

NARRATIVE

THE PURPOSE OF THIS NARRATIVE IS TO ADDRESS HOW THIS SURVEY WAS COMPLETED. THE WORK CONSISTED OF MAPPING THE INTERSECTION OF OREGON-WASHINGTON AND ATHENA-HOLDMAN FOR IMPROVEMENT HWY 11 AT MP 17.

THE SURVEY CREW PERFORMING THE WORK CONSISTED PRIMARILY OF CHARLES LONGFIELD, TOM HUEBNER, AND ROBERT WALTER. THE SURVEY WORK WAS COMPLETED IN T. 4 N. R. 35 E. TO ACCOMPLISH THE WORK WE UTILIZED TWO MONUMENTS FOR OUR BASIS OF BEARING. POINT NUMBER 19, A 2 1/2-INCH BRASS CAP SET IN THE ROADWAY OF ATHENA-HOLDMAN HIGHWAY, WAS THE 1/4 CORNER BETWEEN SECTIONS 19 AND 20. POINT NUMBER 50, A 1 1/2-INCH IRON PIPE WITH PLASTIC CAP MARKED "OR2166LS", WAS THE SECTION CORNER 17, 18, 19, AND 20. THE BEARING WAS THE RECORD DISTANCE CALCULATED TO 814.456 M (GRID DISTANCE) WITH A RECORD BEARING OF N 2°01'58" E, OBTAINED FROM PLAT # 97-141-C AT UMATILLA COUNTY SURVEYORS OFFICE. SURVEY PERFORMED BY WILLIAM R. WELLS. COORDINATES WERE ESTABLISHED USING STATE PLANE COORDINATES OFF CORNER RESTORATION FORM FOR POINT NUMBER 19, COMPLETED BY WILLIAM R. WELLS. THE COORDINATES WERE CONVERTED TO METRIC BY MULTIPLYING BY .3048.

TO ESTABLISH THE NETWORK, WE SET 30" LONG 5/8" IRON REBAR WITH 1 1/2-INCH ALUMINUM CAPS STAMPED NET PT AND NUMBER FOR POINTS 100, 101, AND 102. ALSO TIED TO THE NETWORK WERE POINTS 10 AND 11. POINT 11 WAS A TRIANGULAR STATION DISK MARKED ATHENA. POINT 10 WAS A REFERENCE MARKER FOR POINT 11 MARKED ATHENA RM 1. THE NETWORK WAS ADJUSTED USING LEAST SQUARES IN LISCAD. THE TOLERANCES FELL WITHIN ACCEPTABLE ODOT TOLERANCES.

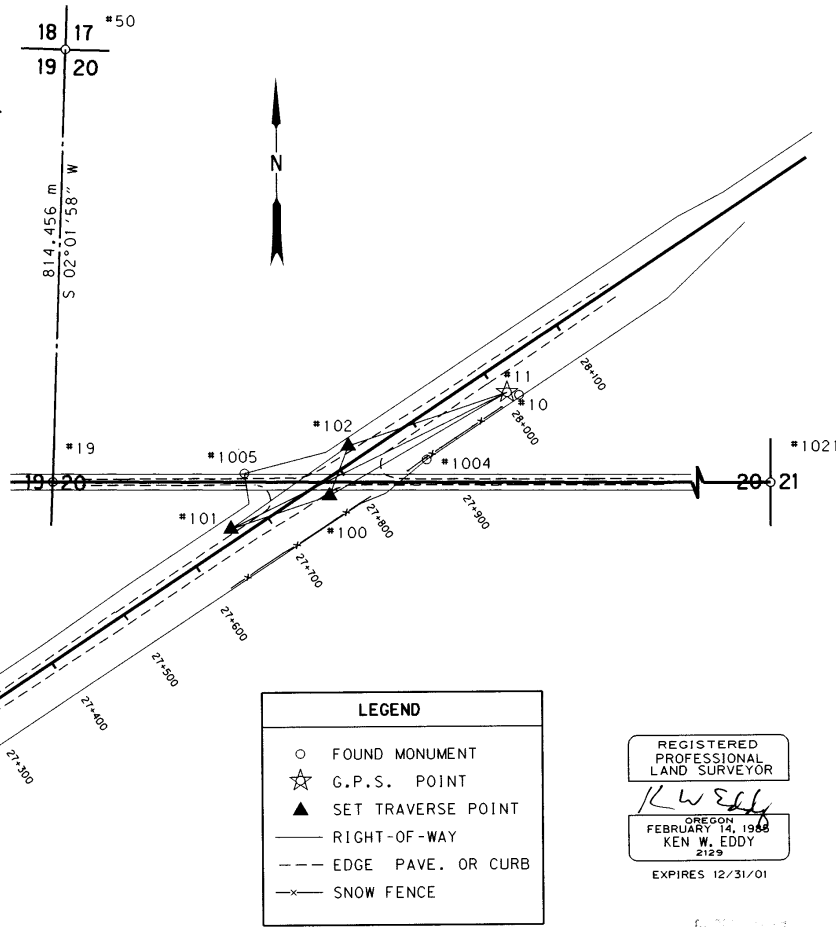
RIGHT OF WAY POINTS AND A SECTION CORNER WERE ADDED AS PIN TIES. THEY WERE ADJUSTED USING LEAST SQUARES AFTER OUR PRIMARY NETWORK POINTS WERE FIXED. POINT NUMBER 1001 WAS A R/W PIN AT STATION 850+85.25 P.S. 75' LT. POINT NUMBER 1002 WAS A R/W PIN AT L3 835+25.50 PT BK 80' = L3 834+96.07 POT AH 60'. POINT NUMBER 1003 WAS A R/W PIN AT LT 835+25.50 PT BK = 834+96.07 POT AH 60'. POINT NUMBER 1004 WAS A 12 MM R/W PIN LOCATED IN THE NE CORNER OF THE INTERSECTION BETWEEN ATHENA-HOLDMAN AND OREGON WASHINGTON INTERSECTION, 42.75' RT. POINT NUMBER 1021, A 2 1/2 INCH BRASS CAP SET IN ROADWAY ON BANISTER ROAD, WAS A 1/4 CORNER BETWEEN SECTIONS 20 AND 21.

