

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 (CONVERTED TO METRIC BY MULTIPLYING BY .0348) 814,569 M 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 ASSUMED.

TO ESTABLISH THE NETWORK, WE SET 30" LONG 5/8" IRON REBAR WITH 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.

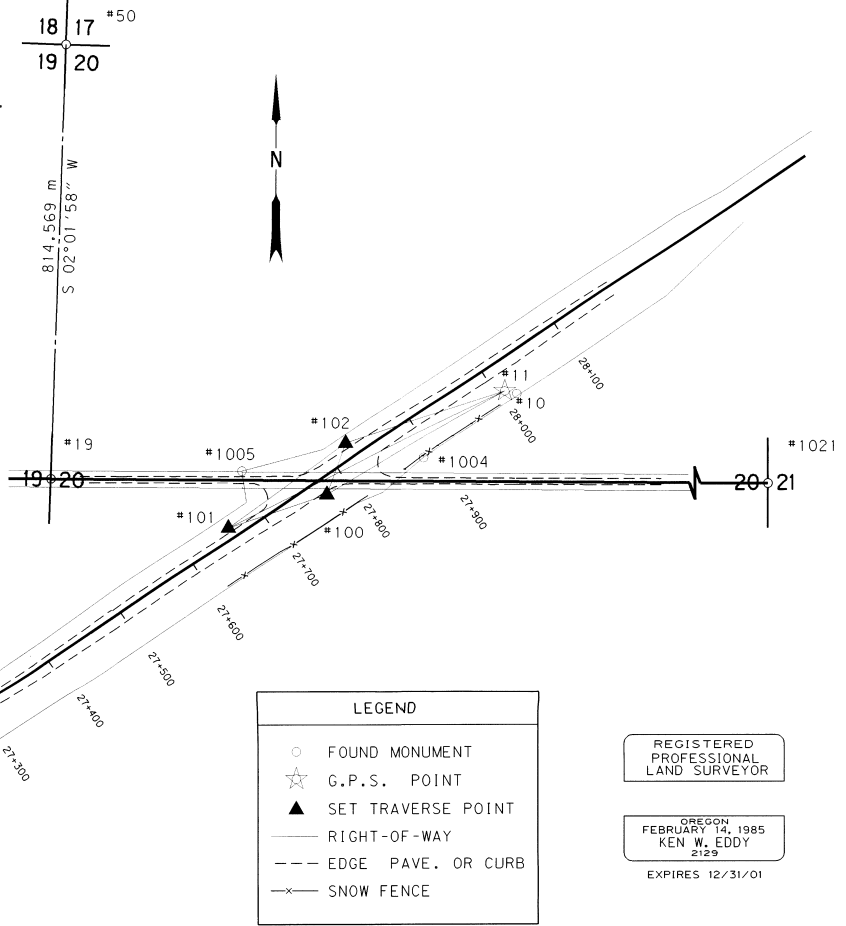
RIGHT OF WAY POINTS AND A SECTION CORNER WERE ADDED AS PIN TIES. THEY WERE ADJUSTED USING LEAST SQUARES AFTER OUR PRIMARY NETWORK POINTS WERE FIXED. POINT NUMBER 1001 WAS A R/W PIN AT STATION 850+85.25 P.S. 75' LT. POINT NUMBER 1002 WAS A R/W PIN AT L3 835+25.50 PT BK 80' = L3 834+96.07 POT AH 60'. POINT 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 CN 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 1). 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.

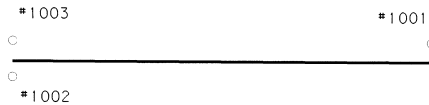
THE DATA OBTAINED WAS THEN EDITED AND CONVERTED TO A DIGITAL TERRAIN MODEL BY USE OF LISCAD. CONFIDENCE POINTS WERE TAKEN AND INCORPORATED INTO THE PROJECT. THE CONFIDENCE EVALUATION PROVED THE MODEL WAS ACCEPTABLE PER ODOT STANDARDS.

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.



LINE TABLE

AT	TO	DISTANCE	BEARING
11	100	236.970 m	S 59°57'39"W
11	101	355.144 m	S 63°50'54"W
11	102	193.161 m	S 71°35'11"W
102	100	61.621 m	S 20°47'16"W
102	101	165.795 m	S 54°49'23"W



NETWORK POINT COORDINATE TABLE

PT ID	NORTHING	EASTING	DESCRIPTION
10	10097.574	50537.746	FND REFERENCE MARKER FOR PT 11 MARKED ATHENA RM 1
11	10100.877	50523.930	FND TRIANGULAR STATION DISK MARKED ATHENA
19	10000.000	50000.000	FND 2 1/2 IN BRASS DISK, 1/4 CORNER BETWEEN SECTIONS 19 AND 20
50	10814.056	50028.894	FND 1 1/2 IN IRON PIPE WITH PLASTIC CAP MARKED OR2166LS, SECTION CORNER 17, 18, 19, AND 20.
100	9982.252	50318.789	SET 30 IN X 5/8 IN IRON REBAR WITH 1/2 IN ALUM CAP MARKED OSHD NET PT 100
101	9944.347	50205.142	SET 30 IN X 5/8 IN IRON REBAR WITH 1/2 IN ALUM CAP MARKED OSHD NET PT 101
102	10039.862	50340.659	SET 30 IN X 5/8 IN IRON REBAR WITH 1/2 IN ALUM CAP MARKED OSHD NET PT 102
1001	9240.982	48684.544	FND 65 mm BRASS DISK IN CONC. OSHD REF FLUSH WITH GROUND AT STATION 850+85.25 PS 75 FT LT
1002	9203.112	48199.965	FND 5/8 IN IRON REBAR W/ 1/2 IN ALUM CAP OSHD AT L3 835+25.50 PT BK 80 FT = L3 834+96.07 POT AH 60 FT
1003	9245.769	48200.253	FND 5/8 IN IRON ROD WITH 1/2 IN ALUM CAP OSHD AT LT 835+25.50 PT BK = 834+96.07 POT AH 60 FT
1004	10023.542	50430.605	FND 12 mm R/W IRON PIN LOCATED IN THE NE CORNER OF INTERSECTION
1005	10008.559	50220.891	FND 5/8 IN IRON REBAR WITH NO CAP LOCATED IN THE NW CORNER OF INTERSECTION
1021	9989.202	51572.983	FND 2 1/2 IN BRASS 1/4 CORNER BETWEEN SECTION 20 AND 21

**LEGEND**

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

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON  
FEBRUARY 14, 1985  
KEN W. EDDY  
2129  
EXPIRES 12/31/01



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