

RECORD OF SURVEY

TAHKENITCH SUBSTATION

LYING WITHIN

THE SW 1/4 SECTION 13, T21S., R.12W., W.M.

THE NW 1/4 SECTION 24, T21S., R.12W., W.M.

DOUGLAS COUNTY, OREGON

FILED

Date: 9-3-2019 By: [Signature]
This survey consists of:
Map: M176-4 A-F
Narrative:
Corner Rpt:

DOUGLAS COUNTY SURVEYOR

PURPOSE

THIS SURVEY WAS PERFORMED IN APRIL AND MAY OF 2019 AT THE REQUEST OF THE BONNEVILLE POWER ADMINISTRATION (BPA). THE PURPOSE OF THIS SURVEY IS TO RETRACE AND MONUMENT THE BOUNDARIES OF THE BPA TAHKENITCH SUBSTATION SITE TRACTS TAHK-SS-P1 AND TAHK-SS-P2 LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 13 AND THE NORTHWEST ONE-QUARTER OF SECTION 24, TOWNSHIP 21 SOUTH, RANGE 12 WEST, OF THE WILLAMETTE MERIDIAN, IN DOUGLAS COUNTY, OREGON.

RETRACEMENT NARRATIVE

THIS SURVEY RETRACES THE BOUNDARIES OF THE TAHKENITCH SUBSTATION SITE. IT DOES NOT RESOLVE THE DISCREPANCIES BETWEEN THE CADASTRAL CORNERS SET BY PROPORTIONATE METHOD WITH THE ALIQUOT PART CORNER THAT WAS FOUND AND HELD BY BPA FOR ACQUISITION OF THE SITE, NOR DOES IT RESOLVE ANY ISSUES WITH ADJOINING PROPERTIES NORTHERLY AND WESTERLY OF THE SITE. ACTION BY BPA AND THE OWNERS OF TAX LOT 101 IN SECTION 14, AND TAX LOT 900 IN SECTION 13, WOULD BE REQUIRED TO RESOLVE THE BOUNDARY DISPARITY. THE FOLLOWING NARRATIVE DESCRIBES THE METHOD AND REASONING FOR THE TAHKENITCH SUBSTATION BOUNDARY RESOLUTION.

BPA TAHKENITCH SUBSTATION

THE LAND COMPOSING THE TAHKENITCH SUBSTATION SITE WAS ACQUIRED BY CONDEMNATION AS TWO PARCELS, NAMED TAHK-SS-P1 AND TAHK-SS-P2 BY BPA. TAHK-SS-P1 WAS ACQUIRED BY CONDEMNATION IN US DISTRICT COURT, OREGON DISTRICT, CIVIL NO. 62-384, SEPTEMBER 27, 1962. TAHK-SS-P2 WAS ACQUIRED BY CONDEMNATION IN US DISTRICT COURT, OREGON DISTRICT, CIVIL NO. 62-424, OCTOBER 30, 1962. BPA QUITCLAIMED A PORTION OF TAHK-SS-P1 TO DOUGLAS ELECTRIC COOPERATIVE, INC., IN BOOK 345, PAGE 115, WITH INSTRUMENT NUMBER 65-2806, RECORDED MARCH 11, 1965. TAHK-SS-P1 IS ENCUMBERED BY A ROAD EASEMENT TO COOS BAY PULP CORPORATION RECORDED JUNE 3, 1957 IN BOOK 268, PAGE 273, WITH INSTRUMENT NUMBER 234990.

TO RETRACE THE BOUNDARY OF TAHKENITCH SUBSTATION, MONUMENT TAHK-PC01, THE IRON PIPE PER BOOK 268, PAGE 273, RECORDED ON JUNE 3, 1957, WAS RECOVERED AND HELD AS THE NORTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 13 AND THE POINT OF BEGINNING OF THE LEGAL DESCRIPTION. THREE PROPERTY CORNER MONUMENTS SET BY BPA IN 1997, PER THE TAHKENITCH SUBSTATION DRAWING, BPA DRAWING NO. 123437, WERE RECOVERED AND HELD. THEY ARE CALLED MONUMENTS TAHK-PC03, TAHK-PC04, AND TAHK-PC05.

