



SURVEY NARRATIVE TO COMPLY WITH PARAGRAPH 209.250
OREGON REVISED STATUTES

LOCATION: Section 21, Township 33 South, Range 1 East of the
Willamette Meridian, Jackson County, Oregon.

PURPOSE: To monument the boundary corners and post line markers
along that portion of the Elk Creek Project Boundary being
in Section 21, as shown on Segment 1 of the Corps of
Engineers Elk Creek Lake Real Estate drawings. The survey
was performed during August 1987 through May 1988.

PROCEDURE: Establishing Lambert State Plane Coordinate control:

Second order control monument Station LET, located in
the southeast quarter-section of adjoining Section 20 and
established by the Corps of Engineers in 1974, was used as a
basis of Lambert State Plane Coordinates (South Zone). The
1974 adjusted coordinates were used. The line from Station
LET to Station GBL, also established in 1974 and located in
the southeast quarter-section of Section 18, same township
and range, was used as a basis of bearing. The USCE record
bearing from LET to GBL = North 52°58'08.5" West.

All bearings and distances shown are on State Plane
Coordinate grid. Coordinates and distances are shown to .xxx
feet and bearings to .x seconds for mathematical consistency
only and are not intended to imply accuracy of survey.
An average latitude and elevation were used to compute
a single grid factor for each individual survey traverse.
The grid factor at Station YELLOW ROCK is:

Scale factor (latitude N 42°41'22") = 0.9999293
Elevation factor (2800') = 0.9998661
Combined (grid) factor = 0.9997954

All horizontal control established by this survey meets
requirements of 3rd Order, Class 1, National Oceanic and
Atmospheric Administration specifications for geodetic
control.

Establishing section subdivision control:

The project boundary within Section 21 is dependent
upon the subdivisional lines of the section. A series of
traverses were run, using an electronic "total station" 1
second theodolite and distance meter, to locate the
controlling section monuments and establish coordinates.
The four section corners and the east and west
quarter-section corners of Section 21 have been perpetuated
from original evidence. The south and north quarter-section
corners have been monumented at single proportionate
positions by private surveys.

The south one-sixteenth section corner between Sections
20 and 21 was monumented by the BLM in 1958. This monument
was found to be out of position by 24.62 feet, as shown on
the plat. This was considered to be outside of the allowable
"limits of closure" as outlined in the 1947 and 1973
editions of the Manual of Surveying Instructions, using a
ratio of 1/1280 for latitude and departure independently.
No monument was set at the computed position.

Using the section control determined as described
above, Section 21 was subdivided and monumented as shown on
the plat on sheet 1. The intermediate project boundary
monuments were positioned for intervisibility.

At monument 16/21-01-L on the north boundary of Section
21, a 5/8 inch diameter iron pin, set on Survey No. 9635,
was found S 35° E 0.11 ft. from the computed position.
Since this pin was exposed 15 inches out of the ground and
somewhat unstable, it was decided to set a new monument at
the computed location and lay the found pin alongside.

SECTION CONTROL - (Bearings oriented to true north)

FOUND:

Southwest corner of Section 21: Found, the 1958 BLM brass
cap on a 2.5" diameter pipe, exposed 9", and the
following bearing trees marked by the BLM in 1958:
16" fir with healed blazes bears N 48° E 26.7 ft.
12" fir with healed blazes bears S 48° E 35.6 ft.
13" fir with healed blazes bears S 48° W 16.7 ft.
14" fir with healed blazes bears N 58° W 20.4 ft.
Also found a 17" black oak, marked by the GLO, lower
blaze open and rotted, bears S 40° E 28.0 ft.

Northwest corner of Section 21: Found, the 1956 BLM brass
cap on a 2" diameter pipe, exposed 12" above a mound of
stone, from which stands the following original bearing
tree:
18" oak with healed blazes bears N64°33'E 12.0 ft.
Trees marked by the BLM in 1956 were found as follows:
16" pine with healed blazes bears N43°17'E 52.9 ft.
6" oak with healed blazes bears S70°46'E 52.1 ft.
13" fir with healed blazes bears S69°54'W 47.9 ft.
9" oak with healed blazes bears N58°06'W 42.2 ft.

