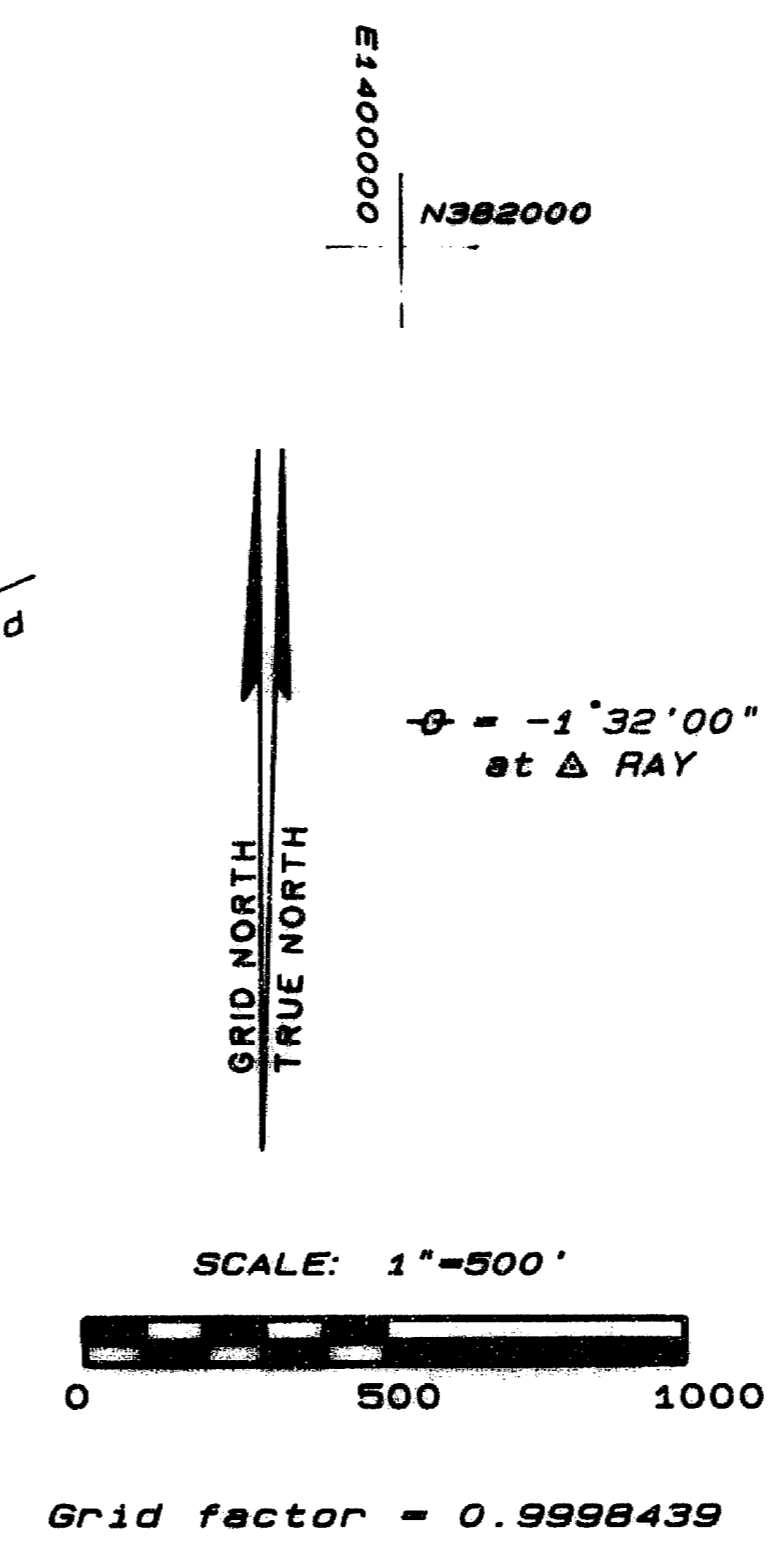


DESCRIPTION	LAMBERT COORDINATES NORTH	EAST
Control Station RAY	379190.617	1397431.544
Control Station FLO	379366.521	1398290.629
Control Station EC-45	377033.600	1397596.200
Control Station EC-44	377559.804	1397711.793
Sec cor 17, 18, 19, 20	382360.020	1399058.615
Sec cor 19, 20, 29, 30	377028.674	1398810.693
Sec cor 24, 25, 19, 30	377145.094	1393460.559
Sec cor 18/19 only	382388.667	1393639.875
1/4 cor Sec 24/19	379768.779	1393550.305
1/4 cor Sec 18/19	382372.450	1396387.214
1/4 cor Sec 19/20	379694.347	1398934.654
1/4 cor Sec 19/30	377212.229	1396140.693
1/4 cor Sec 25/30	374519.356	1393370.298
C 1/4 cor	379731.743	1396261.416
E 1/16 Sec 19/30	377120.427	1397475.254
E 1/16 Sec 18/19	382366.446	1397722.944
N 1/16 Sec 19/20	381027.183	1398996.634
CN 1/16	381052.097	1396324.345
CS 1/16	378471.719	1396201.193
CE 1/16	379713.045	1397598.035
SE 1/16	378417.223	1397536.645
NE 1/16	381039.640	1397660.485
Witness Point	379710.942	1397748.399
W-E 1/64	382369.448	1397055.079
C-W-E 1/64	379722.394	1396929.725
C-N-S 1/64	379101.728	1396214.305
NW-SE 1/64	379083.426	1396899.322
C-N-SE 1/64	379065.124	1397567.339
C-W-SE 1/64	378444.458	1396868.919
C-W-NE 1/64	381045.868	1396992.400
C-S-N-S 1/256	378786.720	1396216.249
C-S-NW-SE 1/256	378763.942	1396884.120

PROJECT BOUNDARY	NORTH	EAST
1/4 Sec 19/30	377212.229	1396140.693
19-01-R	N 2 45 00.5 E	135.229
19-02-R	N 2 45 00.5 E	240.239
19-03-R	N 2 45 00.5 E	533.327
19-04-R	N 2 45 00.5 E	352.141
CS 1/16	N 2 44 10.8 E	315.367
C-S-N-S 1/256	S 88 02 47.9 E	201.260
19-04-R	S 88 02 47.9 E	100.616
19-05-R	S 88 02 47.9 E	214.796
19-06-R	S 88 02 47.9 E	151.587
C-S-NW-SE 1/256	N 2 43 27.1 E	320.494
