

SURVEY NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO ESTABLISH A CONTROL NETWORK, PERPETUATE EXISTING MONUMENTATION, AND RESOLVE THE EXISTING RIGHT OF WAY (RW) FOR A PORTION OF THE HERMISTON HIGHWAY IN UMATILLA COUNTY, OREGON. FOR THIS SURVEY, WE ESTABLISHED A CONTROL NETWORK AND RECOVERED THE POSITION OF MONUMENTS IN THE AREA FOR THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT) AS PART OF THE FFO-OR207: UMATILLA RIVER (HINKLE) BR. NO. 02318A PROJECT.

THE CURRENT HERMISTON HIGHWAY BETWEEN THE RAILROAD UNDER PASS AND HIGHWAY 184 APPEARS TO BE THE CONGLOMERATE OF FOUR ALIGNMENTS: L2, L3, Y AND E.

THE 'L2' LINE IS THE OLDEST ALIGNMENT, DATING FROM 1936, AND IS DEFINED BY ODOT DRAWING 5B-7-18. THIS ALIGNMENT WAS A CONSTRUCTION LINE THAT PASSED THROUGH THE CENTER OF THE RAILROAD UNDERPASS AND CROSSED THE UMATILLA RIVER NORTHWESTERLY OF THE CURRENT LOCATION. THERE WAS RW PURCHASED OFF A SEPARATE ALIGNMENT ALSO SHOWN ON THE SAME DRAWING.

THE L3 ALIGNMENT IS DESCRIBED BY ODOT DRAWING 7B-34-16. IT HAS THE SAME INITIAL TANGENT AS THE L2 LINE AND SEPARATES FROM IT AFTER THE UNDERPASS AT STATION 'L3' 10+20.22 PS. IT THEN CONTINUES ACROSS THE CURRENT BRIDGE OVER THE RIVER TO STATION 'L3' 49+79.64. THIS IS THE BEGINNING OF THE 'Y' LINE, AND IS STATION 'Y' 49+79.64 PS.

NONE OF THE ORIGINAL RIGHT OF WAY (RW) MONUMENTS WERE RECOVERED FOR THIS PROJECT. A COMPARISON OF THE LENGTH OF THE DECK ON BRIDGE DRAWING 12922 AND THE MEASURED DISTANCES IN THE FIELD WERE ALMOST IDENTICAL AND A STATION OF 31+15.00 WAS ASSUMED AT CENTER OF SPAN. THE RECORD L3 ALIGNMENT FROM ODOT DRAWING 7B-34-16 WAS THEN RAN BACKWARDS ON LINE TO STATION EQUATION 1+19.00 AND ROTATED 1°06'03" COUNTERCLOCKWISE TO LINE UP WITH THE CENTER OF THE RAILROAD STRUCTURE AT THE UNDERPASS, AND ALSO EXTENDED SOUTHERLY FROM THE TO STATION 'Y' 49+79.69. THIS ALIGNMENT IS CONSISTANT WITH THE EXISTING PAVEMENT.

FROM STATION 35+00.00 AHEAD, ODOT DRAWING 7B-34-16 SHOWS 80 FEET TOTAL WIDTH, 40 FEET ON EITHER SIDE OF RW CENTER LINE. IT ALSO SHOWS THE EASTERLY RW BOUNDARY TO BE THE N-S CENTER SECTION LINE OF SECTION 33. THE MAP DOES NOT SHOW ANY EVIDENCE OF ANYTHING BEING FOUND TO SUPPORT THE POSITION OF SAID LINE, AND ODOT HAS RECORD OF RW PURCHASES EASTERLY OF SAID LINE. IT IS OUR CONCLUSION THAT THE N-S CENTER SECTION LINE IS THE EASTERLY BOUNDARY FOR THIS PORTION, AND THAT ODOT HAS LESS THAN 80' TOTAL WIDTH.

THE BASIS OF BEARING WAS ESTABLISHED BY GPS, USING AN OPUS SOLUTION AT POINT HINKLE.1. THIS SURVEY UTILIZES A LOCAL DATUM PLANE (LDP) WHICH IS RELATIVE TO THE OREGON COORDINATE SYSTEM (OCS) OF 1983 (CORS96, EPOCH 2002), NORTH ZONE, WITH RESPECT TO THE LOCAL LATITUDE AND GROUND ELEVATION. THE LDP COORDINATES DEFINE TRUE GROUND DISTANCES. TO CONVERT THE LDP COORDINATES, FOR THE CONTROL POINTS, TO THE OREGON COORDINATE SYSTEM OF 1983(CORS96, EPOCH 2002), NORTH ZONE, MULTIPLY THE LDP COORDINATES BY 0.99992798.

