SUBDIVISION AND DETERMINATION OF FOREST BOUNDARY IN SECTIONS 34 AND 35, T.13S., R.27E., W.M. AND SECTIONS 1, 2 AND 11, T.14S., R.27E., W.M. GRANT COUNTY, OREGON.

Survey by: Susan E. Newstetter, P.L.S. 2405 D. Mitchell Ferguson, Surv. Tech. Rick Saul, Surv. Tech.

Reviewed by: Douglas M. Ferguson, P.L.S. 848 Drawn by Kenneth H. Delano Jr., L.S.I.T. 1273 M. Christopher Maynard

For: U.S.D.A. Forest Service Malheur National Forest.

HISTORY

1873 - William H. Byers, U.S. Deputy Surveyor, conducted a portion of the original subdivision of T.13S., R.27E., under GLO Contract No. 197 dated July 14, 1873 and approved March 31, 1874.

1880 — Levi L. Walker, U.S. Deputy Surveyor, completed the original subdivision and established the south boundary of T.13S., R.27E., under GLO Contract No. 374, dated September 27, 1880 and approved November

1896 - William E. Campbell, U.S. Deputy Surveyor, completed the subdivision of the northern portion of T.14S., R.27E., and retraced the south line of T.13S., R.27E., under GLO Contract No. 652, dated April 27, 1896 and approved February 10, 1897.

1939 - Leonard Carter, Public Land Surveyor, conducted a dependent resurvey along a portion of the south boundary of T.13S., R.27E., and a portion of the east boundary of T.14S., R.27E., under GLO Survey Group No. 213, dated March 3, 1938 and approved July 21, 1941.

1982 - Scott R. McIntyre, Cadastral Surveyor, conducted a dependent resurvey of a portion of the south line of T.13S., R.38E., W.M. under BLM Group No. 1112, dated June 14, 1982 and approved September 28, 1984.

1982 Scott R. McMullin, Cadastral Surveyor, conducted a dependent resurvey of the northern section lines of Sections 34-35, T.13S., R.27E., W.M. under BLM Group No. 1115, dated July 21, 1982 and approved October 26,

NARRATIVE

This survey was performed under contract for the Malheur National Forest for the purpose of marking and posting the Forest boundary in Sections 34 and 35, T.13S., R.27E., W.M., and Sections 1, 2 and 11 in T.14S., R.27E., W.M.

In order to perform this survey the traverse was run through all of the controlling corners. In T.13S., R.27E., I was not able to recover original corner evidence for the east and west one quarter section corners of Section 35 and subsequently reestablished them by single proportionate measure from recovered section corners one-half mile north and south. In addition I was not able to find any original corner evidence for the south one quarter section corner for Section 34 and also re-established it by single proportionate measure from recovered section corners one—half mile east and west.

As noted in the history of surveys, Levi. L. Walker completed the subdivision of T.13S., R.27E., along with establishing the south boundary of the township in 1880. In 1873 William H. Byers subdivided a portion of this township, and on this particular project he established the section corner to Sections 25, 26, 35 and 36. During Levi Walker's survey he found the section line between Sections 35 and 36 to be 80.20 chains long (as opposed to a normal 80 chains). This distance returned by Walker was subsequently used when I found I had to re-established the missing 1/4 S35|S36 by single proportionate measure.

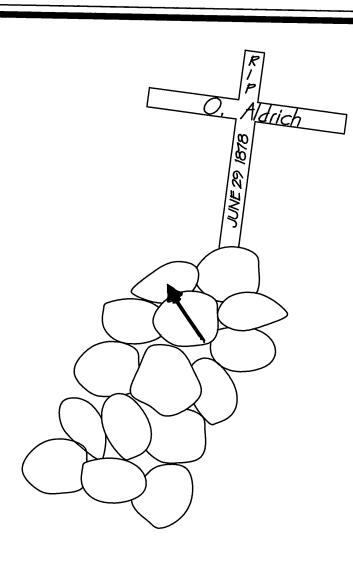
In T.14S., R.27E., I recovered all of the original corner evidence necessary for this project. In addition I also searched for ten line trees established by William E. Campbell, however I only recovered one with identifiable hacks on the north and south faces. I set a witness corner for this line tree. This line tree created an angle point in the section line as shown on my map of survey. All of the other line trees have apparently been lost to time and logging.

