

HORIZONTAL CONTROL, RECOVERY, AND RETRACEMENT MAP FOR THE OREGON DEPARTMENT OF TRANSPORTATION LOCATED IN THE SE 1/4 OF SECTION 32 AND IN THE SW 1/4 OF SECTION 33, T20S, R12W, WILLAMETTE MERIDIAN, AND LOCATED IN THE NW 1/4 OF SECTION 4, T21S, R12W, WILLAMETTE MERIDIAN, DOUGLAS COUNTY

FILED
Date: 4-22-1999 By: J.P.
This survey consists of:
Map: M129-38
Narrative:
Corner Rpt:
DOUGLAS COUNTY SURVEYOR

SURVEY NARRATIVE

THE PURPOSE OF THIS METRIC SURVEY NETWORK WAS TO ESTABLISH CONTROL FOR AN ODOT SLIDE REPAIR PROJECT CALLED "MILEPOST 204.7 SLIDE". THE SURVEY WAS CONDUCTED FROM MARCH 3RD THROUGH THE 17TH, 1997.

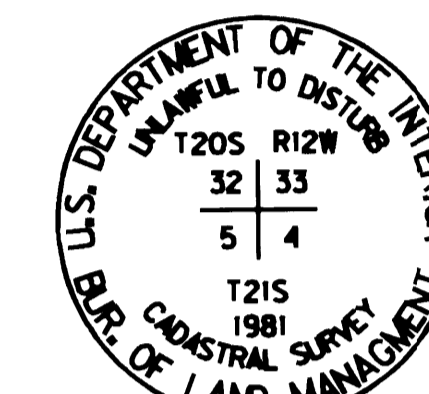
EACH NETWORK CONTROL POINT (EXCEPT POINTS 6 THROUGH 9) ARE 1/2" (13 MM) SQUARE IRON RODS 30" (0.762 M) LONG WITH A 1/2" (38 MM) ALUMINUM CAP STAMPED "O.D.O.T. HORIZ. CONTROL" AND THE NUMBER. POINTS 6 THROUGH 9 ARE RAILROAD SPIKES SET IN THE PAVEMENT. EACH OF THE CONTROL POINTS (EXCEPT POINTS 6 THROUGH 9) HAS AN ORANGE CARBONITE SURVEY POST SET NEARBY. THE BASIS OF BEARING IS THE RECORD BEARING BETWEEN POINT 1002 (R/W STATION 331+02.96 P.T., 180 FEET RT.) AND POINT 1000 (R/W STATION 338+97.28 P.S., 150 FEET LT.) PER ODOT RIGHT OF WAY DRAWING NO. 7B-15-16. RECORD COORDINATES ON POINT 1002 WERE HELD AND THE RECORD BEARING BACK TO POINT 1000. COORDINATES ARE ON A LOCAL DATUM PLANE DERIVED FROM THE OREGON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, 1927 DATUM. COORDINATES AND STATIONING ON THIS MAP MAY BE CONVERTED BACK TO ENGLISH UNITS BY DIVIDING BY 0.30480061. STATIONING FOR THE RETRACED RIGHT OF WAY CENTERLINE WAS TAKEN FROM POINT 1000 (ENGLISH STATION 338+97.28) AND CONVERTED TO A METRIC STATION (10+331.912).

A WILD T1610 ELECTRONIC THEODOLITE AND A WILD D11600 DISTOMAT WERE USED TO MAKE THE NETWORK OBSERVATIONS. THE T1610 THEODOLITE HAS A STANDARD ANGULAR ERROR OF +/- 1.5 SECONDS. THE D11600 HAS A STANDARD DISTANCE ERROR OF +/- 3 MM, +/- 2PPM.