REFERENCE DOCUMENTS:

UMATILLA COUNTY SURVEYS; H-26-AX, M-79-C, 83-71-1, 88-15-C, 92-45-C, 93-28-C, 06-619-B (PART. PLAT # 2006-31)

REGISTERED PROFESSIONAL LAND SURVEYOR

Robert E. Butler

OREGON
July 25, 1995
ROBERT ERICH BUTLER
2733

EXPIRES: 12/31/2013

LEGEND	
	FOUND MONUMENT USED AS OPUS POINT
	FOUND MONUMENT USED AS GPS POINT
	SET GPS POINT
	FOUND MONUMENT AS NOTED
	SET NETWORK POINT

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OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
FFO-OR207: UMATILLA RIVER
(HINKLE) BRIDGE NO. 02318A
HERMISTON HIGHWAY (HWY. NO. 333)
UMATILLA COUNTY

ODOT REGION 5
3012 ISLAND AVE.
LA GRANDE, OR. 97850-9497

JANUARY 18, 2012
NOT TO SCALE
SHEET 1 OF 5

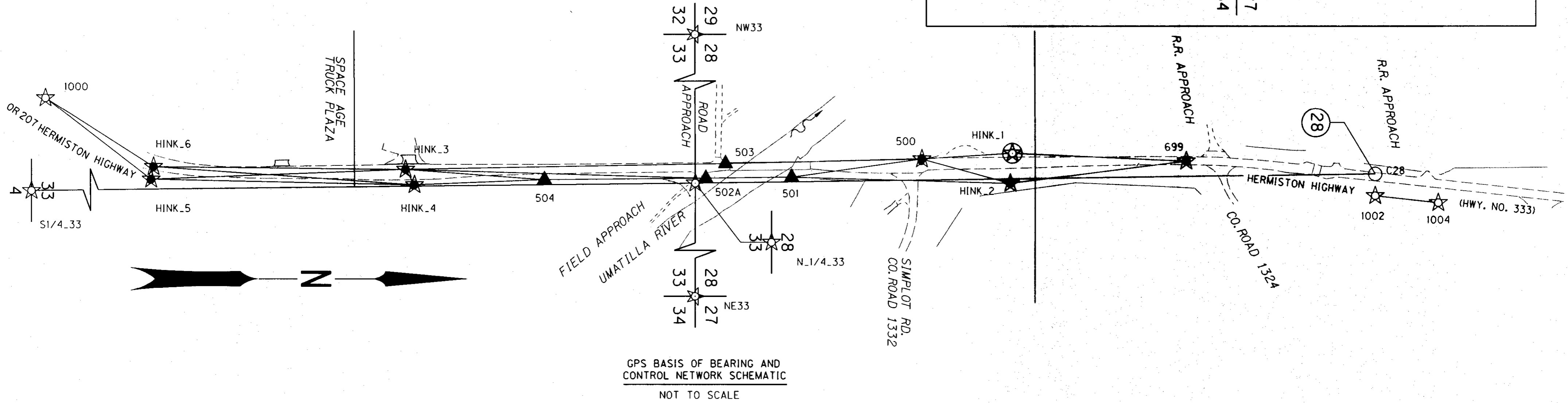
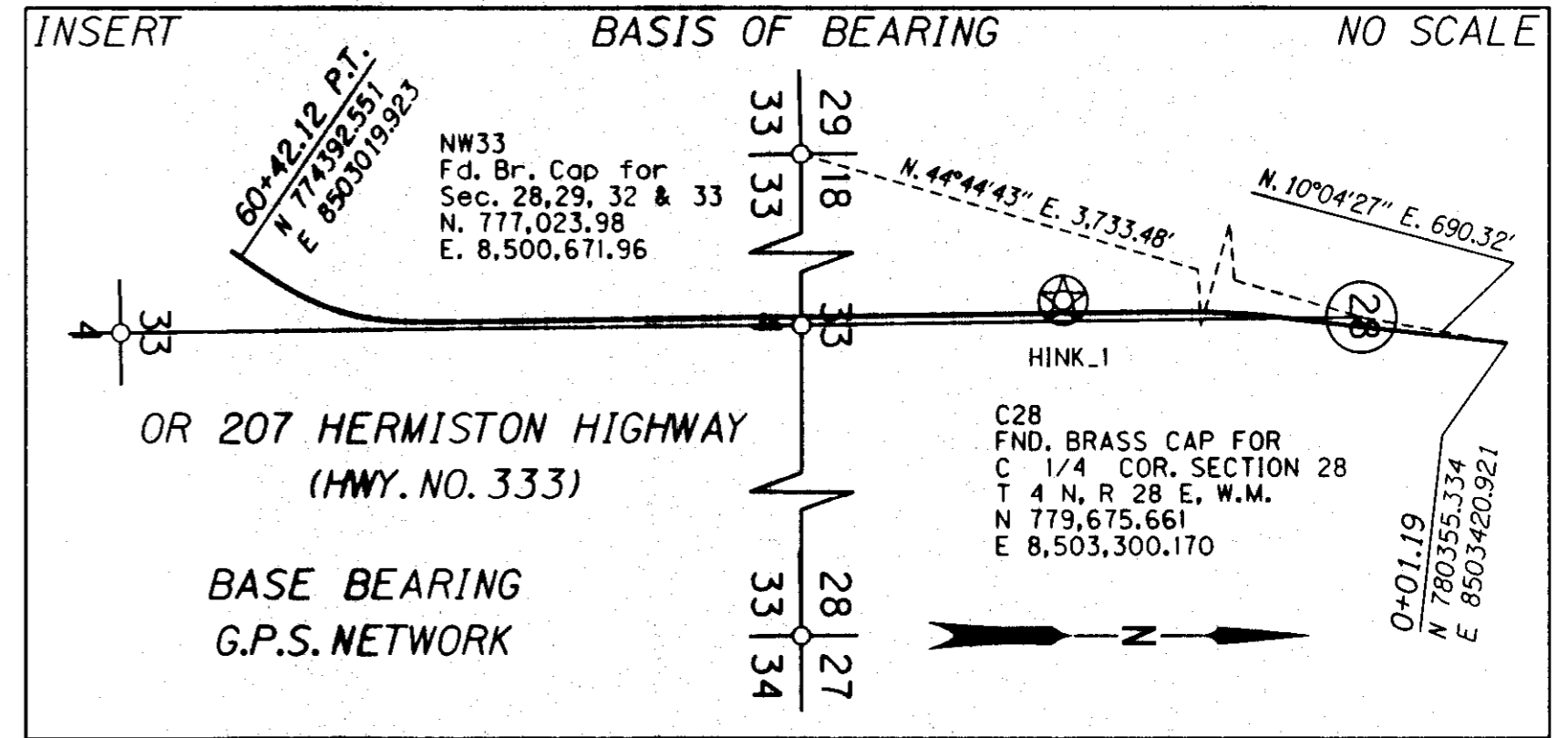
S 1/2, SEC. 28 & N 1/2, SEC. 33, T. 4 N., R. 28 E., W.M.

