Legal Descriptions, Plats And Condominiums

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LEGAL DESCRIPTIONS

In the early settlement of the American Continent, great tracts of land were granted by the king to certain persons designated by the king. These tracts were described by "metes and bounds," that is, beginning at the junction of some river or range of mountains and extending west to some designated line or rivers, etc.. Many of those descriptions were so vague that disputes arose in later years as to the exact dividing line between certain grants. After the settlement of the colonies and after the United States came into existence and began to acquire lands, the Government found it necessary to prepare these lands for settlement, and in so doing they found it necessary to devise some plan of measurement through which this land could be divided into small tracts of land for sale and homestead purposes.

The Land Ordinance of 1785 was passed by congress to generate additional funds to finance a government and the United States Public Land Survey was established. This plan established a regular and systematic partitioning of areas into describable and definable parcels prior to settlement. Although the laws have changed some to expand the system and to clarify the methods and procedures, the system is much the same as it was in 1785.

THE RECTANGULAR SYSTEM

The rectangular survey system is used in Kansas and in 30 other states, and is the method of legal descriptions to describe land. This system uses different base lines running east and west and principal meridians running north and south. One specific line and one specific principal meridian line are used in various parts of our country from which land may be located and legally described. (See Figure 1.) Under this system all land is divided into squares six miles north and south by six miles east and west, containing 36 square miles, each designated as a section and numbered 1 to 36. (beginning in the Northeast corner.)

In order to start a survey under this system, a party was selected by the General Land Office of the United States Government to go out into the territory to be surveyed and select a starting point. In 1854 the Kansas and Nebraska territories were authorized to be surveyed. The task of surveying Kansas was completed approximately 21 years later. From the starting point a line is drawn due North and South from the South boundary line to the North boundary line of the territory to be surveyed. This line is known as the Principal Meridian. In Kansas it is known as "The Sixth Principal Meridian". This line extends from Oklahoma through Kansas and Nebraska to South Dakota. (See Figure 1.) Our line for the 6th Principal Meridian is approximately located at highway #81 and runs through Wichita on a street named Meridian Street.

After the meridian is located and drawn there is established a base line – which is established at right angles to the meridian. The base line from which the land in Kansas is surveyed is the 40th parallel which is on the state line between Kansas and Nebraska. (See Figure 1.)

After the meridian and base line are established, lines are next run due north and south, parallel with the meridian, at intervals of six miles, thus marking the territory in strips of six miles each. Each of these strips are known as a "Range". The ranges are numbered 1, 2, 3, etc. East and West from the meridian.

Due to the curvature of the earth, if the meridian is drawn due North and South, which is the case, and they begin on the base line and run the range lines due North they

would eventually intersect the meridian, or if they should begin on the base line and run the range lines due South, they get would farther away from the meridian until they crossed the equator. In order to prevent this and to keep the range lines as near six miles apart as possible, at regular intervals the surveyors stopped and made a correction line, thus setting the lines over or moving them back, whichever the case may have been. A correction line is known as a "Standard Parallel". In Kansas these lines were made at intervals of 30 miles from the base line.

After the range lines were established, the East and West lines were run. These are called "Township Lines", and are drawn parallel with the base, and every six miles South or North of the base line, thus cutting the Ranges into squares. These squares are known as "Congressional Townships". These Townships are numbered commencing with one both North and South from the base line.

Before proceeding further, we might stop to digest the survey at this point. We now have the entire territory cut into sections that are six miles each way, or containing 36 square miles each. We also have four Congressional Township numbered 1, Range number 1, but each is described differently as follows: Township 1 North, Range 1 West; Township 1 North, Range 1 East, Township 1 South, Range 1 West; and Township 1 South, Range 1 East. Therefore, you can see the importance of using the words South and North in connection with Townships and the words East and West in connection with Ranges. (See Figure 2.)

After the range lines and township lines have been run and the Congressional Townships established, each Township is then divided into 36 sections of one square mile each, containing 640 acres. The sections are numbered 1 to 36, commencing at number 1 in the Northeast corner. The surveyors begin at the Southeast corner of the Township and survey Section 36 first, then 35, etc. A stone was set at each corner of the section, and in most instances throughout Kansas a stone is set on each quarter corner.

As has been stated earlier, due to the curvature of the earth the Congressional Townships are not exactly square. Therefore, there cannot be surveyed 36 sections of exactly 1 square mile or 640 acres each in the Townships. To take care of the shortage or surplus, the sections on the North and West of Each Township are of irregular size and are known as "Fractional Sections". Thus, each Township contains 25 regular sections and normally 11 fractional sections.

The sections in each township that are normally fractional are sections 1, 2, 3 4, 5, 6, 7, 18, 19, 30 and 31. Sections 1 to 5 along the North are each surveyed so that the South Half will contain 320 acres. The North Half is surveyed so that the South Half of the Northeast Quarter and the South Half of the Northwest Quarter will contain 80 acres each. The remaining strip along the north is then divided into four lots to each section and each is given a number. The northeast lot being number 1, the remaining lots are numbered 2, 3 and 4 running to the west. (See Figures 3, 4 and 5.)

Sections 7, 18, 19, 30 and 31 are made so that the East Half of the Northwest Quarter and the East Half of the Southwest Quarter will each contain 80 acres. The remaining strip along the west is then divided into four lots to each section. The northwest lot being numbered 1, and the other lots are numbered 2, 3 and 4 running to the south. (See Figures 3, 4 and 5.)

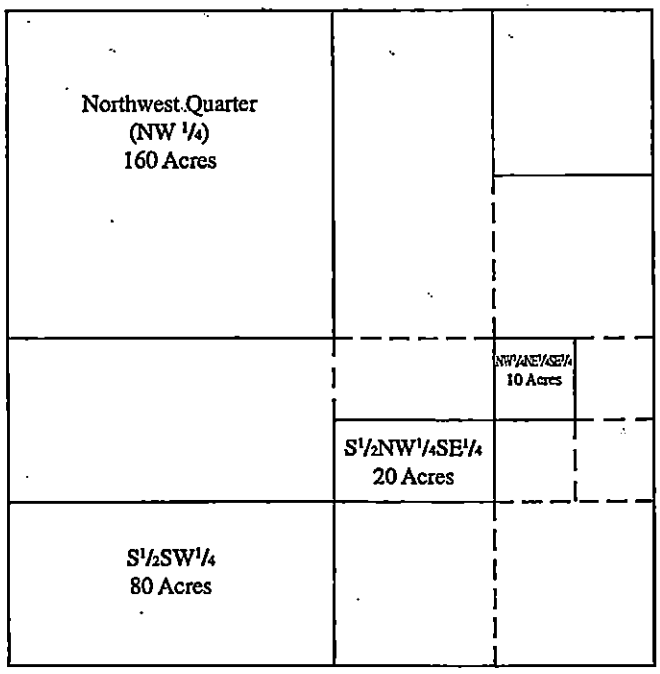
Section 6 being the Northwest section is the last to be surveyed and has 7 lots; the Northeast Quarter being surveyed like section 1 to 5; and the Southwest Quarter being

surveyed like sections 7 and 18, etc. The Northwest Quarter is surveyed so that the southeast quarter thereof will contain 40 acres; the remaining three quarters are divided into lots. (See Figures 3, 4, and 5.)

Government lots also appear in sections that border on Indian or Timber Reservations, National Parks, etc.

Usually the largest number of government lots appear in sections that border on a navigable river. Occasionally, where such lots appear along the river, they are designated as "Lot 3 on the North Bank" or "Lot 3 on the South Bank" of such river. This is caused by two groups of surveyors, one group working on one side of the river and the other group on the other side.

The acreage of Government lots is not computed by the surveyor on the ground, but is computed in the General Land Office. Therefore, it is necessary for the surveyor to establish or run the line along the bank of a river so that such information will be available to the Land Office. This line is called a "Meander Line". The general rule is to establish at "Mean High Water Mark", meaning, according to some Court decisions, a line which lies beyond that part wrested from vegetation. A meander line has been held to be not a boundary line, but merely a guide line. (See Figures 3 and 4)



Legal Descriptions Within a Section

Northwest Quarter (NW/4) contains 160 acres

South Half of the Southwest Quarter (S/2 SW/4) contains 80 acres

Southeast Quarter of the Northeast Quarter (SE/4 NE/4) contains 40 acres

The South half of the Northwest Quarter of the Southeast Quarter (S/2 NW/4 SE/4) contains 20 acres.

The Northwest Quarter of the Northeast Quarter of the Southeast Quarter (NW/4NE/4SE/4) contains 10 acres

In finding the North one-half (N1/2) of the Southeast quarter (SE/4) of the Northwest quarter (NW/4) of the Southwest Quarter (SW/4) of Section 11....it may be located fairly quickly by moving backward through the legal description. Trace in the dotted lines in Figure 5 to assist you in locating this tract. The following steps will help.

