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July 2, 1999

NOTICE OF NEW STANDARDS FOR BOUNDARY SURVEYS AND DESCRIPTIONS

On August 2, 1999, this Office will implement new standards for boundary surveys and descriptions. A copy of the standards are attached and are applicable to surveys relating to the creation, establishment or retracement of property boundaries. This notice also contains information relating to suggestions for expediting legal description review and comments about FEMA maps.

New Standards for Boundary Surveys and Descriptions

The "Standards for Boundary Surveys and Descriptions" will be implemented on August 2, 1999 and are applicable to all new surveys and subsequent legal descriptions and survey plats. A copy of the New Standards is attached and contains Ohio Administrative Code, Chapter 4733-37. The New Standards are almost entirely based upon the existing requirements of the Ohio Administrative Code.

There will be little effect upon the preparation and submission of new legal descriptions. Legal descriptions will continue to be submitted to the Auditor's Office for initial review and to the Engineer's Office for an approval stamp. A check list is attached.

The major procedural change is the new requirement that survey plats be submitted with new legal descriptions. The Ohio Administrative Code already requires the preparation of survey plats for the retracement of property lines and the establishment of new property lines. The new Standards require that the survey plats be submitted to the County Engineer for approval and filing. Procedurally, the survey plat shall be submitted to the Auditor along with the current procedure of submitting legal descriptions for pre-approval or approval. The County Engineer shall review the survey plat. After the Auditor has reviewed the legal description, the Auditor shall forward the legal description to the County Engineer for final review and approval along with the survey plat. The County Engineer shall review and approve the survey plat.

The County Engineer has instituted a new filing system for the filing of legal descriptions and survey plats. The system also includes county atlases dating back to the 1800's, right-of-way drawings subdivision plats and construction drawings. All of the documents are being scanned and copied onto CDs. A data base has been developed so that information can be retrieved by various parameters including town and range, surveyor's name, etc. Over 1200 documents have already been scanned

into the system. Currently, the data base can be searched by coming to the County Engineer's office. Soon, CD's will be available for purchase and eventually, the information will be retrievable from a web site.

Suggestions for expediting legal description review

The normal procedure in reviewing legal descriptions is to submit the legal description to the Auditor's Office for preapproval. The Auditor then performs an initial review. The legal description is then forwarded to this Office for a final review and approval stamp. The legal description is then returned to the Auditor's Office for pickup by the party submitting the legal description for approval. The legal description must be prepared by a licensed surveyor and include the original seal and signature of the surveyor.

To expedite the later filing of a deed or similar document of conveyance utilizing the approved legal description, attach the *original* legal description containing the original seal and signature of the surveyor and the original of this Office's approval stamp as an exhibit. By attaching the original legal description there is no need for further review of the description by either the Auditor or this Office and the deed of similar document of conveyance may be filed immediately.

In the event that a *copy* of the pre-approved description or in the event that the pre-approved description is retyped into a deed or similar document of conveyance, then the Auditor and this Office must review the legal description and compare the legal description with the pre-approved legal description. This extra step will cause delay in the filing of the deed or similar document of conveyance.

Caution in the use of FEMA maps

It has come to the attention of this Office that there may be a discrepancy between benchmarks utilized by FEMA maps and benchmarks generally utilized by surveyors and engineers in the Montgomery County area. A local engineer informed us that he found a discrepancy between a FEMA benchmark and a benchmark established by this Office. At this Office's suggestion, the engineer compared the FEMA benchmark to the line of 1st order benchmarks installed along I-75. It appeared that the FEMA benchmark was almost exactly 1 foot lower. It appears that care should be taken when using FEMA maps in conjunction with other maps such as USGS section maps, etc. to insure that there is a correlation between the datums of the various maps used.