NETWORK DISTANCE AND BEARING TABLE

AT	TO	DIST. (FT)	BEARING
1000	HINK_5	515.51'	N 37°26'35" E
1000	HINK_6	495.40'	N 32°22'00" E
HINK_5	HINK_3	986.86'	N 02°08'23" W
HINK_5	HINK_4	1,021.17'	N 01°15'10" E
HINK_5	HINK_6	49.07'	N 79°15'38" W
HINK_6	HINK_3	977.10'	N 00°39'59" E
HINK_6	HINK_4	1,014.23'	N 03°59'17" E
HINK_3	HINK_4	68.62'	N 59°34'38" E
HINK_3	502A	1,167.27'	N 01°39'56" E
HINK_3	503	1,243.49'	N 01°02'16" W
HINK_3	504	540.68'	N 04°12'44" E
HINK_4	504	504.84'	N 02°12'32" W
502A	501	334.26'	N 00°47'11" W
503	500	762.36'	S 01°20'35" E
501	500	509.23'	S 07°52'13" E
501	HINK_2	848.43'	N 01°37'15" E
500	HINK_1	352.14'	N 03°37'32" W
HINK_1	699	676.36'	N 02°36'42" E
HINK_2	699	688.72'	N 07°06'15" W
1002	1004	246.45'	N 06°16'55" E
HINK_2	500	356.22'	S 15°15'19" W

LEGEND

- FOUND MONUMENT USED AS OPUS POINT
- FOUND MONUMENT USED AS GPS POINT
- SET GPS POINT
- SET NETWORK POINT
- FOUND MONUMENT AS NOTED
- LINES OF OBSERVATION