19-07-R	N 2 43 27.1 E	274.089
19-08-R	N 2 43 27.1 E	364.983
C-W-E 1/64	N 2 42 40.6 E	208.737
19-09-R	N 2 42 40.6 E	85.364
19-10-R	N 2 42 40.6 E	380016.166
19-11-R	N 2 42 40.6 E	202.816
19-12-R	N 2 42 40.6 E	178.185
19-13-R	N 2 42 40.6 E	528.210
19-14-R	N 2 42 40.6 E	174.724
19-15-R	N 2 42 40.6 E	97.132
19-16-R	N 2 42 40.6 E	261.378
19-17-R	N 2 42 40.6 E	498.392
19-18-R	N 2 42 40.6 E	176.543
W-E 1/64 Sec 18/19	S 89 44 32.9 E	209.769
18/19-01-R	S 89 44 32.9 E	115.177
18/19-02-R	S 89 44 32.9 E	226.961
18/19-03-R	S 89 44 32.9 E	115.965
E 1/16 Sec 18/19	S 89 44 32.9 E	382366.446



- LEGEND**
- △ - Found USCE brass disc, second order control monument
 - - Found bronze cap set by Bureau of Land Management
 - ⊙ - Found brass disc set by General Land Office
 - ⊙ - Found brass disc set by US Corps of Engineers
 - ⊙ - No monument found or set. See sheet 2 for additional information
 - ⊙ - Set Merntsen aluminum monument stamped with monument number, date, and "L.S. 1856". Alongside, set metal post with boundary sign.
 - ⊙ - Set brass disc on rock surface
 - ⊙ - General Land Office record measurements *
 - ⊙ - Bureau of Land Management record measurements *
- * not reduced to grid
** no monument set

I, Roger R. Roberts, registered land surveyor in the State of Oregon, hereby certify that this plat and notes hereon, or attached, are a correct representation of a survey I performed during April, 1987, through April, 1988, at the request of the U.S. Army Corps of Engineers, in accordance with the survey recording act of the State of Oregon, and articles of the Department of the Army, Portland District, Corps of Engineers, Contract No. DACW57-87-C-0054.