1. Locate the Southwest Quarter of Section 11
2. Find the Northwest quarter of the previously located Southwest Quarter. You now have found the NW/4 of the SW/4
3. Find the Southeast Quarter of the previously located area. You how have identified the boundaries of the SE/4 NW/4 SW/4
4. Identify the North one-half of the area identified in step three. You now have located the N/2SE/4NW/4 SW/4.

METES AND BOUNDS

To understand a metes (distances) and bounds (boundaries) description you must be able to interpret a surveyor's directions and maps. A land surveyor's map always identifies which direction is north. The metes and bounds method of legal description for land is based on the fact that a complete circle contains 360 degrees, and each quadrant contains 90 degrees. A quadrant is a term used to describe one-fourth of the circle lying between two adjacent directions. See Figure 6.

Each degree contains 60 minutes and each minute contains 60 seconds. By specifying the precise degrees, minutes and seconds that a line varies from the North, South, East or West directions, a surveyor is explaining the precise direction taken by a particular part of the boundary of your land. The surveyor also must specify the precise distance for which this part of your boundary continues before it changes directions.

The description must start from a point of beginning somewhere on the perimeter of your real estate tract. The point of beginning should also be referenced preferably to at least two other easily located points (using directions and distances) by the surveyor in the legal description so that the position of the stake readily can be located if it should be lost or destroyed. An example is as follows:

> From the point of beginning north 37°6'22" east
> for a distance of 537 feet, 6 inches to a post oak
> Tree 5 inches in diameter and marked with an X
> below the first fork ....

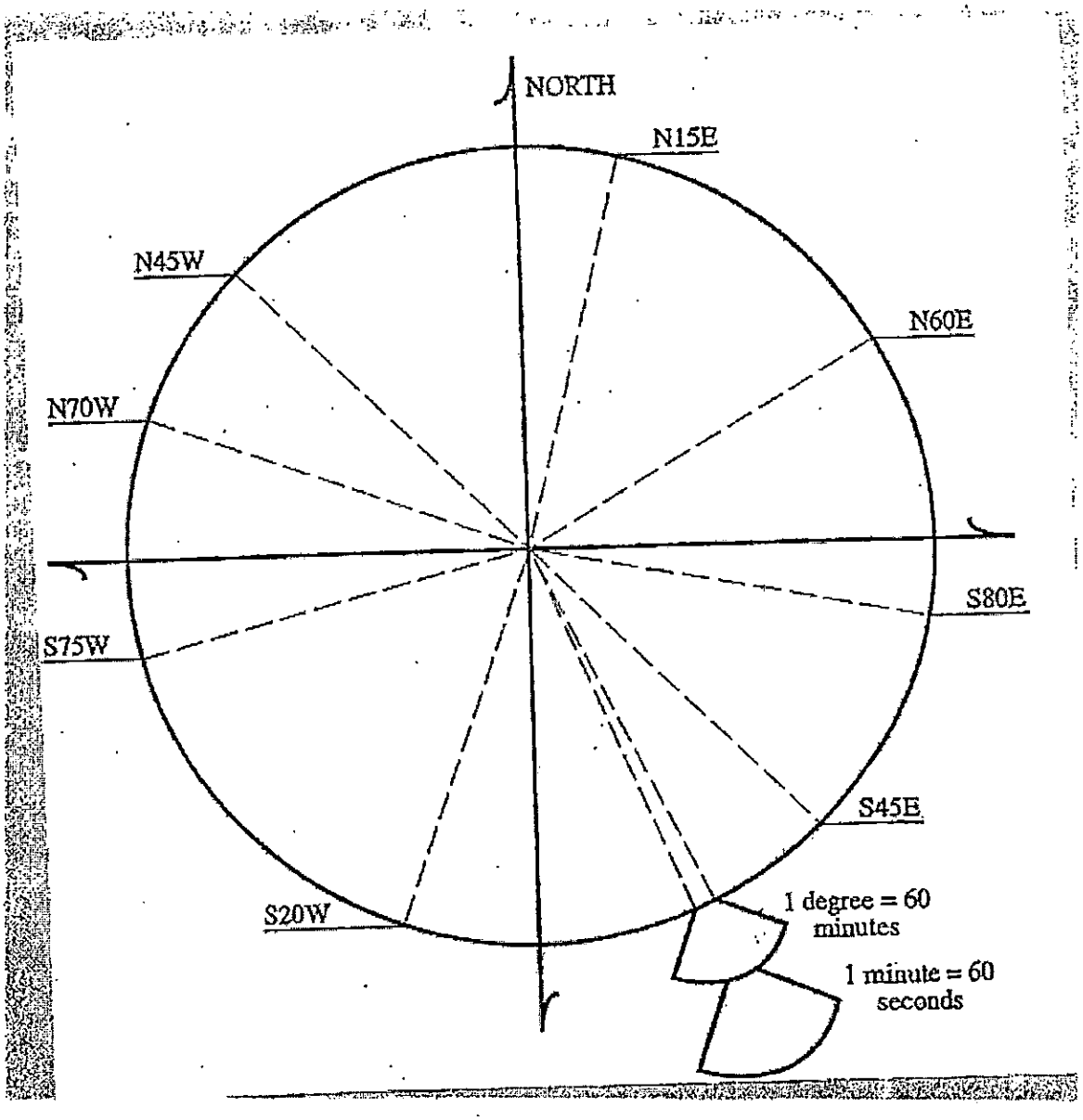


Figure 6: The Measurement of Directions for Metes and Bounds

The direction is found by moving from the north side of the Northeast quadrant of a circle 37 degrees, 6 minutes and 22 seconds. A line drawn from the center of the circle to this point on the perimeter of the circle will constitute the precise direction being taken by that portion of the boundary. The legal description tells you that your property boundary proceeds in that direction for a distance of 537 feet, 6 inches

Only surveyors have the responsibility of preparing metes and bounds legal descriptions using angles. Any tract described by metes and bounds should close. A description,

which does not close, is one, which does not quite return to the point of beginning and is invalid.