NETWORK CONTROL & RECOVERED MONUMENTS

PT. NO.	LDP NORTHING	LDP EASTING	DATE	DESCRIPTION & REFERENCE DOCUMENTS
C28	779675.661	8503300.170	3/15/2011	FOUND 2 1/2" DIA. BRASS DISK MARKED "T4N, R28E, C 1/4, S 28, 1987, PLS 699"
NE33	777031.9741	8506008.5669	3/15/2011	FOUND 2 3/8" DIA. BRASS CAP MARKED "T4N, R28E, 28, 27, 33, 34, 933, 1976"
N_1/4_33	777034.4945	8503335.9728	3/15/2011	FOUND AXLE; NOTED ON CS H-26-AX
NW33	777023.9786	8500671.9578	3/15/2011	FOUND 2 3/8" DIA. BRASS CAP MARKED "T4N, R28E, 29, 28, 32, 33, 1991, LS 951"
S_1/4_33	771747.4217	8503392.9839	3/15/2011	FOUND 2 3/8" DIA. BRASS CAP MARKED "T4N, R28E, 1/4, S 33, S 4, T3N, R28E, 1980, PLS 933"
HINK_1	778265.9781	8503220.4550	3/15/2011	SET 5/8" DIA. SMOOTH IRON ROD WITH 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT" AND SET CARSONITE POST
HINK_2	778258.2024	8503336.4511	3/15/2011	SET MAG NAIL AND CARSONITE POST
HINK_3	775909.1002	8503283.1147	3/15/2011	SET MAG NAIL
HINK_4	775943.8474	8,503,342.286	3/15/2011	SET MAG NAIL
HINK_5	774922.9250	8503319.9587	3/15/2011	SET MAG NAIL
HINK_6	774932.0685	8503271.7495	3/15/2011	SET MAG NAIL
500	777914.5398	8503242.7233	3/15/2011	SET HUB AND TACK
501	777410.1111	8503312.4531	3/15/2011	SET HUB AND TACK
502A	777075.8800	8503317.0400	3/15/2011	SET HUB AND TACK
503	777152.3884	8503260.5906	3/15/2011	SET HUB AND TACK
504	776448.3147	8503322.8288	3/15/2011	SET MAG NAIL
699	778,941.637	8503251.275	3/15/2011	SET MAG NAIL
1000	774513.6299	8503006.5429	3/15/2011	FOUND 5/8" DIA. IRON PIN WITH IRON PIN PROJECTING THROUGH PLASTIC CAP; CS 93-28-C
1002	779675.5576	8503384.4096	3/15/2011	FOUND 5/8" DIA. IRON PIN WITH YELLOW CAP MARKED "W. R. WELLS, PLS 1106"; CS 93-28-C
1004	779920.5228	8503411.3755	3/15/2011	FOUND 5/8" DIA. REBAR; CS 88-015-C

