

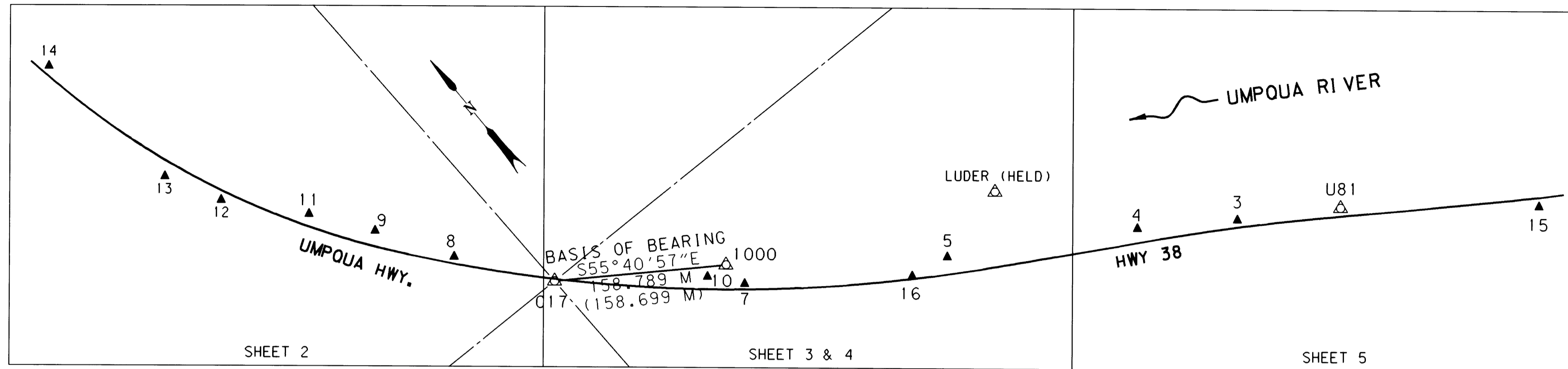
COUNTY SURVEYORS FILE DATA
DO NOT REMOVE FROM OFFICE

SECTION 17, T. 22 S., R.10 W., W.M.

FILED

Date: 11/30/2000 By: JP
This survey consists of: 5 pgs.
Map: M136-14 A
Narrative: _____
Corner Rpt: _____

DOUGLAS COUNTY
JP SURVEYOR



SURVEY NARRATIVE

THE PURPOSE OF THIS METRIC SURVEY WAS TO ESTABLISH HORIZONTAL CONTROL FOR AN OREGON DEPARTMENT OF TRANSPORTATION PROJECT CALLED "CHARLOTTE CR. - LUDER CR. PASSING LANE SECTION" ALONG HWY. 38 BETWEEN MILE POINTS 10.67 AND 11.79. THE CONTROL NETWORK WAS CONDUCTED BY AN OREGON DEPARTMENT OF TRANSPORTATION (ODOT) SURVEY CREW IN ROSEBURG FROM DECEMBER 20 TO DECEMBER 22, 1999. THE ORIGINAL FIELD NOTES ARE ARCHIVED IN SALEM AS BOOK #3712.

THE BASIS OF BEARING OF S 55°40'57" E WAS CALCULATED USING THREE FOUND MONUMENTS SHOWN ON DOUGLAS COUNTY SURVEYORS OFFICE (DCSO) MAP #M123-26. THESE THREE POINTS WERE NAMED "C17", "1009" AND "1000". "C17" IS THE CENTER OF SECTION 17, T 22 S, R 10 W., W.M. POINT "1009" AND "1000" ARE PRIVATE PROPERTY CORNERS. COORDINATES FOR "C17" WERE ASSUMED AND RECORD BEARINGS AND DISTANCES WERE USED TO CALCULATE COORDINATES FOR POINTS "1009" AND "1000". COORDINATES WERE THEN INVERSED BETWEEN POINTS "1000" AND "C17" TO OBTAIN THE BEARING BETWEEN "C17" AND "1000". THE CALCULATED BEARING AND FIELD MEASURED DISTANCE WERE THEN USED TO CALCULATE COORDINATES FOR POINT "1000". UPON COMPLETION OF THE NETWORK, THE PROJECT WAS MOVED ONTO THE ADJUSTED COORDINATES OF GPS POINT "LUDER". THE CONVERSION FACTOR USED TO CONVERT THE STATE PLANE COORDINATES OF "LUDER" TO A LOCAL DATUM PLANE IS 0.99992909.

