

**SURVEY NARRATIVE**

THIS SURVEY WAS MADE AS A RESULT OF THE OREGON DEPARTMENT OF TRANSPORTATION'S (ODOT) OR66: HARLEY LANDSLIDE (MP 11.80-12.00) IMPROVEMENT PROJECT. THE PURPOSE OF THIS SURVEY IS TO RECORD THE POSITIONS OF THE CONTROL POINTS THAT WERE USED TO MONUMENT THE PROJECT, RECOVER THE POSITIONS OF EXISTING MONUMENTS OF RECORD, RETRACE THE RIGHT OF WAY AND CONTROLLING CENTERLINE, AND MONUMENT THE RIGHT OF WAY ACQUIRED BY THE STATE OF OREGON IN INSTRUMENT NUMBER 2017-036062 OF THE OFFICIAL RECORDS OF JACKSON COUNTY, OREGON AND AS SHOWN ON ODOT DRAWING NUMBER 1R-4-1263. THIS SURVEY PERPETUATES THE ALIGNMENTS AND RIGHT OF WAY DEVELOPED FOR THE PROJECT IN CONFORMANCE WITH ORS CHAPTER 209, SECTION 155.

THE RIGHT OF WAY FOR GREEN SPRINGS HIGHWAY (OR 66) WAS ORIGINALLY ESTABLISHED BY COUNTY RESOLUTION AS RECORDED APRIL 7, 1920 IN COMMISSIONER'S JOURNAL VOLUME 17, PAGE 453. THE FINAL ORDER STATED A RIGHT OF WAY WIDTH OF 60.00'. ADDITIONAL RIGHT OF WAY WAS PURCHASED IN 1940 BY WARRANTY DEED TO ODOT IN VOLUME 224, PAGE 159. NO SURVEYS OF RECORD WERE FOUND AT THE JACKSON COUNTY SURVEYOR'S OFFICE THAT SET ANY MONUMENTS OF RECORD OR RESOLVED THE RIGHT OF WAY THROUGHOUT THIS SURVEY'S LIMITS. AN INITIAL ATTEMPT WAS MADE AT LOCATING THE RIGHT OF WAY BY ROTATING THE RECORD DEED CALL TIE FROM THE SOUTH 1/4 CORNER OF SECTION 36 (T39S R2E) PER ODOT RW DRG. 1R-1-1311. THIS MAP REFERENCES THE CENTERLINE AND PARCEL TO THE SAME THE SOUTH 1/4 CORNER. WE SUBSEQUENTLY RECOVERED THE SOUTH 1/4 CORNER WHICH WAS SET BY BLM IN THE 1960'S WHICH WAS ESTABLISHED LATER THAN THE TIE SHOWN ON 1R-1-1311 (1933). AFTER ROTATING THE RECORD ALIGNMENT BASED ON THIS TIE, I FOUND THAT IT MISSED THE PHYSICAL ROAD CENTERLINE BY APPROXIMATELY 150'. I CONCLUDED THAT THE CORNER CALL WAS ERRONEOUS AND CHOSE TO BEST FIT THE RECORD TANGENTS TO THE AVERAGE PAINTED CENTERLINE STRIPING. I CHOSE TO HOLD THE PAINTED CENTER LINE OVER THE EDGE OF PAVEMENT AS BEST EVIDENCE OF THE ALIGNMENT AS THE PAVEMENT EDGES WERE GENERALLY NOT PARALLEL AND CONSISTENT THROUGHOUT THE PROJECT. THIS RESULTED IN A REASONABLE FIT WITH THE TANGENTS BUT WERE FOUND TO NOT BE CONSISTENT WITH THE CONSTRUCTED HIGHWAY CURVES. STATIONING FOR GREEN SPRINGS HIGHWAY WAS HELD PER THE RECORD AS SHOWN ON ODOT RW DRG. 3B-23-17.

THE PROJECT CONTROL WAS ORIGINALLY ESTABLISHED BY A GPS AND TERRESTRIAL NETWORK IN DECEMBER OF 2015. THE NETWORK WAS PROCESSED IN (LEICA GEOMATICS OFFICE) LGO WHICH YIELDED ACCEPTABLE RESULTS. THE NETWORK WAS PROCESSED HOLDING THREE ORGN STATIONS: ASHL, KFRC, AND P784 FIXED IN POSITION. POINTS 1890601, 1890606, AND 1890609 WERE OBSERVED IN STATIC OBSERVATION FOR TWO 2 HOUR SESSIONS FROM THE ORGN STATIONS. TWO ADDITIONAL 20 MINUTE SESSIONS WERE OBSERVED ON SAID PROJECT STATIONS TO HELP TIGHTEN UP THE ERROR ELLIPSES ON THE CONTROL. THE RESULTING ERROR ELLIPSES AT THE 95% CONFIDENCE INTERVAL ALL MEASURED 0.03' OR LESS.

BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY ARE BASED ON THE OREGON COORDINATE REFERENCE SYSTEM (OCRS), SISKIYOU ZONE, NAD 83(2011) EPOCH 2010.00. THIS SURVEY USES INTERNATIONAL FEET UNITS.

THE VERTICAL DATUM FOR THIS PROJECT IS NAVD88 AND IS BASED ON THE GPS DERIVED ELEVATION OF 3,163.14' FOR CONTROL POINT 1890601. THE ELEVATIONS ON THE REMAINING CONTROL POINTS WERE ESTABLISHED BY A DIGITAL LEVEL CIRCUIT FROM CONTROL POINT 1890601.

THIS SURVEY WAS PERFORMED FROM DECEMBER OF 2016 THROUGH OCTOBER OF 2017. THE SURVEY EQUIPMENT CONSISTED OF ONE LEICA MS60 TOTAL STATION, 2 LEICA GS14 GPS RECEIVERS, ONE LEICA GPS 1200 SYSTEM, AND ONE LEICA CS15 DATA COLLECTOR.

NETWORK POINTS SET DURING THIS SURVEY DO NOT REPRESENT PROPERTY LINES OR RIGHT OF WAY LINES. THEY ARE INTENDED TO PERPETUATE THE ALIGNMENTS AND RIGHT-OF-WAY DEVELOPED FOR THIS PROJECT IN CONFORMANCE WITH ORS CHAPTER 209, SECTION 155.

**GEODETIC DATA TABLE**

OCRS=OREGON COORDINATE REFERENCE SYSTEM

PT. NO.	OCRS NORTHING	OCRS EASTING	LATITUDE (N)	LONGITUDE (W)	ELL. HT.	GEOID SEP.	ORTHO. HT.
1890601	61937.27	45494.55	42° 07' 47.45694" N	122° 32' 11.67002" W	3086.00	-77.14	3163.14
1890606	62211.76	45983.37	42° 07' 50.16535" N	122° 32' 05.18186" W	3045.95	-77.12	3123.07
1890609	62487.82	45968.32	42° 07' 52.89208" N	122° 32' 05.37943" W	3030.62	-77.11	3107.73