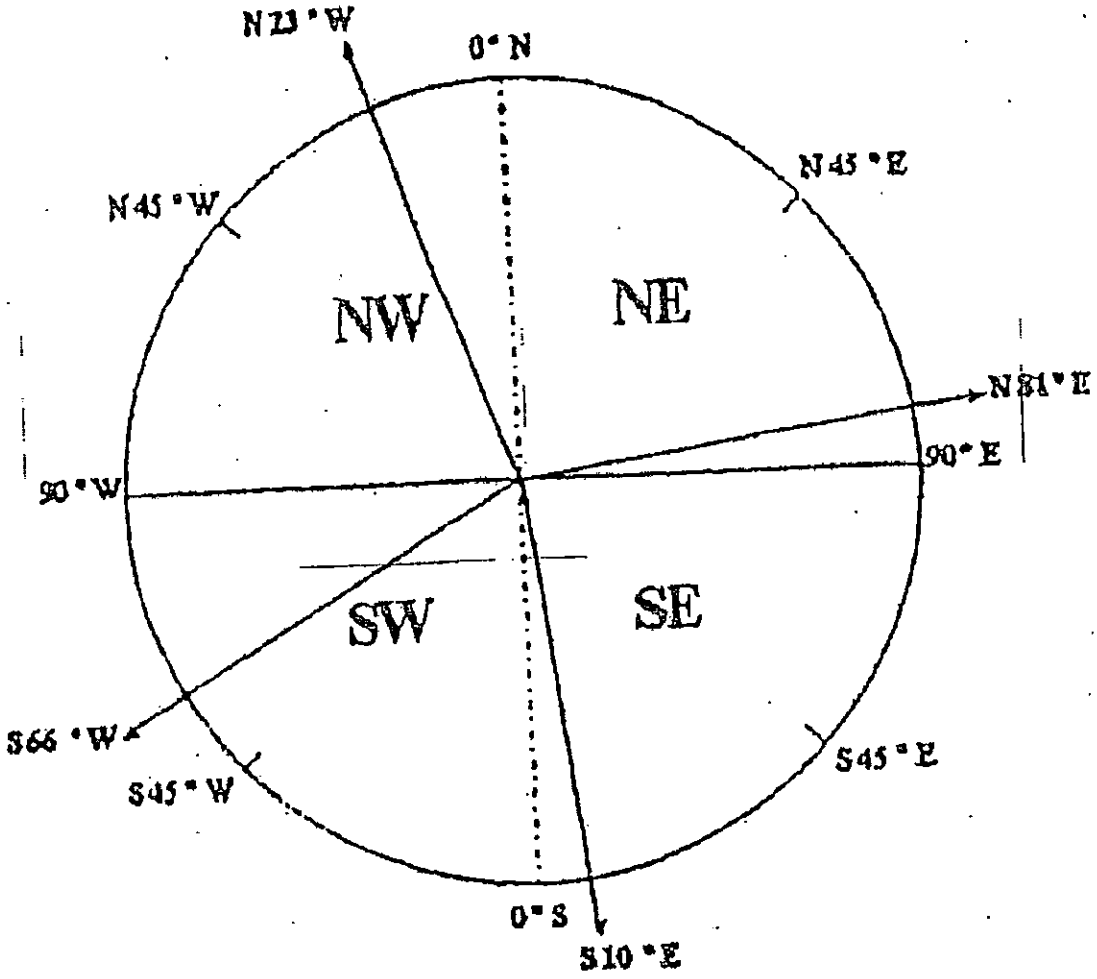


Figure 7

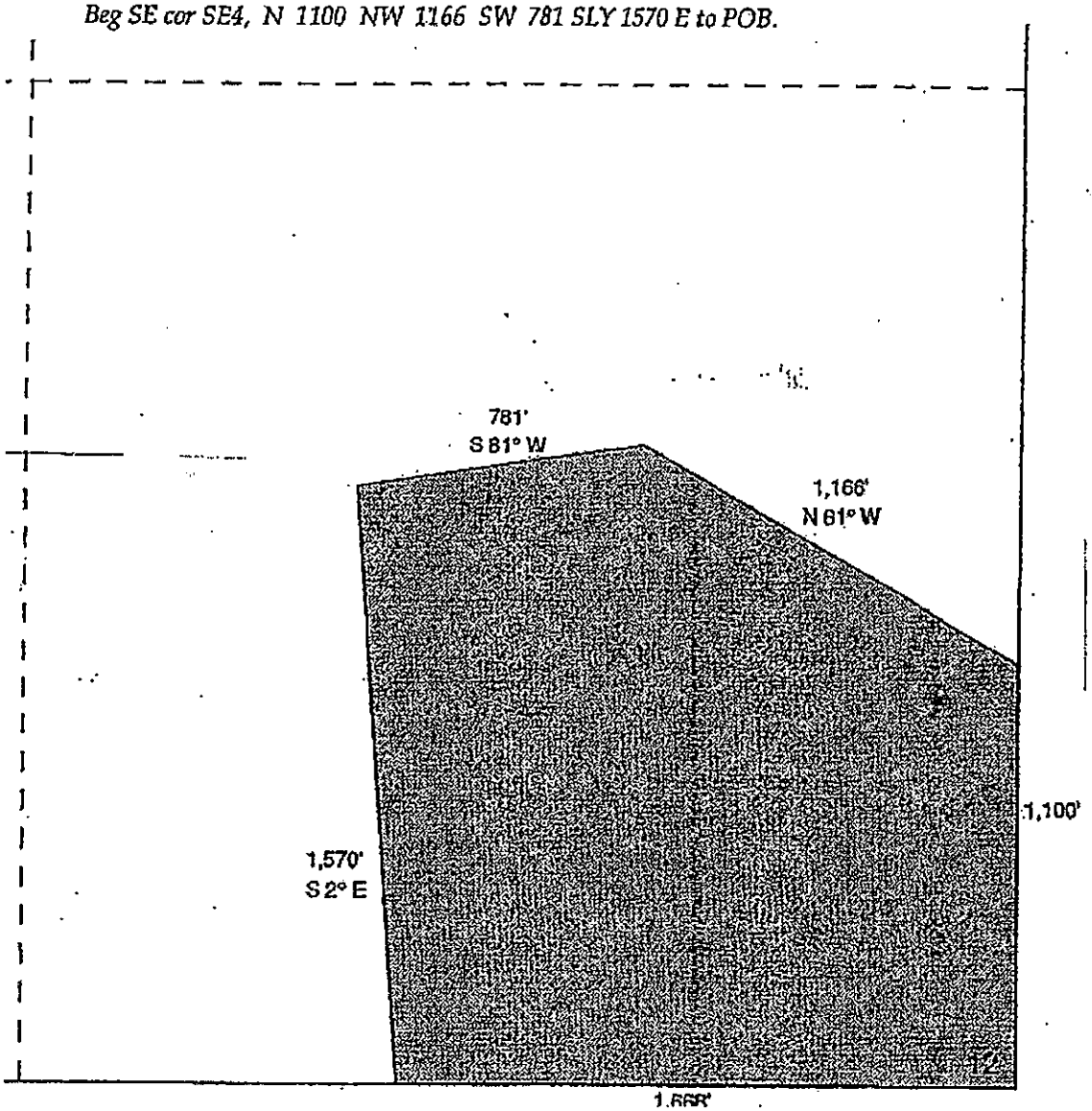
Metes and Bounds Exercise Answer Sheet

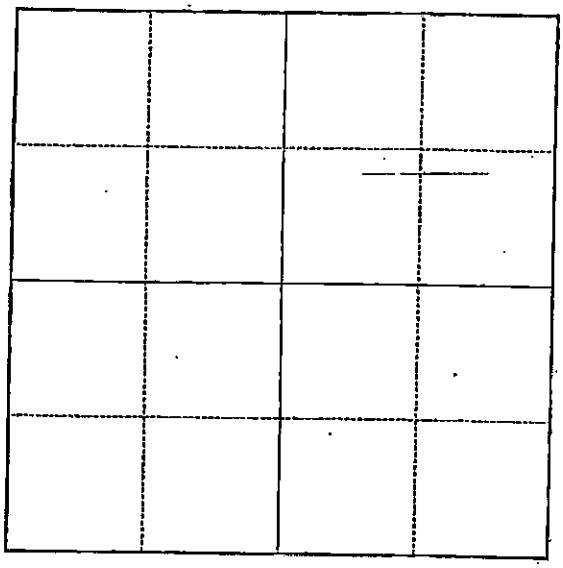
Problem # 8 Using a 1" = 400' scale, plot the following legal description:

Beginning at the Southeast corner of Section 12, Township 4 S, Range 20 E, thence due North 1,100 ft., thence N 61° W 1,166 ft., thence S 81° W 781 ft., thence S 2° E 1,570 ft., thence East along the South boundary of the section to the point of beginning.

After plotting the tract, write a new abbreviated property description for use in data entry into KSCAMA.

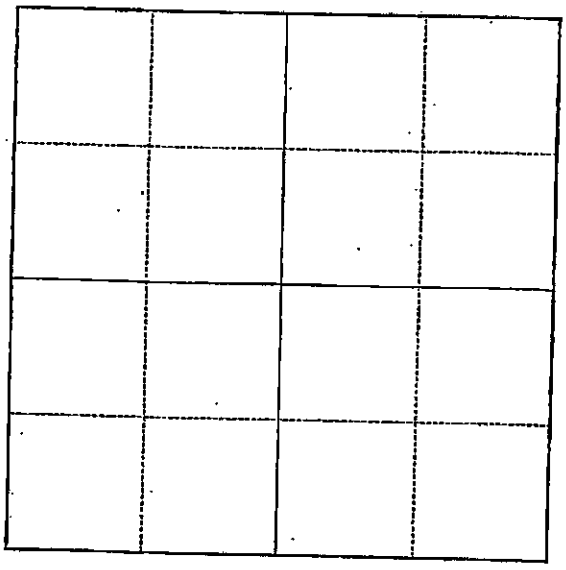
Beg SE cor SE4, N 1100 NW 1166 SW 781 SLY 1570 E to POB.





