

POINT LEGEND

- ★ SET GPS POINT
- ▲ SET NETWORK POINT
- ◆ SET STRATEGIC POINT

BOUNDARY LINE LEGEND

- EXISTING HIGHWAY RIGHT OF WAY
- EXISTING PROPERTY
- SECTION
- 1/4 SECTION
- 1/16 SECTION OR GOVERNMENT LOT

SURVEY NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO MONUMENT THE FIELD LOCATION OF THE EXISTING RIGHT OF WAY OF NORTH UMPQUA HIGHWAY (OR 138E) IN THE VICINITY OF IDLEYLD PARK, OR. THIS SURVEY ALSO PERPETUATES ANY EXISTING SURVEY MONUMENTS LYING ALONG THIS SECTION OF HIGHWAY. PERPETUATION OF THE MONUMENT LOCATIONS WAS ACCOMPLISHED BY TYING THE MONUMENTS TO THE PROJECT CONTROL NETWORK. THIS SURVEY WAS PERFORMED AT THE REQUEST OF THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT) REGION 3, DISTRICT 7 OFFICE AND INCLUDES THE FILING OF THIS CONTROL, RECOVERY, RETRACEMENT, AND MONUMENTATION MAP IN SUPPORT OF A PROJECT NAMED "OR138-TIOGA LANE RIGHT OF WAY". SURVEY FIELD WORK WAS PERFORMED BETWEEN AUGUST 1, 2011 AND JANUARY 26, 2012. THE ORIGINAL FIELD NOTES FOR THE PROJECT ARE ARCHIVED IN SALEM IN FIELD BOOK NUMBER 4519. CONTROL POINTS NUMBERED 1-8 AND 501 FOR THIS SURVEY WERE NOT SET ON AND DO NOT REPRESENT PROPERTY LINES OR RIGHT OF WAY LINES AND ARE INTENDED FOR USE BY ODOT IN SUPPORT OF FUTURE PROJECTS. IT IS NOT THE INTENT OF ODOT TO PERPETUATE THESE POINTS AS BOUNDARY MONUMENTS. REFERENCE DOCUMENTS USED: ODOT DRG. 5B-17-17, BUREAU OF PUBLIC ROADS ADMINISTRATION MAP (DATED DECEMBER 9, 1948), ST. ROLL MAP K-5, BOOK 137, PAGE 117, BOOK 137, PAGE 121.

THE BEARINGS ARE BASED ON THE OREGON COORDINATE REFERENCE SYSTEM (OCRS) COTTAGE GROVE TO CANYONVILLE PROJECTION, NAD 1983 (OCRS 96) EPOCH 2002. THE OCERS COORDINATES SHALL MATCH TRUE GROUND DISTANCES WITHIN A MAXIMUM VALUE OF +/- 10 PPM. SET CONTROL MONUMENTS 1 AND 2 REPRESENT THE COORDINATES AND BASIS OF BEARING FOR THIS PROJECT. ALL COORDINATES ARE IN INTERNATIONAL FEET.

HORIZONTAL CONTROL INVOLVED TWO 45 MINUTE RAPID STATIC GPS OBSERVATIONS COLLECTED ON POINTS 1 AND 2 WITH AT LEAST 45 MINUTES BETWEEN OCCUPATIONS. RINEX FILES WERE DOWNLOADED FROM THE OREGON REALTIME GPS NETWORK (ORGN) FOR POINTS "OAKR", "YONC", "DCSO", "SUHS", "PSPT", AND "CHEM". USING THESE FILES, POSITIONS FOR POINTS 1 AND 2 WERE CALCULATED. IT WAS FOUND THAT USING POINT "CHEM" CREATED UNACCEPTABLE RESIDUALS, SO IT WAS REMOVED FROM THE ADJUSTMENT PRODUCING ACCEPTABLE RESIDUALS WITH THE REMAINING FIVE POINTS. A HORIZONTAL CONTROL NETWORK WAS RAN THROUGH POINTS 1-8. A LEAST SQUARES ADJUSTMENT WAS APPLIED TO THIS NETWORK HOLDING THE CALCULATED POSITIONS OF POINTS 1 AND 2 FIXED. THIS LEAST SQUARES ADJUSTMENT WAS PERFORMED UTILIZING LEICA GEOMATIC OFFICE (LGO) WHICH PASSED ODOT STANDARDS FOR A 2D NETWORK.