**1.96 SIGMA (95%) CONFIDENCE LEVEL LIMITS (GPS)**

PT. NO.	SEMI MAJOR	SEMI MINOR	ORIENTATION *
1890601	0.03	0.02	-1°
1890606	0.03	0.02	1°
1890609	0.03	0.02	5°

\* NORTH AZIMUTH

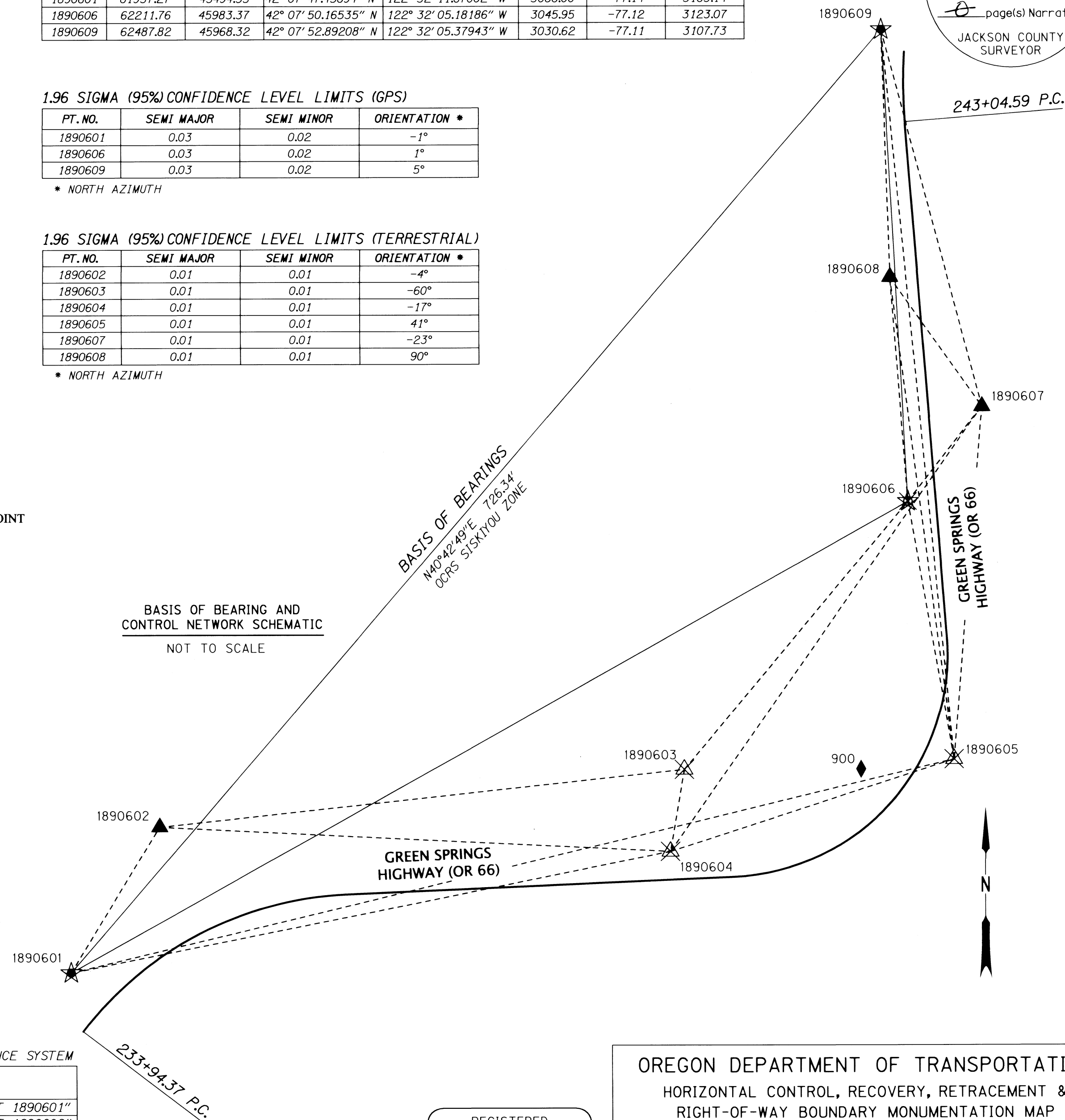
**1.96 SIGMA (95%) CONFIDENCE LEVEL LIMITS (TERRESTRIAL)**

PT. NO.	SEMI MAJOR	SEMI MINOR	ORIENTATION *
1890602	0.01	0.01	-4°
1890603	0.01	0.01	-60°
1890604	0.01	0.01	-17°
1890605	0.01	0.01	41°
1890607	0.01	0.01	-23°
1890608	0.01	0.01	90°

\* NORTH AZIMUTH

**\*\* RECEIVED \*\***  
 DATE 12/21/17 BY PB  
 This survey consists of:  
 2 sheet(s) Map  
 0 page(s) Narrative  
 JACKSON COUNTY SURVEYOR

POINT LEGEND	
★	SET GPS POINT
▲	SET NETWORK POINT
◆	SET STRATEGIC POINT
★	DESTROYED GPS POINT
▲	DESTROYED NETWORK POINT
★-★	LINES OF OBSERVATION (GPS)
★-▲	LINES OF OBSERVATION (TERRESTRIAL)



**CONTROL POINT TABLE**

OCRS = OREGON COORDINATE REFERENCE SYSTEM

PT. NO.	OCRS NORTHING	OCRS EASTING	NAVD 88 ELEVATION	DATE	DESCRIPTION
1890601	61937.27	45494.55	3163.14	12/8/2015	SET 5/8" IRON ROD w/ 2" ALUMINUM CAP "ODOT CONTROL POINT 1890601"
1890602	62022.64	45546.36	3158.67	1/11/2016	SET 5/8" IRON ROD w/ 2" ALUMINUM CAP "ODOT CONTROL POINT 1890602"
1890603	62055.84	45852.64	3123.76	10/3/2017	DESTROYED BY CONSTRUCTION
1890604	62007.93	45844.36	3143.26	10/3/2017	DESTROYED BY CONSTRUCTION
1890605	62061.79	46009.97	3132.85	10/3/2017	DESTROYED BY CONSTRUCTION
1890606	62211.76	45983.37	3123.07	10/3/2017	DESTROYED BY CONSTRUCTION
1890607	62266.98	46026.57	3128.22	1/11/2016	SET 5/8" IRON ROD w/ 2" ALUMINUM CAP "ODOT CONTROL POINT 1890607"
1890608	62342.64	45973.13	3114.56	1/11/2016	SET 5/8" IRON ROD w/ 2" ALUMINUM CAP "ODOT CONTROL POINT 1890608"
1890609	62487.82	45968.32	3107.73	12/8/2015	SET 5/8" IRON ROD w/ 2" ALUMINUM CAP "ODOT CONTROL POINT 1890609"
900	62056.01	45955.77	----	10/3/2017	SET MAG NAIL w/ WASHER "ODOT"