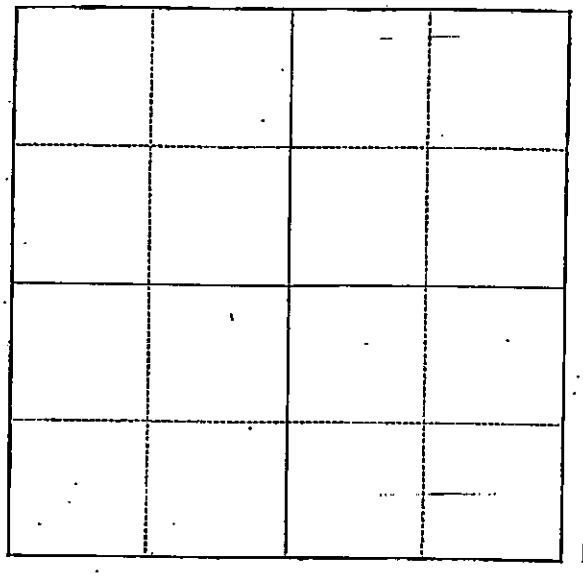
1

Locate, shade-in and label the following tracts:
Tract 1: NE4 Section 1
Tract 2: NE4 NW4 Section 1
Tract 3: S2 S2 Section 1



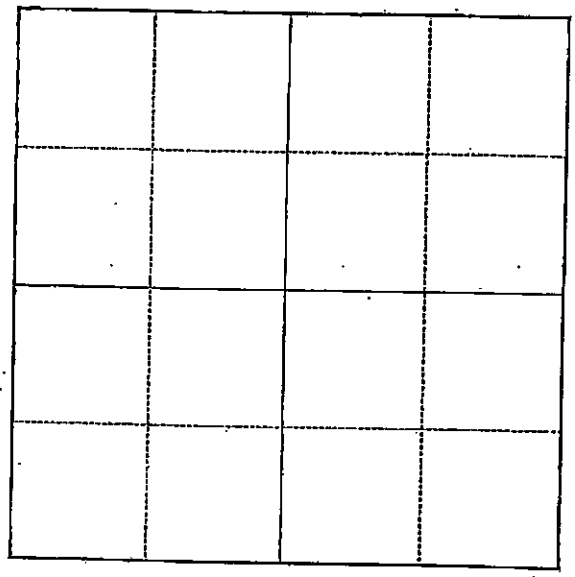
2

Locate, shade-in and label the following tracts:
Tract 1: NW4 Section 1
Tract 2: N2 SW4 & W2 SE4 Section 1



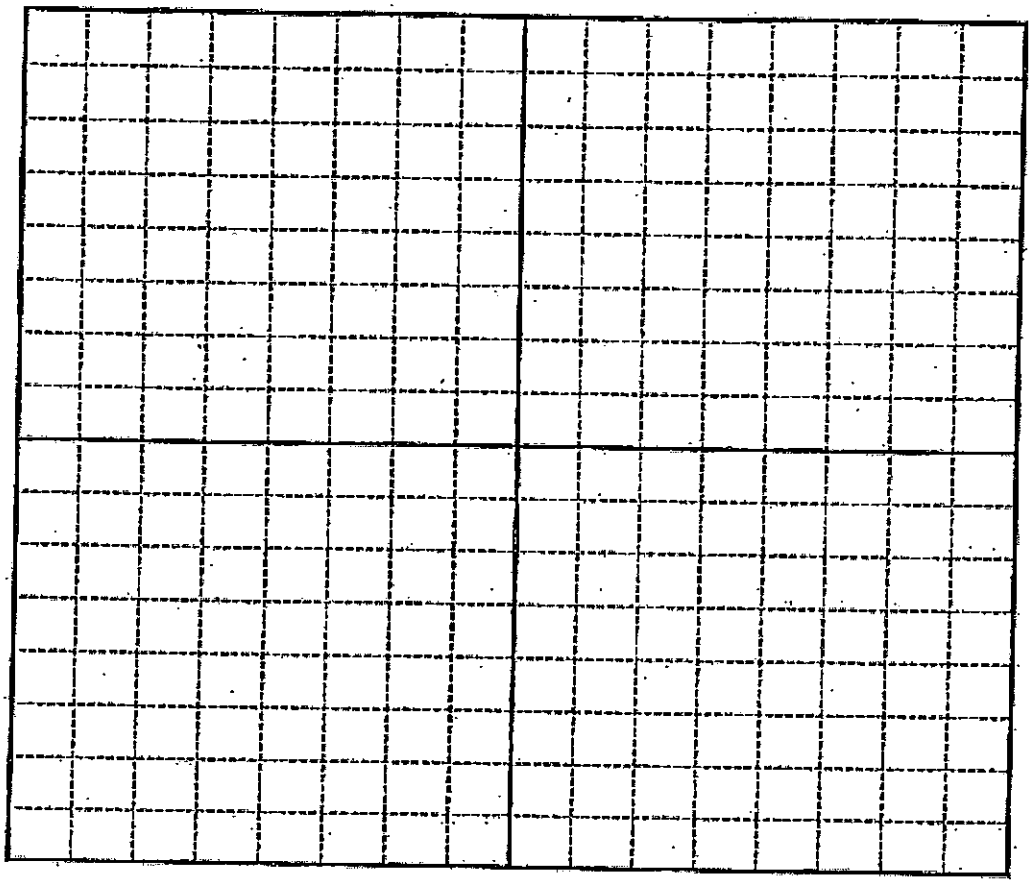
3

Locate, shade-in and label the following tracts:
Tract 1: W2 W2 Section 1



4

Locate, shade-in and label the following tracts:
Tract 1: NW4 NE4 Section 1
Tract 2: SW4 less SE4 SW4 Section 1



1

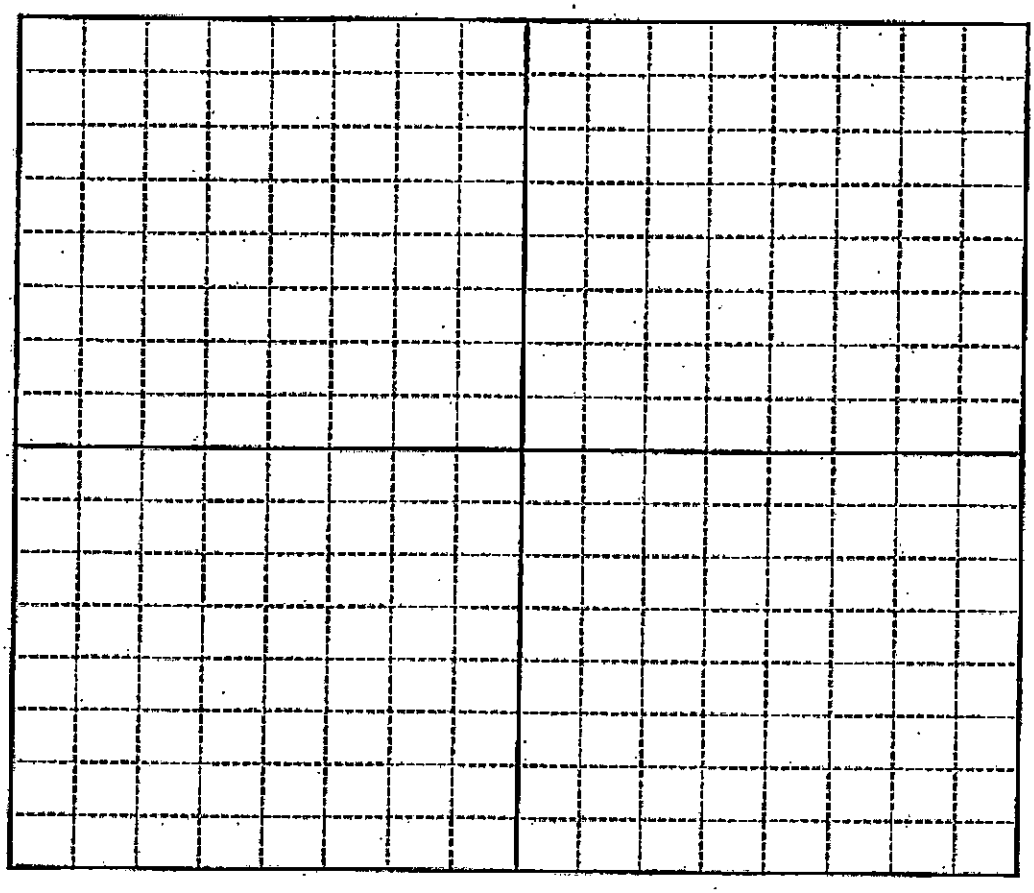
Locate the following parcels in the section above, indicate number of acres in each, and determine the total acreage for all parcels, then write an abbreviated property description for each parcel.

1. Southwest 1/4 of the Northeast 1/4
2. North 1/2 of the Southwest 1/4
3. Northeast 1/4 of the Northwest 1/4 of the Southeast 1/4
4. Northwest 1/4 of the Northwest 1/4 of the Southeast 1/4
5. Southwest 1/4 of the Northwest 1/4 of the Southeast 1/4

Total Acres

Abbreviated property descriptions for each

1. _____
2. _____
3. _____
4. _____
5. _____



2

Plot the following descriptions on the section above, indicate the number of acres in each parcel, and then calculate the total acreage of all described parcels.