As shown on my map of survey, all of the closing corners, with the exception of were found to be off of the senior line

and were amended to the senior line as follows:

Projecting the bearing between the original evidence for the 1/4 corner one half mile south and this S3 S2 C C recovered original closing corner, I found the true point of intersection on the senior line to be S00'12'26"W, 7.04 ft. I amended the original monument and monumented the point of intersection.

Projecting the bearing between the original evidence for the 1/4 corner on the south line of Section 2 and this recovered original corner, I found the true point of intersection on the senior line to be N00'13'11"E, 10.54 ft. I amended the original monument and monumented the point of intersection



NARRATIVE CONT.

I established this corner on the senior line at mid-point longitudinally, utilizing cardinal equivalents between 1/4 S2 only and CC 1|2.

Projecting the bearing between the original evidence for the 1/4 corner one half mile south and this recovered original closing corner, I found the true point of intersection on the senior line to be N00°26'06" W, 15.25 ft. I amended the original monument and monumented the point of intersection

Projecting the bearing between the original evidence for the 1/4 corner on the south line of Section 2 and this recovered original corner, I found the true point of intersection on the senior line to be N00°20'19"E, 17.57 ft. I amended the original monument and monumented the point of intersection

> In addition to recovering the original stone and a bearing tree to this corner, I also found a 1939 GLO brass capped monument lying loose on the ground approximately 7 ft. north of the stone. I could find record of the GLO perpetuating this corner. I suspect the 1939 GLO surveyor, Leonard Carter, recovered this corner and before remonumenting discovered it was not included in his special instructions and just left the monument on the ground. I buried this monument north alongside my monumentation of the original corner

As noted above, I found this closing corner of Township 14 South, Ranges 27 and 28 East to be on the Senior line. In 1939, Leonard Carter recovered the original corner and remonumented it with a brass capped monument. He made no mention of it not being on the senior line. The distance he returned between this closing corner and the recovered 1/4 corner to the south is 50.16 ft. longer than the original surveyor's record. His record to the senior corner (township corner) to the east is only 3.96 ft. longer than the original surveyor's record. This makes me suspect he did actually move this corner to the senior line, since all of the closing corners I recovered were off line, however the record does not reflect he

The position of all of these original closing corners controlled the corner placements to the south as appropriate.

