

PROJECT NARRATIVE

FILED  
 Date: 7/9/2009 By: JG  
 This survey consists of:  
 Map: ST HWY  
 Narrative: 138-011A-Y  
 Corner Rpt:  
 DOUGLAS COUNTY  
 SURVEYOR

PURPOSE:

THE PROPOSE OF THIS SURVEY WAS TO ESTABLISH HORIZONTAL AND VERTICAL CONTROL, RESOLVE THE CENTER LINE OF THE ROADWAY AND GATHER TOPOGRAPHICAL INFORMATION FOR A CONSTRUCTION PROJECT NAMED "OR138E: WILLIAMS CREEK FISH PASSAGE" AND "FOREST BOUNDARY-STEAMBOAT". HIGHWAY 138E WAS MAPPED BEGINNING AT THE WEST BOUNDARY LINE OF THE UMPQUA NATIONAL FOREST TO THE JUNCTION OF HIGHWAY 138E AND STEAMBOAT CREEK ROAD, APPROXIMATELY 8 MILES OF ROADWAY. THIS WAS COMPLETED TO ALLOW ODOT TO REQUEST A PERMANENT EASEMENT THROUGH NATIONAL FOREST LAND FOR HIGHWAY RIGHT-OF-WAY PURPOSES.

THIS SURVEY WAS STARTED IN SEPTEMBER OF 2007 AND THE FIELD WORK WAS COMPLETED IN NOVEMBER OF 2007 BY THE ODOT SURVEY CREW FROM DISTRICT 7, REGION 3 HEADQUARTERS IN ROSEBURG.

THE BASIS OF BEARING IS BASED ON THE OREGON COORDINATE SYSTEM (OCS) OF NAD 83(96 COORS) EPOCH 2002, OREGON SOUTH ZONE. THIS SURVEY UTILIZES A LOCAL DATUM PLANE (LDP) WHICH IS RELATIVE TO THE OCS, WITH RESPECT TO THE LOCAL LATITUDE AND GROUND ELEVATION. THE LDP COORDINATES DEFINE TRUE GROUND DISTANCES. TO CONVERT LDP COORDINATES TO THE OREGON COORDINATE SYSTEM, MULTIPLY THE COORDINATES BY 0.99984945.

THE FIELD BOOK NUMBER IS 4427 AND COPIES OF THE ORIGINAL FIELD NOTES ARE AVAILABLE AT THE ODOT MAP AND PLAN CENTER IN SALEM, OREGON.

HORIZONTAL CONTROL:

GPS MONUMENTS WERE SET APPROXIMATELY EVERY 1 / 2 MILE FOR CONTROL. THE GPS POSITIONS WERE ESTABLISHED BY USING OPUS SOLUTIONS. THE MONUMENTS WERE OCCUPIED A 4 HOUR MINIMUM OBSERVATION TIME AND ARE STABILIZED IN CONCRETE. THE NETWORK WAS ESTABLISHED BY LINE OF SIGHT OBSERVATIONS WITH A TCA 1800 TOTAL STATION TO ESTABLISH POSITIONS OF SET NETWORK POINTS HOLDING THE GPS MONUMENTS AS FIXED POINTS.

FROM THESE NETWORK POINTS TOPOGRAPHICAL INFORMATION WAS GATHERED AND GPS POSITIONS WERE ESTABLISHED ON FOUND GOVERNMENT CORNERS BY RTK (REAL TIME KINEMATIC) OBSERVATIONS WHEREVER POSSIBLE. THE TOPOGRAPHICAL INFORMATION WAS LIMITED TO THE EDGE OF THE PAVED SHOULDER, GUARDRAIL AND CULVERTS ALONG THIS ROUTE. HOWEVER AT THE SITE OF THE WILLIAMS CREEK CULVERT A FULL DTM WAS COMPLETED FOR THE FUTURE CONSTRUCTION PROJECT AS WELL AS VERTICAL CONTROL.

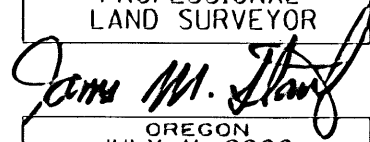
EQUIPMENT:

EQUIPMENT USED FOR THIS SURVEY INCLUDES A LEICA TCA 1800 TOTAL STATION (SERIAL # 418939) WITH THE FOLLOWING ACCURACY STANDARDS: ANGULAR ERROR OF +/- 1 SECOND, AND A DISTANCE ERROR OF +/- 2MM, + 2 PPM. A LEICA GX1230 DUAL FREQUENCY RECEIVER WITH A AX1202 ANTENNA WHICH WAS USED FOR GPS OBSERVATIONS AND WITH THE FOLLOWING ACCURACY STANDARDS: PHASED DIFFERENTIAL STATIC METHOD HORIZONTAL ERROR OF +/- 5 MM +0.5 PPM, AND A VERTICAL ERROR OF 10 MM, +1 PPM.









RETRACEMENT:


THERE WAS A LACK OF RIGHT OF WAY MONUMENTS FOR THIS PORTION OF THE ROAD, TO ESTABLISH THE CENTER LINE OF THE NATIONAL FOREST ROAD RIGHT-OF-WAY AS BUILT CONSTRUCTION PLANS FOR A FEDERAL WORKS AGENCY OF PUBLIC ROADS ADMINISTRATION (BUREAU OF PUBLIC ROADS) PROJECT IN 1952 NAMED "47FV1-24" WERE USED AS A STARTING POINT. WITH THE ABSENCE OF MONUMENTS THE ROAD ITSELF WAS USED AS A MONUMENT. TO ESTABLISH THE CENTER OF THE RIGHT-OF-WAY A SPLIT OF THE EXISTING PAVEMENT OR CENTER LINE STRIPING AT TANGENT SECTIONS OF THE ROAD WAS USED TO DEFINE THE CENTER LINE. POINTS OF INTERSECTION WERE DERIVED BY EXTENDING THE TANGENT LINES TO INTERSECTION. THE RECORD DEGREE OF CURVE AND SPIRAL LENGTHS WERE USED AS A STARTING POINT TO ESTABLISH A BEST FIT OF THE CURVES TO THE TANGENTS.

APPROXIMATE SECTION LINES AND PRIVATE PROPERTY LINES WERE ESTABLISHED BY FOUND CORNERS, GLO MAPS, AS WELL AS THE DOUGLAS COUNTY ASSESSORS MAPS.

REGISTERED  
 PROFESSIONAL  
 LAND SURVEYOR  
  
 OREGON  
 JULY 11, 2000  
 JAMES M. STANLEY  
 49863LS  
 EXPIRES 06/30/2010

ODOT LEGEND

BOUNDARY LINE LEGEND	
	TOWNSHIP
	SECTION
	1/4 SECTION
	SIXTEENTH SECTION OR GOVERNMENT LOT
	EXISTING EASEMENT PREV. FS PLAT Bk. 1335, Pg. 367
	EXISTING PROPERTY
	PERMANENT EASEMENT
	NETWORK POINT

 OREGON DEPARTMENT OF TRANSPORTATION  
 HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP  
 FOREST BOUNDARY-STEAMBOAT CREEK  
 NORTH UMPQUA HWY. OR138E, MP 30.65-39.50  
 DOUGLAS COUNTY  
 File : I5205rw.dgn

FOR ODOT REGION 3  
 3500 NW. STEWART PKWY.  
 ROSEBURG, OR. 97470

JUNE 30, 2009  
 SHEET 2 OF 25