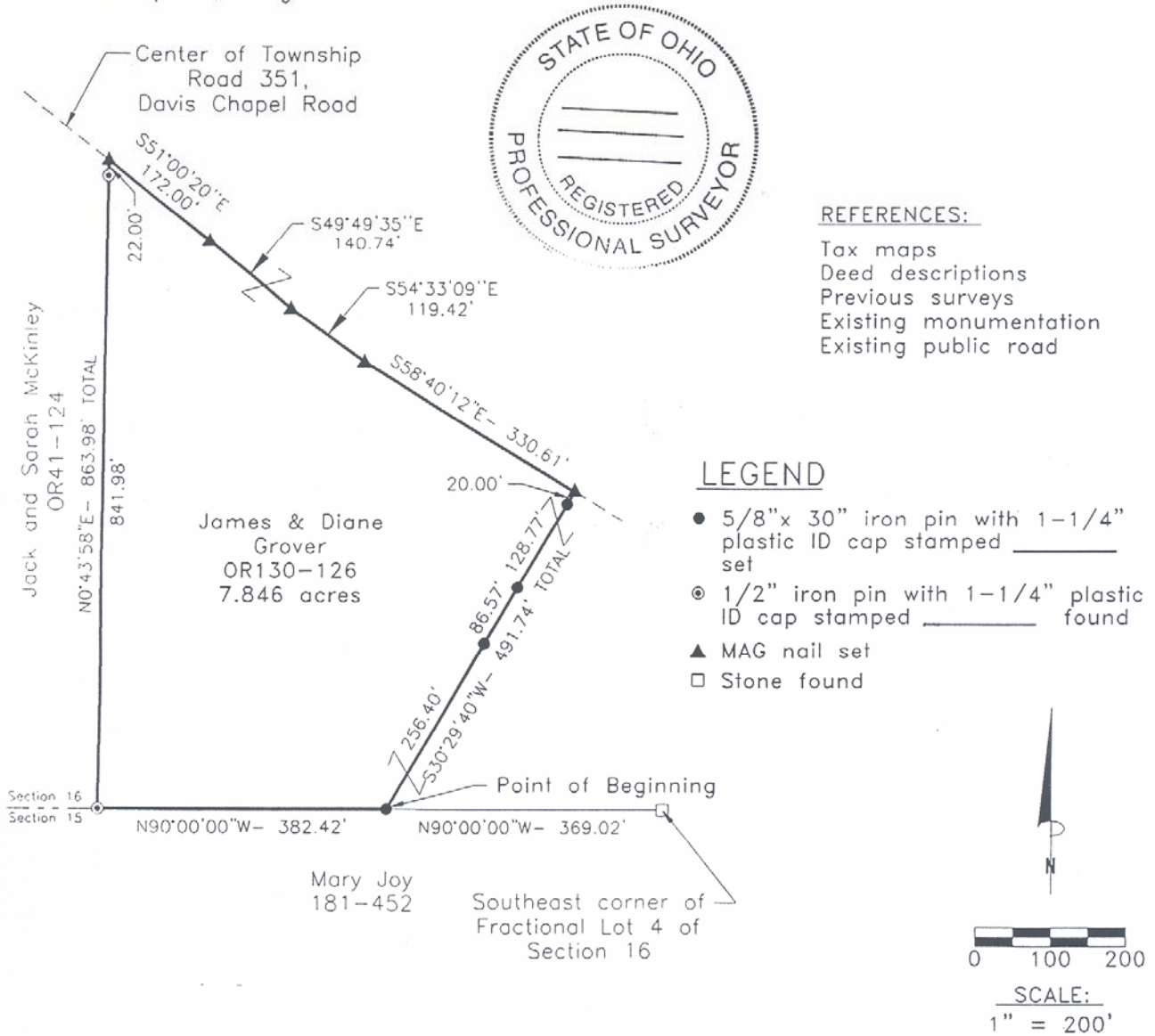
When a subdivision is created from a piece of property, or several adjoining pieces, the surveyor shall prepare a scale drawing showing all of the details specified in Rule 4733-37-05 of the Administrative Code. In addition, the drawing will show all of the details of each new lot, street, easement, etc., including the length and direction of each new line. Sufficient mathematical data shall be given for each curved line so that the curve can be reproduced without ambiguity.

All other requirements as stipulated in the Subdivision Regulations for Hocking County, Ohio adopted November 14, 1978, shall be met.

