

RECORD OF SURVEY

RESTON SUBSTATION

LYING WITHIN

THE NE1/4 & SE1/4 SECTION 31, T27S., R.7W., W.M.

THE NW1/4 & SW1/4 SECTION 32, T27S., R.7W., W.M.

DOUGLAS COUNTY, OREGON

FILED

Date: 5/15/2018 By: X

This survey consists of:

Map: M174-28 A-D

Narrative:

Corner Rpt:

DOUGLAS COUNTY SURVEYOR

MAP FILE M174-28B

SURVEY NARRATIVE

THIS SURVEY WAS PERFORMED IN FEBRUARY AND MARCH OF 2018 AT THE REQUEST OF THE BONNEVILLE POWER ADMINISTRATION (BPA). THE PURPOSE OF THIS SURVEY IS TO RETRACE AND MONUMENT THE BOUNDARIES OF THE RESTON SUBSTATION PROPERTY LOCATED IN THE ROWLAND FLOURNOY DONATION LAND CLAIM NUMBER 54, TOWNSHIP 27 SOUTH, RANGE 07 WEST OF THE WILLAMETTE MERIDIAN, DOUGLAS COUNTY, OREGON. THE SUBSTATION PROPERTY WAS ACQUIRED BY BPA ON APRIL 04, 1958, BY WARRANTY DEED VOLUME 275 PAGE 208 IN DOUGLAS COUNTY BOOK OF RECORDS AND SHOWN ON BPA SERIAL DRAWING NO. 86328A. SAID BPA DRAWING IS DATED AUGUST 20, 1957 AND PREDATES SAID WARRANTY DEED BY ALMOST EIGHT MONTHS. THE BEARINGS AND DISTANCES MATCH ON BOTH AND THUS SAID BPA DRAWING CAN BE CONSIDERED AN ORIGINAL SURVEY. THUS, THE RECOVERY OF THE BPA MONUMENTS CITED IN THE DRAWING IS THE BEST METHOD OF RETRACING THE INTENT OF THE DEED.

ALL PROPERTY CORNERS, WITH THE EXCEPTION OF TWO OF THE ORIGINAL PROPERTY CORNERS, PER SAID BPA SERIAL DRAWING NO. 86328A WERE RECOVERED AS PART OF THIS SURVEY. THE MONUMENTS THAT WERE RECOVERED WERE IN GOOD CONDITION AND THE DISTANCES BETWEEN THEM FIT WELL (FOUR DISTANCES BETWEEN MONUMENTS WERE BETWEEN 0.2 AND 0.4 FEET, THE REST WERE LESS THAN 0.1 FOOT) WITH THE RECORD AND WERE HELD AS TRUE CORNERS. THE TWO CORNERS THAT WERE RE-MONUMENTED AS PART OF THIS SURVEY, THE ONE-QUARTER CORNER BETWEEN SECTIONS 31 AND 32 THAT WAS COMPUTED, AND THE EASEMENT FOR DOUGLAS COUNTY ROAD NO. 5 (ROSEBURG-RESTON LOOP ROAD) ARE DISCUSSED IN DETAIL BELOW TO THEIR RESOLUTION. TWO ADDITIONAL MONUMENTS WERE SET AT THE REQUEST OF BPA AT THE INTERSECTION OF THE NORTHERLY AND SOUTHERLY BOUNDARIES OF THE BPA FEE OWNED PARCEL WITH THE WESTERLY RIGHT-OF-WAY OF THE DOUGLAS COUNTY ROAD EASEMENT.

DOUGLAS COUNTY ROAD NO. 5, ROSEBURG-RESTON LOOP ROAD

DOUGLAS COUNTY ROAD NO. 5 IS ALSO REFERRED AS ROSEBURG-RESTON LOOP ROAD. IT WAS ORIGINALLY PART OF THE COOS BAY WAGON ROAD WHICH WAS CREATED ON MARCH 3, 1869 AS PART OF CHAPTER 150, SESSION 3 OF THE FORTIETH U.S. CONGRESS. THE SAID DEED FOR THE RESTON SWITCHING STATION, CALLS OUT TO THE EASTERLY RIGHT-OF-WAY OF SAID ROAD AS IT STOOD IN 1958, AT THE TIME OF EXECUTION OF THE DEED. ATTEMPTS WERE MADE TO RECOVER THIS LOCATION OF SAID COUNTY ROAD, BUT NO DOCUMENTATION WAS RECOVERED. THE ONLY EVIDENCE THAT WAS RECOVERED WAS THE BPA MONUMENTS THAT WERE SET ON SAID EASTERLY RIGHT-OF-WAY. THESE MONUMENTS WERE RECOVERED AS PART OF THIS SURVEY AND WERE HELD AS THE 1958 EASTERLY RIGHT-OF-WAY OF SAID COUNTY ROAD, AND THE EASTERLY BOUNDARY OF THE RESTON SWITCHING STATION.