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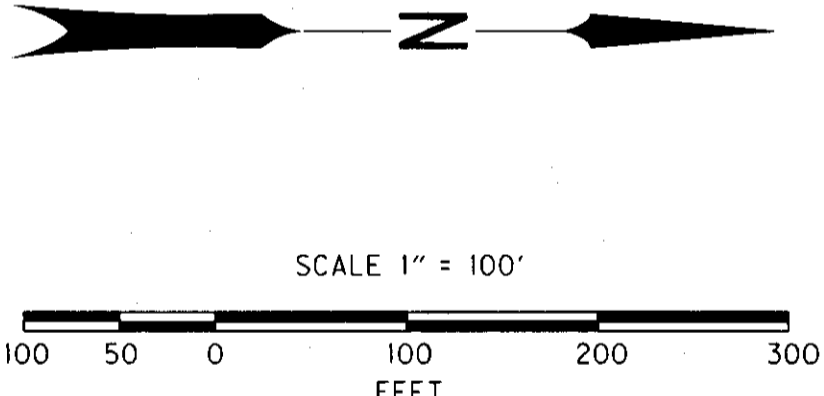
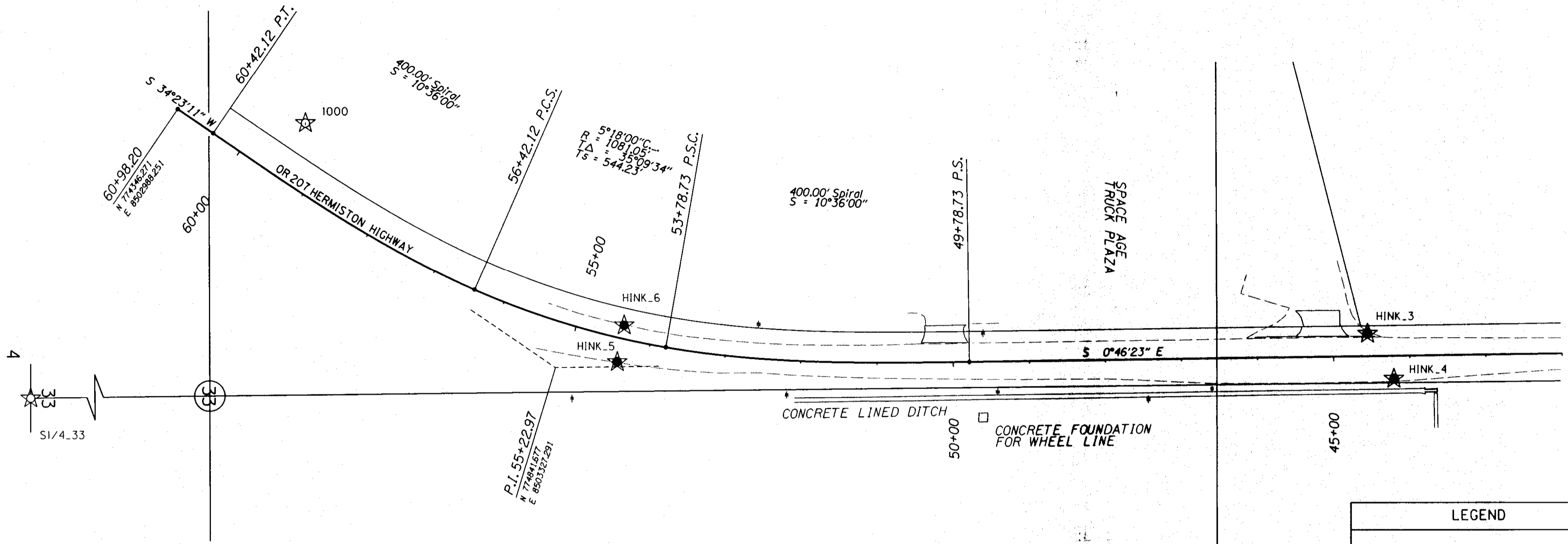
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OREGON DEPARTMENT OF TRANSPORTATION
 HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
 FFO-OR207: UMATILLA RIVER
 (HINKLE) BRIDGE NO. 02318A
 HERMISTON HIGHWAY (HWY NO. 333)
 UMATILLA COUNTY

ODOT REGION 5
 3012 ISLAND AVE.
 LA GRANDE, OR. 97850-9497

JANUARY 18, 2012
 NOT TO SCALE
 SHEET 2 OF 5

N 1/2, SEC. 33, T. 4 N., R. 28 E., W.M.



LEGEND	
	SET GPS OPUS POINT
	FOUND MONUMENT USED AS GPS POINT
	SET GPS POINT
	FOUND MONUMENT AS NOTED
	SET NETWORK POINT
	EXISTING RIGHT-OF-WAY
	NEW RIGHT-OF-WAY
	FENCE
	EDGE OF PAVEMENT
	SECTION LINE
	1/4 SECTION LINE
	1/16 SECTION LINE
	RIGHT-OF-WAY
	PROPERTY LINE

SET AND RECOVERED MONUMENT LIST

PT. NO.	LDP NORTHING	LDP EASTING	STATION & ALIGNMENT	OFFSET	DATE	DESCRIPTION & REFERENCE DOCUMENTS
SI\4_33	771,747.4217	8,503,392.9839	N/A OR207	N/A	3/15/2011	FOUND 2 3/8" DIA. BRASS CAP MARED "T4N, R28E, 1/4, S 33, S 4, T3N, R28E, 1980, PLS 933"
HINK_3	775,909.1002	8,503,283.1147	44+55.05 OR207	29.77' Rt.	3/15/2011	SET MAG NAIL
HINK_4	775,943.8474	8,503,342.2860	44+21.10 OR207	29.86' Lt.	3/15/2011	SET MAG NAIL
HINK_5	774,922.9250	8,503,319.9587	54+36.85 OR207	31.49' Lt.	3/15/2011	SET MAG NAIL
HINK_6	774,932.0685	8,503,271.7495	54.38.74 OR207	17.55 Rt.	3/15/2011	SET MAG NAIL
1000	774,513.6299	8,503,006.5429	59+48.96 OR207	79.12' Rt.	3/15/2011	FOUND 5/8" DIA. IRON PIN WITH IRON PIN PROJECTING THROUGH PLASTIC CAP

REGISTERED PROFESSIONAL LAND SURVEYOR
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 EXPIRES: 12/31/2013

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 1 INCH = 100 FEET
 SHEET 3 OF 5

S 1/2, SEC. 28 & N 1/2, SEC. 33, T. 4 N., R. 28 E., W.M.