REGISTERED PROFESSIONAL LAND SURVEYOR  
  
 OREGON  
 JULY 15, 2003  
 ANDREW DAVID AUSLAND  
 56136  
 EXPIRES: 12/31/2017

OREGON DEPARTMENT OF TRANSPORTATION  
 HORIZONTAL CONTROL, RECOVERY, RETRACEMENT &  
 RIGHT-OF-WAY BOUNDARY MONUMENTATION MAP  
 OR66: HARLEY LANDSLIDE (MP 11.80-12.00)  
 GREEN SPRINGS HIGHWAY (OR 66)  
 JACKSON COUNTY

KEY NO. 18906  
 REGION 3 TECH CENTER  
 100 ANTELOPE ROAD  
 WHITE CITY, OREGON, 97503

DECEMBER 21, 2017  
 SHEET 1 OF 2

DESIGNED BY: A. AUSLAND    DRAFTED BY: M. CHACON    CHK'D BY: L. MILES

SW 1/4 SEC. 36, T. 39 S, R. 2 E, W.M.

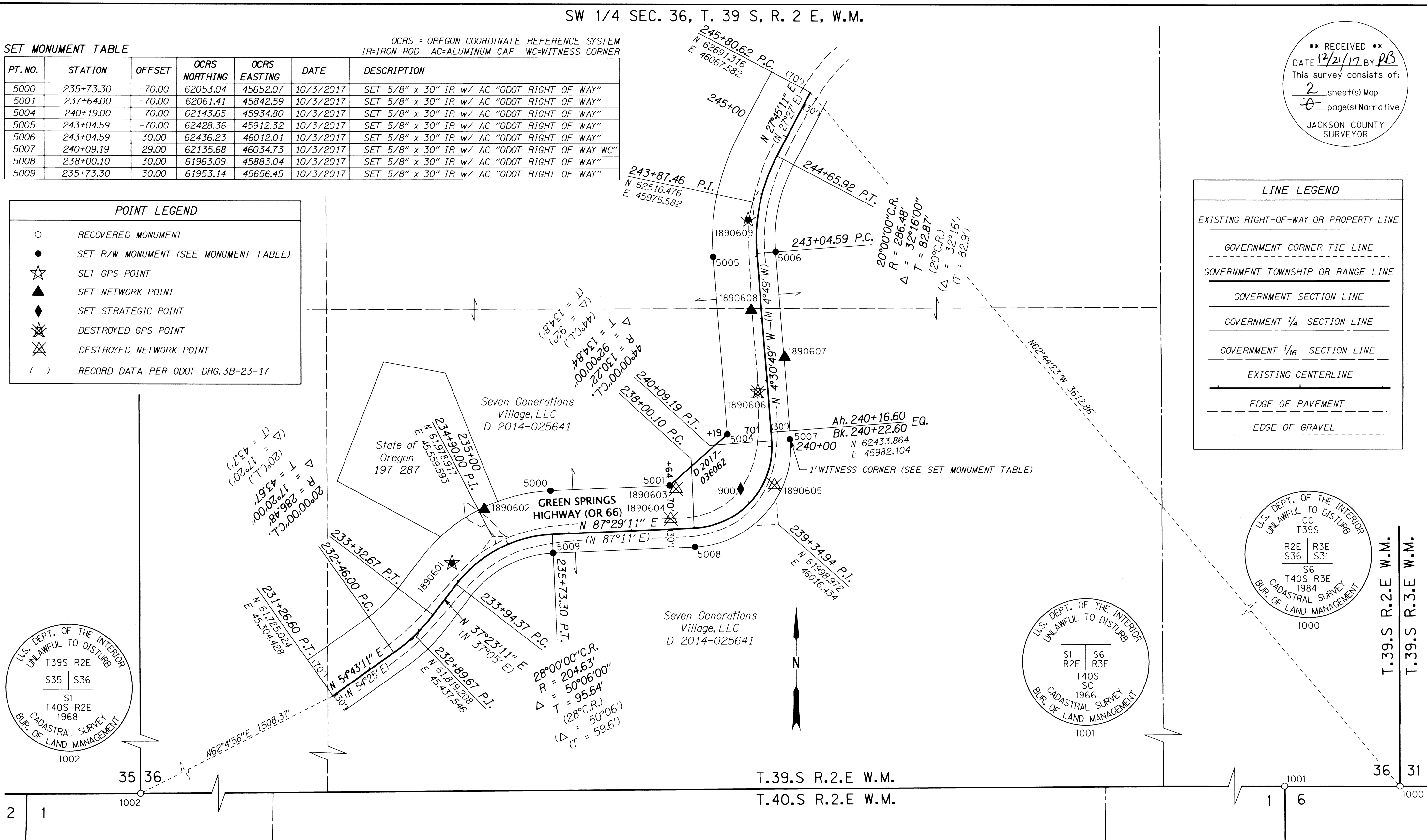
SET MONUMENT TABLE

PT. NO.	STATION	OFFSET	OCRS NORTHING	OCRS EASTING	DATE	DESCRIPTION
5000	235+73.30	-70.00	62053.04	45652.07	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"
5001	237+64.00	-70.00	62061.41	45842.59	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"
5004	240+19.00	-70.00	62143.65	45934.80	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"
5005	243+04.59	-70.00	62428.36	45912.32	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"
5006	243+04.59	30.00	62436.23	46012.01	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"
5007	240+09.19	29.00	62135.68	46034.73	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY WC"
5008	238+00.10	30.00	61963.09	45883.04	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"
5009	235+73.30	30.00	61953.14	45656.45	10/3/2017	SET 5/8" x 30" IR w/ AC "ODOT RIGHT OF WAY"

POINT LEGEND	
○	RECOVERED MONUMENT
●	SET R/W MONUMENT (SEE MONUMENT TABLE)
☆	SET GPS POINT
▲	SET NETWORK POINT