THE STATIONING OBTAINED FROM THE PROJECT WAS TAKEN OFF R/W MAP # 9B-25-18 AND TIED TO OUR R/W POINTS IN THE FIELD.

THE VERTICAL CONTROL WAS ESTABLISHED USING THE PUBLISHED VERTICAL ELEVATION OFF THE NGS DATA SHEET FROM ATHENA (SECOND CLASS I). WE USED THE NAVD 88 ELEVATION OF 570.509 METERS. THIS WAS THEN RAN THROUGH OUR NETWORK POINTS, WE MAPPED FROM, TO ESTABLISH VERTICAL CONTROL.

THE DATA OBTAINED WAS THEN EDITED AND CONVERTED TO A DIGITAL TERRAIN MODEL BY USE OF LISCAD. CONFIDENCE POINTS WERE TAKEN AND INCORPORATED INTO THE PROJECT. THE CONFIDENCE EVALUATION PROVED THE MODEL WAS ACCEPTABLE PER ODOT STANDARDS.

THE EQUIPMENT USED ON THIS PROJECT WAS A 94-0927 T-1610 AND GIF 10 DATA COLLECTOR. A WILD NA2002 DIGITAL LEVEL WAS USED ON THE PROJECT TO ESTABLISH ELEVATIONS.



**LEGEND**

- FOUND MONUMENT
- ☆ G.P.S. POINT
- ▲ SET TRAVERSE POINT
- RIGHT-OF-WAY
- - - EDGE PAVE. OR CURB
- · - · - SNOW FENCE

REGISTERED PROFESSIONAL LAND SURVEYOR

*K Wells*

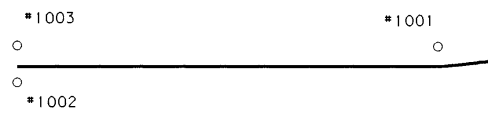
OREGON  
FEBRUARY 14, 1988  
KEN W. EDDY  
2129

EXPIRES 12/31/01

5-2000  
KK  
00-121-B

**LINE TABLE**

AT	TO	DISTANCE	BEARING
11	100	236.970 m	S 59°58'12"W
11	101	337.306 m	S 62°21'42"W
11	102	193.160 m	S 71°35'43"E
102	100	62.622 m	S 20°47'51"W
102	101	165.795 m	S 54°50'07"W



NETWORK POINT COORDINATE TABLE

PT ID	NORTHING	EASTING	DESCRIPTION
10	240424.879	2657705.567	FND REFERENCE MARKER FOR PT 11 MARKED ATHENA RM 1
11	240428.184	2657691.752	FND TRIANGULAR STATION DISK MARKED ATHENA RM 1
19	240327.424	2657167.804	FND 2 1/2 IN BRASS DISK, 1/4 CORNER BETWEEN SECTIONS 19 AND 20
50	241141.367	2657196.694	FND 1 1/2 IN IRON PIPE WITH PLASTIC CAP MARKED OR2166LS, SECTION CORNER 17, 18, 19, 20.
100	240309.591	2657486.592	SET 30 IN X 5/8 IN IRON REBAR WITH 1 1/2 IN ALUM CAP MARKED OSHD NET PT 100
101	240271.712	2657372.935	SET 30 IN X 5/8 IN IRON REBAR WITH 1 1/2 IN ALUM CAP MARKED OSHD NET PT 101
102	240367.198	2657508.472	SET 30 IN X 5/8 IN IRON REBAR WITH 1 1/2 IN ALUM CAP MARKED OSHD NET PT 102
1001	239568.576	2655852.231	FND 65 mm BRASS DISK IN CONC. OSHD REF FLUSH WITH GROUND AT STATION 850+85.25 PS 75 FT LT
1002	239530.780	2655367.646	FND 5/8 IN IRON REBAR W/ 1 1/2 IN ALUM CAP OSHD AT L3 835+25.50 PT BK 80 FT = L3 834+96.07 POT AH 60 FT
1003	239573.437	2655367.940	FND 5/8 IN IRON ROD WITH 1 1/2 IN ALUM CAP OSHD AT LT 835+25.50 PT BK = 834+96.07 POT AH 60 FT
1004	240350.858	2657598.416	FND 12 mm R/W IRON PIN LOCATED IN THE NE CORNER OF INTERSECTION
1005	240335.916	2657388.698	FND 5/8 IN IRON REBAR WITH NO CAP LOCATED IN THE NW CORNER OF INTERSECTION
1021	240316.345	2658740.785	FND 2 1/2 IN BRASS 1/4 CORNER BETWEEN SECTION 20 AND 21



BASIS OF BEARING AND CONTROL NETWORK SCHEMATIC  
NOT TO SCALE

**OREGON DEPARTMENT OF TRANSPORTATION**

HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP

ORE-WA / ATHENA HOLDMAN HWY

JUNCTION OREGON-WASHINGTON HWY AND ATHENA HOLDMAN HWY

UMATILLA COUNTY

FOR O.D.O.T. REGION 5 80788 KIK ROAD, HERMISTON, OR. 97838

FEBRUARY 25, 2000 SHEET 1 OF 1