THE COORDINATES FOR THIS SURVEY ARE ON A LOCAL DATUM PLANE REPRESENTING TRUE GROUND DISTANCES AND WERE DERIVED FROM THE 1983 (1991) OREGON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE. TO CONVERT METRIC COORDINATES AND DISTANCES TO ENGLISH, DIVIDE BY 0.3048

A LEICA "TCA 1800" TOTAL STATION (SERIAL NUMBER 418939) WAS USED TO MAKE THE NETWORK OBSERVATIONS. THE LEICA "TCA 1800" HAS THE FOLLOWING PRECISION: STANDARD ANGULAR ERROR OF +/- 1 SECOND, AND A STANDARD DISTANCE ERROR OF +/- 2 mm, +/- 2 PPM.

THE NETWORK WAS ADJUSTED USING A LEAST SQUARES ROUTINE. THIS ADJUSTMENT PRODUCED ANGULAR AND DISTANCE RESIDUALS (THE AMOUNT THE FIELD OBSERVED MEASUREMENTS WERE CHANGED DUE TO THE ADJUSTMENT) AS FOLLOWS: 83% OF THE ANGULAR RESIDUALS WERE WITHIN 3 SECONDS, AND 100% OF THEM WERE WITHIN 8 SECONDS. 100% OF THE DISTANCE RESIDUALS WERE WITHIN 4 mm. THERE IS A 95% PROBABILITY THAT THE FINAL POSITIONS OF THE NETWORK POINTS ARE WITHIN THE ERROR ELLIPSES AS SHOWN ON THE "CONFIDENCE LEVEL LIMITS" TABLE ON THIS SHEET.

SCHEMATIC OF NETWORK

(Not To Scale)

CONFIDENCE LEVEL LIMITS

POINT	SEMI MAJOR	SEMI MINOR	ORIENTATION (NORTH AZIMUTH)
16	0.009	0.001	40°51'33"
10	0.001	0.001	99°56'42"
7	0.002	0.001	22°47'32"
8	0.003	0.001	52°14'32"
9	0.004	0.002	54°56'07"
11	0.005	0.002	54°53'45"
12	0.007	0.002	53°13'01"
13	0.009	0.002	54°49'08"
14	0.013	0.003	65°33'39"
5	0.010	0.002	36°16'55"
LUDER	0.013	0.002	23°59'32"
4	0.019	0.002	33°43'19"
3	0.024	0.002	33°53'49"
U81	0.028	0.002	33°51'31"
15	0.038	0.003	35°09'51"

NETWORK OBSERVATIONS

AT	TO
C17	1000, 16, 10, 7, 8, 9, 11, 12, 13
8	7, C17, 9, 11, 12, 13
13	C17, 8, 9, 11, 12, 14
16	C17, 10, 7, 5, LUDER, 4, 3, U81
LUDER	16, 5, 4,
5	7, 16, LUDER, 4, 3,
4	7, 16, 5, LUDER, 3
3	7, 16, 5, 4, U81, 15
U81	16, 3, 15
15	3, U81
7	4, 3
10	16, 7, 1000
1000	16, 7, 10
9	13, 12, 11, 8
11	8, 9, 12, 13
12	8, 9, 11, 13, 14
14	12, 13

LEGEND

- () RECORD DATA PER 4B-21-23
- ▲ SET MONUMENT
- △ FOUND MONUMENT USED AS NETWORK POINT

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Christine V. Blevins

OREGON
JULY 19, 1994
CHRISTINE V. BLEVINS
2669

EXPIRES: DEC. 31, 2001



TO CONVERT A METRIC DISTANCE TO FEET, DIVIDE BY 0.3048

OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL,
RECOVERY AND RETRACEMENT MAP
CHARLOTTE CR. - LUDER CR. PASSING LANE SEC.
UMPOUA HWY. (HWY. 38)
DOUGLAS COUNTY

3500 STEWART PARKWAY, SUITE 140
ROSEBURG, OREGON 97470

NOVEMBER 17, 2000
PROJECT KEY #10842

SHEET 1 OF 5

MAP FILE M136-14A