NW33W
29
32
33
NW33S
28
NW33E
33
34

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Umatilla County Surveyor
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Rec'd By: Doug [Signature]
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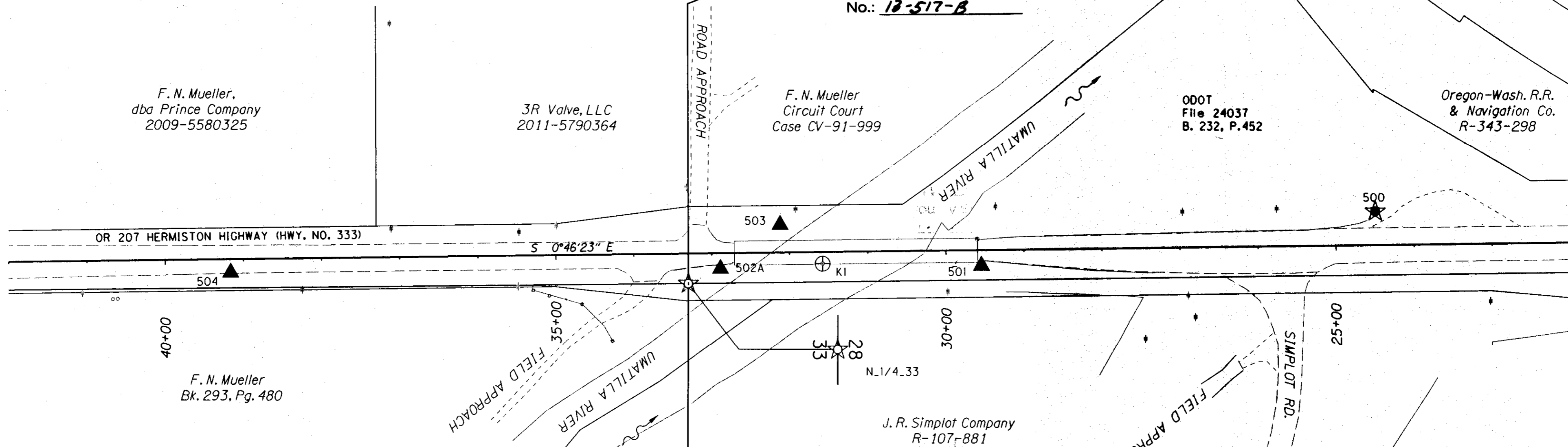
F. N. Mueller,
dba Prince Company
2009-5580325

3R Valve, LLC
2011-5790364

F. N. Mueller
Circuit Court
Case CV-91-999

ODOT
File 24037
B. 232, P.452

Oregon-Wash. R.R.
& Navigation Co.
R-343-298



ANGLES AND DISTANCES AND RECORD DATA

AT	TO	DISTANCE	BEARING	RECORD DATA
NE33	N. 1/4-33	2672.60'	NS89°56'45"W	N89°35'W 40.25 CH. (GLO); S89°06'51"E 2672.88' (CS M-079-C); N89°04'37"W 2672.57' (CS 92-045-C)
N. 1/4-33	NW33	2664.04'	S89°46'26"W	N89°35'W 40.25 CH. (GLO); S89°21'02"E 2664.11' (CS 92-045-C)
NW33	NW33E	15.38'	N88°43'13"E	EAST 16.04' (REMON SHEET V9-92-045-C)
NW33	NW33S	13.21'	S00°17'53"W	SOUTH 13.24' (REMON SHEET V9-92-045-C)
NW33	NW33W	17.03'	S88°54'00"W	WEST 16.38' (REMON SHEET V9-92-045-C)

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No.: _____

SCALE 1" = 100'



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LEGEND

- SET GPS OPUS POINT
- FOUND MONUMENT USED AS GPS POINT
- SET GPS POINT
- FOUND MONUMENT AS NOTED
- SET NETWORK POINT
- EXISTING RIGHT-OF-WAY
- NEW RIGHT-OF-WAY
- FENCE
- EDGE OF PAVEMENT
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- RIGHT-OF-WAY
- PROPERTY LINE