Parcel #1 Southeast 1/4 of the Southeast 1/4 of the Northwest 1/4 _____
Parcel #2 West 1/2 of the Southwest 1/4 of the Northeast 1/4 _____
Parcel #3 East 1/2 of the Northeast 1/4 of the Southwest 1/4 _____
Parcel #4 Southwest 1/4 of the Northwest 1/4 of the Southeast 1/4 _____
Total Acres _____

Abbreviated property descriptions for each

1. _____
2. _____
3. _____
4. _____

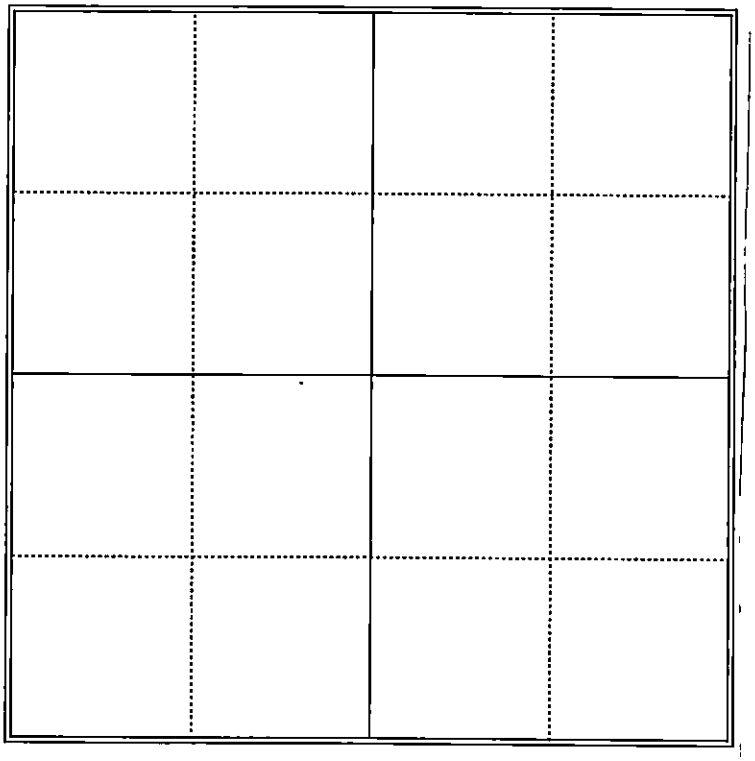
Reference: Evidencing Kansas Land Titles
Reference: How to Read Legal Descriptions and Understanding Deeds - Instructors – Dennis Albers & Scott Tabb

Metes and Bounds Exercise

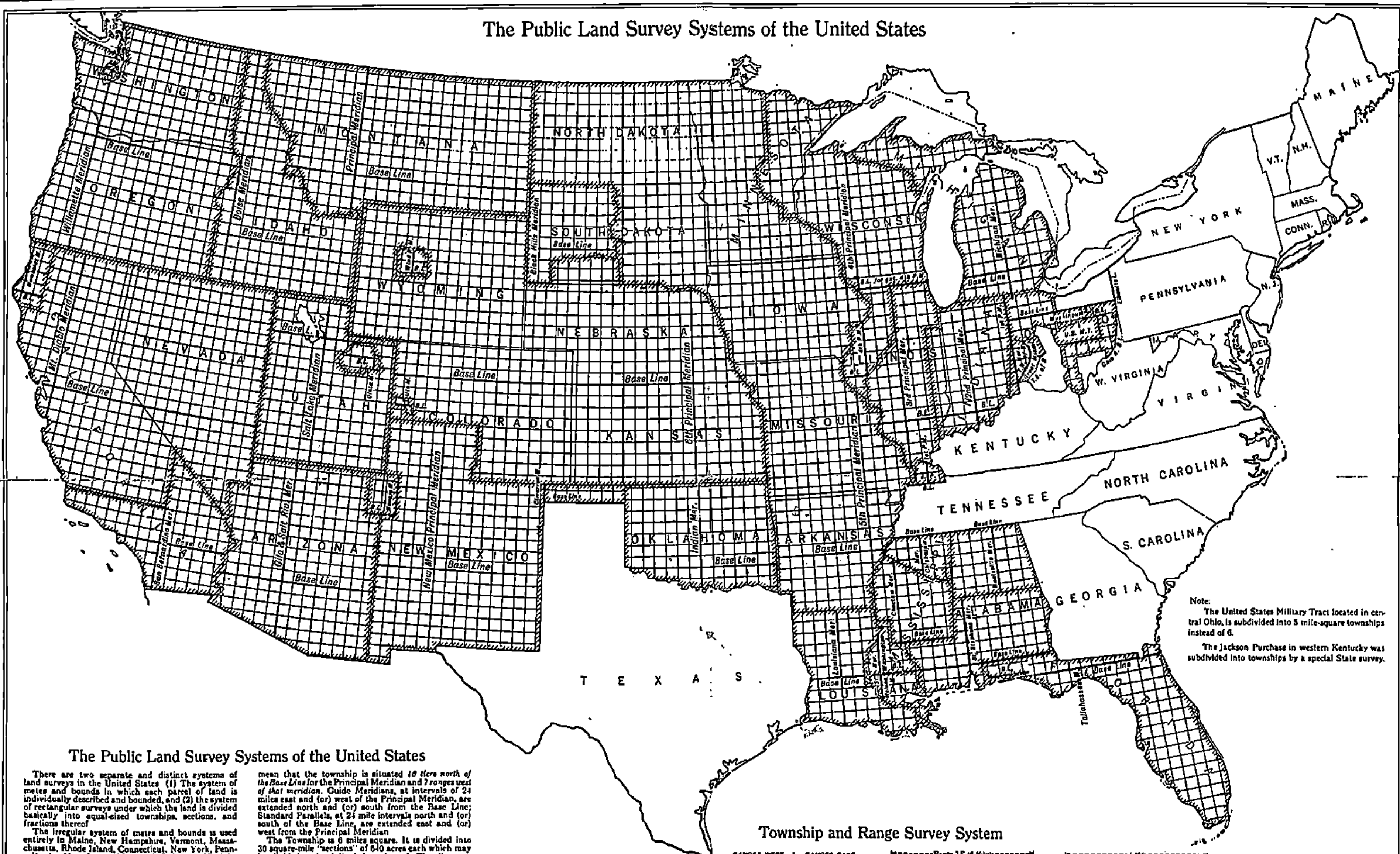
Plot the following legal description:

Commencing at the Northwest corner of the Southwest Quarter of Section 28, Township 3 South, Range 17 West of the 6th P.M., thence running South 00°00'00" West at distance of 50 feet to the point of beginning, thence South 90° 00' 00" East a distance of 200 feet, thence South 00° 00' 00" West a distance of 300 feet, thence North 90° 00' 00" West a distance of 200 feet, thence North 00° 00' 00" East a distance of 300 feet to the point of beginning.

Southwest Quarter



The Public Land Survey Systems of the United States



The Public Land Survey Systems of the United States

There are two separate and distinct systems of land surveys in the United States (1) The system of metes and bounds in which each parcel of land is individually described and bounded, and (2) the system of rectangular surveys under which the land is divided basically into equal-sized townships, sections, and fractions thereof

The irregular system of metes and bounds is used entirely in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Maryland, Delaware, Virginia, North Carolina, South Carolina, Georgia, Tennessee, Kentucky, Texas, and parts of Ohio Each parcel of land varies in size, is described independently, and is not tied in to any system of base lines.

The system of rectangular surveys was inaugurated in 1784 and the laws governing its establishment have, with various modifications, been applied to all of the United States with the exception of the states listed above Under this system the lands are divided into "townships," 6 miles square, which are related to base lines established by the federal government. The base lines running north and south are known as "Principal Meridians" while the east and west base lines are called simply "Base Lines." The township numbers east or west of the Principal Meridians are designated as ranges whereas the numbers north and south of the Base Line are tiers. Thus, the description of a township as "T 16 N, R 7 W 6th P M" would mean that the township is situated *16 tiers north of the Base Line for the Principal Meridian and 7 ranges west of that meridian*. Guide Meridians, at intervals of 24 miles east and (or) west of the Principal Meridian, are extended north and (or) south from the Base Line; Standard Parallels, at 24 mile intervals north and (or) south of the Base Line, are extended east and (or) west from the Principal Meridian

The Township is 6 miles square. It is divided into 36 square-mile "sections" of 640 acres each which may be divided and subdivided as desired The diagrams herewith show the system of numbering the sections and the usual method of subdividing them.

Example. A piece of land is described as "the NW ¼ of the SE ¼ of section 14, T 6 N, R 11 W, 6th Prin Mer" The translation is "the northwest quarter of the southeast quarter of section 14 in township 6 north and range 11 west of the 6th Principal Meridian." By referring to the map the approximate location of this 40-acre tract can easily be determined

Irregular tracts of land are, of course, also described by metes and bounds within the rectangular survey system They are, however, tied in to the monuments established under the rectangular system.

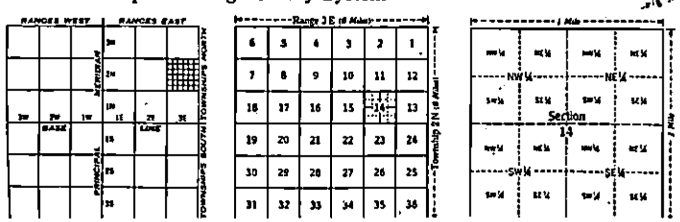
For detailed information on the public land survey system in the United States see the "Manual of Instruction for the Survey of the Public Lands of the United States" issued by the Bureau of Land Manage-

Principal Meridians, Base Lines and Areas controlled thereby.

