

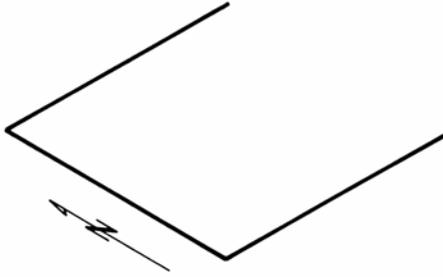
## **Chapter A**

### **Corner Identification in Payson, Arizona**

**A15**

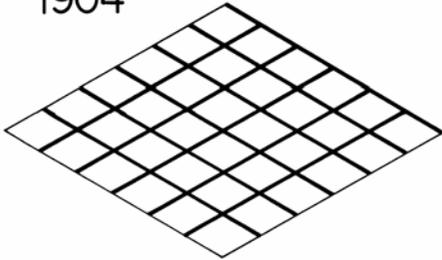
## History of Surveys

1904



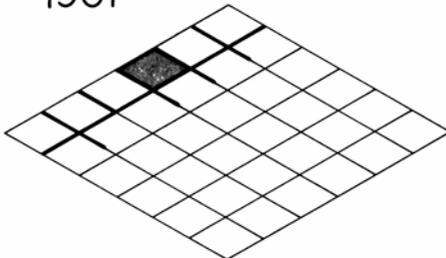
1904 Charles L. Campbell and Ivan E. Oakes surveyed the north, south and west boundaries of T. 10 N., R. 10 E., in July 1904.

1904



1904 Ivan E. Oakes surveyed the subdivisinal lines.

1907



1907 Charles L. Campbell made a corrective survey of the northern tier of sections and portions of the north boundary, including all of the lines around section 3. Figure 1 is a portion of the original plat, approved December 11, 1908.

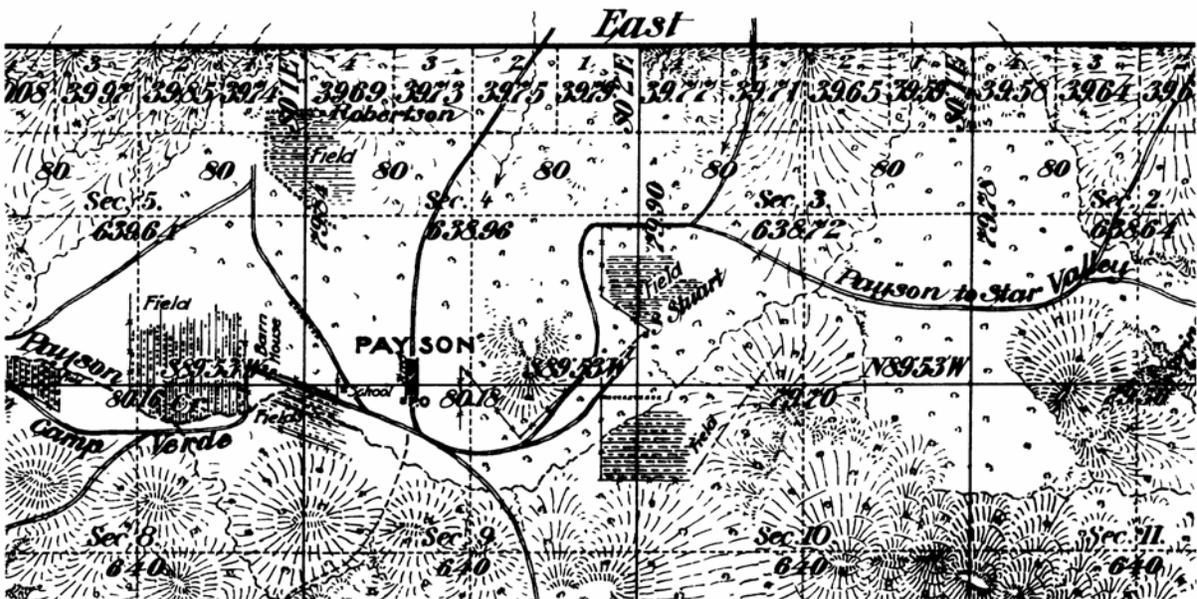


Figure 1- Plat Detail

*Township N° 10 North Range N° 10 East, Gila and Salt River Meridian Arizona.*

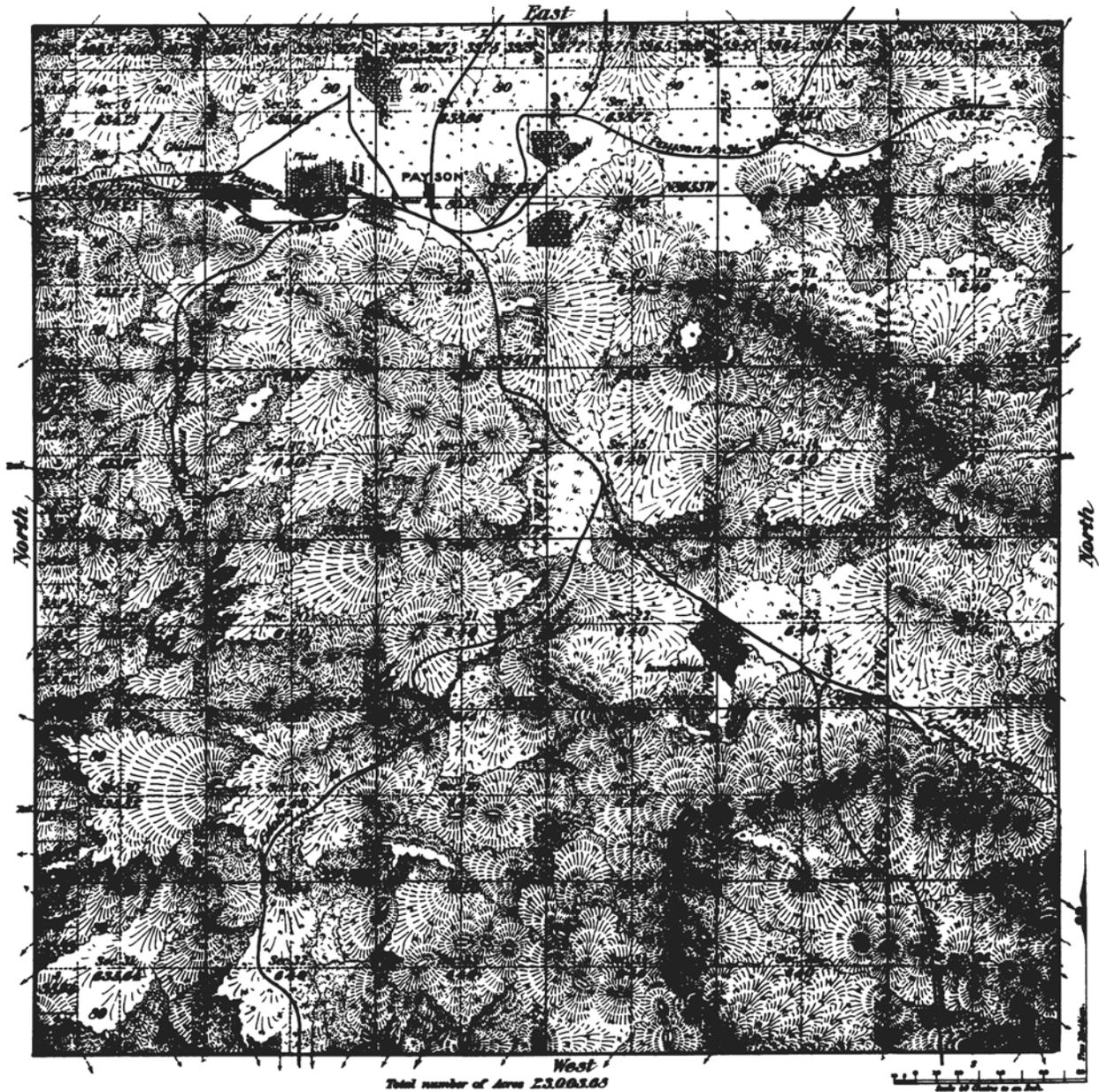
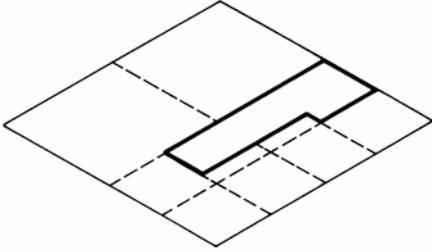