OFFICE OF THE MONTGOMERY COUNTY ENGINEER

CHECKLIST FOR NEW SURVEYS
AND LAND DIVISIONS

I. DESCRIPTIONS

A. Does the description contain an adequate caption to describe the location of the property? This should include:

1. The Section, Town, Range, and Survey system.
2. The Township, City, Corporation along with the County and State.
3. Description of the New Survey as being "all of" or "part of" the existing tract or tracts.
4. The current owner's name and microfiche number where they took title.

This reflects Ohio Administrative Code 4733-37-06(A)(1).

- YES
 NO

B. Does the description contain an adequate point of commencement or beginning, including monumentation? This reflects the Ohio Administrative Code 4733-37-06(A)(2) and (B)(1).

- YES
 NO

C. Does the description contain references to adjoiningers on each course, including:

1. For adjoiningers that are metes and bounds:
 - a. Owners name.
 - b. Deed reference
 - c. Acreage, as stated in the deed of record.
2. For adjoiningers that are platted:
 - a. Name of the subdivision
 - b. Lot number
 - c. Plat Book and Page reference

This reflects the Ohio Administrative Code Section 4733-37-06(B)(2)(a) and the County Engineer standards Sec. II (I).

- YES
 NO

- D. Does the description call for monumentation, found or set, at the end of each of course? This reflects Ohio Administrative Code Section 4733-37-06(B)(2)(d).
 YES
 NO
- E. Does the description call for the area of the parcel? This reflects Ohio Administrative Code Section 4733-37-06(B)(3).
 YES
 NO
- F. Does the description contain a statement showing the survey was made in accordance with a field survey? This reflects Ohio Administrative Code Section 4733-37-06(D) & (E).
 YES
 NO
- G. Does the description contain the basis of bearings? This reflects Ohio Administrative Code Section 4733-37-06(A)(3).
 YES
 NO
- H. Does the description contain the surveyor's name, Ohio registration number and date of writing and/or survey? This reflects Ohio Administrative Code Section 4733-37-06(A)(5).
 YES
 NO
- I. Does the description meet the mathematical closure requirements? This error must not exceed 0.02' in longitude and 0.02' in latitude. This reflects Ohio Administrative Code Section 4733-37-04(C).
 YES
 NO
- J. Is there a plat of survey included with the description? This reflects Ohio Administrative Code Section 4733-37-05(A) & (B).
 YES
 NO

JOB #: _____ CHK'D BY: _____ DATE: _____

Comments: _____

OFFICE OF THE MONTGOMERY COUNTY ENGINEER

**STANDARDS FOR BOUNDARY SURVEYS AND
DESCRIPTIONS**

I. ADOPTION OF STANDARDS FOR BOUNDARY SURVEYS AND DESCRIPTIONS

- A. All surveys relating to the creation, establishment or retracement of property boundaries are deemed worthy of preservation and shall be recorded in the Office of the County Engineer pursuant to Revised Code Section 315.25.
- B. The Ohio Administrative Code Section 4733-37 entitled "Minimum Standards for Boundary Surveys in the State of Ohio" are incorporated by reference into these standards. (Appendix A)
- C. All survey plats and legal descriptions presented to the Office of the County Engineer shall conform to the requirements of the Ohio Administrative Code Section 4733-37 and such additional requirements contained in this document.
- D. Legal descriptions and boundary survey plats shall be submitted to the County Engineer for review and, if the County Engineer determines that the legal description and boundary survey plat satisfies the Minimum Standards for Boundary Surveys in the State of Ohio and the standards contained in this document, then the County Engineer shall approve the legal description and boundary survey plat and file a copy of each in the County Engineer's survey file. (Ohio Administrative Code Section 4733-37-05(B), Appendix A) Legal descriptions and boundary survey plats filed and approved in such a manner shall become public records pursuant to Revised Code Section 315.25.

II. FILING REQUIREMENTS

Whenever a survey is performed to create, establish or retrace a boundary of real property, then a legal description and boundary survey plat shall be filed in the Office of the County Engineer prior to the conveyance of the land. The legal description and boundary survey plat shall conform to the following requirements, said requirements being in addition to the requirements contained in the Minimum Standards for Boundary Surveys in the State of Ohio, Ohio Administrative Code Section 4733-37 (Appendix A).