THE LEGAL DESCRIPTION IN THE CONDEMNATION MAKES NO MENTION OF THE IRON PIPE, INSTEAD REFERRING TO THE NORTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 13 AS THE POINT OF BEGINNING. THE COURSE AND DIRECTION CALLS IN THE LEGAL DESCRIPTION ARE CONSISTENT WITH THE SUBSTATION DRAWING AND THE BPA CADASTRAL HARDSHELL MAP, TAHKENITCH SUBSTATION.003. SAID DRAWINGS COME BEFORE THE CONDEMNATION, SO IT IS ASSUMED THE LEGAL DESCRIPTION WAS CONSTRUCTED ON THE FRAMEWORK OF THESE DRAWINGS. HENCE, THE IRON PIPE IS INTERPRETED TO BE ONE AND THE SAME AS THE POINT OF BEGINNING OF THE LEGAL DESCRIPTION. FURTHER, INFORMATION SHOWN IN THE SUBSTATION DRAWING, WHILE NOT CONTAINED IN THE LEGAL DESCRIPTION, WAS CONSIDERED TO BE EVIDENCE OF THE LOCATION OF THE BOUNDARY.

TO RETRACE THE COURSE EASTERLY FROM SAID IRON PIPE AT THE ONE-SIXTEENTH CORNER, THE POSITION OF SET MONUMENT TAHK-PC02 WAS CALCULATED BY HOLDING THE RECORD DEFLECTION ANGLE FROM THE LINE FROM MONUMENT TAHK-PC03 TO MONUMENT TAHK-PC04. THE SUBSTATION DRAWING NOTES THE NORTHERLY BOUNDARY OF THE BPA SITE INTERSECTING WITH THE WENDSON-TAHKENITCH NO.2 TRANSMISSION LINE AT STATION 1680+00.00. THE TOWER LEGS OF SAID TRANSMISSION LINE AT TOWER 20/5 AND TOWER 20/6 WERE TIED AND USED TO CALCULATE THE TOWER CENTERS. THEN THE SURVEY ANGLE POINTS WERE CALCULATED PER THE RECORD TOWER CENTER OFFSETS ALONG THE BISECTOR ANGLE, BEING 1.3 FEET LEFT AT TOWER 20/5, AND 11.2 FEET RIGHT AT TOWER 20/6. WHEN HOLDING THE RECORD STATION AT TOWER 20/6, THE RESULTING TRANSMISSION LINE STATION AT THE INTERSECTION WITH THE SUBSTATION BOUNDARY LINE WAS CALCULATED TO BE 1680+00.01.

THE LINE FROM MONUMENT TAHK-PC03 TO MONUMENT TAHK-PC04 WAS HELD, AND IS FURTHER REFERRED TO IN THIS NARRATIVE AS THE SOUTHEASTERLY BOUNDARY LINE. SAID LINE IS DEPICTED IN THE TAHKENITCH SUBSTATION DRAWING BEING PARALLEL WITH AND OFFSET 375.0 FEET SOUTHEASTERLY FROM THE NORTH-SOUTH SUBSTATION BASELINE. WE MEASURE THE OFFSET FROM THE BASELINE TO BE 374.80 FEET AT TAHK-PC03 AND 375.03 FEET AT TAHK-PC04.

THE LINE FROM MONUMENT TAHK-PC04 TO MONUMENT TAHK-PC05 WAS HELD.

TO RETRACE THE COURSE SOUTHWESTERLY FROM TAHK-PC05 TO THE EASTERLY RIGHT-OF-WAY LINE OF THE RAILROAD, THE RECORD DEFLECTION ANGLE OF 16°00'50" IN RELATIONSHIP TO SAID SOUTHEASTERLY BOUNDARY LINE WAS HELD FROM MONUMENT TAHK-PC05. THE DISTANCE WAS DETERMINED BY HOLDING THE RETRACED EASTERLY RIGHT-OF-WAY LINE OF THE OREGON INTERNATIONAL PORT OF COOS BAY RAILROAD AS THE TERMINATION OF THE COURSE. MONUMENT TAHK-PC06 WAS SET AT THIS POINT.