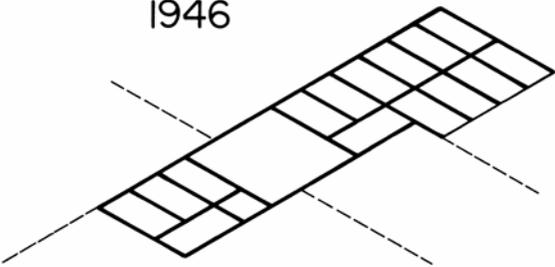
Figure 1 – Portion of the Original Plat

1946

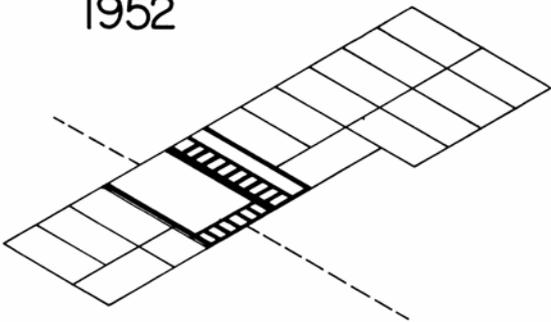


Private survey, Plat No. 73, Earl Russell Subdivision, dated 1946 and detail.

1946

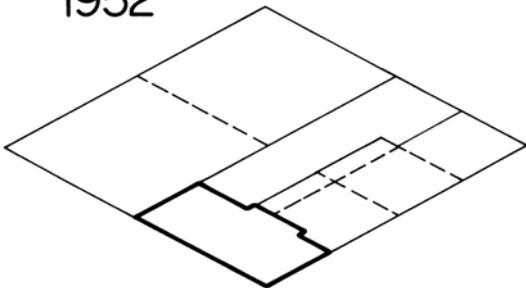


1952



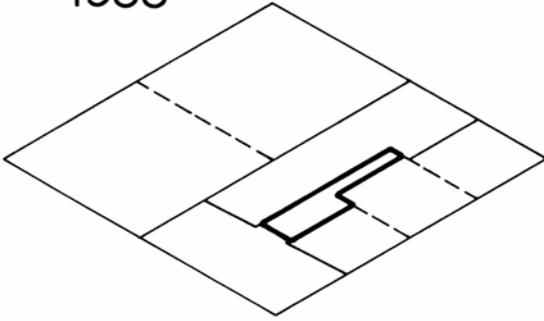
Private survey, Plat No. 114, Russell Add., Plat 1 A, dated 1952.

1952



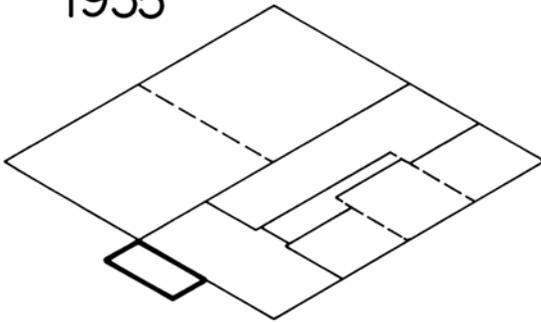
Private survey, Mogollan Rim Addition

1955



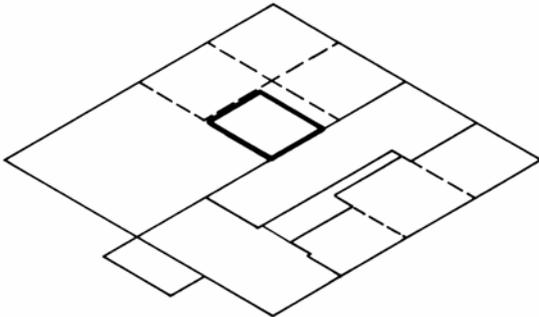
Private survey, Plat No. 150, Mogollon Rim Add., Plat Two, dated 1955.

1955



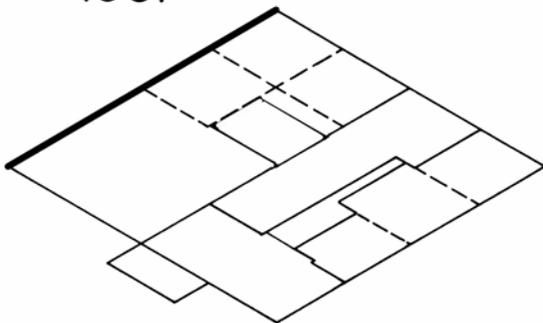
Private survey, Plat No. 150, Mogollon Rim Add., Plat Three, dated 1955.

1966



Private survey, Survey for Bill Miller, dated 1966.

1967



1967 The north boundary of the township was resurveyed under Group 456, Arizona.

**Reasons for Request of this Survey**

The town of Payson, Arizona is located in section 3 as well as adjacent sections. Most of section 3 is patented. The remaining public lands are part of the Tonto National Forest. Figure 2 is the Master Title Plat of section 3, with patent dates added. There were about 15 "City Subdivision" plats recorded for lands within the section up to the year 1967, as well as other private surveys within the section. This includes a private survey of Patent No. 02-67-0046 made in 1966 prior to the patent. This patent was issued to the Payson Investment Co., William Miller, Secretary, as part of an Exchange Agreement with the Forest Service in exchange for an H.E.S. in T. 11 N., R. 10 E. This patent is referred to as the "Miller Patent" in this discussion.