A LEICA GX1230 DUAL FREQUENCY RECEIVER WAS USED FOR GPS OBSERVATIONS. IT HAS THE FOLLOWING ACCURACY: PHASED DIFFERENTIAL STATIC METHOD HORIZONTAL ERROR OF 5 MM + 0.5 PPM, AND VERTICAL ERROR OF 10 MM + 0.5 PPM. A PHASED DIFFERENTIAL RTK METHOD HORIZONTAL ERROR OF 10 MM + 1 PPM AND A VERTICAL ERROR OF 20 MM + 1 PPM. A LEICA VIVA TS-15 TOTAL STATION WAS USED FOR GATHERING TOPOGRAPHICAL DATA AND SOME OF THE MONUMENT TIES. IT HAS THE FOLLOWING ACCURACY: STANDARD ANGULAR ERROR +/- 1 SECOND AND STANDARD DISTANCE ERROR OF +/- 1MM +1.5 PPM.

THE INFORMATION SHOWN WITHOUT BRACKETS IS MEASURED/ RESOLVED. IF MEASURED/RESOLVED DATA DIFFERS FROM RECORD DATA BOTH ARE SHOWN. IF ONLY RECORD DATA IS SHOWN IT IS HELD.

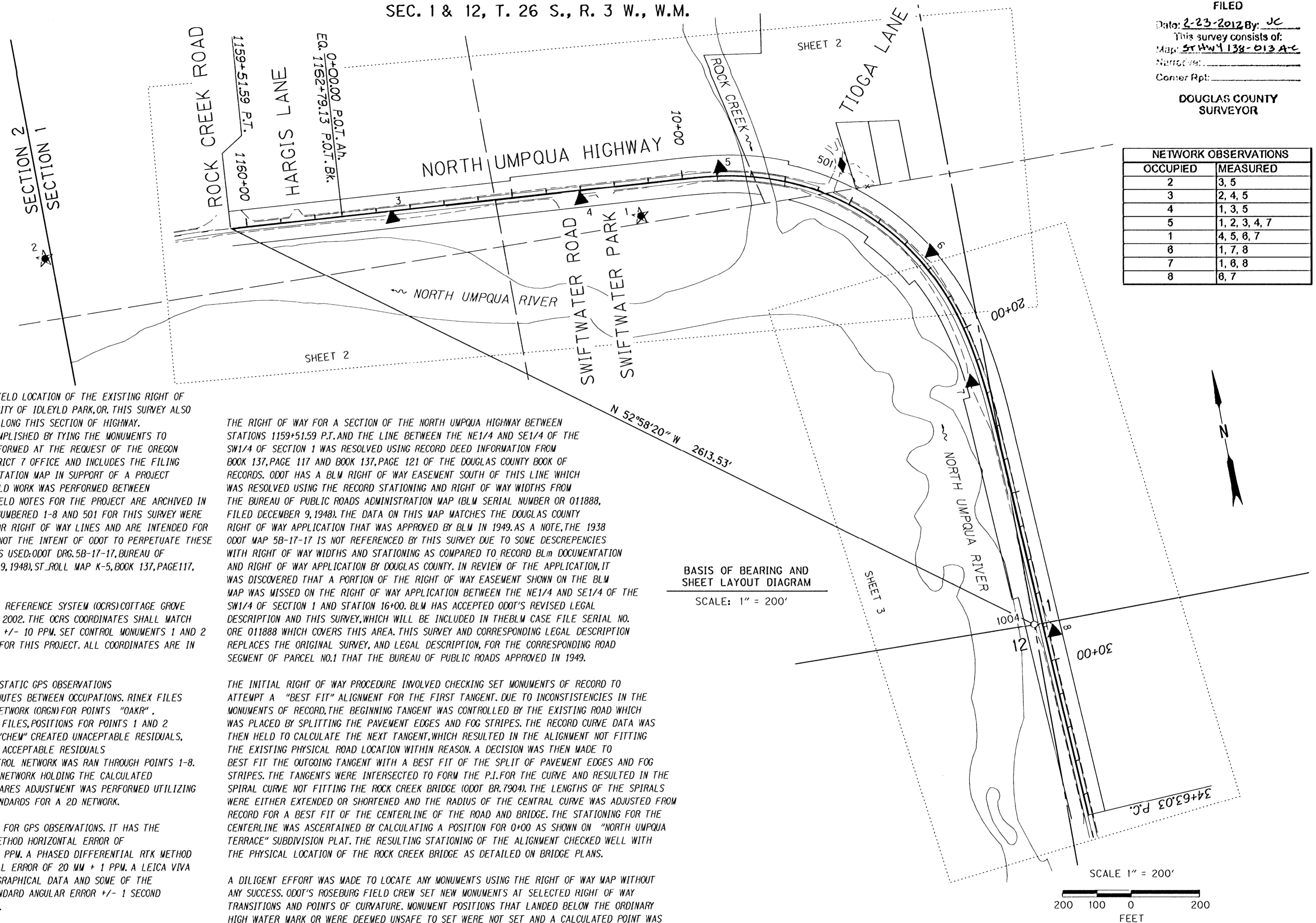
CONTROL MONUMENTS (SEE INDIVIDUAL SHEETS FOR CONTROL MONUMENTS)