OREGON INTERNATIONAL PORT OF COOS BAY RAILROAD

THE OREGON INTERNATIONAL PORT OF COOS BAY RAILROAD RIGHT-OF-WAY ACROSS SECTION 13 WAS ORIGINALLY ACQUIRED BY WILLAMETTE PACIFIC RAILROAD BY CONDEMNATION IN DOUGLAS COUNTY CIRCUIT COURT CASE NO. 1237, JUNE 28, 1916. THE CENTER LINE DESCRIPTIONS IN THE CONDEMNATION ARE BASED ON ALIGNMENT "D", AND THIS ALIGNMENT WAS HELD AS THE CENTER LINE OF THE RAILROAD RIGHT-OF-WAY. THE DEEDS TO WILLAMETTE PACIFIC RAILROAD, AHEAD AND BACK ON LINE, BEING RECORDED JANUARY 11, 1912, IN BOOK 70, PAGE 126, AND JANUARY 28, 1913, IN BOOK 71, PAGE 591, ALSO IDENTIFY ALIGNMENT "D" AS THE CENTER LINE ALIGNMENT OF THE RAILROAD.

HOWEVER, THE SUBSTATION DRAWING DEPICTS ALIGNMENT "A" AS THE CENTER LINE OF THE RAILROAD RIGHT-OF-WAY. BASED ON ANALYSIS OF THE RELATIONSHIP BETWEEN THE RECORD ALIGNMENTS AND THE EXISTING RAILROAD TRACK, ALIGNMENT "A" REPRESENTS A CONSTRUCTION ALIGNMENT. IN ADDITION, BASED ON OUR TIES TO THE TRACKS IN COMPARISON TO THE POSITION OF THE TRACK SHOWN IN THE BPA DRAWING, THE TRACKS HAVE BEEN RELOCATED THROUGH THE CURVE PORTION ACROSS SECTION 13.

TO RETRACE THE EASTERLY RIGHT-WAY-LINE OF THE RAILROAD, THE RECORD CENTER LINE OF ALIGNMENT "A" AND ALIGNMENT "D" WERE PLOTTED USING RAILROAD TAPER TABLES AND RAILROAD MAP ORV20024 TITLED, "RIGHT OF WAY AND TRACK MAP, COOS BAY BRANCH EUGENE TO MYRTLE POINT, SOUTHERN PACIFIC COMPANY, FROM STATION "A" 2252+64.9 - "D" 2252+61.8 TO STATION "D" 2460+00.0." THE RAILROAD MAP AND THE RAILROAD LEGAL DESCRIPTION WERE FOUND TO BE IN HARMONY, WITH ADDITIONAL INFORMATION BEING SHOWN IN THE MAP. TWO CULVERTS, THE END OF A RAILROAD BRIDGE, AND APPROXIMATELY 1700 FEET OF THE EXISTING RAILROAD TRACKS WERE SURVEYED. TO PLACE THE RAILROAD ALIGNMENT, THE 30 INCH BY 50 FOOT CORRUGATED IRON PIPE AT RECORD STATION 2331+62 WAS FOUND AND HELD AT STATION "A" 2331+62.00. UPON ITERATION, THE RECORD GEOMETRY WAS THEN TRANSLATED ALONG THE FOUND CULVERT AND ROTATED TO BEST FIT WITH THE EXISTING RAILROAD TRACK IN SECTION 14 AND IN SECTION 24. THE RETRACED ALIGNMENT "D" WAS OFFSET 75.00 FEET TO RETRACE THE EASTERLY RIGHT-OF-WAY LINE OF THE RAILROAD.