The Forest Service needed a definite determination of the boundaries of the Federal lands.

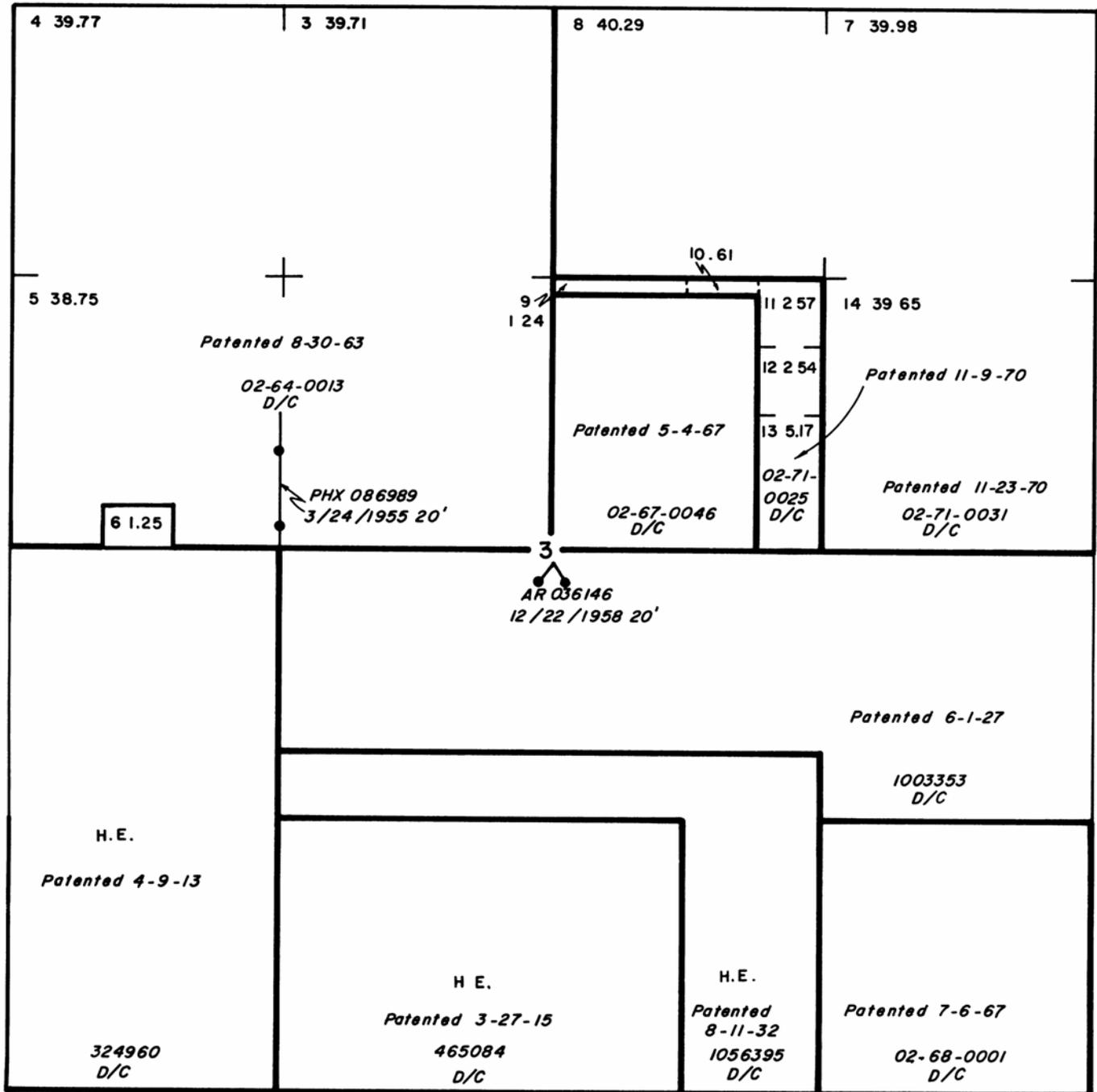


Figure 2 – Master Title Plat

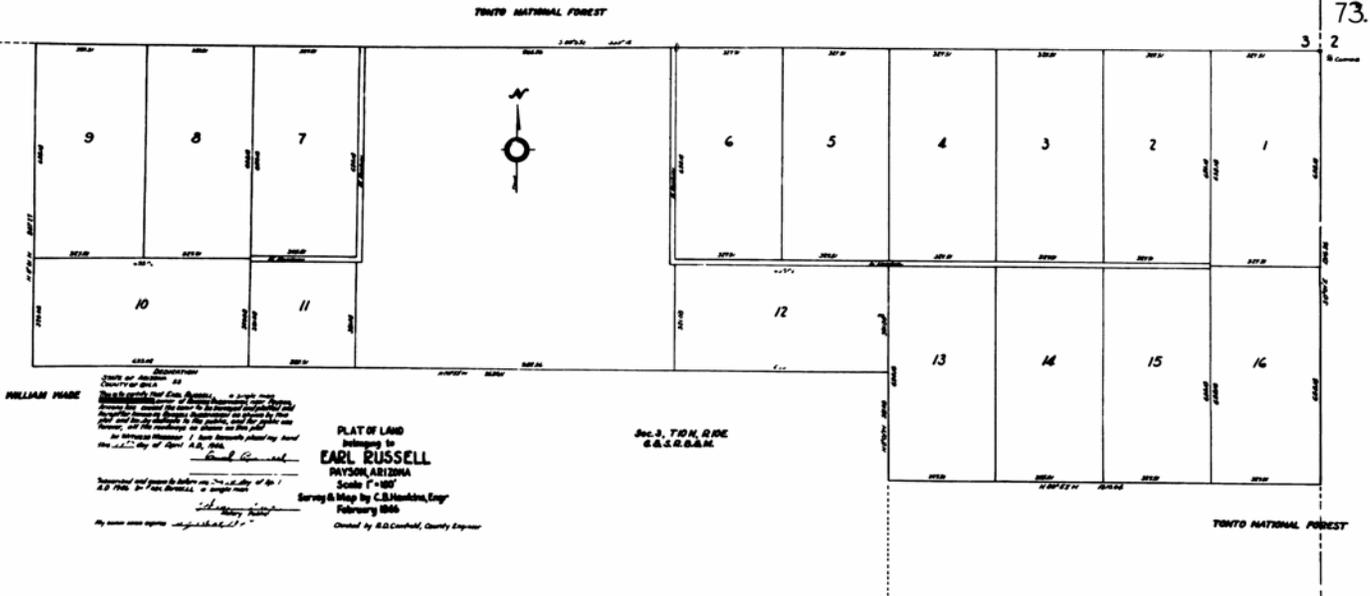


Figure 3 - Plat 73

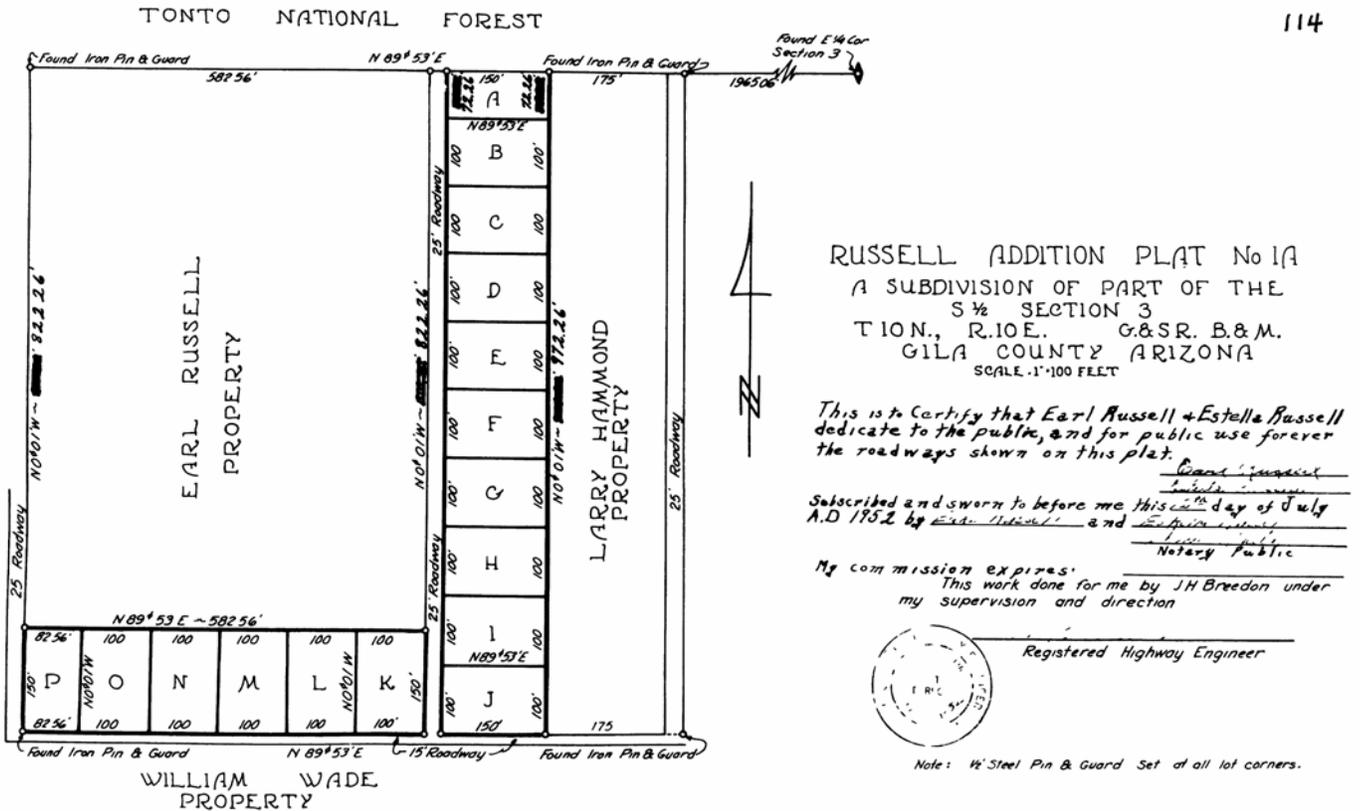


Figure 3 - Plat 114

### **Special Instructions**

At the request of the Forest Service, Special Instructions for Group 480 were issued on May 22, 1967. They provided for the dependent resurvey and subdivision of sections 3, 10, and 11, T. 10 N., R. 10 E. All corners which defined the boundaries of the remaining public lands were to be monumented, as was shown on a diagram which accompanied the Special Instructions. All of the NE1/4 of section 3, except the "Miller Patent" was Tonto National Forest lands.

### **Conditions Found on the Ground**

The boundaries of section 3 were retraced. The four corners of the section, the 1/4 section corner on the north boundary and the 1/4 section corner of sections 3 and 10 were all recovered in their original positions. These points had all been recovered by private surveyors and presented no problem.

This discussion will be limited to section 3. The centerlines of that section were run by random lines and investigation was made of the conditions existing within the section.

The most important of the fifteen urban subdivisions and local surveys which had varying effects on the subdivisional lines of section 3 are:

Plat No. 73, Earl Russell Subdivision, dated 1946.

Plat No. 114, Russell Add., Plat 1 A, dated 1952.

Plat No. 150, Mogollon Rim Add., Plat Two, dated 1955.

Plat No. 151, Mogollon Rim Add., Plat Three, dated 1955.