THE CURRENT LOCATION OF SAID COUNTY ROAD EASEMENT IS NOT IN THE SAME LOCATION AS THE 1958 LOCATION. ON MAY 9, 1973 IN VOLUME 43, PAGE 344 DOUGLAS COUNTY COMMISSIONERS ISSUED FINAL ORDER DOCKET NO. 1026, WHICH REALIGNED THE COUNTY ROAD EASEMENT TO ITS PRESENT LOCATION. TO SHOW THE PRESENT LOCATION OF THE COUNTY ROAD EASEMENT, SAID DOCKET AND DOUGLAS COUNTY PLAN SET FOR "ROSEBURG-RESTON LOOP ROAD, MILE POINT 10.17 TO MILE POINT 15.01, 1973" WERE USED. COUNTY RIGHT-OF-WAY MONUMENTS WERE RECOVERED (POINTS 112, 116-121, 123) DURING THIS SURVEY. THEN RECORD SHAPE WAS PLACED HOLDING THE PROPORTIONATE SPLIT OF THE MONUMENTS AT L2 523+69.06 PT (POINTS 118 & 119) AND ROTATING TO THE SPLIT OF THE MONUMENTS AT STATION L2 528+87.68 P.T. BK - L 528+66.55 P.O.T. AH (POINTS 112 & 117).

ANGLE POINT ON THE NORTHERLY LINE (REST-PC10)

THIS MONUMENT WAS NOT RECOVERED AS PART OF THIS SURVEY EFFORT. IT IS BELIEVED THAT IT IS DESTROYED AS THE COMPUTED POSITION FALLS ON THE SIDE SLOPE OF THE DITCH. THIS CORNER WAS INITIALLY CALCULATED BY USING THE DISTANCE-DISTANCE INTERSECT FROM POINTS REST-PC09 AND REST-PC11. USING THIS METHOD THE ANGLE DIFFERENCE AT THIS CORNER WAS 1° 29' 52" OF RECORD. THE ANGULAR DIFFERENCE AT THE POINTS REST-PC09 AND REST-PC11, WERE 54' 55" AND 37' 20" OF RECORD, RESPECTIVELY. THE NEXT METHOD I HELD RECORD ANGULAR DIFFERENCE AT THIS CORNER AND PROPORTIONED THE DISTANCE OF THE TWO INCOMING LEGS. THIS SOLUTION FIT MUCH BETTER, THE LONGER LEG IS WITHIN 0.05 FOOT OF RECORD AND THE SHORTER LEG WITHIN 0.07 FOOT OF RECORD. THE ANGULAR DIFFERENCE AT THE POINTS REST-PC09 AND REST-PC11, ARE 1 MINUTE 21" AND 4' 44" OF RECORD. HOLDING THE ANGULAR SOLUTION WAS FELT TO GIVE A BETTER RESULT OVERALL AND WAS HELD.

WESTERLY-NORTHWEST CORNER (REST-PC14)

THE MONUMENT FOR THIS CORNER WAS NOT RECOVERED DURING THIS SURVEY. IT IS BELIEVED THAT THE CORNER WAS DESTROYED WHEN A NATURAL GAS LINE WAS INSTALLED IN THE VICINITY, AS A GAS MARKER FALLS WITHIN 3.5 FEET OF THE CALCULATED POSITION OF THE CORNER. THIS CORNER WAS INITIALLY CALCULATED BY USING THE DISTANCE-DISTANCE INTERSECT FROM POINTS REST-PC13 AND REST-PC01. USING THIS METHOD THE ANGLE DIFFERENCE AT THIS CORNER WAS WITHIN 2' 43" OF RECORD. THE ANGULAR DIFFERENCE AT THE POINTS REST-PC13 AND REST-PC01, WERE 4' 23" AND 1 MINUTE 46" OF RECORD RESPECTIVELY. THE NEXT METHOD I HELD RECORD ANGULAR DIFFERENCE AT THIS CORNER AND PROPORTIONED THE DISTANCE OF THE TWO INCOMING LEGS. THIS SOLUTION FIT MUCH BETTER, THE LONGER LEG IS WITHIN 0.18' OF RECORD AND THE SHORTER LEG WITHIN 0.04' OF RECORD. THE ANGULAR DIFFERENCE AT THE POINTS REST-PC13 AND REST-PC01, ARE 2' 3" AND 1 MINUTE 22" OF RECORD. BOTH SOLUTIONS GAVE A RESULT WITHIN 0.16 OF EACH OTHER. HOLDING THE ANGULAR SOLUTION WAS FELT TO GIVE A BETTER RESULT OVERALL AND WAS HELD.