- A. Survey Plats shall be drawn in ink (County Engineer requirement) and in a form which may clearly reproduce on any copies which may be made of the original drawing (Ohio Administrative Code Section 4733-37-05(C)(10)).
- B. The size of the Survey Plat shall be a minimum of 18 inches by 24 inches and a maximum of 24 inches by 36 inches. The scale shall be not less than 1 inch=200 feet. Multiple sheets may be used if necessary. (County Engineer requirement)

- C. The parcel or parcels being conveyed shall be shown with a solid heavy line, drawn to scale with bearings and distances shown adjacent to all lines. Lettering height for parcel dimensions shall be 1/8 inch or larger. The height of all other lettering shall be 3/32 inch or larger. (County Engineer requirement)
- D. A 2 inch by 2 inch blank area shall be located in the upper right-hand corner of each page of the survey plat to permit the County Engineer to apply a standard record block. (County Engineer requirement)
- E. The Survey Plat shall include the names, exact locations, dimensions and right-of-way widths of all streets and railroads of record within the parcel being conveyed. (County Engineer requirement)
- F. The Survey Plat shall indicate all section, half-section, quarter-section, county, township and municipal corporation lines. In the event that the land being conveyed is divided by any of the foregoing lines, then the acreage on either side of the line or lines shall be indicated. (County Engineer requirement)
- G. The Survey Plat shall contain a general notation describing the evidence of occupation that may be found along each boundary or occupation line. Ohio Administrative Code Section 4733-37-05(C)(5)
- H. The legal description and boundary survey plat shall contain a reference of the survey to an established point of record [Ohio Administrative Code 4733-37-06(A)(2) and (B)(1) as interpreted by the County Engineer] such as:
1. A monumented section corner or quarter section corner; or
 2. A monumented lot corner of a recorded plat including the plat reference. The corners of unplatted lots on plats of revised and consecutive numbers of lots resulting from annexations described by metes and bounds descriptions shall not be used as a reference to a survey; or
 3. A monumented intersection of intersecting roads of record or intersecting right-of-way lines..
- I. For adjacent parcels, state the name of the owner, deed reference and acreage. State the reference for survey records of adjacent parcels if applicable. Platted land shall state the name of the subdivision, lot numbers and Plat Book and Page reference. Ohio Administrative Code Section 4733-37-06(B)(2)(a) (and County Engineer requirement).
- J. All corners located in a roadway shall be referenced by offset monuments at the intersection of the property line and the right-of-way line. (County Engineer requirement)

STANDARDS FOR BOUNDARY SURVEYS AND
DESCRIPTIONS

APPENDIX A

Ohio Administrative Code - 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. Abridgements of one or more provisions herein 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.

History: Eff. 5-1-80

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.

History: Eff. 5-1-80

4733-37-03 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 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 0.2 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 "X" in concrete, drill hole, etc.) shall be established for the particular situation.

History: Eff. 5-1-80

4733-37-04 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 any two points (not necessarily adjacent points) shall not exceed the reported distance divided by five thousand (allowable linear error = reported distance divided by five 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 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.

History: Eff. 5-1-80

4733-37-05 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) A copy of this drawing shall be given to the client. When required, another copy shall be filed with the proper agency.

(C) The surveyor shall include the following details:

- (1) A title such that the general location of the survey can be identified.
- (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.
- (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. In addition, there shall be a statement describing the material, size, position and condition of every monument found and/or set.
- (5) A general notation describing the evidence of occupation that may be found along every boundary line and/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.
- (7) A citation of pertinent documents and sources of data used as a basis for carrying out the work.
- (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).

History: Eff. 5-1-80

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.
 - (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 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.

History: Eff. 5-1-80

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.

History: Eff. 5-1-80