BENCHMARK TABLE

PT. NO.	LDP NORTHING	LDP EASTING	ELEVATION	STATION & ALIGNMENT	OFFSET	DATE	DESCRIPTION & REFERENCE DOCUMENTS
K1	777,206.528	8,503,310.200	554.66	31+58.10 OR207	14.82' Lt.	3/15/2011	FOUND BRASS DISK IN TOP OF BRIDGE RAIL AT MID SPAN MARKED "KRUMBIEN"

SET AND RECOVERED MONUMENT LIST

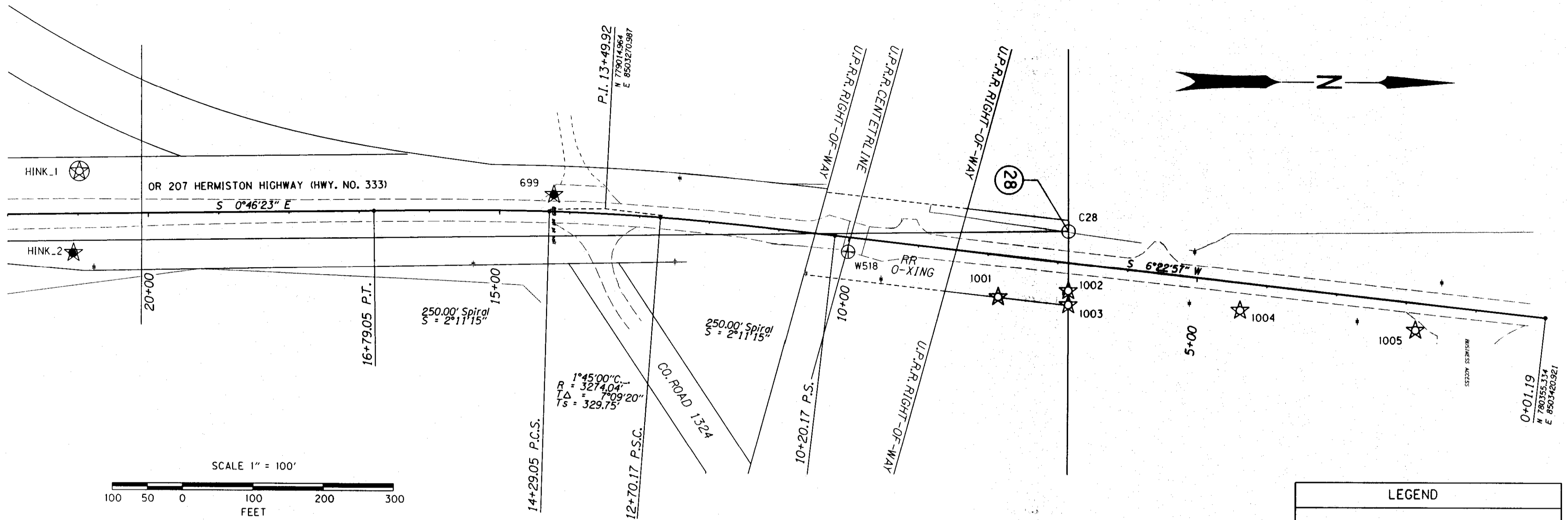
PT. NO.	LDP NORTHING	LDP EASTING	STATION & ALIGNMENT	OFFSET	DATE	DESCRIPTION & REFERENCE DOCUMENTS
C28	779,675.661	8,503,300.170				FOUND 2 1/2" DIA. BRASS DISK MARKED "T4N, R28E, C 1/4, S 28, 1987, PLS 699"
NE33	777,031.9741	8,506,008.5669	33+69.04 OR207	2,710.58' Lt.	3/15/2011	FOUND 2 3/8" DIA. BRASS CAP MARKED "T4N, R28E, 28, 27, 33, 34, 933, 1976"
N. 1/4-33	777,034.4945	8,503,335.9728	33+30.47 OR207	38.26' Lt.	3/15/2011	FOUND AXLE
NW33	777,023.9786	8,500,671.9578	33+05.04 OR207	2,625.65' Rt.	3/15/2011	FOUND 2 3/8" DIA. BRASS CAP MARKED "T4N, R28E, 29, 28, 32, 33, 1991, LS 951"
NW33E	777,024.3220	8,500,687.3307	33+04.91 OR207	2,610.28' Rt.	3/15/2011	FOUND REBAR
NW33S	777,010.7706	8,500,671.8891	33+18.25 OR207	2,625.90' Rt.	3/15/2011	FOUND REBAR
NW33W	777,023.6517	8,500,654.9339	33+05.14 OR207	2,642.68' Rt.	3/15/2011	FOUND REBAR
500	777,914.5398	8,503,242.7233	24+49.24 OR207	43.11' Rt.	3/15/2011	SET HUB AND TACK
501	777,410.1111	8,503,312.4531	29+54.57 OR207	19.81' Lt.	3/15/2011	SET HUB AND TACK
502A	777,075.8800	8,503,317.0400	32+88.83 OR207	19.89' Lt.	3/15/2011	SET HUB AND TACK
503	777,152.3884	8,503,260.5906	32+11.57 OR207	35.52' Rt.	3/15/2011	HUB AND TACK
504	776,448.3147	8,503,322.8288	39+16.42 OR207	17.21' Lt.	3/15/2011	SET MAG NAIL

