



SURVEYOR

OREGON DEPARTMENT OF TRANSPORTATION
 ROGUE VALLEY AREA OFFICE
 200 ANTELOPE ROAD
 WHITE CITY, OREGON 97503

DATE OF SURVEY

FIELD WORK WAS COMPLETED IN JULY, 2000

LEGEND

- FOUND 65 mm BRASS DISK IN CONCRETE PER R/W
- FOUND 70 mm BRASS DISK IN CONCRETE
- ☆ FOUND GPS MONUMENT
- ▲ SET 16mm X 0.762 m REBAR AND ALUMINUM CAP W/ORANGE CARSONITE WITNESS POST, SHOWN THUS:
- R/W ODOT HWY MAP 8B-15-22 (1 of 2), DATED OCT. 1959, REVISED 12/89
- NETWORK OBSERVATION LINES
- ODOT OREGON DEPARTMENT OF TRANSPORTATION

SURVEY DATA

BASIS OF BEARING: OREGON STATE PLANE COORDINATE SYSTEM (SPC), SOUTH ZONE 3602, NAD 83(91).

COORDINATES SHOWN ARE LOCAL DATUM PLANE (LDP). THE COMBINED SCALED FACTOR (CSF) IS 0.99994434 TO CONVERT FROM LDP TO SPC, USE THE FOLLOWING FORMULA: (LDP x CSF=SPC). THIS IS NOT A TRUE CONVERSION TO SPC 83(91) BUT AN AVERAGE FOR THIS PROJECT VERTICAL DATUM FOR THIS PROJECT IS NGVD 29. CONVERGENCE CALCULATED FOR THIS PROJECT IS -01°31'17.57149"

THE FOLLOWING GPS MONUMENT INFORMATION IS AVAILABLE FROM THE NGS OR THE JACKSON COUNTY SURVEYOR'S OFFICE AND IS NOT DUPLICATED ON THIS SURVEY: WILD, HAMBY, ASH, V 548, KITCH, R 548, KDOV, T 548 RESET, AND OAKTREE.

MAP OF SURVEY

HORIZONTAL CONTROL, MONUMENT RECOVERY AND CENTERLINE RETRACEMENT MAP FOR THE OREGON DEPARTMENT OF TRANSPORTATION

LOCATED IN:
 TOWNSHIP 38 SOUTH, RANGE 1 EAST,
 NE 1/4 SECTION 31; NW, NE, & SE 1/4 SECTION 32; SW 1/4 SECTION 33
 TOWNSHIP 39 SOUTH, RANGE 1 EAST,
 NW, SW, & SE 1/4 SECTION 3; NE 1/4 SECTION 4; NE 1/4 SECTION 10; NW, SW, & SE 1/4 SECTION 11;
 SW 1/4 SECTION 13; NE & SE 1/4 SECTION 14; NW, SW, & SE 1/4 SECTION 24; NE & SE 1/4 SECTION 25
 WILLAMETTE MERIDIAN, JACKSON COUNTY, OREGON

S. ASHLAND-N. ASHLAND
 KEY No. 10833

** RECEIVED **
 DATE 9-21-00 BY J.P.
 This survey consists of:
 2 sheet(s) Map
 0 page(s) Narrative
 JACKSON COUNTY SURVEYOR

SURVEY NARRATIVE

TO COMPLY WITH O.R.S. 209.250 (rev. 1999)

FOR:

OREGON DEPARTMENT OF TRANSPORTATION (ODOT), ROGUE VALLEY AREA OFFICE
 200 ANTELOPE ROAD, WHITE CITY, OREGON 97503

PURPOSE:

THERE ARE THREE OBJECTIVES THAT ODOT IS TO ACHIEVE WITH THE SURVEY FOR THIS ROADWAY IMPROVEMENT PROJECT. THE FIRST OBJECTIVE IS TO ESTABLISH HORIZONTAL AND VERTICAL CONTROL BETWEEN MILEPOST 11.45 TO MILEPOST 18.70. THE SECOND OBJECTIVE IS TO LOCATE AND TIE IN EXISTING CENTERLINE MONUMENTS THROUGHOUT THE PROJECT (POINTS No. 997 THRU 1009), USED TO ASSOCIATE THE TOPOGRAPHIC FEATURES TO BE COLLECTED WITH THE CENTERLINE STATIONING. THE THIRD OBJECTIVE IS TO DETERMINE THE EASTERLY RIGHT OF WAY LINE IN THE AREA OF THE PORT OF ENTRY (NORTHBOUND) FOR THE PROPOSED OFF RAMP LANE WIDENING. (SEE SHEET 2/2).

PROCEDURES:

HORIZONTAL:

A GPS RAPID-STATIC NETWORK WAS RUN THROUGH THE ENTIRE PROJECT BEGINNING WITH "OAK TREE" AT THE SOUTHERLY END AND PROGRESSING NORTHWESTERLY TO "WILD". THE LINES OF OBSERVATIONS ARE SHOWN ON THIS PAGE OF THE SURVEY. A LEAST SQUARES ADJUSTMENT WAS MADE TO THE NETWORK WITH ACCEPTANCE OF THE ADJUSTMENT BASED ON A MAXIMUM RESIDUAL IN EITHER LATITUDE OR LONGITUDE OF 14 MILLIMETERS OF ALL BASELINES. POSITIONAL ACCURACIES SHOWN ARE STATED AT A 95% CONFIDENCE LEVEL AS REPORTED BY GPSURVEY SOFTWARE USED TO PROCESS THE NETWORK. NETWORK ADJUSTMENTS WERE MADE HOLDING "ASH", "OAK TREE", "KITCH", "HAMBY", "KDOV" AND "WILD" FOR HORIZONTAL CONTROL, AND HOLDING BENCHMARKS "T 548 RESET", "R 548" AND "V 548" FOR VERTICAL CONTROL. THE GEOID AND REFERENCE ELLIPSOID USED FOR THIS PROJECT IS GEOID 96 AND GRS 80 RESPECTIVELY.

VERTICAL:

A CLOSED LOOP BENCH CIRCUIT WAS RUN FROM "O 548 RESET" TO "OAK TREE". THEN FROM "OAKTREE", SEVERAL CLOSED LOOP BENCH CIRCUITS WERE RUN THROUGH THE CONTROL POINTS ALONG THE INTERSTATE 5 CORRIDOR, UNTIL WE REACHED THE MOST NORTHERLY POINT ON THIS SURVEY "WILD". THE TOTAL VERTICAL ERROR FOR THE BENCH CIRCUITS IS 13 MILLIMETERS OVER 7.9 KILOMETERS. THE CURRENT PUBLISHED ELEVATION FOR "O 548" IS NAVD 88 DATUM, THIS DATUM WAS CONVERTED DOWN TO NGVD 29 BY APPLYING A VERTICAL DIFFERENCE OF -1.065 M AS CALCULATED BY VERTCON SOFTWARE.

RIGHT OF WAY:

THE CENTERLINE MONUMENTS ALONG THE PORT OF ENTRY PORTION OF THE INTERSTATE APPEAR TO HAVE SOME AMBIGUITIES WHEN COMPARING THE RECORD (R/W) VALUES TO THE MEASURED VALUES. I OPTED TO HOLD THE CENTERLINE BEARING AND USE THIS LINE FOR MY CENTERLINE OFFSETS TO THE RIGHT OF WAY LINES. I THEN USED A 'BEST FIT' WITH THE EXISTING MONUMENTATION FOUND, TO ESTABLISH THE STATIONING.

GPS EQUIPMENT:

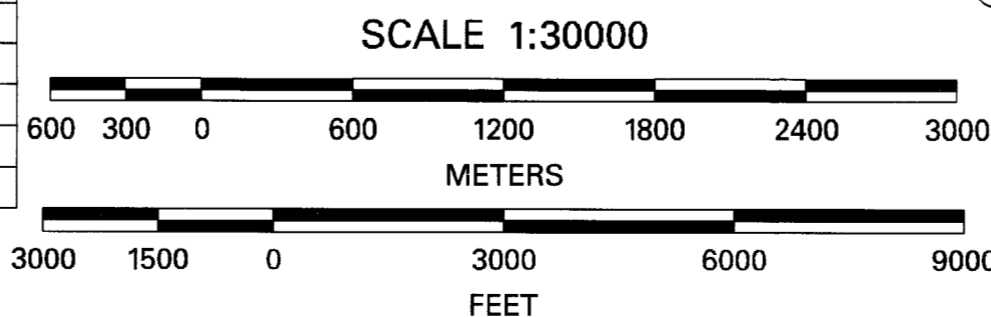
TRIMBLE 4800 RECEIVER SERIAL No. 0220119693, TRIMBLE 4700 RECEIVERS SERIAL No. 136204 AND 136196. BOTH WITH STATED ACCURACY SPECIFICATIONS OF +/- 5 MILLIMETERS, PLUS 0.5 PARTS PER MILLION.

TERRESTRIAL EQUIPMENT:

LEICA TCA 1800 TOTAL STATION WITH A STANDARD ANGULAR ERROR OF +/- 1 SECOND, AND A STANDARD DISTANCE ERROR OF +/- 2mm, +/- 2ppm.
 LEICA NA2002 DIGITAL LEVEL

MONUMENT LOCAL DATUM PLANE (LDP) COORDINATES (METRIC)				
PT. ID	EASTING	NORTHING	ELEVATION	DESCRIPTION-SEE LEGEND FOR MONUMENT TYPE
510	1319876.350	61744.568	588.092	"CITY OF ASHLAND SURVEY MARKER GPS 510 1997"
530	1314949.247	64182.215	504.365	"CITY OF ASHLAND SURVEY MARKER NO 1997"
997	1315723.003	64496.524	534.862	LOCATED AT C/L STATION 1335+00' PER R/W
998	1316262.584	64213.761	536.675	LOCATED AT C/L STATION 1355+00' PER R/W
999	1316802.682	63930.745	539.468	LOCATED AT C/L STATION 1375+00' PER R/W
1000	1317207.431	63718.603	543.009	LOCATED AT C/L STATION 1390+00' PER R/W
1001	1317503.933	63563.246	545.695	LOCATED AT C/L STATION 1400+95.94'(PS) PER R/W
1002	1317611.221	63505.412	546.469	LOCATED AT C/L STATION 1404+95.94'(PSC) PER R/W
1003	1317911.809	63591.096	549.686	LOCATED AT C/L STATION 1417+09.27'(PT) PER R/W
1004	1318097.012	63136.879	551.475	LOCATED AT C/L STATION 1425+00' PER R/W
1005	1318799.549	62551.895	565.391	LOCATED AT C/L STATION 1455+00' PER R/W
1006	1319502.209	61966.753	575.836	LOCATED AT C/L STATION 1485+00' PER R/W
1007	1320204.838	61381.708	560.338	LOCATED AT C/L STATION 1515+00' PER R/W
1008	1320424.611	61198.711	557.801	LOCATED AT C/L STATION 1524+38.65'(PS) PER R/W
1009	1320976.156	60278.152	591.360	LOCATED AT C/L STATION 1560+00' PER R/W
GPS1	1317092.814	63731.834	545.011	MARKED" ODOT HORIZ CONTROL GPS1"
GPS2	1319104.031	62246.304	579.225	MARKED" ODOT HORIZ CONTROL GPS2"
GPS3	1320682.409	60906.925	566.600	MARKED" ODOT HORIZ CONTROL GPS3"
GPS4	1316702.179	62282.090	575.056	MARKED" ODOT HORIZ CONTROL GPS4"

T38S, R1E, NE1/4S31; NW, NE, & SE1/4S32; SW1/4S33
 T39S, R1E, NW, SW, & SE1/4S3; NE1/4S4; NE1/4S10; NW, SW, & SE1/4S11;
 SW1/4S13; NE & SE1/4S14; NW, SW, & SE1/4S24; NE & SE1/4S25



REGISTERED PROFESSIONAL LAND SURVEYOR
 JOHN R. PARIANI
 JULY 13, 1999
 #51362LS
 EXPIRES: DEC. 31, 2000



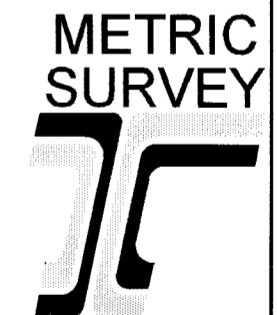
OREGON DEPARTMENT OF TRANSPORTATION

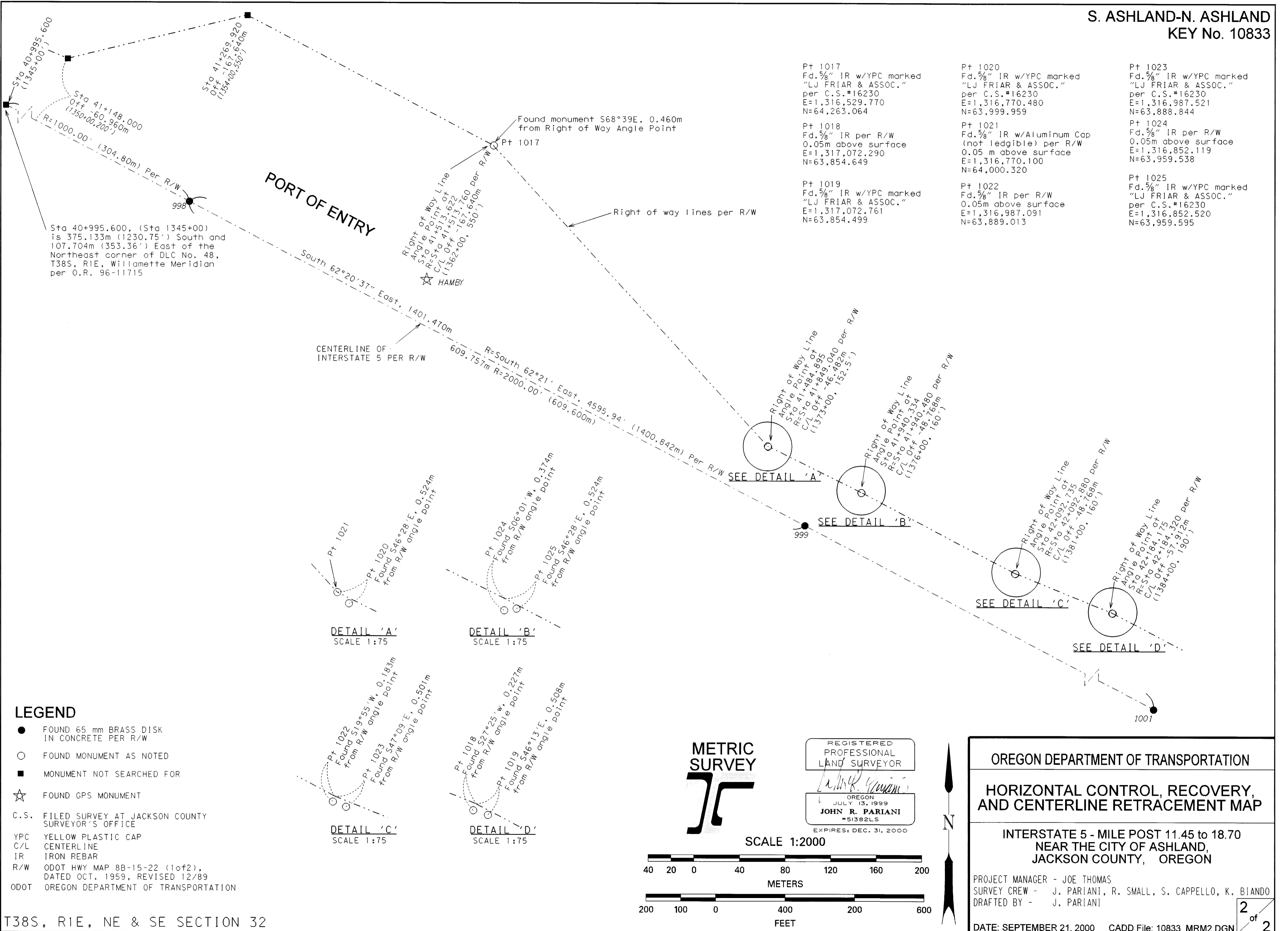
HORIZONTAL CONTROL, RECOVERY, AND CENTERLINE RETRACEMENT MAP

INTERSTATE 5 - MILE POST 11.45 to 18.70
 NEAR THE CITY OF ASHLAND,
 JACKSON COUNTY, OREGON

PROJECT MANAGER - JOE THOMAS
 SURVEY CREW - J. PARIANI, R. SMALL, S. CAPPELLO, K. BIANDO
 DRAFTED BY - J. PARIANI

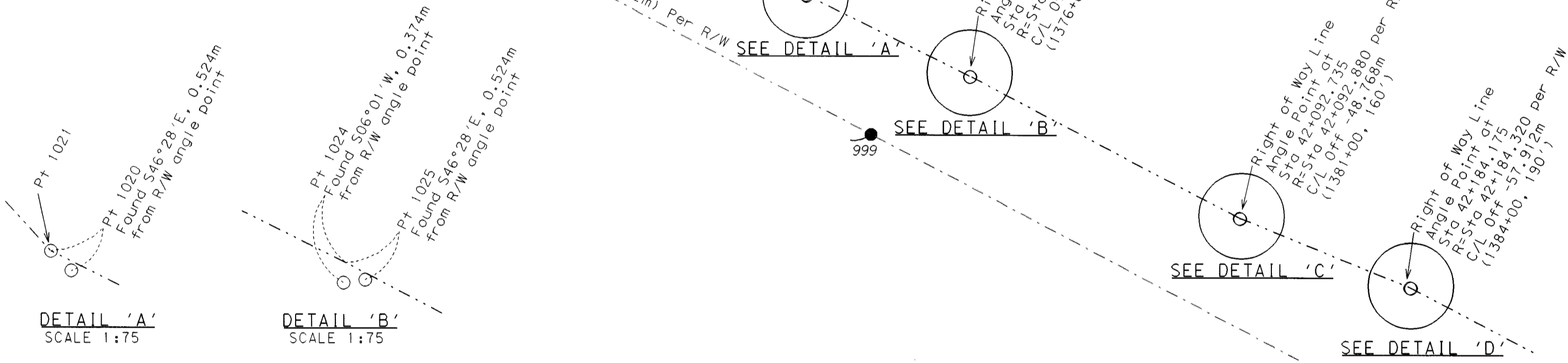
DATE: SEPTEMBER 21, 2000 CADD File: 10833_MRM1.DGN



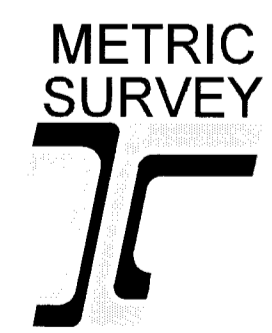


Sta 40+995.600, (Sta 1345+00) is 375.133m (1230.75') South and 107.704m (353.36') East of the Northeast corner of DLC No. 48, T38S, R1E, Willamette Meridian per O.R. 96-11715

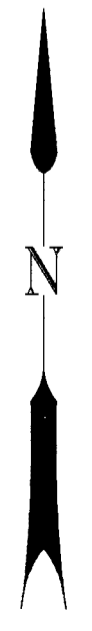
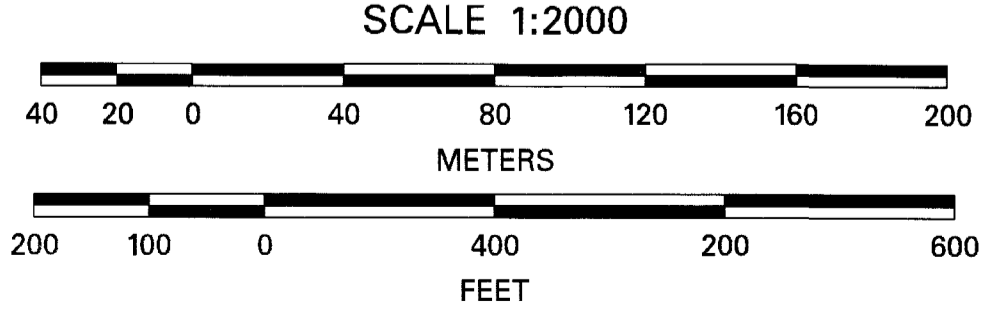
- Pt 1017
Fd. 5/8" IR w/YPC marked
"LJ FRIAR & ASSOC."
per C.S.#16230
E=1,316,529.770
N=64,263.064
- Pt 1018
Fd. 5/8" IR per R/W
0.05m above surface
E=1,317,072.290
N=63,854.649
- Pt 1019
Fd. 5/8" IR w/YPC marked
"LJ FRIAR & ASSOC."
per C.S.#16230
E=1,317,072.761
N=63,854.499
- Pt 1020
Fd. 5/8" IR w/YPC marked
"LJ FRIAR & ASSOC."
per C.S.#16230
E=1,316,770.480
N=63,999.959
- Pt 1021
Fd. 5/8" IR w/Aluminum Cap
(not legible) per R/W
0.05 m above surface
E=1,316,770.100
N=64,000.320
- Pt 1022
Fd. 5/8" IR per R/W
0.05m above surface
E=1,316,987.091
N=63,889.013
- Pt 1023
Fd. 5/8" IR w/YPC marked
"LJ FRIAR & ASSOC."
per C.S.#16230
E=1,316,987.521
N=63,888.844
- Pt 1024
Fd. 5/8" IR per R/W
0.05m above surface
E=1,316,852.119
N=63,959.538
- Pt 1025
Fd. 5/8" IR w/YPC marked
"LJ FRIAR & ASSOC."
per C.S.#16230
E=1,316,852.520
N=63,959.595



- LEGEND**
- FOUND 65 mm BRASS DISK IN CONCRETE PER R/W
 - FOUND MONUMENT AS NOTED
 - MONUMENT NOT SEARCHED FOR
 - ☆ FOUND GPS MONUMENT
 - C.S. FILED SURVEY AT JACKSON COUNTY SURVEYOR'S OFFICE
 - YPC YELLOW PLASTIC CAP
 - C/L CENTERLINE
 - IR IRON REBAR
 - R/W ODOT HWY MAP 88-15-22 (1of2), DATED OCT. 1959, REVISED 12/89
 - ODOT OREGON DEPARTMENT OF TRANSPORTATION



REGISTERED PROFESSIONAL LAND SURVEYOR
John R. Pariani
OREGON
JULY 13, 1999
JOHN R. PARIANI
#51382LS
EXPIRES: DEC. 31, 2000



OREGON DEPARTMENT OF TRANSPORTATION

HORIZONTAL CONTROL, RECOVERY, AND CENTERLINE RETRACEMENT MAP

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NEAR THE CITY OF ASHLAND,
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DRAFTED BY - J. PARIANI

DATE: SEPTEMBER 21, 2000 CADD File: 10833_MRM2.DGN