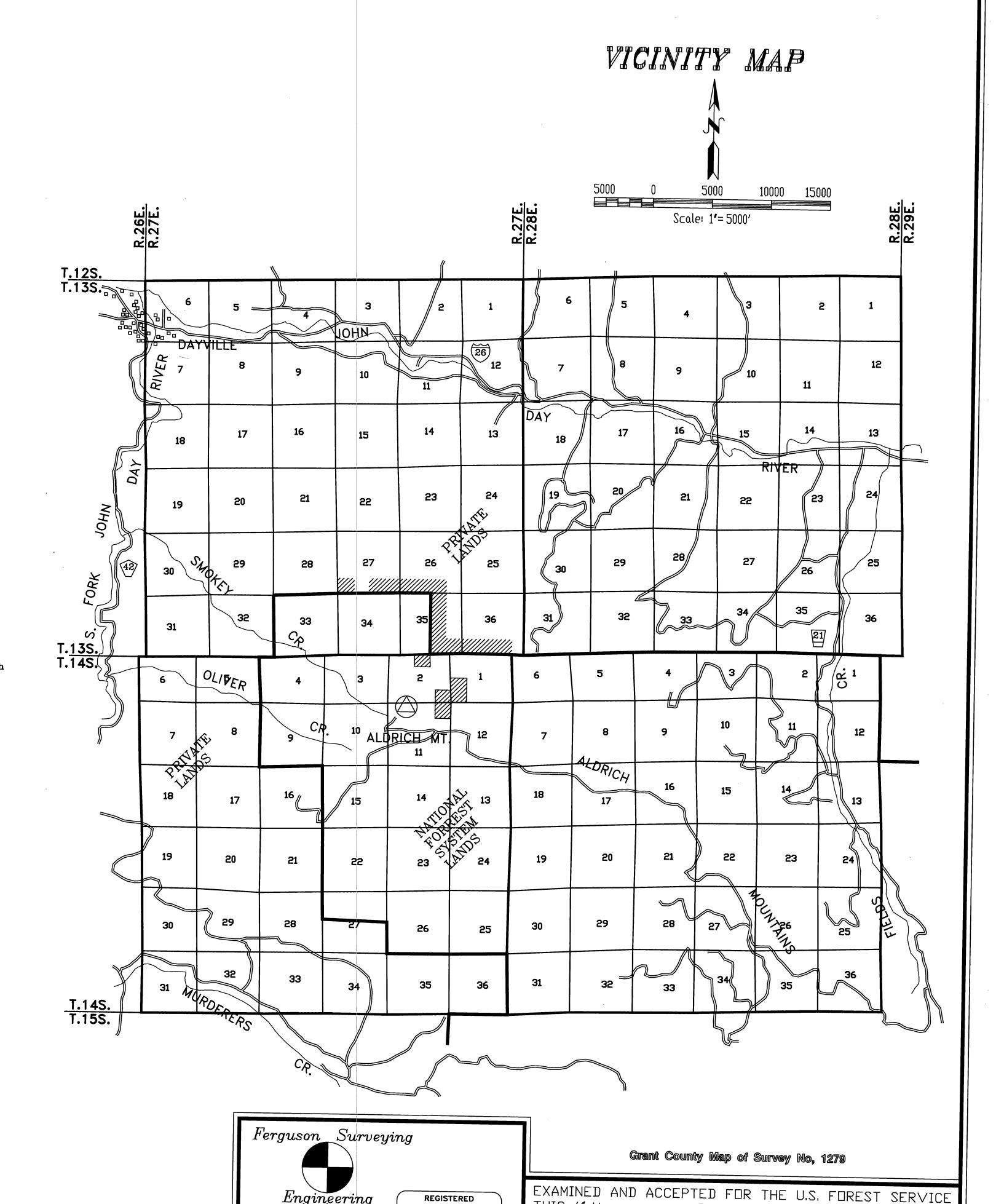
As noted in the history of surveys, in 1896, William E. Campbell completed the subdivision (N1/2) of T.14S., R.27E. and reran the south line of T.13S., R.27E., during the course of establishing closing corners on this north township line. In reading his notes I found Surveyor Campbell made many, many, topographical calls and set an abundance of line trees. As previously noted, there were 10 line trees in this project area. On the section line between Sections 1 and 2 he established 7 line trees alone.

The "Certified Record of Land Corner Monumentation" forms as referenced to this Map of Survey and the notes shown on the Map should be considered a substantial part of this Narrative as they contain detailed information as to the evaluation of evidence and monumentation work performed.

Positional control for this survey is provided by a closed traverse network. A Wild TC1600 total station was used to obtain measurements and field set monuments from the survey control. A Zeos Notebook computer (IBM compatible 386) utilizing Wildsoft software was used to perform the computations and the Map was prepared utilizing AutoCad r.12. The basis of bearing was determined by solar observation to determine a true meridian through the center of the project. Field notes and computations are on file in the office of Ferguson Surveying and Engineering, Mt. Vernon. Oregon 97865.

I, Susan E. Newstetter, Registered Professional Land Surveyor, in the State of Oregon, hereby certify that this Map, notes and records hereon or reference, are a correct representation of the survey I performed during the months of May 1992 - August 1993 for the U.S. Forest Service in accordance with the Statutes of the State of Oregon and the articles of my Contract Number 53-04KK-2-02803.

Susan & Newstetter, PCS SUSAN E. NEWSTETTER, PLS 2405 Staff Surveyor Ferguson Surveying and Engineering



Engineering

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LAND SURVEYOR

OREGON JULY 26, 1989

SUSAN E. NEWSTETTER

2405

RENEWAL DATE: 12/31/94

Susan & Newstelle

THIS 14th D SIGNATURE DE COLLEGE

DAY OF December 1993

FOREST SUPERVISOR