PT. NO.	LDP NORTHING	LDP EASTING	STATION	OFFSET (- IS LT.)	DATE	DESCRIPTION
2	182549.959	249828.868			8/1/11	SET 1" COPPER DISK, STAMPED "ODOT CONTROL 2", FLUSH WITH PAVEMENT

RECOVERED MONUMENTS

PT. NO.	LDP NORTHING	LDP EASTING	STATION	OFFSET (- IS LT.)	DATE	DESCRIPTION	REFERENCE
1004	180959.295	252465.249	28+87.12	23.60	8/4/11	FD. 2 1/2" BRASS DISK STAMPED T26S R3W 1/4 S1/S12 DOUGLAS COUNTY SURVEYOR 1977", 0.8 FT. BELOW SURFACE, GOOD CONDITION	D.C.S.O. 1977

SEC. 1 & 12, T. 26 S., R. 3 W., W.M.



THE RIGHT OF WAY FOR A SECTION OF THE NORTH UMPQUA HIGHWAY BETWEEN STATIONS 1159+51.59 P.T. AND THE LINE BETWEEN THE NE1/4 AND SE1/4 OF THE SW1/4 OF SECTION 1 WAS RESOLVED USING RECORD DEED INFORMATION FROM BOOK 137, PAGE 117 AND BOOK 137, PAGE 121 OF THE DOUGLAS COUNTY BOOK OF RECORDS. ODOT HAS A BLM RIGHT OF WAY EASEMENT SOUTH OF THIS LINE WHICH WAS RESOLVED USING THE RECORD STATIONING AND RIGHT OF WAY WIDTHS FROM THE BUREAU OF PUBLIC ROADS ADMINISTRATION MAP (BLM SERIAL NUMBER OR 011888, FILED DECEMBER 9, 1948). THE DATA ON THIS MAP MATCHES THE DOUGLAS COUNTY RIGHT OF WAY APPLICATION THAT WAS APPROVED BY BLM IN 1949. AS A NOTE, THE 1938 ODOT MAP 5B-17-17 IS NOT REFERENCED BY THIS SURVEY DUE TO SOME DISCREPANCIES WITH RIGHT OF WAY WIDTHS AND STATIONING AS COMPARED TO RECORD BLM DOCUMENTATION AND RIGHT OF WAY APPLICATION BY DOUGLAS COUNTY. IN REVIEW OF THE APPLICATION, IT WAS DISCOVERED THAT A PORTION OF THE RIGHT OF WAY EASEMENT SHOWN ON THE BLM MAP WAS MISSED ON THE RIGHT OF WAY APPLICATION BETWEEN THE NE1/4 AND SE1/4 OF THE SW1/4 OF SECTION 1 AND STATION 16+00. BLM HAS ACCEPTED ODOT'S REVISED LEGAL DESCRIPTION AND THIS SURVEY, WHICH WILL BE INCLUDED IN THE BLM CASE FILE SERIAL NO. ORE 011888 WHICH COVERS THIS AREA. THIS SURVEY AND CORRESPONDING LEGAL DESCRIPTION REPLACES THE ORIGINAL SURVEY, AND LEGAL DESCRIPTION, FOR THE CORRESPONDING ROAD SEGMENT OF PARCEL NO. 1 THAT THE BUREAU OF PUBLIC ROADS APPROVED IN 1949.