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SHEET 4 OF 5

S 1/2, SEC. 28, T. 4 N., R. 28 E., W.M.



BENCHMARK TABLE

PT. NO.	LDP NORTHING	LDP EASTING	ELEVATION	STATION & ALIGNMENT	OFFSET	DATE	DESCRIPTION & REFERENCE DOCUMENTS
W518	779,361.489	8,503,330.240	584.380	9+98.96 OR207	20.36' Lt.	3/15/2011	FOUND 3" DIA. BRASS DISK MARKED "U.S. COSTAL GEODETIC SURVEY, FOR INFORMATION WRITE TO THE DIRECTOR WASHINGTON D.C., BENCH MARK, W518, 1959

SET AND RECOVERED MONUMENT LIST

PT. NO.	LDP NORTHING	LDP EASTING	STATION & ALIGNMENT	OFFSET	DATE	DESCRIPTION & REFERENCE DOCUMENTS
C28	779,675.661	8,503,300.170	6+90.07 OR207	44.45' Rt.	3/15/2011	FOUND 2 1/2" DIA. BRASS DISK MARKED "T4N, R28E, C 1/4, S 28, 1987, PLS 699"
HINK_1	778,265.9781	8,503,220.4550	20+97.54 OR207	60.63' Rt.	3/15/2011	SET 5/8" DIA. SMOOTH IRON ROD WITH 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT" AND SET CARSONITE POST
HINK_2	778,258.2024	8,503,336.4511	21+06.88 OR207	55.25' Lt.	3/15/2011	SET MAG NAIL AND CARSONITE POST
699	778,941.6370	8,503,251.275	14+23.28 OR207	24.13' Rt.	3/15/2011	SET MAG NAIL
1001	779,575.5705	8,503,393.4895	7+79.17 OR207	59.42' Lt.	3/15/2011	FOUND 5/8" DIA. IRON PIN WITH YELLOW CAP MARKED "W. R. WELLS, PLS 1106"
1002	779,675.5576	8,503,384.4096	6+80.81 OR207	39.28' Lt.	3/15/2011	FOUND 5/8" DIA. IRON PIN WITH YELLOW CAP MARKED "W. R. WELLS, PLS 1106"
1003	779,675.5593	8,503,404.5075	6+78.58 OR207	59.26' Lt.	3/15/2011	FOUND 5/8" DIA. IRON PIN WITH YELLOW CAP MARKED "W. R. WELLS, PLS 1106"
1004	779,920.5228	8,503,411.3755	4+34.37 OR207	38.85' Lt.	3/15/2011	FOUND 5/8" DIA. REBAR
1005	780,170.5851	8,503,438.8520	1+82.80 OR207	38.36' Lt.	3/15/2011	FOUND BENT 5/8" DIA. REBAR WITH NO CAP

ANGLES AND DISTANCES AND RECORD DATA

AT	TO	DISTANCE	BEARING	RECORD DATA
C28	1002	84.26'	S89°55'16"E	S89°52'45"W 84.25' (CS 88-015-C) N89°52'57"E 84.25' (CS 93-028-C)
1002	1003	20.10'	N89°59'43"E	N89°52'57"E 20.12' (CS 93-028-C)
1002	1005	498.01'	S06°16'34"W	N06°05'00"E 497.96' (CS 93-028-C)
1005	1004	251.57'	S06°16'14"W	N06°05'00"W 251.47' (CS 88-015-C); N06°05'00"W 251.56' (CS 93-028-C)
1004	1002	246.45'	S06°16'55"W	N06°05'00"E 246.43' (CS 88-015-C)

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	SET GPS OPUS POINT
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	EXISTING RIGHT-OF-WAY
	NEW RIGHT-OF-WAY
	FENCE
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	SECTION LINE
	1/4 SECTION LINE
	1/16 SECTION LINE
	RIGHT-OF-WAY
	U.P.R.R. RIGHT-OF-WAY
	PROPERTY LINE