Survey for Bill Miller, dated 1966.

Plats 73 and 114 are shown by figure 3, part of Plat No. 150 by figure 4, Plat No. 151 by figure 5 and the survey of the Miller Patent by figure 6. Figure 7, an enlargement of the 1907 plat of section three, shows these surveys and their relative positions within the section. Figure 8 is a copy of the Miller Patent.



This is to certify that the survey and subdivision of the premises described and named herein were made under my direction during the month of June 1955

J. B. Holmquist  
Registered Civil Engineer

State of Arizona } ss  
County of Pima

Know All Men By These Presents:

That the Phoenix Title and Trust Company an Arizona corporation, Trustee, has subdivided under the name of MOGOLLON RIM ADDITION PLAT THREE the E 1/2 NE 1/4 SE 1/4 of Section 4, T 10 N, R 10 E, G & S B & M Gila County, Arizona and hereby publishes this plat as and for the plat of said Mogollon Rim Addition, Plat Three and hereby declares that said plat sets forth the location and gives the measurements and dimensions of the lots and streets constituting same and that each lot and each street shall be known by the number or name that is given to each respectively on said plat and the Phoenix Title and Trust Company as Trustee hereby dedicates to the public for use as such the streets shown on said plat and included in the above described premises

In witness whereof the Phoenix Title and Trust Company, as Trustee has hereunto caused its corporate name to be signed and its corporate seal to be affixed by the undersigned officers thereunto duly authorized this 1st day of June 1955