THE CALCULATED POSITION OF A TACK SET IN A RAILROAD TIE ON THE NORTH-SOUTH SUBSTATION BASELINE, PER BPA DRAWING NO. 123437, WAS 0.44 FEET OFFSET EASTERLY FROM THE RETRACED ALIGNMENT "A", AND 4.5 FEET OFFSET WESTERLY FROM THE EXISTING TRACK CENTER LINE. THE POSITION OF HUB 19, PER BPA NOTESHEETS WM21S12W600400 BEING ON THE CENTER LINE OF THE RAILROAD TRACKS AT A POINT IN SECTION 24, WAS CALCULATED TO BE 1.42 FEET OFFSET WESTERLY FROM THE RETRACED ALIGNMENT "D" AND 0.5 FEET OFFSET WESTERLY FROM THE EXISTING TRACK CENTER LINE. AN ATTEMPT WAS MADE TO UTILIZE THESE CALCULATED POINTS AND INFORMATION IN THE BPA DRAWING TO RETRACE THE RAILROAD ALIGNMENT, HOWEVER, WHEN HOLDING TO THESE POINTS THE EXISTING TRACK IN SECTION 14 AND SECTION 24 DID NOT FIT TO THE RECORD SHAPE.

MONUMENTS TAHK-PC07, TAHK-PC12, AND TAHK-PC13, WERE SET 75.00 FEET OFFSET EASTERLY FROM THE CENTER LINE ALIGNMENT "D" TRANSITION POINTS.

QUITCLAIM TO DOUGLAS ELECTRIC COOPERATIVE

BPA QUITCLAIMED A PORTION OF TAHK-SS-P1 TO DOUGLAS ELECTRIC COOPERATIVE, INC., IN BOOK 345, PAGE 115, RECORDED MARCH 11, 1965. TO RETRACE THIS QUITCLAIM DEED, THE RECORD GEOMETRY WAS PLOTTED AND ROTATED HOLDING THE BEARING OF THE RETRACED SOUTHEASTERLY BOUNDARY LINE OF TAHKENITCH SUBSTATION. AFTER ROTATION, THE SHAPE WAS TRANSLATED TO THE IRON PIPE, MONUMENT TAHK-PC01, AND THE RESULTING POSITION WAS HELD.

THE CLARIFYING CALL OF THE COURSE "BEGINNING AT A POINT IN THE NORTHEASTERLY RIGHT OF WAY LINE OF THE SOUTHERN PACIFIC RAILROAD, SAID POINT BEING 1239 FEET SOUTH AND 243 EAST OF THE NORTHWEST CORNER OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 13" WAS CONSTRUED TO BE 1239 FEET SOUTH AND 243 EAST OF THE ONE-SIXTEENTH CORNER AS IT COMES AFTER THE CALL TO THE RAILROAD RIGHT-OF-WAY LINE.

MONUMENTS TAHK-PC08, TAHK-PC09, TAHK-PC10, TAHK-PC11, WERE SET AT THE CORNERS OF THE QUITCLAIM DEED.

WEST LINE OF SECTION 13

THE IRON PIPE, MONUMENT TAHK-PC01, WAS HELD AS THE POINT OF BEGINNING OF THE LEGAL DESCRIPTION BEING THE ONE-SIXTEENTH CORNER CALLED FOR. HOWEVER, THE POSITION OF THE SOUTHWEST SECTION CORNER CANNOT BE RESOLVED WITH CERTAINTY AND APPEARS TO BE LOST.

BPA SURVEY AND MAPPING RECORDS INDICATE DURING THE COURSE OF THEIR SURVEYS THAT BPA DID NOT DETERMINE THE POSITION OF THE SOUTHWEST CORNER OF SECTION 13. THE PRELIMINARY BOUNDARY, PER THE BPA CADASTRAL HARDSHELL MAP, IS SHOWN BEING EASTERLY OF THE SECTION LINE, LIKELY BECAUSE SAID SOUTHWEST CORNER FALLS IN SWAMPLAND AND ITS POSITION WAS NEVER DETERMINED BY BPA. UPON CONDEMNATION PROCEEDINGS, THE WEST LINE OF SECTION 13 BECAME A PART OF THE LEGAL DESCRIPTION.

