



# HORIZONTAL CONTROL AND RECOVERY MAP FOR THE OREGON DEPARTMENT OF TRANSPORTATION LOCATED IN THE SE 1/4 & SW 1/4 OF SECTION 1, T29S, R8W, WILLAMETTE MERIDIAN DOUGLAS COUNTY

FILED  
Date: 7-13-1999 By: J.P.  
This survey consists of: 3 Pages  
Map: M132-6A  
Narrative:  
Corner Rpt:  
DOUGLAS COUNTY SURVEYOR

## SURVEY NARRATIVE

## ERROR ANALYSIS

STANDARD DEVIATIONS			STANDARD ERROR ELLIPSE		
POINT	NORTH	EAST	SEMI MAJOR	SEMI MINOR	ORIENTATION
1	0.013	0.004	0.013	0.001	S17°03'55"E
2	0.019	0.006	0.020	0.002	S16°43'55"E
3	0.022	0.006	0.023	0.002	S15°08'25"E
4	0.033	0.010	0.035	0.002	S16°34'24"E
5	0.040	0.012	0.042	0.002	S16°40'00"E
6	0.048	0.014	0.050	0.002	S15°46'02"E
7	0.061	0.017	0.063	0.003	S15°49'51"E
8	0.070	0.021	0.073	0.003	S16°44'31"E
9	0.077	0.023	0.081	0.003	S16°42'05"E
10	0.087	0.025	0.090	0.003	S16°03'29"E
11	0.101	0.029	0.105	0.003	S16°06'16"E
12	0.122	0.037	0.127	0.003	S16°39'28"E
13	0.132	0.039	0.138	0.003	S16°23'22"E
14	0.142	0.044	0.149	0.004	S17°02'11"E
15	0.162	0.055	0.171	0.005	S18°34'27"E
16	0.172	0.059	0.182	0.005	S18°58'56"E
H344	0.184	0.064	0.195	0.005	S19°04'30"E
17	0.207	0.077	0.221	0.007	S20°14'21"E
18	0.224	0.085	0.240	0.007	S20°43'09"E
19	0.245	0.094	0.262	0.008	S20°51'36"E
20	0.254	0.099	0.272	0.008	S21°10'27"E
21	0.269	0.112	0.292	0.011	S22°34'24"E

THE PURPOSE OF THIS METRIC SURVEY NETWORK WAS TO ESTABLISH CONTROL FOR AN ODOT ROAD PRESERVATION PROJECT CALLED "SUICIDE CREEK TO OLALLA CREEK" ON HIGHWAY 42. THE CONSTRUCTION PROJECT WAS SHORTENED TO "TENMILE TO OLALLA CREEK" SECTION AND WAS BUILT IN 1998. THIS SURVEY WAS COMPLETED IN MAY 1997. THE ORIGINAL FIELD NOTES ARE ARCHIVED WITH ODOT ROADWAY ENGINEERING SECTION IN SALEM IN BOOK # 3592.

THE BASIS OF BEARING FOR THE NETWORK WERE TWO POINTS, WT17 AND 100, FROM THE SURVEY \*M119-63A-E (AN ODOT HORIZONTAL CONTROL MAP FOR A PROJECT CALLED "OLALLA CREEK BRIDGE - HOOVER HILL RD.") FILED AT THE DOUGLAS COUNTY SURVEYOR'S OFFICE. POINT 100 WAS OCCUPIED, POINT WT17 WAS BACKSIGHTED. RECORD COORDINATES FOR THESE TWO POINTS WERE CONVERTED TO METRIC AND THEN HELD AS ACTUAL STARTING COORDINATES OF THE CONTROL NETWORK. COORDINATES USED ON THIS MAP ARE ON A LOCAL DATUM PLANE, WHICH REPRESENTS TRUE GROUND DISTANCES. MULTIPLY L.D.P. BY 0.99986527 TO CONVERT COORDINATES TO OREGON STATE GRID, NAD 83 SOUTH ZONE.

