## Important Facts About Land Descriptions

Land Measurements, Townships, Sections, Meandered Water, Government Lots, Etc.
What is a Land Description?
A land description is a description of a tract of land in legally acceptable terms, so as to show exactly where it is located and how many acres it contains.
Table of Land Measurements

| LINEAR MEASURE |  |  |  | SQUARE MEASURE |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 inch | 0833 foot | 16112 feet | . 1 rod | 144 sq. in. | 1 sq.ft. | 43560 sq. ft. | 1 acre |
| 7.92 inches. | 1 link | $51 / 2$ yards. | . 1 rod | 9 sq . ft. | . . 1 sq. yd . | 640 acres . | . . 1 sq. mile |
| 12 inches | . 1 foot | 4 rods . | 100 links | 301/4 sq. yds. | . 1 sq. rod | 1 sq. mile | . 1 section |
| 1 vara. | . . 33 inches | 66 feet. | . . 1 chain | 16 sq. rods . | . 1 sq. chain | 36 sq. miles | . 1 township |
| 23/4 feet. | . 1 vara | 80 chains | . . 1 mile | 1 sq . rod | 2721/4 sq. ft. | 6 miles sq. | . 1 township |
| 3 feet. | 1 yard | 320 rods | . 1 mile | 1 sq. chain | .4356 sq. ft. | 208 ft 8 in. sq. | .... 1 acre |
| 25 links. | . $161 / 2$ feet | 8000 links. | . 1 mile | 10 sq. chains | ... 1 acre | 80 rods sq. . . | 40 acres |
| 25 links. | . . . 1 rod | 5280 feet. | . 1 mile | 160 sq. rods . | . 1 acre | 160 rods sq. | 160 acres |
| 100 links. | . . 1 chain | 1760 yards . | . 1 mile | 4840 sq. yds. | ... 1 acre |  |  |

In non-rectangular land descriptions, distance is usually described in terms of either feet or rods (this is especially true in surveying today), and square measure in terms of acres. Such descriptions are called Metes and Bounds descriptions and will be explained in detail later.

In rectangular land descriptions, square measure is again in terms of acres, and the location of the land in such terms as $\mathrm{N}^{1 / 2}$ (north one-half), $\mathrm{SE}^{1 / 4}$ (south east one-fourth or quarter), etc. as shown in figures 2, 3, 4 and 5 .

## Meandered Water \& Government Lots

A meandered lake or stream is water, next to which the adjoining landowner pays taxes on the land only. Such land is divided into divisions of land called government lots. The location, acreage and lot number of each such a tract of land, was determined, surveyed and platted by the original government surveyors.

The original survey of your county (complete maps of each township, meandered lakes, government lots, etc.) is in your courthouse, and this original survey is the basis for all land descriptions in your county (see figure1).

IMPORTANT:
THE GOVERNMENT LOT NUMBER GIVEN TO A PIECE OF LAND, IS THE LEGAL DESCRIPTION OF THAT TRACT OF LAND.

HOW CAN YOU TELL WHETHER WATER IS MEANDERED OR PRIVATELY OWNED?

On our township maps, if you find government lots adjoining a body of water or stream, those waters are meandered. If there are no government lots surrounding water, that water is privately owned, the owner is paying taxes on the land under the water, and the owner controls the hunting, fishing, trapping rights, etc., on that water, within the regulations of the State and Federal laws, EXCEPT where such water is deemed navigable, other rulings may sometimes pertain.

As a generality (but not always), meandered water is public water which the public may use for recreational purposes, fishing, hunting, trapping, etc., provided that there is legal access to the water, or in other words, if the public can get to such waters without trespassing. There still is much litigation concerning the same to be decided by the courts.


Sample Sections Showing Rectangular Land Descriptions, Acreages and Distances



FIGURE 3



## The Best Way To Read Land Descriptions Is From The Rear Or Backwards

Descriptions of land always read FIRST from either the North or the South. In figures 2, 3, 4 and 5, notice that they all start with N (north), S (south), such as NW, SE, etc. They are never WN (west north), ES (east south) etc. IMPORTANT: It is comparatively simple for anyone to understand a description, that is, determine where a tract of land is located, from even a long description. The SECRET is to read or analyze the description from the rear or backwards.

EXAMPLE: Under figure 4, the first description read $\mathrm{E}^{1 / 2}, \mathrm{SE}^{114}, \mathrm{SW}^{114}, \mathrm{SW}^{1} 1 / 4$. The last part of the description reads $\mathrm{SW}^{1 / 4}$, which means that the tract of land we are looking for is somewhere in that quarter (as shown in figure 2). Next back we find SW $1 / 4$, which means the tract we are after is somewhere in the $\mathrm{SW}^{1 / 4} \mathrm{SW}^{1 / 4}$ (as shown in figure 3) Next back, we find the $\mathrm{SE}^{114}$, which means that the tract is in the $\mathrm{SE}^{1 / 4} \mathrm{SW}^{114} \mathrm{SW}^{1 / 4}$ (as shown in figure 5). Next back and our last part to look up, is the $\mathrm{E}^{1 / 2}$ of the above, which is the location of the tract described by the whole description (as shown in figure 4).