◆	SET STRATEGIC POINT
☆	DESTROYED GPS POINT
◆	DESTROYED NETWORK POINT
( )	RECORD DATA PER ODOT DRG. 3B-23-17

LINE LEGEND	
	EXISTING RIGHT-OF-WAY OR PROPERTY LINE
	GOVERNMENT CORNER TIE LINE
	GOVERNMENT TOWNSHIP OR RANGE LINE
	GOVERNMENT SECTION LINE
	GOVERNMENT 1/4 SECTION LINE
	GOVERNMENT 1/16 SECTION LINE
	EXISTING CENTERLINE
	EDGE OF PAVEMENT
	EDGE OF GRAVEL

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U.S. DEPT. OF THE INTERIOR  
 UNLAWFUL TO DISTURB  
 T39S R2E  
 S35 | S36  
 S1  
 T40S R2E  
 1968  
 CADASTRAL SURVEY  
 BUR. OF LAND MANAGEMENT  
 1002

U.S. DEPT. OF THE INTERIOR  
 UNLAWFUL TO DISTURB  
 S1 | S6  
 R2E | R3E  
 T40S  
 SC  
 1966  
 CADASTRAL SURVEY  
 BUR. OF LAND MANAGEMENT  
 1001

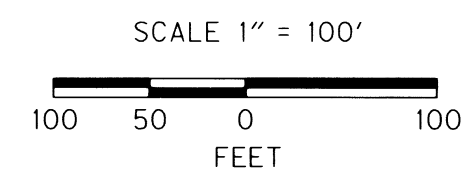
U.S. DEPT. OF THE INTERIOR  
 UNLAWFUL TO DISTURB  
 CC  
 T39S  
 R2E | R3E  
 S36 | S31  
 S6  
 T40S R3E  
 1984  
 CADASTRAL SURVEY  
 BUR. OF LAND MANAGEMENT  
 1000

RECOVERED MONUMENT TABLE

PT. NO.	OCRS NORTHING	OCRS EASTING	DATE	DESCRIPTION	REFERENCE
1000	61036.50	49279.18	12/1/2015	FD 3" DIAMETER BRASS CAP, 6" ABOVE GROUND (SEE CAP DIAGRAM)	BLM OR CORNER RECORD V:OR-R0634 PG:0069.00-0070.00
1001	61036.64	49187.17	12/1/2015	FD 3" DIAMETER BRASS CAP, 8" ABOVE GROUND (SEE CAP DIAGRAM)	BLM OR CORNER RECORD V:OR-R0634 PG:0069.00-0070.00
1002	61018.80	43971.60	12/1/2015	FD 3" DIAMETER BRASS CAP, 5" ABOVE GROUND (SEE CAP DIAGRAM)	BLM OR CORNER RECORD V:OR-R0589 PG:0293.00

BLM = BUREAU OF LAND MANAGEMENT  
 OCRS = OREGON COORDINATE REFERENCE SYSTEM

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