PHOENIX TITLE AND TRUST COMPANY, Trustee

By \_\_\_\_\_  
Vice President

Attest \_\_\_\_\_  
Assistant Secretary

State of Arizona  
County of \_\_\_\_\_

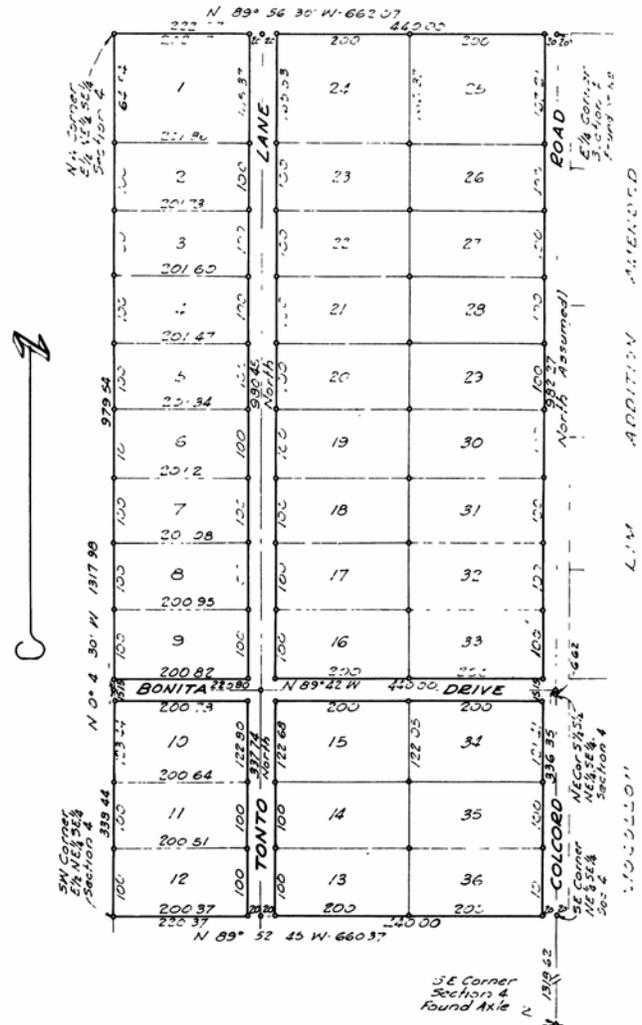
On this the \_\_\_\_\_ day of \_\_\_\_\_ 1955 before me the undersigned officer personally appeared \_\_\_\_\_ and \_\_\_\_\_ who acknowledged themselves to be Vice President and Assistant Secretary, respectively of the Phoenix Title and Trust Company a corporation and that they as such officers respectively being duly authorized so to do executed the foregoing instrument for the purposes therein contained by signing the name of the corporation, as Trustee by themselves as such officers respectively