Each square on this map represents 16 Townships and is 4 Townships or 24 miles square.

Areas in which old Metes and Bounds

Township and Range Survey System



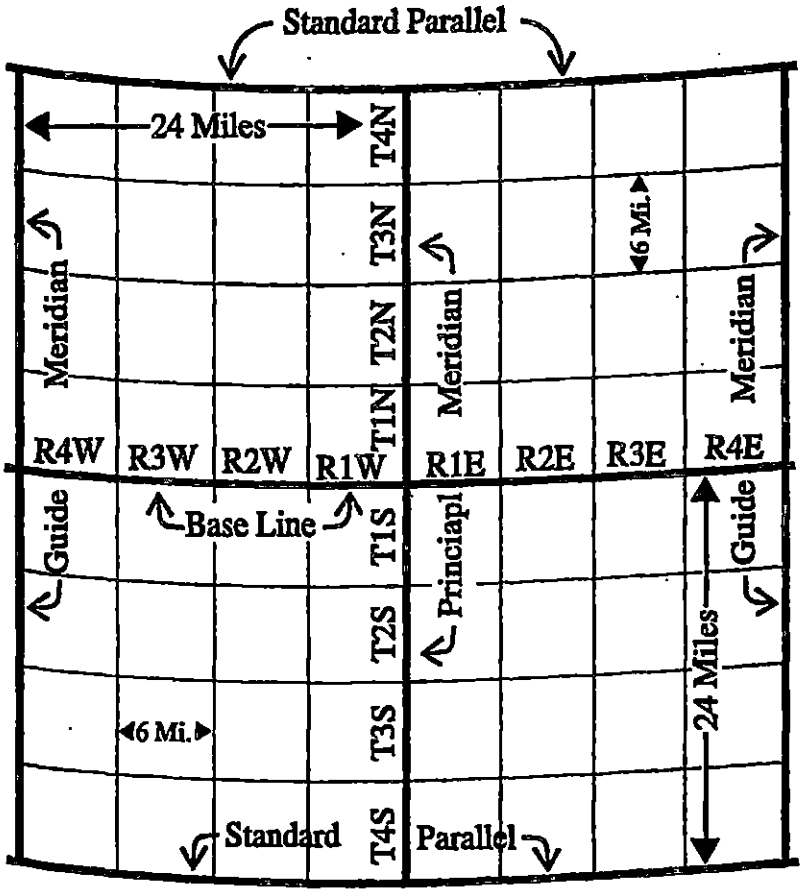
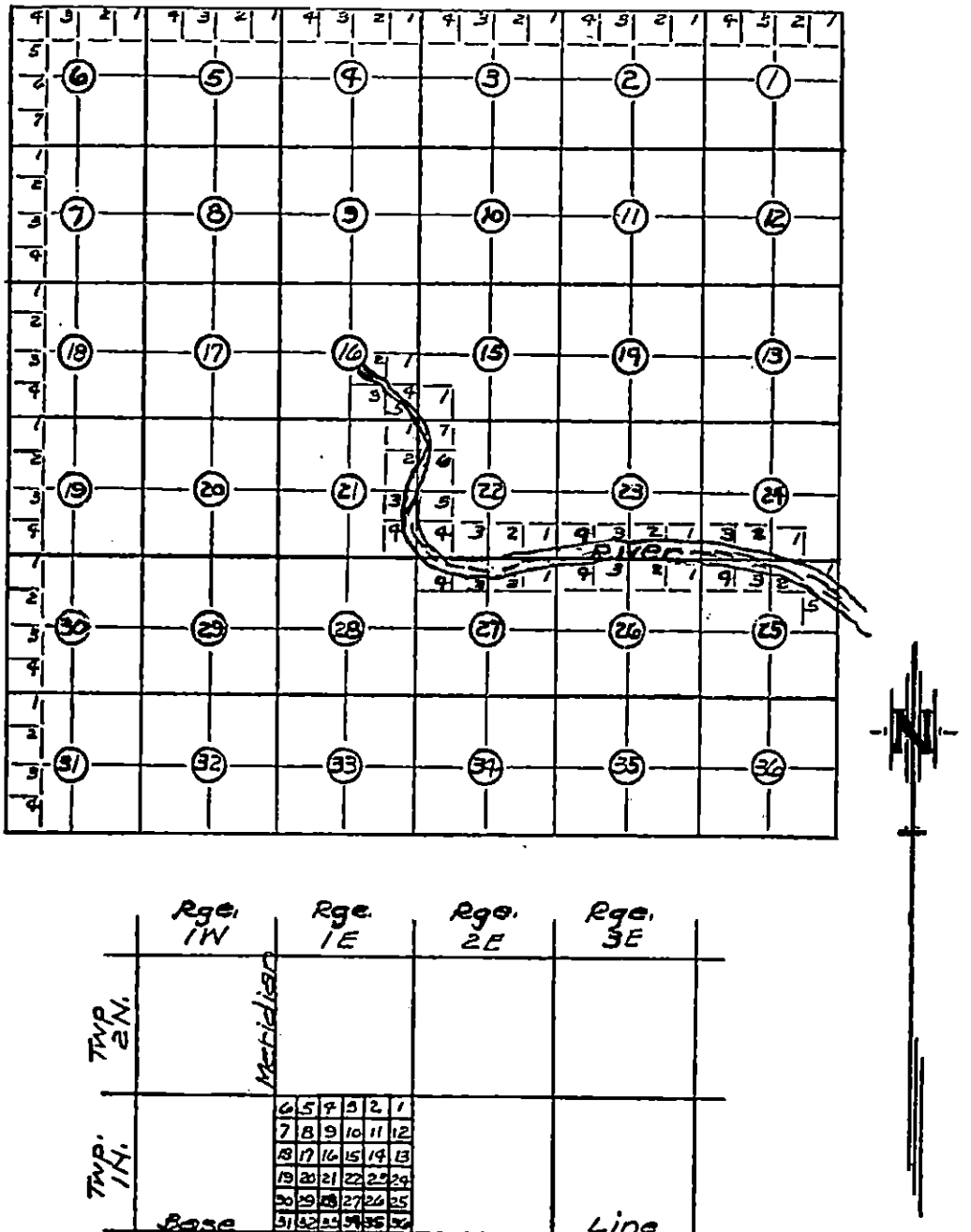


Figure 2: Townships and Ranges


River

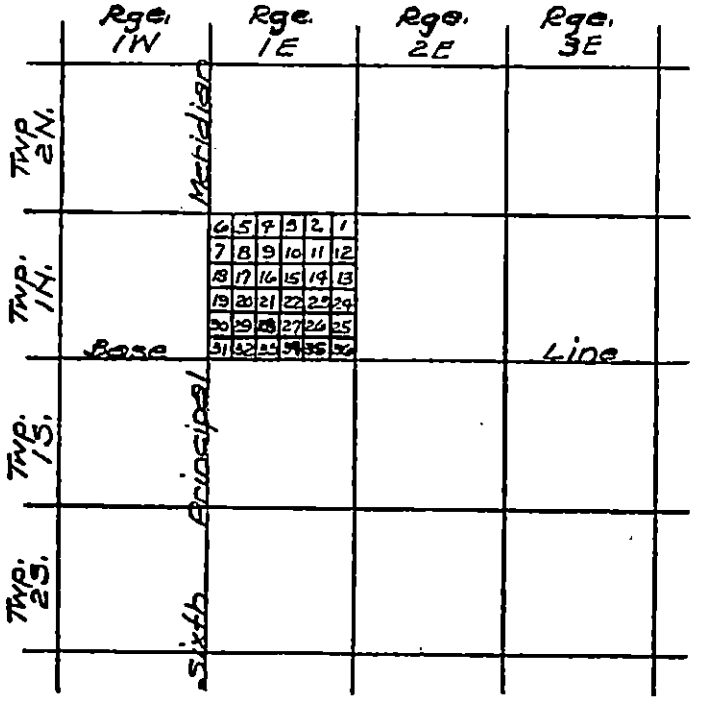

Rge. 1W
Rge. 1E
Rge. 2E
Rge. 3E
Twp. 2N.
Twp. 1N.
Twp. 1S.
Twp. 2S.
Meridian
Base
Line
Principal
Sixth

Figure 3

PLAT OF GRANITE

Scale 2 Inches to the Mile. Township 1 South. Range 19 West, of the 6th Principal Meridian.