SAMPLE SURVEY PLAT

PLAT OF A 7.846 ACRE TRACT FOR JAMIE GROVER

Situated in Green Township, Hocking County, Ohio; being part of Fractional Lot 4 of Section 16, Township 13, Range 16.



REFERENCE BEARING:

The South line of Section 16 as North 90 degrees 00 minutes 00 seconds West. Bearings are based upon an assumed meridian and are to denote angles only.

CERTIFICATION:

I hereby certify that an actual survey was made under my supervision of the premises shown hereon on the 30th day of August, 1999 and that the plat is a correct representation of the premises as described by said survey.

Registered Surveyor No. _____

SAMPLE - SURVEY DESCRIPTION

SURVEY DESCRIPTION OF A 7.846 ACRE TRACT FOR JAMIE GROVER

Situated in Green Township, Hocking County, Ohio; being part of Fractional Lot 4 of Section 16, Township 13, Range 16; and being more particularly described as follows:

Commencing for reference at a stone found at the Southeast corner of Fractional Lot 4 of Section 16; thence with the South line of Section 16 North 90 degrees 00 minutes 00 seconds West a distance of 369.02 feet to a 5/8" iron pin set and being the point of **Beginning** of the tract of land to be described;

thence continuing with the South line of Section 16 North 90 degrees 00 minutes 00 seconds West a distance of 382.42 feet to a 1/2" iron pin with 1-1/4" plastic ID cap stamped _____ found;

thence leaving the South line of Section 16 North 0 degrees 43 minutes 58 seconds East a distance of 863.98 feet to a MAG nail set in the center of Township Road 351, Davis Chapel Road, and passing a 1/2" iron pin with 1-1/4" plastic ID cap stamped _____ found at a distance of 841.98 feet;

thence with the center of said Township Road 351 the following four bearings and distances:

- 1) South 51 degrees 00 minutes 20 seconds East a distance of 172.00 feet to a MAG nail set;
- 2) South 49 degrees 49 minutes 35 seconds East a distance of 140.74 feet to a MAG nail set;
- 3) South 54 degrees 33 minutes 09 seconds East a distance of 119.42 feet to a MAG nail set;
- 4) South 58 degrees 40 minutes 12 seconds East a distance of 330.61 feet to a MAG nail set;

thence leaving the center of said Township Road 351 South 30 degrees 29 minutes 40 seconds West a distance of 491.74 feet to the point of beginning, passing 5/8" iron pins set at distances of 20.00 feet, 148.77 feet, and 235.34 feet, containing 7.846 acres more or less, and subject to the public easement of said Township Road 351 and any other public or private easements of record.

The above 7.846 acre survey is intended to describe part of the 35.00 acre tract as deeded to James and Diane Grover, deed reference Volume OR130, Page 126, Hocking County Recorder's Office. This survey was based upon information obtained from tax maps, deed descriptions, previous surveys, existing monumentation, and an existing public road. The reference bearing for this survey is the South line of Section 16 as North 90 degrees 00 minutes 00 seconds West. Bearings are based upon an assumed meridian and are to denote angles only. All iron pins set by this survey are 5/8" by 30" and are capped by a 1-1/4" plastic identification cap stamped _____. The above described property was surveyed by _____ Ohio Registered Surveyor No. _____ on August 30, 1999.



OHIO STATE BOARD OF REGISTRATION

REVISED OHIO PS EXAMINATION REQUIREMENTS

Effective with the April 2004 PS examinations, examinees must pass **BOTH** the six (6) hour NCEES PS exam and the two (2) hour Ohio specific exam. In the event of failure, examinees will need only retake the failed portion(s).



REVISED BOUNDARY STANDARDS NOVEMBER 1, 2003

For several years the PLSO Standards Committee worked with the Chapters to develop recommended changes to the Minimum Standards for Boundary Surveys. After the completion of this process, additional minor changes were requested by ODOT. After further review by the Chapters and the Standards Committee, the final version of proposed changes were forwarded to the Board of Registration for review and incorporation into Ohio Administrative Code, Chapter 4733-37. Printed below are the Minimum Standards with the revisions indicated; eliminated language is designated with a "strike through" and new language is underlined. Enclosed in this issue is a copy of the new standards brochure. They are also available in a PDF format, which can be downloaded from the PLSO web site at <http://www.ohiosurveyor.org>. Please make your office and field personnel aware of these changes.