THE INITIAL RIGHT OF WAY PROCEDURE INVOLVED CHECKING SET MONUMENTS OF RECORD TO ATTEMPT A "BEST FIT" ALIGNMENT FOR THE FIRST TANGENT. DUE TO INCONSISTENCIES IN THE MONUMENTS OF RECORD, THE BEGINNING TANGENT WAS CONTROLLED BY THE EXISTING ROAD WHICH WAS PLACED BY SPLITTING THE PAVEMENT EDGES AND FOG STRIPES. THE RECORD CURVE DATA WAS THEN HELD TO CALCULATE THE NEXT TANGENT, WHICH RESULTED IN THE ALIGNMENT NOT FITTING THE EXISTING PHYSICAL ROAD LOCATION WITHIN REASON. A DECISION WAS THEN MADE TO BEST FIT THE OUTGOING TANGENT WITH A BEST FIT OF THE SPLIT OF PAVEMENT EDGES AND FOG STRIPES. THE TANGENTS WERE INTERSECTED TO FORM THE P.I. FOR THE CURVE AND RESULTED IN THE SPIRAL CURVE NOT FITTING THE ROCK CREEK BRIDGE (ODOT BR. 7904). THE LENGTHS OF THE SPIRALS WERE EITHER EXTENDED OR SHORTENED AND THE RADIUS OF THE CENTRAL CURVE WAS ADJUSTED FROM RECORD FOR A BEST FIT OF THE CENTERLINE OF THE ROAD AND BRIDGE. THE STATIONING FOR THE CENTERLINE WAS ASCERTAINED BY CALCULATING A POSITION FOR 0+00 AS SHOWN ON "NORTH UMPQUA TERRACE" SUBDIVISION PLAT. THE RESULTING STATIONING OF THE ALIGNMENT CHECKED WELL WITH THE PHYSICAL LOCATION OF THE ROCK CREEK BRIDGE AS DETAILED ON BRIDGE PLANS.

A DILIGENT EFFORT WAS MADE TO LOCATE ANY MONUMENTS USING THE RIGHT OF WAY MAP WITHOUT ANY SUCCESS. ODOT'S ROSEBURG FIELD CREW SET NEW MONUMENTS AT SELECTED RIGHT OF WAY TRANSITIONS AND POINTS OF CURVATURE. MONUMENT POSITIONS THAT LANDED BELOW THE ORDINARY HIGH WATER MARK OR WERE DEEMED UNSAFE TO SET WERE NOT SET AND A CALCULATED POINT WAS SHOWN ON THE MAP AND POINT TABLE. ALL MONUMENTS WERE SET BY RADIAL STAKEOUT FROM THE NETWORK CONTROL POINTS SHOWN ON THIS SURVEY. WHITE CARSONITE WITNESS POSTS MARKED "RIGHT OF WAY BOUNDARY MARKER NEARBY" WERE SET NEXT TO ALL RIGHT OF WAY MONUMENTS.

BASIS OF BEARING AND SHEET LAYOUT DIAGRAM
SCALE: 1" = 200'

SCALE 1" = 200'
200 100 0 200
FEET

NETWORK OBSERVATIONS

OCCUPIED	MEASURED
2	3, 5
3	2, 4, 5
4	1, 3, 5
5	1, 2, 3, 4, 7
1	4, 5, 6, 7
6	1, 7, 8
7	1, 6, 8
8	6, 7

FILED
Date: 2-23-2012 By: JC
This survey consists of:
Map: ST HWY 138-013 A-C
Narrative:
Corner Rpt:
DOUGLAS COUNTY SURVEYOR

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
JULY 15, 2003
ANDREW DAVID AUSLAND
56136
EXPIRES: 12/31/2013

SI FEET
OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL, RECOVERY, RETRACEMENT, & BOUNDARY MONUMENTATION MAP OR 138E: TIOGA LANE RIGHT OF WAY NORTH UMPQUA HWY. NO. 138, M.P. 22.03 TO 22.79 DOUGLAS COUNTY
FILE: OR138ERW.DGN
FOR ODOT REGION 3
3500 NW. STEWART PKWY.
ROSEBURG, OR. 97470
FEBRUARY 16, 2012
SCALE: 1" = 200'
SHEET 1 OF 3