THE LEAST SQUARES ADJUSTMENT PRODUCED: ANGULAR RESIDUALS (THE AMOUNTS THE FIELD OBSERVED ANGLES WERE CHANGED DUE TO THE ADJUSTMENT) OF NO GREATER THAN 5 SECONDS; DISTANCE RESIDUALS (THE AMOUNT THE FIELD OBSERVED DISTANCES WERE CHANGED DUE TO ADJUSTMENTS) OF NO GREATER THAN 3 MM. THE ORIGINAL FIELD SURVEY NOTES ARE CONTAINED IN BOOK 3630, ARCHIVED IN THE ROADWAY ENGINEERING SECTION IN SALEM, OR.

THERE IS A 95% PROBABILITY THE FINAL POSITIONS OF THE CONTROL POINTS ARE WITHIN THE ERROR ELLIPSES AS SHOWN ON THE ERROR ANALYSIS TABLE.

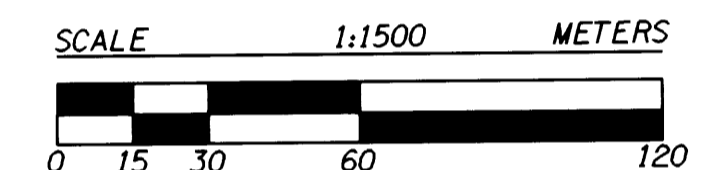
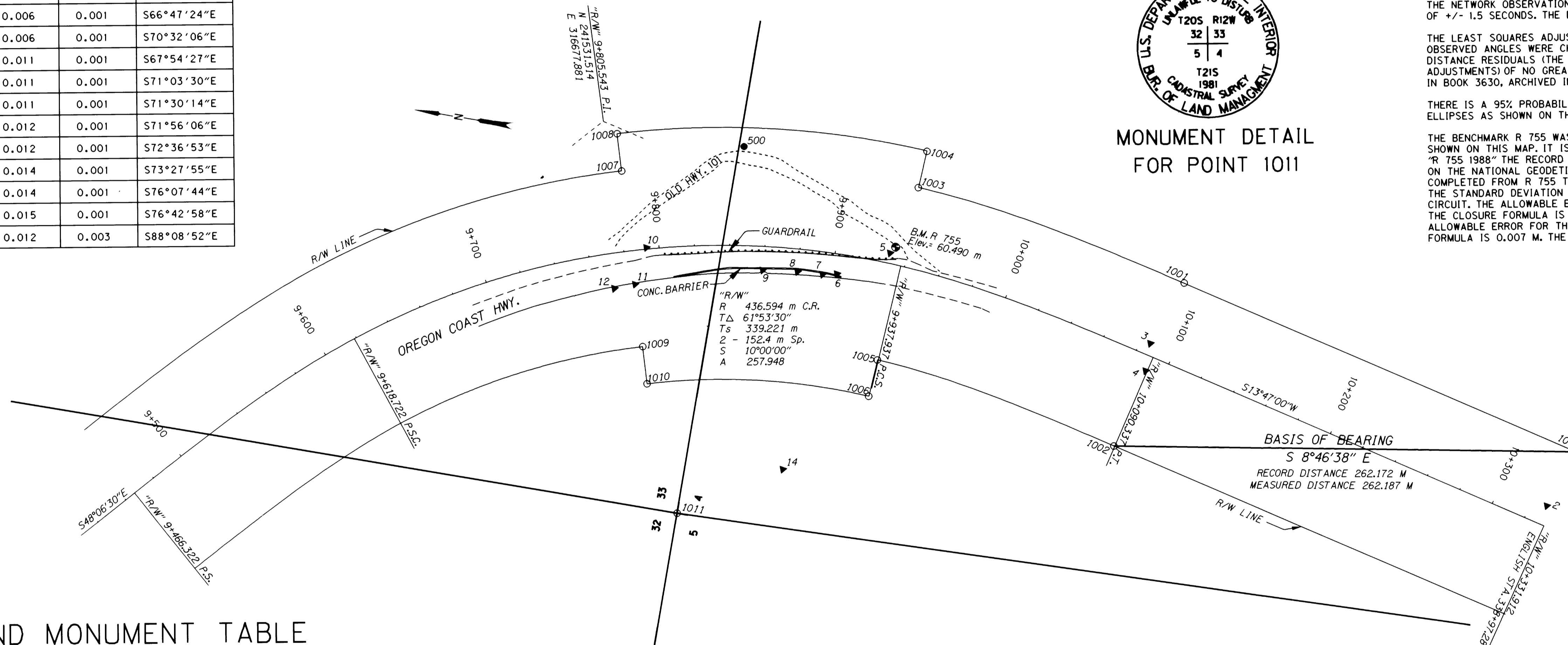
THE BENCHMARK R 755 WAS THE VERTICAL CONTROL POINT USED TO ESTABLISH THE ELEVATIONS SHOWN ON THIS MAP. IT IS A STAINLESS STEEL ROD IN A MONUMENT BOX WITH A 5" LID STAMPED "R 755 1988" THE RECORD ELEVATION FOR THIS BENCHMARK IS 60.490 M. THIS ELEVATION IS BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1988. TWO CLOSED LEVEL CIRCUITS WERE COMPLETED FROM R 755 THROUGH THE HORIZONTAL CONTROL POINTS USING A LEICA NA2002 LEVEL. THE STANDARD DEVIATION FOR A LEICA NA2002 LEVEL IS 0.9 MM IN A 1 KM DOUBLE RUN LEVEL CIRCUIT. THE ALLOWABLE ERROR FOR THE LEVEL CIRCUIT THROUGH POINTS 5 THROUGH 13 FROM THE CLOSURE FORMULA IS 0.005 M. THE ACTUAL ERROR FOR THIS LEVEL CIRCUIT IS 0.005 M. THE ALLOWABLE ERROR FOR THE LEVEL CIRCUIT THROUGH POINTS 2 THROUGH 4 FROM THE CLOSURE FORMULA IS 0.007 M. THE ACTUAL ERROR FOR THIS LEVEL CIRCUIT IS 0.001 M.