Roger R. Roberts
Roger R. Roberts

**** RECEIVED ****
Date 8/9/88 By SK
This survey consists of:
2 sheet(s) Map
0 page(s) Narrative
JACKSON COUNTY
SURVEYOR

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Roger R. Roberts
OREGON
JULY 14, 1978
ROGER R. ROBERTS
1856

U.S. ARMY ENGINEER DISTRICT, PORTLAND

**ROGUE RIVER BASIN
ELK CREEK LAKE
PROJECT BOUNDARY MONUMENTATION**

SECTION 19, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON

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

**SURVEY NARRATIVE TO COMPLY WITH PARAGRAPH 209.250
OREGON REVISED STATUTES**

SECTION CONTROL - (Bearings oriented to true north)

LOCATION: Section 19, 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 19, as shown on Segment 1 of the Corps of Engineers Elk Creek Lake Real Estate drawings. The survey was performed during April 1987 through January 1988.

PROCEDURE: Establishing Lambert State Plane Coordinate control:

Second order control monument Station RAY, 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 RAY to Station FLO, also established in 1974, was used as a basis of bearing. The USCE record bearing from RAY to FLO = North 47°54'44.8" East.

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 RAY is:

Scale factor (latitude N 42°41'05") = 0.9999300
Elevation factor (1800') = 0.9999139
Combined (grid) factor = 0.9998439

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 19 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 location of the southeast corner of the section falls in the construction area of the Elk Creek dam. The monument and all accessories were destroyed by excavation work. The coordinates used were those as determined by a registered surveyor (Oregon LS 1069) in 1986, just prior to the necessary destruction of the corner. For additional information, refer to the narrative that accompanies the project boundary map for Section 29, on file in the Jackson County Surveyor's Office as Survey No. 11179.

The northeast corner of the section, which had been perpetuated by the BLM from original evidence, falls in an area which has been cleared for quarry operations in conjunction with the dam construction. No evidence of the monument or corner accessories remains. The coordinate location was determined by references taken by Hoffbuhr & Associates, Inc., shortly before the corner was obliterated.

At the east quarter-section corner of Section 19, the 1974 monument set by the BLM has been destroyed by aggregate stockpiling operations. There were no corner accessories. The corner location was therefore determined by single proportionate measurement along the east boundary of the section. The latitude of this position was checked and verified by the easterly prolongation of the east-west centerline, from the west quarter-section corner of Section 19 through the witness point which was set by the BLM in 1974.

The northwest corner of Section 19 and the south quarter-section corner have been perpetuated from original evidence. The west and north quarter-section corners and the southwest section corner were monumented at single proportionate positions by the BLM in 1974. The positions of these monuments in relation to the controlling corners used for the proportioning were verified by field measurements. Also, a ground search was made for evidence of the original survey. None was found.

Using the control determined as described above, Section 30 was subdivided and monumented as shown on the plat on sheets 1 and 2. The intermediate project boundary monuments were positioned for intervisibility.

FOUND:

Northwest corner of Section 19: Found, the GLO brass cap on a 2" dia. pipe, set in 1917 from found original evidence, and the following bearing trees marked in 1917:
A 15" fir with healed blazes bears N 4°15' W 22.4 ft.
A 23" fir with healed blazes bears S 41°08' E 14.3 ft.
20" fir snag with scribing visible bears N 31°45' E 42.4 ft.
Also found were the following trees marked by the BLM in 1974:
13" madrone, scribing visible, bears N 38°15' E 29.7 ft.
A 13" fir with healed blazes bears S 67°19' E 43.1 ft.
An 8" fir of unknown origin, with healed blazes, bears S 59°40' W 36.8 ft.

Southwest corner of Section 19: Found, a brass cap on a 2.5" diameter pipe, established by proportionate measurement by the BLM in 1974, flush with the ground, and the following 1974 bearing trees:
17" dead fir snag, scribing visible in lower blaze, bears S 73°11' W 62.4 ft.
20" fir with scribing visible in lower blaze bears N 75°02' W 40.2 ft.
19" fir with scribing visible in lower blaze bears N 50°44' E 33.8 ft.
10" pine with healed lower blaze bears S 46°47' E 31.1 ft.

West quarter-section corner of Section 30: Found, a 4" bronze cap on a 1.5" diameter pipe, set by the US Corps of Engineers in 1968, exposed 8", from which an original bearing tree, now a 22" oak with rotted center, bears N 69°26' E 47.39 ft.
Additional bearing trees marked by Corps of Engineers were found as follows:
25" fir snag with scribing visible in lower blaze bears S 54°56' E 42.8 ft.
10" madrone with scribing visible in lower blaze bears S 51°17' W 23.3 ft.