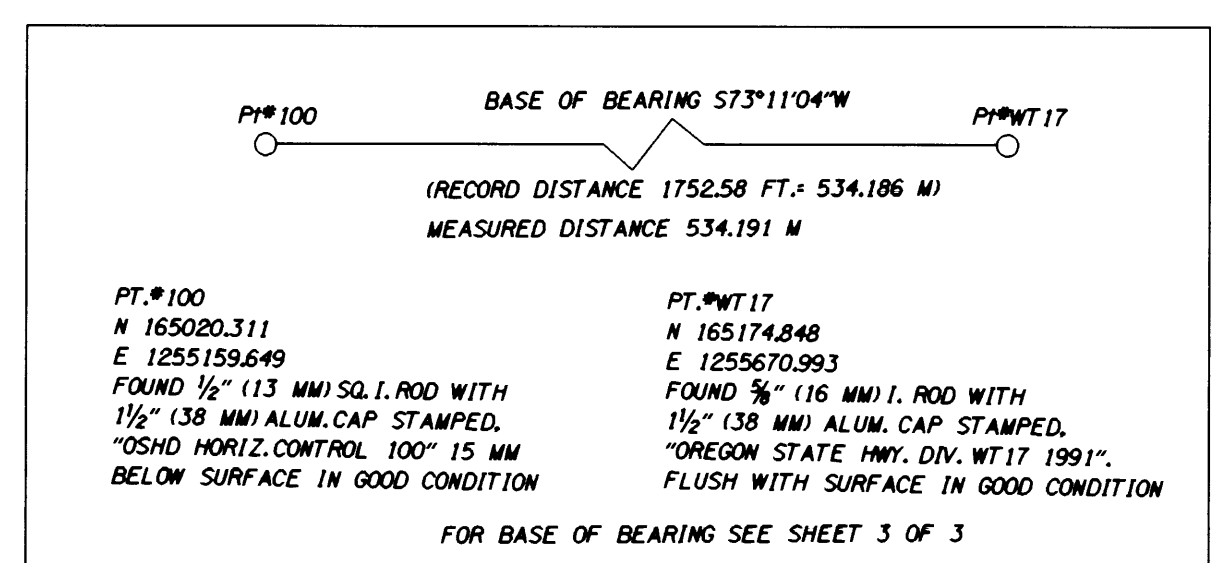
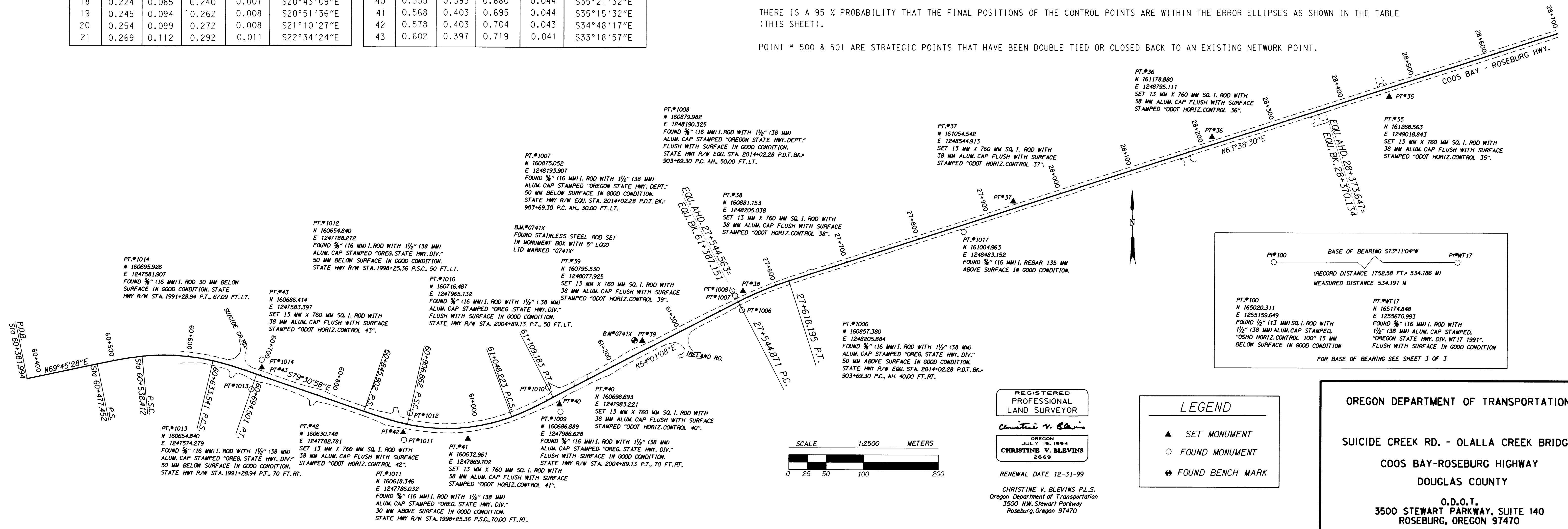
THIS IS A METRIC SURVEY, TO CONVERT TO ENGLISH UNITS, DIVIDE BY 0.3048.