# Important Facts About Land Descriptions 

## Township Survey Information

## A Congressional Township Contains 36 Sections Of Land 1 Mile Square

## A Civil Or Political Township May Be Larger Or Smaller Than A Congressional Township.

## Townships

Theoretically, a township is a square tract of land with sides of six miles each, and containing 36 sections of land. Actually this is not the case. Years ago, when the original survey of this state was made by the government engineers, they knew that it was impossible to keep a true north and south direction of township lines, and still keep getting township squares of 36 square miles. As they surveyed toward the north pole, they were constantly running out of land, because the township lines were converging toward the north pole.

If you will turn to one of the township maps in this plat book, you will notice that on the north and on the west of each township, there are divisions of land which show odd acreages. In some townships, these odd acreages are called government lots (because they were given a lot number), and at other times left as FRACTIONAL FORTIES OR EIGHTIES. It was at the option of the original government surveyors as to whether they would call these odd acreages government lots, or fractional forties and eighties.

The reason for these odd acreages is that the government surveyors adjusted for shortages of land which developed as they went north, by making fractional forties, eighties or government lots out of the land on the west side of a township, and the same for the land on the north side of a township to keep east and west lines running parallel. In other words it was impossible to fit full squares into a circle.
Townships sometimes vary in size from the regularly laid-out township (see figure 6). Suppose that the dotted line in figure 6 is a river separating two counties. The land north and west of the river could be a township in one county, the land south

DIAGRAM SHOWING HOW SECTIONS ARE NUMBERED IN A TOWNSHIP


FIGURE 6


FIGURE 7
and east could be a township in another county. Whichever county the land is in, it still retains the same section, township and range numbers for purposes of land descriptions.
Each township has a township number and also a range number (sometimes more than one of each if the township is oversized, or a combination of more than one township and range).

Government surveying of townships is run from starting lines called base lines and principal meridians. Each township has a township number. This number is the number of rows or tiers of townships that a township is either north or south of the base line. Also each township has a range number. This number is the number of rows or tiers of townships that a township is either east or west of the principal meridian (see figure 7). EVERY DESCRIPTION OF LAND SHOULD SHOW THE SECTION, TOWNSHIP AND RANGE IT IS LOCATED IN.

## Townships May Be Either North Or South Of The Base Line Ranges May Be Either East Or West Of The Principal Meridian.

## Metes And Bounds Descriptions

## And Explanation Of Direction In Terms Of Degrees

WHAT IS A METES AND BOUNDS DESCRIPTION? It is a description of a tract of land by starting at a given point, running so many feet a certain direction, so many feet another direction etc., back to the point of beginning. EXAMPLE: In figure 1 notice the small tract of land outlined. The following would be a typical metes and bounds description of that tract of land. "Begin at the center of the section, thence north 660 feet, thence east 660 feet, thence south 660 feet, thence west 660 feet, back to the point of beginning, and containing 10 acres, being a part of Sec. No. etc."

IMPORTANT: To locate a tract of land from a metes and bounds description, start from the point of beginning, and follow it out (do not read it backwards as in the case of a rectangular description).

The small tract of land just located by the above metes and bounds description could also be described as the $\mathrm{SW}^{1 / 4} \mathrm{SW}^{1 / 4} \mathrm{NE}^{1 / 4}$ of the section. In most cases, the same tract of land may be described in different ways. The rectangular system of

How To Read Descriptions Which Show Directions

## In Terms of Degrees

In figure 8 , the north-south line, and the east-west line divide the circle into 4 equal parts, which means that each part contains 90 degrees as shown. Several different direction lines are shown in this diagram, with the number of degrees each varies east or west from the north and south starting points (remember again that all descriptions read from the north or south).

We all know what north-west is. It is a direction which is half-way between North and West. In terms of degrees the direction north-west would read, north 45 degrees west (see figure 8).

## Example Of A Land Description In Terms Of Degrees

At this time, study figure 8 for a minute or two. In figure 8 , notice the small tract. The following metes and bounds description will locate this small tract. "Begin at the beginning point, thence N 20 degrees west - 200 feet, thence N 75 degrees east - 1190 feet, thence S 30 degrees east - 240 feet, thence S 45 degrees west - 420 feet, thence west - 900 feet back to the point of beginning, containing so many acres, etc."
describing and locating land as shown in figure 2, 3, 4 and 5 is the most simple and almost always used when possible.

A circle contains 360 degrees. Explanation: If you start at the center of a circle and run 360 straight lines an equal angle apart to the edge of the circle, so as to divide the circle in 360 equal parts, THE DIFFERENCE OF DIRECTION BETWEEN EACH LINE IS ONE DEGREE.

In land descriptions, degree readings are not a measure of distance. They are combined with either North or South, to show the direction a line runs from a given point.