Ohio Administrative Code Chapter 4733-37

MINIMUM STANDARDS FOR BOUNDARY SURVEYS IN THE STATE OF OHIO

- 4733-37-01 Preamble
- 4733-37-02 Research and investigation
- 4733-37-03 Monumentation
- 4733-37-04 Measurement specifications
- 4733-37-05 Plat of survey
- 4733-37-06 Descriptions
- 4733-37-07 Subdivision plats

4733-37-01 PREAMBLE

These standards rules are intended to be the basis for all surveys relating to the establishment or retracement of property boundaries in the State of Ohio. ~~Abridgements of one or more provisions herein shall be clearly indicated on plats and/or legal descriptions and reports. When the case arises where in one or more provisions herein must be abridged due to local condition, 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 standards 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 standards rules shall apply to the survey of only the desired portion.

4733-37-02 RESEARCH AND INVESTIGATION

(A) When the deed description of the subject property and the deed descriptions of 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 include, 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, analyze evidence of occupation and confer with the owner(s) of the property being surveyed. In addition, the Surveyor shall, when necessary: confer with the owner(s) of the adjoining property and take statements:

(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.

(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.

4733-37-03 MONUMENTATION

(A) ~~When necessary in accordance with the accepted surveying practice and legal requirements the~~ 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.

(B) When it is impossible or impracticable to set a boundary monument on a corner, 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 or 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 "X" in concrete, drill hole, etc.) shall be established for the particular situation.

4733-37-04 MEASUREMENT SPECIFICATIONS

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

(A) ~~The surveyor shall keep his all equipment in such used in the performance of surveying in proper repair and adjustment as to conform to the requirements stipulated by the Director of Agriculture in Sections 1327.46 to 1327.99, of the Revised Code. The specifications, tolerances, and regulations published in the "National Bureau of Standards Handbook 44" shall be the specifications, tolerances and regulations for commercial weighing and measuring devices of the State.~~

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(B) Every measurement determination of distance shall be made either directly or indirectly in such a manner that the linear error in the distance between any two points (not necessarily adjacent points) shall not exceed the reported distance divided by five ten thousand (allowable linear error = reported distance divided by five ten thousand) 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). When the reported distance is less than one two hundred feet, the linear error shall not exceed 0.02 feet. The reported distance is the distance established by the survey.

(C) In all new deed 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.

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 he the surveyor retraces previously established property lines or establishes new boundaries.

(B) A copy of this drawing shall be given to the client; when When required, another copy shall be filed with the proper agency 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 cited in the deed 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: centerline intersection of streets or highways 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.

4) A notation at each corner of the property stating that the boundary monument specified in the deed description was found, or that a boundary monument was set or a legend of the symbols used to identify monumentation. In addition, there shall be a statement describing the material, size, position and condition and size of every monument found and/or or set.

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

6) The length and direction of each line as specified in the deed 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 and distances expressed in feet 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.

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 adjoining 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) Sufficient mathematical data shall be given for each curved line so that the curve can be reproduced without ambiguity 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 the metes and bounds form descriptions may be a reference to a recorded survey plat or a parcel on a recorded survey plat shall include sufficient and adequate legal and technical wording so that the property can be definitely located and defined. (Continued on next page)

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(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.

4733-37-07 SUBDIVISION PLATS

~~When a subdivision is created from a piece of property, or several adjoining pieces, the Surveyor shall prepare a scale drawing showing all of the details specified in Rule 4733-37-05 of the Administrative Code. In addition, the drawing will show all of the details of each new lot, street, easement, etc., including the length and direction of each new line. Sufficient mathematical data shall be given for each curved line so that the curve can be reproduced without ambiguity.~~

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.

§ 315.25.1] § 315.251 .when boundary survey plat and description required.

(A) If a deed conveying title to real property is presented to the county auditor for transfer, and the deed contains a legal description for land that is a cut-up or split of the grantor's one or more existing parcels of land as shown in the county auditor's records, or if the legal description of the land conveyed in the deed is different from the legal description shown in the prior deed to the grantor, a boundary survey plat in conformity with the new description shall be submitted with the deed. The survey plat and description shall satisfy the minimum standards for boundary surveys promulgated by the board of registration for professional engineers and surveyors pursuant to chapter 4733. of the Revised code. If, in the opinion of the county engineer, the survey plat and description satisfy those standards, the county auditor shall accept the deed for transfer and a copy of the survey plat shall be filed in the county engineer's survey file for public inspection.

This section applies only if the requirements of this section are included in the standards governing conveyances of real property in the county adopted under section 319.203 [319.20.3] of the Revised code.