In witness whereof I hereunto set my hand and official seal

\_\_\_\_\_  
Notary Public

My Commission expires \_\_\_\_\_

• Indicates pipe set unless otherwise noted



**MOGOLLON RIM ADDITION  
PLAT THREE**

A SUBDIVISION OF THE  
E 1/2 NE 1/4 SE 1/4 OF SECTION 4  
T 10 N, R 10 E - G & S B & M  
GILA COUNTY, ARIZONA

F N & J B HOLMQUIST - ENGINEERS  
JOB No 7127 MAP No D-6472

Scale - 1-Inch = 100 Feet

Figure 5 - Plat No. 151

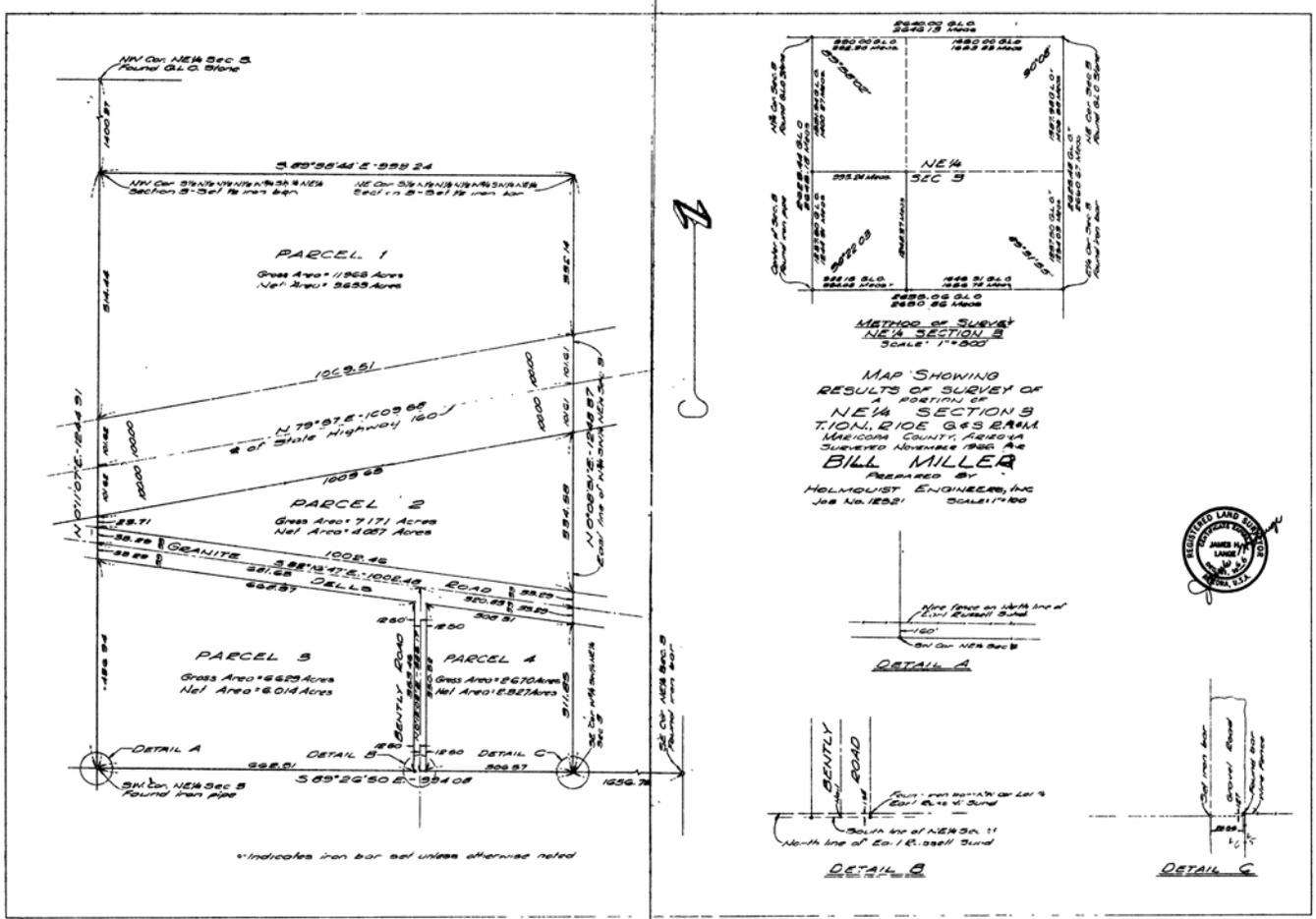


Figure 6 – Survey of Miller Patent

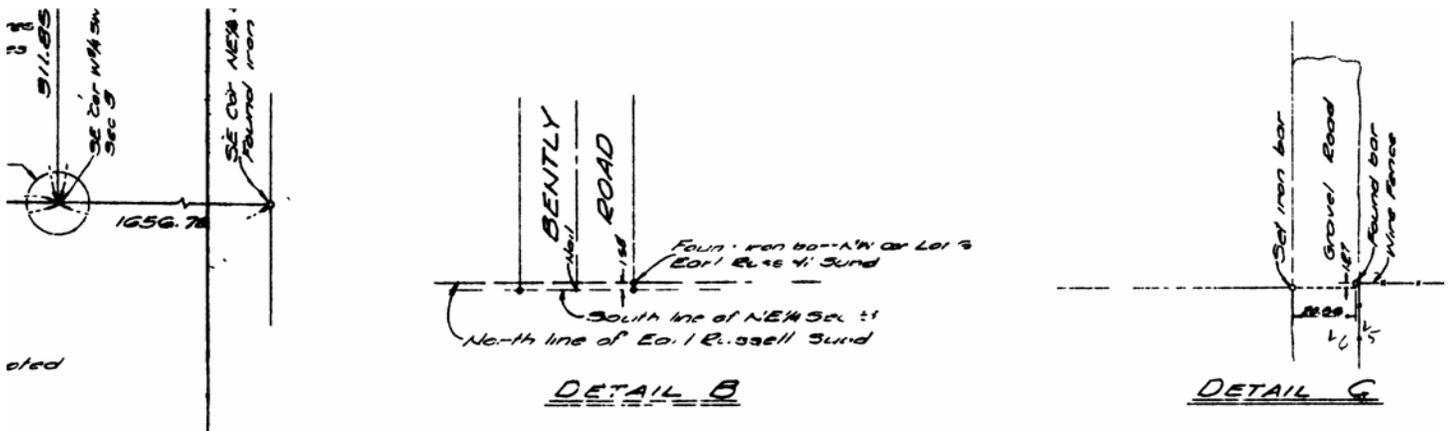


Figure 6 detail

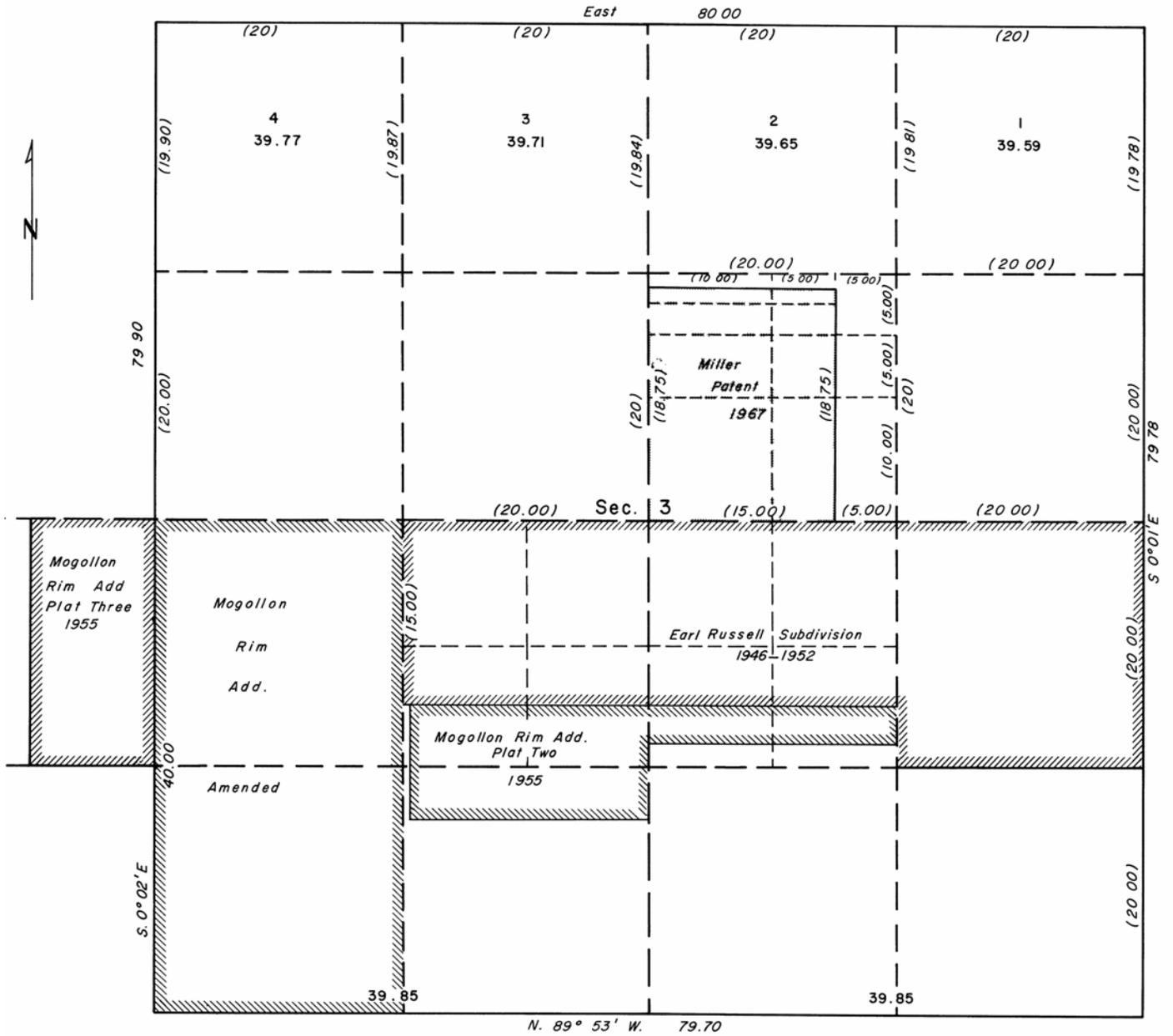


Figure 7 – Relationship of Surveys

The 1/4 section corner of sections 2 and 3 was restored at record bearing and distance from a remaining bearing tree. The abbreviated 1904 Oakes record of this corner reads as follows:

Set a granite stone, 18 x 10 x 6 ins., 12 ins.  
in the ground for 1/4 sec. cor., from which

A oak, 14", S. 23 1/4 ° E., 119 lks., mkd. 1/4 S2 BT  
A pine, 12", S. 78 3/4° W., 119 lks., mkd. 1/4 S3 BT

The corrective notes by Campbell in 1907 describing this corner read:

Set a granite stone, 18 x 10 x 6 ins., 12 ins. in  
the ground for 1/4 sec. cor., from which

A pine, 12", S. 60° W., 96 lks., mkd. 1/4 S3 BT  
An oak, 14", S. 48° E., 120 lks., mkd. 1/4 S2 BT

The 1967 resurvey notes at this corner read in part:

The 1/4 sec. cor. of secs. 2 and 3, determined from  
an original bearing tree

A juniper, 24 ins. diam., bears S. 48° E.,  
120 lks. dist., mkd. 1/4 S2 BT. (Record calls  
for an oak)

The 1/4 section corner of sections 3 and 4 was restored at record bearing and distance from the remaining original bearing tree. The 1904 Oakes record of this corner shows erasures. The record was corrected to read as follows, with the original (erased) data given in parentheses:

Set a granite stone, 18 x 8 x 8 ins., 12 ins. in  
the ground, for 1/4 sec. cor., marked 1/4 on W. face,  
from which

A cedar (juniper) 24 (9) ins. diam., bears  
N. 20° E., (S. 24° W.) 72 lks. dist., marked  
1/4 S3(4) BT.