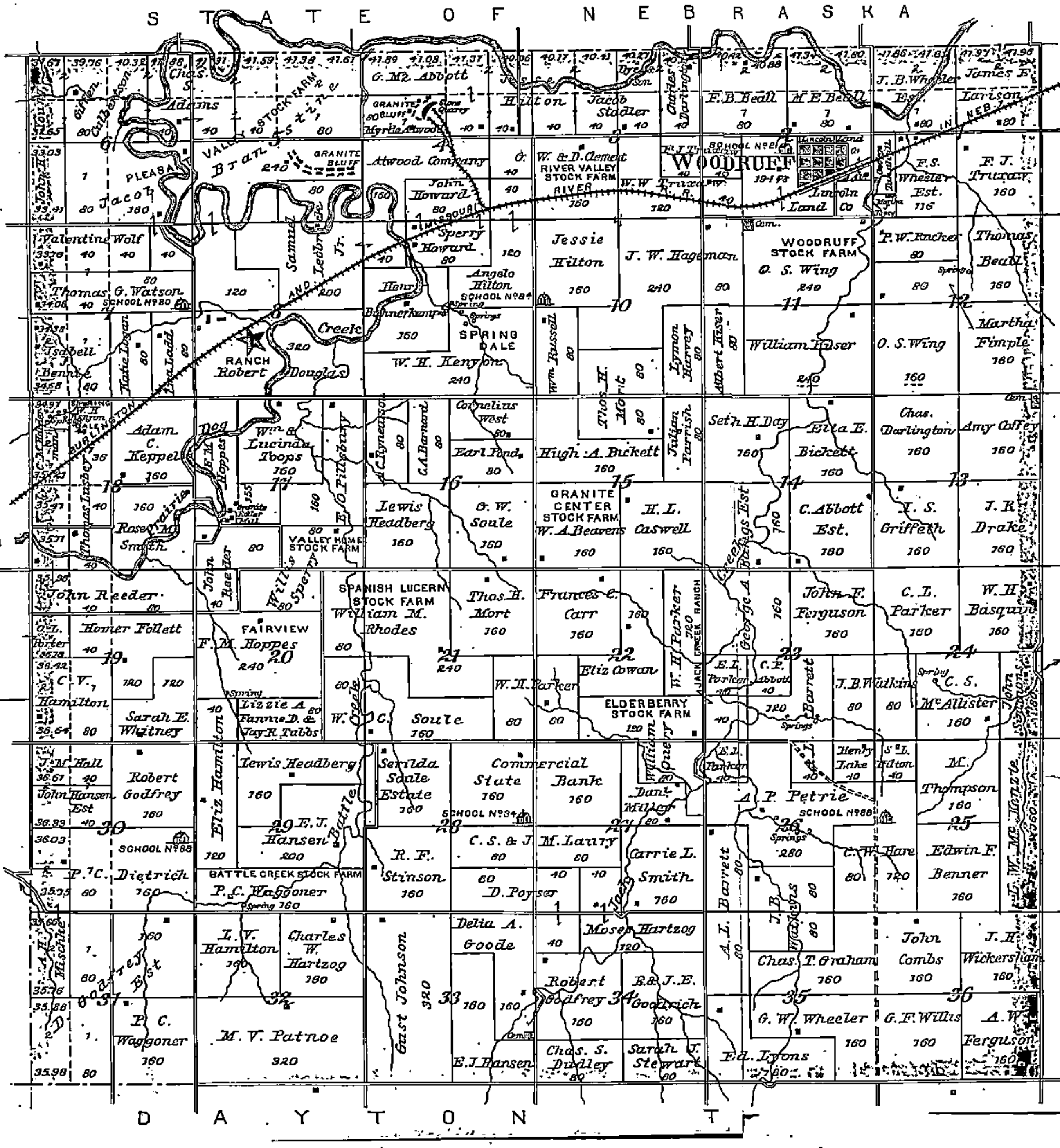


Figure 4

2

DIAGRAM

Showing Official Plat of a Township Sectionized and Numbered by Government Surveyors with the fractions on North and West side of Township with plan of numbering fractional Lots where bounded by Lake or Creek.