AN ODOT SURVEY CREW PERFORMED THE WORK USING A WILD T1610 ELECTRONIC THEODOLITE AND D11600 DISTOMAT TO MAKE ALL NETWORK AND MONUMENT TIE OBSERVATIONS. THE T1610 THEODOLITE HAS A STANDARD ANGULAR ERROR OF +/- 1.5 SECONDS AND THE D11600 HAS A STANDARD DISTANCE ERROR OF +/- 3 MM, +/- 2 PPM.

THE NETWORK WAS ADJUSTED USING LEAST SQUARES. THE LEAST SQUARES ADJUSTMENT PRODUCED ANGULAR RESIDUALS (THE AMOUNT THE FIELD OBSERVED ANGLES WERE CHANGED DUE TO THE ADJUSTMENT) AVERAGED 1 SECOND; WITH NOTHING GREATER THAN 4 SECONDS. DISTANCE RESIDUALS (THE AMOUNT THE FIELD OBSERVED DISTANCES WERE CHANGED DUE TO ADJUSTMENT) AVERAGED LESS THAN 1 MM; WITH NOTHING GREATER THAN 6 MM. THE RESIDUALS OBTAINED FROM THIS NETWORK ARE WITHIN ODOT STANDARDS.

THERE IS A 95 % PROBABILITY THAT THE FINAL POSITIONS OF THE CONTROL POINTS ARE WITHIN THE ERROR ELLIPSES AS SHOWN IN THE TABLE (THIS SHEET).

POINT # 500 & 501 ARE STRATEGIC POINTS THAT HAVE BEEN DOUBLE TIED OR CLOSED BACK TO AN EXISTING NETWORK POINT.



REGISTERED PROFESSIONAL LAND SURVEYOR  
 Christine V. Blevins  
 OREGON JULY 19, 1994  
 CHRISTINE V. BLEVINS 2669  
 RENEWAL DATE 12-31-99  
 CHRISTINE V. BLEVINS P.L.S.  
 Oregon Department of Transportation  
 3500 N.W. Stewart Parkway  
 Roseburg, Oregon 97470

LEGEND  
 ▲ SET MONUMENT  
 ○ FOUND MONUMENT  
 ⊙ FOUND BENCH MARK

OREGON DEPARTMENT OF TRANSPORTATION  
 SUICIDE CREEK RD. - OLALLA CREEK BRIDGE  
 COOS BAY-ROSEBURG HIGHWAY  
 DOUGLAS COUNTY  
 O.D.O.T.  
 3500 STEWART PARKWAY, SUITE 140  
 ROSEBURG, OREGON 97470  
 KEY # 08775 SHEET 1 OF 3