A juniper (cedar) 9 (24) ins. diam., bears  
S. 24° W. (N. 20° E.) 56 lks. dist., marked  
1/4 S. (3) 4 BT

The corrective survey notes by Campbell in 1907 read as follows:

Intersect the original 1/4 sec. cor., as marked  
witnessed and described as in the original field notes

The 1967 resurvey notes read in part:

The 1/4 sec. cor. of secs. 3 and 4, determined  
from an original bearing tree

A juniper, 11 ins. diam., bears S. 24° W.,  
56 lks. dist., mkd. 1/4 S4 BT.

This corner was not monumented.

# The United States of America,

To all to whom these presents shall come, Greeting:

WHEREAS Payson Investment Company is entitled to a Land Patent pursuant to the General Exchange Act of March 20, 1922 (42 Stat. 465), as amended by the Act of February 28, 1925 (43 Stat. 1090), for the following described lands:

Gila and Salt River Meridian, Arizona

T. 10 N., R. 10 E.,

Sec. 3, S  $\frac{1}{2}$  N  $\frac{1}{2}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$   
S  $\frac{1}{2}$  N  $\frac{1}{2}$  N  $\frac{1}{2}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ ,  
S  $\frac{1}{2}$  N  $\frac{1}{2}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ ,  
S  $\frac{1}{2}$  NW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ , SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ ,  
W  $\frac{1}{2}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ , SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$ ,  
S  $\frac{1}{2}$  NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$

Containing 28.125 acres;

NOW KNOW YE, that there is, therefore, granted by the UNITED STATES unto the above named claimant the land above described; TO HAVE AND TO HOLD the said land with all the rights, privileges, immunities, and appurtenances, of whatsoever nature, thereunto belonging, unto the said claimant, his successors and assigns, forever; Subject, however, to any vested and accrued rights therein; and

EXCEPTING AND RESERVING TO THE UNITED STATES from the land so granted:

A right-of-way thereon for ditches and canals constructed by the authority of the United States. Act of August 30, 1890, 26 Stat. 391; 43 U.S.C. 945.

IN TESTIMONY WHEREOF, the undersigned authorized officer of the Bureau of Land Management, in accordance with the provisions of the Act of June 17, 1948 (62 Stat. 476), has, in the name of the United States, caused these letters to be made Patent, and the Seal of the Bureau to be hereunto affixed.

[SEAL]

GIVEN under my hand, in Phoenix Arizona, the FOURTH day of MAY in the year of our Lord one thousand nine hundred and SIXTY-SEVEN and of the Independence of the United States the one hundred and NINETY-FIRST.

By /s/ Glendon E. Collins  
Manager, Arizona Land Office

## **Preliminary Statement of the Problem**

The subdivision of section three is a dependent resurvey of a number of existing private surveys as well as subdivision of a section.

Because the entire problem is known only as the resurvey proceeds, the north-south centerline of section three was surveyed from the  $\frac{1}{4}$  section corner of sections 3 and 10 to the accepted center  $\frac{1}{4}$  section corner established in 1955, as shown in figure 4. The line was surveyed from the center  $\frac{1}{4}$  section corner to the accepted  $\frac{1}{4096}$  section corner established as the northwest corner of the Miller Patent, figure 6. The center N-S  $\frac{1}{64}$  section corner was established by proportion between these two accepted monuments. From the  $\frac{1}{4096}$  section corner the north-south centerline was surveyed to the original  $\frac{1}{4}$  section corner on the north boundary of section 3, and the center N  $\frac{1}{16}$  section corner established on the line at proportionate distance, based on the original plat.

The  $\frac{1}{4}$  section corner of sections 2 and 3 was monumented at the 1907 record bearing and distance from the juniper (oak) bearing tree. The east-west centerline was then surveyed to a  $\frac{1}{2}$  inch diameter iron rod monument, accepted as the center E  $\frac{1}{16}$  section corner, found in an east-west fence along the north boundary of the Russell Subdivision, figure 3. The line was then run to a  $\frac{3}{4}$  inch diameter iron rod monument marked for "Bill Millers SE corner." This point was set in 1966 (figure 6). The line was then surveyed to a square iron peg monument accepted for the center W-E  $\frac{1}{64}$  section corner. (The field notes state that a  $\frac{3}{4}$  inch diameter iron rod bears north,  $2\frac{1}{2}$  links distance from that point.) From the accepted center W-E  $\frac{1}{64}$  section corner the centerline was then surveyed to the accepted center  $\frac{1}{4}$  section corner. The line was then surveyed to the  $\frac{1}{4}$  section corner of sections 3 and 4, which was reestablished at the 1907 record bearing and distance from the remaining original bearing tree described above.

The NE  $\frac{1}{4}$  of section 3 was then subdivided. The north-south centerline of the NE  $\frac{1}{4}$  was surveyed on a straight line from the accepted center E  $\frac{1}{16}$  section corner to the E  $\frac{1}{16}$  section corner on the north boundary of the section. The east-west centerline of the NE  $\frac{1}{4}$  was surveyed on a straight line from the N  $\frac{1}{16}$  section corner of sections 2 and 3 to the center N  $\frac{1}{16}$  section corner. The NE  $\frac{1}{16}$  section corner was established at the intersection with the east-west centerline of the NE  $\frac{1}{4}$ . The points for the center S-NE  $\frac{1}{64}$  and center N-S-NE  $\frac{1}{256}$  corners were established at proportionate positions between the center E  $\frac{1}{16}$  section corner and NE  $\frac{1}{16}$  section corners. The center E-W-NE  $\frac{1}{256}$  and center W-NE  $\frac{1}{64}$  corners were established at proportionate distances between the N E  $\frac{1}{16}$  and center N  $\frac{1}{16}$  section corners.

The SW  $\frac{1}{4}$  of the NE  $\frac{1}{4}$  of the section was then subdivided. A straight line was surveyed from the accepted center W E  $\frac{1}{64}$  section corner to the center W-N E  $\frac{1}{64}$  section corner, with the SW-NE  $\frac{1}{64}$  section corner established at the intersection with the east-west centerline of the SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  of section 3. The center N-SWN E  $\frac{1}{256}$  section corner was established at midpoint between the SW-NE  $\frac{1}{64}$  and the center-W-NE  $\frac{1}{64}$  section corners. The east-west centerline of the SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  was surveyed on a straight line from the center-S-N E  $\frac{1}{64}$  section corner to the center-S-N  $\frac{1}{64}$  section corner. The center-E-SW-NE  $\frac{1}{256}$  section corner was set at midpoint between the center-S NE  $\frac{1}{64}$  and the SW-N E  $\frac{1}{64}$  section corners.