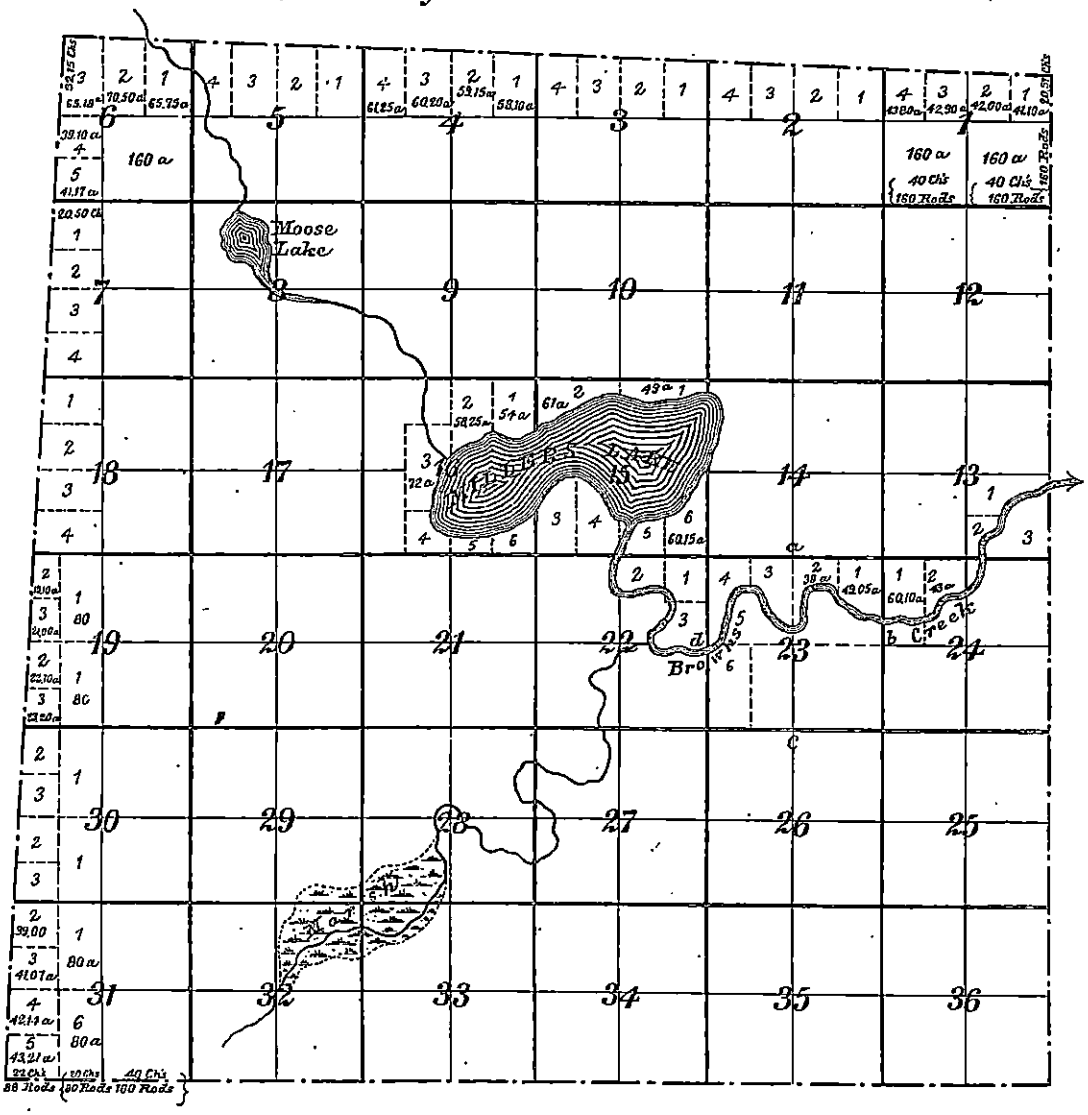
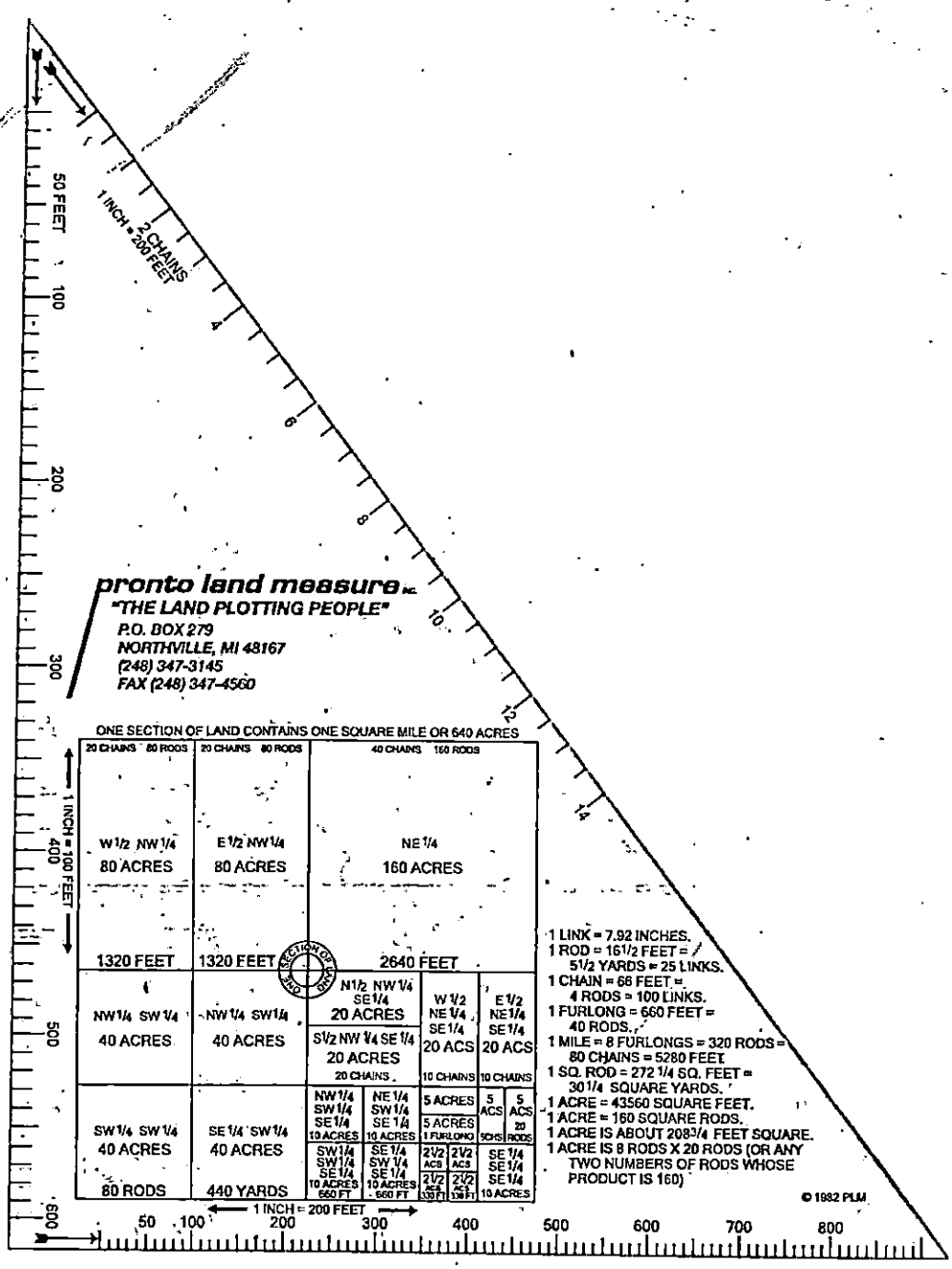
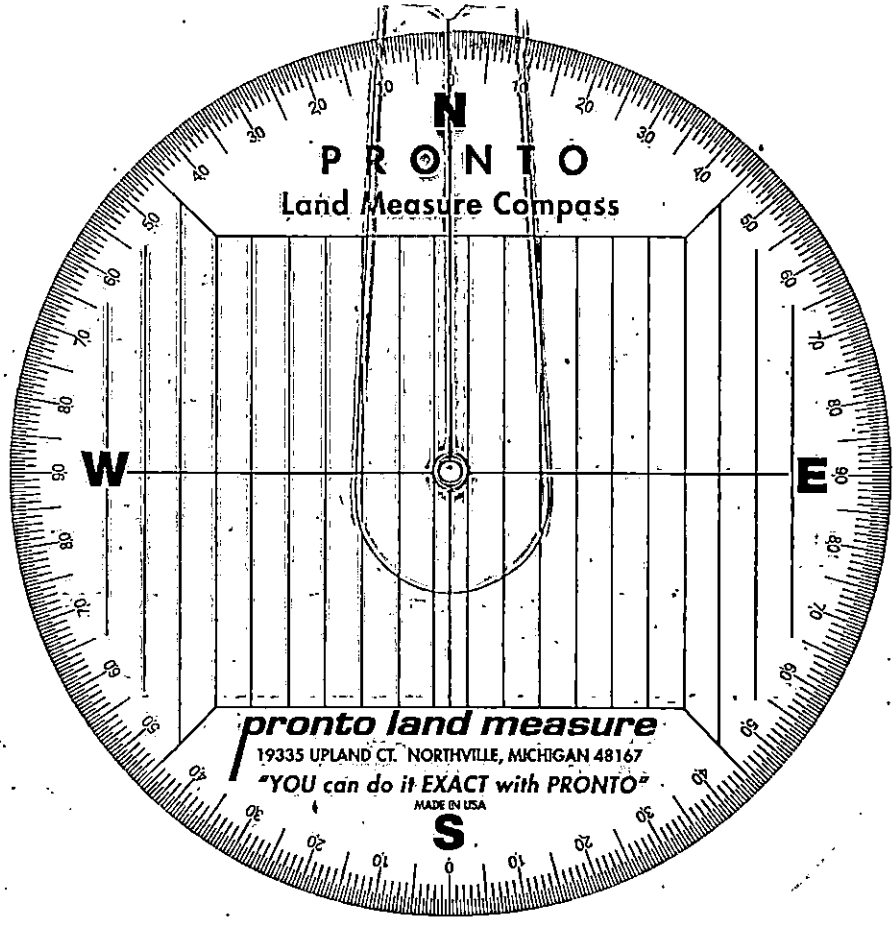


Figure 5


1 INCH = 2 CHAINS
1 INCH = 200 FEET
50 FEET
100
200
300
400
500
600
2
4
6
8
10
12
14
pronto land measure inc.
"THE LAND PLOTTING PEOPLE"
P.O. BOX 279
NORTHVILLE, MI 48167
(248) 347-3145
FAX (248) 347-4560
ONE SECTION OF LAND CONTAINS ONE SQUARE MILE OR 640 ACRES
20 CHAINS 80 RODS
20 CHAINS 80 RODS
40 CHAINS 160 RODS
W 1/2 NW 1/4
80 ACRES
E 1/2 NW 1/4
80 ACRES
NE 1/4
160 ACRES
1320 FEET
1320 FEET
2640 FEET
ONE SECTION OF LAND
1 INCH = 100 FEET
NW 1/4 SW 1/4
40 ACRES
NW 1/4 SW 1/4
40 ACRES
N 1/2 NW 1/4 SE 1/4
20 ACRES
S 1/2 NW 1/4 SE 1/4
20 ACRES
20 CHAINS
W 1/2 NE 1/4 SE 1/4
20 ACS
10 CHAINS
E 1/2 NE 1/4 SE 1/4
20 ACS
10 CHAINS
SW 1/4 SW 1/4
40 ACRES
SE 1/4 SW 1/4
40 ACRES
NW 1/4 SW 1/4 SE 1/4
10 ACRES
NE 1/4 SW 1/4 SE 1/4
10 ACRES
5 ACRES
1 FURLONG
5 ACS
5 ACS
20 RODS
SW 1/4 SW 1/4 SE 1/4
10 ACRES
660 FT
SE 1/4 SW 1/4 SE 1/4
10 ACRES
660 FT
2 1/2 ACS
2 1/2 ACS
2 1/2 ACS
2 1/2 ACS
SE 1/4 SE 1/4 SE 1/4
10 ACRES
80 RODS
440 YARDS
1 INCH = 200 FEET
50
100
200
300
400
500
600
700
800
1 LINK = 7.92 INCHES.
1 ROD = 16 1/2 FEET = 5 1/2 YARDS = 25 LINKS.
1 CHAIN = 66 FEET = 4 RODS = 100 LINKS.
1 FURLONG = 660 FEET = 40 RODS.
1 MILE = 8 FURLONGS = 320 RODS = 80 CHAINS = 5280 FEET.
1 SQ. ROD = 272 1/4 SQ. FEET = 30 1/4 SQUARE YARDS.
1 ACRE = 43560 SQUARE FEET.
1 ACRE = 160 SQUARE RODS.
1 ACRE IS ABOUT 208 3/4 FEET SQUARE.
1 ACRE IS 8 RODS X 20 RODS (OR ANY TWO NUMBERS OF RODS WHOSE PRODUCT IS 160)
© 1982 PLM


N
PRONTO
Land Measure Compass
W
E
S
pronto land measure
19335 UPLAND CT. NORTHVILLE, MICHIGAN 48167
"YOU can do it EXACT with PRONTO"
MADE IN USA