South quarter-section corner of Section 19: Found, a 4" bronze cap on a 1.5" diameter pipe, set by the US Corps of Engineers in 1968, exposed 7", from which an original bearing tree, now an 18" oak, no scribing visible in open and rotted blazes, bears N 74°14' E 21.4 ft.
Additional trees marked by the Corps of Engineers were found as follows:
11" fir with healed blazes bears N 40°51' E 6.4 ft.
9" fir with scribing partially visible in lower blaze bears S 31°28' E 13.2 ft.

North quarter-section corner of Section 19: Found, the 1974 BLM brass cap on a 2.5" diameter pipe, flush in a mound of stone, and the following bearing trees:
20" pine with scribing visible bears N 45°53' E 33.8 ft.
13" fir with healed blazes bears S 28°30' W 65.4 ft.

West quarter-section corner of Section 19: Found, the 1974 BLM brass cap on a 2.5" diameter pipe, and the following bearing trees:
10" fir with healed blazes bears S 9°26' W 7.4 ft.
14" fir with healed blazes bears S 56°48' E 33.7 ft.

East sixteenth-section corner between Sections 19 and 30: Found the 1974 BLM brass cap on a 2.5" diameter pipe in a mound of stone, and the following 1974 bearing trees:
11" pine with scribing visible in lower blaze bears N 48° E 24.8 ft.
8" oak with healed blazes bears South 64° East 3.0 ft. (BLM record = 27.1 ft.)

East sixteenth-section corner between Sections 18 and 19: Found the 1974 BLM brass cap on a 2.5" diameter pipe, in a mound of stone, and the following bearing trees:
12" fir with healed blazes bears S 32° W 22.6 ft.
9" fir with partially healed blazes bears N 21° W 19.9 ft.

Center quarter-section corner of Section 19: Found the 1974 BLM brass cap on a 2.5" diameter pipe and the following bearing trees:
9" fir with healed blazes bears S 77° W 41.9 ft.
15" fir with healed blazes bears S 41° E 25.5 ft.

Center south sixteenth-section corner of Section 19: Found the 1974 BLM brass cap on a 2" diameter pipe in a mound of stone, and the following bearing trees:
7" pine with blazes partially healed and scribing visible bears N 18°22' W 9.0 ft.
7" cedar, scribing visible, bears S 51°12' E 17.2 ft.

Southeast sixteenth-section corner of Section 19: Found the 1974 BLM brass cap on a 2.5" diameter pipe, exposed 4", and the following bearing tree:
10" fir with healed blazes bears N 37°06' E 41.6 ft.

Witness point on the east-west centerline of Section 19: Found the 1974 BLM brass cap on a 2.5" diameter pipe, exposed 4", and the following bearing trees:
6" fir, dead, with scribing visible in lower blaze, bears N 44° E 45.9 ft.
7" fir, dead, with scribing visible, bears S 20° E 25.9 ft.

SET:

C-S-N-S 1/256 corner of Section 19:
Set a 30 inch long Berntsen aluminum monument, with the aluminum cap stamped as shown here. 1987 C-S-N-S 1/256 + S 19 LS 1656

C-S-NW-SE 1/256 corner of Section 19:
Set a 30 inch long Berntsen aluminum monument, with the aluminum cap stamped as shown here. 1987 C-S-NW-SE 1/256 + S 19 LS 1656

C-W-E 1/64 corner of Section 19:
Set a 30 inch long Berntsen aluminum monument, with the aluminum cap stamped as shown here. 1987 C-W-E 1/64 + S 19 LS 1656

W-E 1/64 corner between Sections 18 and 19:
Set a 30 inch long Berntsen aluminum monument, with the aluminum cap stamped as shown here. 1987 W-E 1/64 + S 19 LS 1656

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Roger R. Roberts
OREGON
JULY 14, 1976
ROGER R. ROBERTS
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ELK CREEK LAKE
PROJECT BOUNDARY MONUMENTATION
SECTION 19, TOWNSHIP 33 SOUTH, RANGE 1 EAST, W.M.
JACKSON COUNTY, OREGON**

SUPERVISED: <i>R.R. Roberts</i>	DRAWN: H-P CAM	Ref: Real Estate Segment Map 1 NPPEN-SY-88-50
DATE: MAY, 1988	SHEET: 2 of 2	PREPARED BY: HOFFBUHR & ASSOCIATES, INC. MEDFORD, OREGON