MONUMENT DETAIL FOR POINT 1011

ERROR ANALYSIS TABLE

POINT	North	East	Semi Major	Semi Minor	Orientation
3	0.003	0.006	0.006	0.001	S66°47'24"E
4	0.002	0.006	0.006	0.001	S70°32'06"E
5	0.004	0.010	0.011	0.001	S67°54'27"E
6	0.004	0.011	0.011	0.001	S71°03'30"E
7	0.004	0.011	0.011	0.001	S71°56'06"E
8	0.004	0.011	0.012	0.001	S71°56'06"E
9	0.004	0.012	0.012	0.001	S72°36'53"E
10	0.004	0.014	0.014	0.001	S73°27'55"E
11	0.004	0.014	0.014	0.001	S76°07'44"E
12	0.004	0.014	0.015	0.001	S76°42'58"E
14	0.003	0.012	0.012	0.003	S88°08'52"E



LEGEND

- ▲ SET MONUMENT
- SET MONUMENT (DOUBLE TIED ONLY)
- FOUND MONUMENT

FOUND MONUMENT TABLE

POINT	NORTH	EAST	ELEV.	DESCRIPTION
1000	240956.550	316583.908		FOUND 3/4" (19 MM) I. ROD, FLUSH WITH SURFACE, IN GOOD CONDITION, S.H.R.W. 338+97.28 P.S. 150 FT. LT.
1001	241191.718	316641.706		FOUND 1/2" (13 MM) I. ROD, SLIGHTLY BENT, TIED AT GROUND, IN FAIR CONDITION, S.H.R.W. 331+02.96 P.T. 150 FT. LT.
1002	241215.667	316543.900		FOUND 1/2" (13 MM) I. ROD, FLUSH WITH SURFACE, IN GOOD CONDITION, S.H.R.W. 331+02.96 P.T. 180 FT. RT.
1003	241349.307	316670.280		FOUND 1/2" (13 MM) I. ROD, FLUSH WITH SURFACE, IN GOOD CONDITION, S.H.R.W. 326+02.96 P.C.S. 150 FT. LT.
1004	241347.897	316691.384		FOUND 1/2" (13 MM) I. ROD, 100 MM ABOVE SURFACE, BENT, TIED AT GROUND, IN POOR CONDITION, S.H.R.W. 326+02.96 P.C.S. 220 FT. LT.
1005	241355.868	316569.909		FOUND 1/2" (13 MM) I. ROD, FLUSH WITH SURFACE, IN GOOD CONDITION, S.H.R.W. 326+02.96 P.C.S. 180 FT. RT.
1006	241357.277	316548.647		FOUND 1/2" (13 MM) I. ROD, 100 MM ABOVE SURFACE, IN GOOD CONDITION, S.H.R.W. 326+02.96 P.C.S. 250 FT. RT.
1007	241516.703	316651.730		FOUND 1/2" (13 MM) I. ROD, FLUSH WITH SURFACE, IN GOOD CONDITION, S.H.R.W. 321+00 P.O.C. 150 FT. LT.
1008	241522.728	316672.125		FOUND 1/2" (13 MM) I. ROD, 150 MM BELOW SURFACE, IN GOOD CONDITION, S.H.R.W. 321+00 P.O.C. 220 FT. LT.
1009	241488.327	316555.211		FOUND 1/2" (13 MM) I. ROD, 100 MM BELOW SURFACE, AT BASE OF ALDER TREE, IN GOOD CONDITION, S.H.R.W. 321+00 P.O.C. 180 FT. RT.
1010	241482.348	316534.828		FOUND 1/2" (13 MM) I. ROD, 100 MM BELOW SURFACE, IN GOOD CONDITION, S.H.R.W. 321+00 P.O.C. 250 FT. RT.
1011	241453.285	316465.183		FOUND 2 1/2" (64 MM) ALUM. POST WITH A 3/4" (83 MM) ALUM. DISK, STAMPED AS SHOWN ON MONUMENT DETAIL, 220 MM ABOVE SURFACE, GOOD CONDITION, WITH 4 BEARING TREES IN GOOD SHAPE.

CONTROL NETWORK TABLE

POINT	NORTH	EAST	ELEV.	DESCRIPTION
1	240772.291	316426.595		•
2	240967.691	316550.923	81.785	•
3	241204.948	316604.762	69.191	•
4	241204.942	316588.923	69.247	•
5	241359.016	316630.919	60.536	•
6	241386.714	316614.318	58.413	SET RR SPIKE IN PAVEMENT STAMPED "6"
7	241394.714	316612.597	57.823	SET RR SPIKE IN PAVEMENT STAMPED "7"
8	241408.932	316611.788	56.954	SET RR SPIKE IN PAVEMENT STAMPED "8"
9	241428.590	316609.424	55.848	SET RR SPIKE IN PAVEMENT STAMPED "9"
10	241495.647	316611.069	52.134	•
11	241498.507	316589.389	51.777	•
12	241509.705	316585.213	51.087	•
14	241398.509	316499.680	18.996	•
500	241450.670	316676.897	56.027	•

• SET 13 MM X 760 MM SO. I. ROD WITH 38 MM ALUMINUM CAP STAMPED "ODOT HORIZ. CONTROL" AND WITH THE POINT NUMBER, FLUSH WITH THE SURFACE

REGISTERED PROFESSIONAL LAND SURVEYOR
Christine V. Blevins
OREGON JULY 19, 1994
CHRISTINE V. BLEVINS 2669
EXPIRES: DEC. 31, 1999

OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL, RECOVERY,
AND RETRACEMENT MAP FOR
MILEPOST 204.7 SLIDE
DOUGLAS COUNTY OREGON COAST HIGHWAY
ODOT
3500 STEWART PARKWAY, SUITE 140
ROSEBURG, OREGON 97470
ODOT KEY #09989