Finally the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  of section 3 was subdivided. The north-south centerline was surveyed from the center E-SW-NE  $\frac{1}{256}$  corner to the accepted  $\frac{1}{4096}$  corner monumented with a  $\frac{3}{4}$  inch diameter iron rod marked for the "N E corner Bill Miller" set in 1966, figure 6. The line was then run to the center E-W-NE  $\frac{1}{256}$  corner. The east west centerline of the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  of section 3 was surveyed as a straight line from the center N-S-NE  $\frac{1}{256}$  corner to the center N-SW-NE  $\frac{1}{256}$  section corner, with the NESW- NE  $\frac{1}{256}$  section corner at the point of intersection of the centerlines. This completed the subdivision of section 3 to the extent required to define the boundaries of the remaining public lands in the NE  $\frac{1}{4}$  of the section.

The field notes and plat were prepared and transmitted to the Washington Office. They were accepted on February 13, 1969. A portion of the accepted plat is shown in figure 9.

## **Regulations**

This survey illustrates the application of the following sections of the Manual of Surveying Instructions, 1973:

3-86, 3-87, 3-89, 3-91, 3-92, 7-8, 7-11 7-12,	Subdivision of sections
3-109, 5-4 to 5-14	Identification of existent corners
6-12 to 6-16	Bona fide rights of claimants
6-25 to 6-32	Dependent resurvey

## **Legal Constraints**

The law states that the boundaries and subdivisions of the public lands as surveyed under approved instructions by duly appointed engineers and subsequent approvals are unchangeable after passing of title by the United States. The surveys referred to were original surveys, however. The Act of March 3, 1909 and later amendments provides for resurveys with the important proviso:

"Provided, that no such resurvey or retracement shall be so executed as to impair the bona fide rights or claims of any claimant, entryman, or owner of lands affected by such surveyor retracement. "

### **Amended Information**

A private surveyor engaged in surveying lands in the NW ¼ of section 3 protested the 1967 dependent resurvey position for the ¼ section corner of sections 3 and 4. The protest, filed on November 12, 1970, was based on the following evidence:

1. An 18x8x8 inch granite stone was found at a point 15.7 links north and 7.7 links east of the point determined in 1967. The stone, which was marked with a cross on top and ¼ on the south face, was buried 14 inches below the surface of a bladed road which bears north and south.
2. The plat of Mogollon Rim Addition, Plat Two, figure 4.
3. The Plat of Mogollon Rim Addition, Plat Three, figure 5.
4. A plat of the Mesa-Payson Highway, dated 1965. (This plat is not illustrated here.)
5. A copy of the field notes of the ¼ section corner of sections 3 and 4 and accessories, taken during the subdivision of section 3, in 1955, by the surveyors of the Mogollon Rim Additions. These notes show the same information as shown in figure 4, plus the notation at the ¼ section corner of sections 3 and 4:

W ¼ cor. Sec. 3 a granite stone  
under E & W Fence

marked ¼ on S face

W of S 10" Juniper

Blazed & scribed (Face)	47.7
E of N to <u>Face</u> 24" stump	35.2

Position?

The distances to the bearing trees from the stone are in feet which, converted to links, are: 47.7 = 72.3 links, 35.2 = 53.3 links. The trees in 1955 were then NE, 53.3 links and SW, 72.3 links as measured to the face of the bearing trees. A comparison with the original record(s) show these distances to be almost a direct reversal of the 1907 field notes, and in nearly exact agreement with what had been recorded in 1904 by Oakes, but later erased.

### **Final Statement of the Problem**

The surveyor must investigate the material submitted in the protest and determine if the corner was correctly restored or not. If the allegations are correct the survey must be corrected.

This evidence was submitted to the Washington Office and request was made for advice on how to proceed. On November 30, 1970 the Washington Office authorized an amendment to the 1967 dependent resurvey.



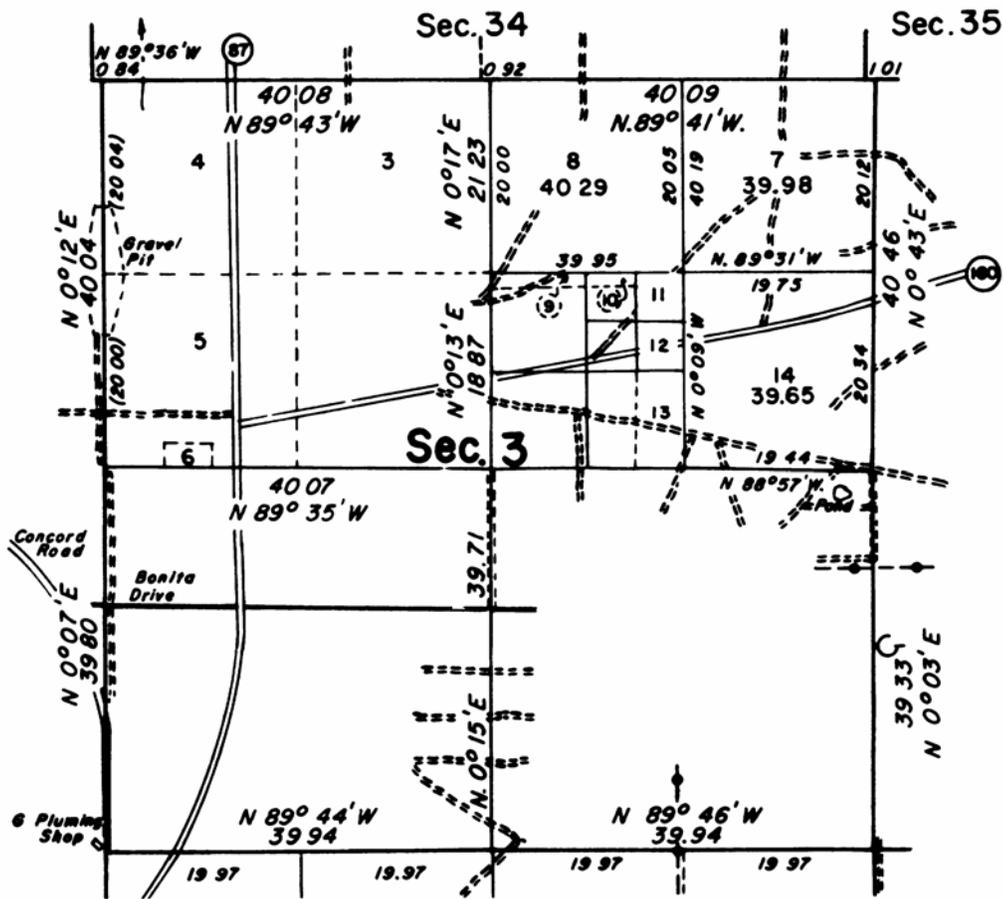


Figure 10 Detail