Northeast corner of Section 21: Found, exposed 24" and
loose in a mound of stone, the 2.5" diameter
galvanized reducer, filled with lead, on a 1.5"
diameter iron pipe which was set on Filed Survey No.
2338, and the following original bearing trees:
18" white oak bears N 58°39' E 11.7 ft.
29" oak stump with ax marks bears S 66°56' E 47.9 ft.
The stump hole of a dead and down 10" oak with scribing
visible bears S 85°40' W 16.4 ft.
Trees marked on Survey 2338 in 1963 found as follows:
10" fir, dead, with healed blazes, bears N 17°37' E
16.0 ft.
11" oak with healed blazes bears S 21°33' E 43.4 ft.
12" fir with healed blazes bears S 62°13' W 8.4 ft.
14" fir, dead, with healed blazes bears N 7°39' W 22.8
ft.

Southeast corner of Section 21: Found, exposed 21", the
2.5" diameter galvanized reducer, filled with lead, on
a 1.5" pipe which was set on Filed Survey No. 2340, and
the following original bearing tree:
14" oak, dead, chopped open, no scribing visible, bears
N 38°56' E 24.1 ft.
Trees marked on Survey 2340 in 1963 found as follows:
12" fir, dead, with healed blazes, bears N 34°57' E
22.7 ft.
15" fir, dead, with two low healed blazes, bears S
32°18' E 14.0 ft.
11" fir, dead, with scribing visible, bears N 39°27' W
6.1 ft.

West quarter-section corner of Section 21: Found, the 1974
BLM brass cap on a 2.5" pipe, exposed 10" in a mound of
stone, and the following bearing trees:
44" oak with healed blazes, an original bearing tree,
bears S10°50'W 33.5 ft.
12" fir with healed blazes, marked by the BLM in 1974,
bears S43°36'E 19.7 ft.

East quarter-section corner of Section 21: Found, the
2.5" diameter galvanized reducer, filled with lead, on
a 1.5" pipe which was set on Filed Survey No. 2339, and
the following trees marked on that survey in 1963:
14" fir with healed blazes bears N 41°08' E 42.4 ft.
11" fir with healed blazes bears S 84°17' W 16.0 ft.

North quarter-section corner of Section 21: Found, the
2.5" diameter aluminum cap on a 2.5" dia. pipe, set by
single proportionate measurement on Survey No. 9635 in
1983, exposed 4", and the following tree marked at that
time:
18" forked madrone with scribing visible, bears
S 32°56' E 37.9 ft.

South quarter-section corner of Section 21: Found, the
5/8" diameter rebar with plastic cap set by single
proportionate measurement on Survey No. 9503 in 1983,
and the following trees marked at that time:
12" fir with scribing visible bears S 38° W 26.0 ft.
10" fir with scribing visible bears N 33° W 10.5 ft.

South sixteenth-section corner between Sections 20 and 21:
No monument found or set. The 1974 BLM brass cap on a
2.5" diameter pipe, exposed 4" in a mound of stone,
intended to mark the corner position, bears S 8°55'W
24.62 ft. From this monument the following trees were
found:
12" pine with scribing visible bears N 45° E 19.8 ft.
11" oak with scribing visible bears S 50° W 23.6 ft.

SET:

North sixteenth-section corner between Sections 20 and 21:
Set a 30" long Berntsen aluminum monument, exposed 3",
with the aluminum cap stamped as shown here, and marked
the following bearing trees:
6" black oak bears S 29° E 28.0 ft., 1988
marked "N 1/16 S 21 BT", N 1/16
4" black oak bears S 56° W 31.3 ft., S 20 + S 21
marked "N 1/16 S 20 BT", LS 1656

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Roger R. Roberts

OREGON
JULY 14, 1978
ROGER R. ROBERTS
1956

U.S. ARMY ENGINEER DISTRICT, PORTLAND

ROGUE RIVER BASIN
ELK CREEK LAKE
PROJECT BOUNDARY MONUMENTATION
SECTION 21, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON

SUPERVISED: <i>RRR</i>	DRAWN: H-P CAM	Ref: Real Estate Segment Map 1 NPPEN-SY-86-50
DATE: JUNE, 1988	SHEET: 2 of 2	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON