

SE 1/2 SEC. 25, SE 1/4 SEC. 26, N 1/2 SEC. 33, N 1/2 SEC. 34, N 1/2 SEC. 35, T 11 S, R 35 E, W. M.
T 11 S, R 35 1/2 E, W. M. (UNSURVEYED), T 12 S, R 35 1/2 E, W. M. (UNSURVEYED)
SW 1/4 SEC. 6, T 12 S, R 36 E, W. M.

SURVEY NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO RETRACE A PORTION OF THE JOHN DAY HIGHWAY (HIGHWAY 26) AS RELOCATED DURING THE CONSTRUCTION SEASONS OF 2000 AND 2001. THIS SECTION IN GRANT COUNTY, OREGON INCLUDES A STRETCH FROM AUSTIN JUNCTION EAST TO THE BAKER COUNTY LINE. THE NEW ALIGNMENT IS DESCRIBED BY OREGON STATE HIGHWAY DEPARTMENT DRAWINGS (OSHD) DRAWINGS 10B-14-13, 10B-14-14, AND 10B-14-15. THIS ENCOMPASSES THE SECTION FROM METRIC STATIONS 23+600.000 TO 38+792.243. THESE METRIC STATIONS ARE EQUATED TO ENGLISH STATIONING BY EQUATIONS: 23+679.247 METERS (M) = 776+97.58 FEET (FT) ON THE WESTERLY END AND 38+600.000 M = 466+62.32 FT ON THE EASTERLY END. THE ROAD IS THROUGH UNITED STATES FOREST SERVICE (USFS) LANDS AS WELL AS TWO PRIVATE OWNERSHIP SECTIONS. THE PART THROUGH USFS LANDS IS AN EASEMENT IN VARIOUS WIDTHS FROM A DESCRIBED CENTERLINE. THE PORTION OF HIGHWAY THROUGH PRIVATE LANDS IS DESCRIBED BY RIGHT OF WAY CENTERLINES AS DESCRIBED BELOW.

METRIC STATIONING FOR THE PARCELS THROUGH PRIVATE LAND WAS WORKED FORWARD AND BACK FROM STATION 7+041.092 (231+00.71) P.I. BECAUSE OF THE DIFFERENCE BETWEEN RECORD AND MEASURED DISTANCES, A DIRECT CONVERSION FROM ENGLISH TO METRIC WILL NOT MATCH.

THE FIRST SEGMENT THROUGH PRIVATE LAND IS IN THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 11 SOUTH, RANGE 35 EAST, W.M. AND THAT LAND AS DESCRIBED BY GRANT COUNTY DOCUMENT 127-960-83. THE ORIGINAL FIELD NOTES, OSHD #1526, DATED 1953 PROVIDED A DESCRIPTION AND LOCATION OF MONUMENTS SET. THE 1953 CENTERLINE ALIGNMENT WAS RETRACED USING THE ABOVE FIELD NOTES IN CONJUNCTION WITH OSHD DRAWING 7B-10-4. THIS SECTION OF HIGHWAY INVOLVED PORTIONS OF TWO CURVES. 5/8" IRON RODS WERE FOUND AT THE POINT OF INTERSECTION (PI) STATIONS 5+222.000 M (181+18.01 FT) AND 5+833.148 M (191+38.04 FT) AND ESTABLISHED THE BEARING BETWEEN THEM. THE POINT OF SPIRAL (PS), 5+371.665 M (176+23.16 FT) OF THE FIRST CURVE WAS ESTABLISHED BY USING A RECORD DEFLECTION ANGLE OF 19°48'10" FROM THE FORWARD TANGENT AND A CALCULATED SEMI-TANGENT DISTANCE FROM THE PI. THE POINT OF TANGENCY (PT) 5+659.588 (185+68.23) OF THE FIRST CURVE, WAS LOCATED ON THE PREVIOUSLY ESTABLISHED FORWARD TANGENT BEARING FROM A FOUND 5/8" IRON ROD SET AS A REFERENCE.

FOR THE SECOND CURVE, A LINE BETWEEN PI'S 5+222.000 (181+18.01) AND 5+833.148 (191+38.04) ESTABLISHED THE BEARING OF THE BACK TANGENT. A LINE BETWEEN 5+833.148 (191+38.04) PI AND A 1" IRON BOLT FOUND AT 6+350.654 (208+36.22) P.I. ESTABLISHED THE BEARING OF THE FORWARD TANGENT. THE SEMI-TANGENT LENGTHS FROM THE P.I. WERE DETERMINED FROM 5/8" IRON ROD CENTERLINE REFERENCES, FOUND AT 5+677.443 (186+21.77) PS AND ALSO AT 5+991.966 (196+59.24) PT.

THE OTHER SEGMENT THROUGH PRIVATE LAND IS THROUGH HOMESTEAD ENTRY SURVEY NUMBER 89 (HES NO. 89). THE OSHD R/W BOUNDARY ON THE NORTHERLY SIDE WAS SET AT 50 FEET FROM CENTERLINE IN 1953 AND HAS NOT CHANGED. ADDITIONAL R/W ACQUIRED ON THE SOUTHERLY SIDE IS DESCRIBED BY A COMBINATION OF THE RELOCATED 2000 ALIGNMENT, HES NO. 89 BOUNDARY AND THE ORIGINAL 50 FT OF THE 1953 CENTERLINE (SEE OSHD FILE 6196001, EXHIBIT A). RETRACEMENT OF THE 1953 ALIGNMENT INVOLVED ALL OR PARTS OF FOUR CURVES AS DESCRIBED BY THE AFORE MENTIONED OSHD FIELD NOTES #1526 AND OSHD DRAWING 7B-10-4. IT IS AS FOLLOWS:

FROM TWO 5/8" IRON ROD REFERENCES, 7+041.092 (131+00.70) P.I. WAS ESTABLISHED. THE BEARING OF THE BACK TANGENT WAS ESTABLISHED ALONG A LINE OF BEST FIT FROM REFERENCES FOUND FOR 6+873.122 (225+49.80) PT AND 6+956.392 (228+22.94) PS. THE BEARING OF THE FORWARD TANGENT WAS ESTABLISHED ALONG A LINE FROM THE PI'S AT 7+041.092 (231+00.70) AND A FOUND RAILROAD SPIKE AT THE LOCATION OF 7+516.865 (246+61.72) PI. THE FORWARD SEMI-TANGENT LENGTH FROM THE PI WAS DETERMINED USING 5/8" IRON ROD CENTERLINE REFERENCES FOUND FOR 7+125.463 (233+77.57) PT.

FOR THE SECOND CURVE, A LINE BETWEEN 7+041.092 (231+00.70) PI AND 7+516.865 (246+61.72) PI ESTABLISHED THE BEARING OF THE BACK TANGENT AND THE FORWARD BEARING WAS ESTABLISHED USING A RECORD DELTA OF 27°18'55". STATION 7+349.512 (241+12.66) PS AND 7+679.575 (251+95.54) PT WERE PLACED AT THE RECORD SEMI-TANGENT DISTANCE OF 167.363 M (549.06 FT) ALONG THE ESTABLISHED BEARINGS.

FOR THE THIRD CURVE, 7+857.090 (257+77.94) PI WAS ESTABLISHED USING A BEARING - BEARING INTERSECTION. THIS POINT WAS PLACED USING A LINE OF BEST FIT OF THE EXISTING ROAD FOR THE FORWARD TANGENT, AND THE PREVIOUSLY ESTABLISHED LINE FROM 7+516.865 (246+61.72) PI AS THE BACK TANGENT. STATION 7+693.825 (252+41.15) PS AND 8+019.278 (263+11.18) PT WERE PLACED AT CALCULATED SEMI-TANGENT LENGTH OF 163.263 M (535.65 FT) ALONG THE ESTABLISHED TANGENT LINES.

FOR THE FOURTH CURVE, 8+476.148 (278+04.59) PI WAS PLACED AT THE INTERSECTION OF TWO TANGENTS USING THE BEST FIT OF THE EXISTING ROAD. THE CURVE CONTROL POINTS 8+317.363 (272+85.15) PS AND 8+633.983 (283+20.94) PT WERE PLACED ALONG THE ESTABLISHED TANGENT LINES AT A CALCULATED SEMI-TANGENT DISTANCE OF 158.785 M (520.95 FT).

THE BASIS OF BEARING FOR THIS SURVEY WAS FROM GLOBAL POSITIONING POINTS (GPS) AUSTIN, K35, K35 AZIMUTH, SQUAW, AND SQUAW AZIMUTH, OBSERVED BY WALTER L. CASWELL, PLS. THESE POINTS ARE BRASS CAPS SET IN A CONCRETE COLLAR AS DESCRIBED BY GRANT COUNTY SURVEY 1205. THEY WERE CONVERTED FROM OREGON STATE PLANE COORDINATES NAD 83(91), NORTH ZONE, TO LOCAL DATUM PLANE COORDINATES USING A CONVERSION FACTOR OF 0.999728428. A CONTROL NETWORK WAS THEN RAN BETWEEN THEM AND ADJUSTED BY LEAST SQUARES. THE RECOVERED MONUMENTS WERE DOUBLE TIED FROM THE ADJUSTED NETWORK.

REFERENCES

HOMESTEAD ENTRY SURVEY NUMBER 89
GRANT COUNTY SURVEY NUMBER 151
GRANT COUNTY SURVEY NUMBER 900
GRANT COUNTY SURVEY NUMBER 901
GRANT COUNTY SURVEY NUMBER 1205
GRANT COUNTY SURVEY NUMBER 1206
GRANT COUNTY SURVEY NUMBER 1255
GRANT COUNTY DEED RECORDS; BOOK 65, PAGE 116
GRANT COUNTY DEED RECORDS; BOOK 66, PAGE 608
GRANT COUNTY DEED RECORDS; BOOK 66, PAGE 611
GRANT COUNTY MICROFILM DOCUMENT #77537
GRANT COUNTY DOCUMENT 114-01-75
GRANT COUNTY DOCUMENT 127-960-83
GRANT COUNTY DOCUMENT 137-943-88
BUREAU OF PUBLIC ROADS CONSTRUCTION PLANS FH-36
BUREAU OF PUBLIC ROADS PROJECT NUMBER 36-B3
OREGON STATE HIGHWAY DEPARTMENT FIELD NOTES #1526
OREGON STATE HIGHWAY DEPARTMENT DRAWING 7B-10-4
OREGON STATE HIGHWAY DEPARTMENT DRAWING 10B-3-15
OREGON STATE HIGHWAY DEPARTMENT DRAWING 10B-13-14
OREGON STATE HIGHWAY DEPARTMENT DRAWING 10B-14-14
OREGON STATE HIGHWAY DEPARTMENT DRAWING 10B-14-15
OREGON STATE HIGHWAY DEPARTMENT FILE 6196001

RECEIVED AND
FILED

APRIL 11, 2002

OFFICE OF COUNTY SURVEYOR
ROBERT E. BUTLER
STREET 20, SE, 22, 2000

K35: FND 3 1/2" BR. DISC MARKED "K35, 1930"
NAD 83(91) OREGON NORTH ZONE
N 339866.375 S.I. FEET
E 8743866.129 S.I. FEET
LOCAL DATUM PLANE
N 103619.411 METERS
E 2665854.368 METERS

AUSTIN
FND. 3" BR. DISC MKD. "AUSTIN"
NAD 83(91) OREGON NORTH ZONE
N 337193.183 S.I. FEET
E 8722929.316 S.I. FEET
LOCAL DATUM PLANE
N 102804.401 METERS
E 2659471.094 METERS

K35 AZIMUTH: FND. 3 1/2" BR. DISC
MARKED "K35 AZIMUTH"
NAD 83(91) OREGON NORTH ZONE
N 338914.983 S.I. FEET
E 8745514.207 S.I. FEET
LOCAL DATUM PLANE
N 103329.348 METERS
E 2666356.839 METERS

TO CONVERT METERS
TO S. I. FEET
DIVIDE BY 0.3048

SQUAW AZ.: FND. 3 1/2" BR.
DISC MKD. "SQUAW AZIMUTH"
NAD 83(91) OREGON NORTH ZONE
N 326622.590 S.I. FEET
E 8768486.177 S.I. FEET
LOCAL DATUM PLANE
N 99581.609 METERS
E 2673360.597 METERS

SQUAW
FND. 3 1/2" BR. DISC MKD. "SQUAW"
NAD 83(91) OREGON NORTH ZONE
N 327455.965 S.I. FEET
E 8765991.693 S.I. FEET
LOCAL DATUM PLANE
N 99835.691 METERS
E 2672600.072 METERS

BASIS OF BEARING
CS 1205

NO SCALE

THIS SURVEY USES LOCAL DATUM PLANE (LDP) COORDINATES.
TO CONVERT FROM LDP TO OREGON STATE PLANE COORDINATES,
NAD 83(91), NORTH ZONE, MULTIPLY BY A CONVERSION FACTOR
OF 0.999728428

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Robert E. Butler

OREGON
JULY 25, 1995
ROBERT E. BUTLER
2733

EXPIRES 12/31/2003

THIS PLAT USES OACES APPROVED
INK/MYLAR COMBINATION
HP c4871a/51642b

OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
OF THE 1953 AND 2000 ALIGNMENT OF THE
JOHN DAY HIGHWAY (AUSTIN JCT. - BAKER CO. LINE SECTION)
GRANT COUNTY, OREGON

AUG. 3, 1999 TO OCT. 17, 2001 FOR O.D.O.T. REGION 5
3012 ISLAND AVE., LA GRANDE, OREGON 97850
SURVEY NARRATIVE, BASIS OF BEARING SHEET 1 OF 21