ONE-QUARTER CORNER SECTION 31 AND 32

THE ONE-QUARTER CORNER COMMON TO SECTIONS 31 AND 32, TOWNSHIP 27 SOUTH, RANGE 7 WEST, WILLAMETTE MERIDIAN FELL INSIDE THE PROPOSED RESTON SWITCHING STATION YARD. PER DOUGLAS COUNTY SURVEY M 18-80, THE QUARTER CORNER WAS REMOVED PRIOR TO CONSTRUCTION. IN SAID SURVEY THE COUNTY SURVEYOR SET TWO WITNESS CORNERS ON LINE, ONE ON EITHER SIDE OF THE QUARTER CORNER. THE NORTHERLY WITNESS CORNER AND THE NORTHEAST CORNER OF SECTION 31 WERE RECOVERED AS PART OF THIS SURVEY. THE WITNESS CORNER TO THE SOUTH WAS FOUND, THE CAP AND PIPE WERE REMOVED FROM THE GROUND LEANING AGAINST A TREE. THEREFORE THE 1/4 CORNER WAS CALCULATED ON THE EXTENSION OF A STRAIGHT LINE BETWEEN SAID SECTION CORNER AND WITNESS CORNER, PROPORTIONATE DISTANCE FROM THE WITNESS CORNER.

BASED ON THE MEASUREMENTS AND COMPUTATIONS PREFORMED DURING THIS SURVEY, MONUMENTS WERE SET ON MARCH 12, 2018, AS SHOWN HEREON.

PROCEDURAL AND EQUIPMENT NOTES:

THE FIELD SURVEY WAS PERFORMED USING ONE TRIMBLE R8-GNSS MODEL 2 GPS RECEIVER, ONE TRIMBLE R8-GNSS MODEL 3 RECEIVER, ONE TRIMBLE S8 ROBOTIC TOTAL STATION AND ONE TRIMBLE TSC3 CONTROLLER WITH TRIMBLE ACCESS SOFTWARE. TRIMBLE BUSINESS CENTER SOFTWARE WAS USED TO PROCESS THE FIELD DATA.

SURVEY/MAP REFERENCES

(DOUGLAS COUNTY SURVEY RECORDS)

- R1 - M1-73
R2 - M18-80
R3 - M21-10
R4 - M93-53A
R5 - M93-53B
R6 - "ROSEBURG-RESTON LOOP ROAD, MILE POINT 10.17 TO MILE POINT 15.01, 1973" PLAN SET
R7 - CORNER NOTES CS 49/50, 1957
R8 - CORNER NOTES CS 49/79, 1958

DEED REFERENCES:

(DOUGLAS COUNTY RECORDS)

- D1 - VOL.275, PAGE 208 (3/18/1958) (BPA)
D2 - INSTRUMENT NUMBER 89-00307 (01/06/1989)
D3 - INSTRUMENT NUMBER 95-20441 (10/31/1995)
D4 - INSTRUMENT NUMBER 97-13558 (07/01/1997)
D5 - INSTRUMENT NUMBER 98-27431 (12/03/1998)
D6 - INSTRUMENT NUMBER 2017-014938 (09/13/2017)
D7 - U.S. 40TH CONGRESS CHAPTER 150, SESSION 3 (3/3/1869)
D8 - DOUGLAS COUNTY COMMISSIONER'S DOCKET 1026 (5/9/1973)

BPA REFERENCES:

(BONNEVILLE POWER ADMIN. RECORDS)

- B1 - BPA SERIAL NO. 86869A
B2 - BPA SERIAL NO. 86328A
B3 - BPA SERIAL NO. 86868
B4 - DWG: 124501 DTM-D

ABBREVIATIONS -

- VOL. - VOLUME
NO. - NUMBER

REGISTERED PROFESSIONAL LAND SURVEYOR

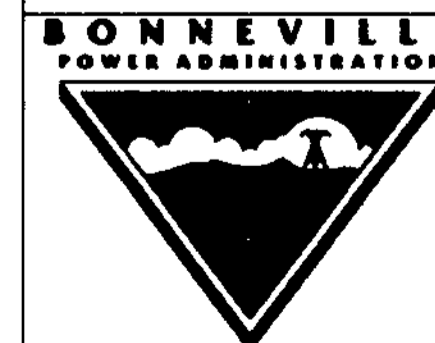
Signature of Andrew Joseph Silbernagel

OREGON MAY 12, 2011 ANDREW JOSEPH SILBERNAGEL #79198

RENEWS: JUNE 30, 2018 SIGNED: 05/11/2018

FILE NAME: WO_356103-50_ROS.dgn

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RESTON SUBSTATION RECORD OF SURVEY DOUGLAS COUNTY, OREGON

MAY 11, 2018 NO SCALE SHEET 2 OF 4

DESIGNED: A. SILBERNAGEL PROJ. NO. 684-004.42
DRAWN: Y. GARZENELLI CHK'D: A. PLETT SER. NO. 335842-C

MAP FILE M174-28B