THE POINT OF INTERSECTION DESCRIBED IN THE LEGAL DESCRIPTION COURSES, PARAPHRASED "THENCE NORTHWESTERLY ALONG SAID RAILROAD RIGHT-OF-WAY BOUNDARY TO THE POINT OF INTERSECTION OF SAID RAILROAD RIGHT-OF-WAY BOUNDARY AND THE WEST LINE OF SAID SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 13, THENCE NORTH ALONG SAID WEST LINE TO THE POINT OF BEGINNING" WAS FOUND TO BE INDETERMINATE.

SO THE BEARING BETWEEN MONUMENTS SET BY HINTZ IN M114-22 BASED ON HIS PROPORTIONED CORNERS WAS HELD AS THE BEST EVIDENCE OF THE BEARING OF THE WEST LINE OF SECTION 13.

SAID POINT OF INTERSECTION WAS CALCULATED BY HOLDING THE IRON PIPE, MONUMENT TAHK-PC01, AND THE MEASURED BEARING BETWEEN THE HINTZ ONE-SIXTEENTH CORNER AND HIS SOUTHWEST SECTION CORNER FROM SAID IRON PIPE TAHK-PC01 TO ITS INTERSECTION WITH THE RESOLVED RAILROAD RIGHT-OF-WAY BOUNDARY LINE. MONUMENT TAHK-PC14 WAS SET AT THIS POINT.

TAHKENITCH SUBSTATION INTERIOR BOUNDARY LINE

THE INTERIOR BOUNDARY LINE COMMON TO TAHK-SS-P1 AND TAHK-SS-P2 WAS DETERMINED BY HOLDING THE REMNANTS OF A FENCE LINE THEN EXTENDING IT WESTERLY TO THE RETRACED RAILROAD RIGHT-OF-WAY LINE. SAID FENCE LINE WAS CALLED FOR IN CIRCUIT COURT CASE NO. E82-0230

BEING AN ADVERSE POSSESSION CASE, RECORDED FEBRUARY 15, 1984, IN BOOK 872 PAGE 895, WITH INSTRUMENT NUMBER 84-1969. SAID CASE EFFECTIVELY CREATED TAX LOT 1401 IN SECTION 13. FOLLOWING THE CHAIN OF TITLE BACK TO THE PREVIOUS DEED, THE LEGAL DESCRIPTION IN BOOK 526, PAGE 26, RECORDED JULY 26, 1973, DESCRIBES THE SAME PARCEL BEING A PART OF SECTION 24. SO THE FENCE LINE CALLED IN THE ADVERSE POSSESSION CASE WAS CONSIDERED TO BE ON THE SECTION LINE PRIOR TO THE CADASTRAL RETRACEMENT BY HINTZ AND WAS HELD TO RETRACE THE INTERIOR BOUNDARY LINE BETWEEN TAHK-SS-P1 AND TAHK-SS-P2.

CADASTRAL CORNER NARRATIVE

WM21S12W600400 (SW CORNER SECTION 13)

IN 1857, THE GLO SURVEYOR, H. GORDON, SET A POST AT THE SECTION CORNER WITH THREE BEARING TREES, A 36 INCH SPRUCE, A 12 INCH FIR, AND A 3 INCH CRABAPPLE.

IN 1947 AND 1948, BPA SEARCHED FOR THE CORNER WHILE SURVEYING THE MAPLETON-REEDSPORT LINE. PER BPA NOTESHEETS DATED JUNE, 1947, THE SECTION CORNER WAS NOT FOUND AND THE SURVEY NOTED THAT "NO WT IN AREA AND CREEK HAS WASHED AWAY THE OLD CORNER". A FOREST SERVICE POST MARKED "SEC. COR. 100' WEST" WAS TIED.

PER NOTESHEETS DATED FEBRUARY 19, 1948, BPA RETURNED TO SEARCH FOR THE CORNER. BPA FOUND A 52" SPRUCE TREE NOTING "THIS TREE HAS BEEN CHOPPED OUT AND BADLY ROTTED. NO EVIDENCE OF SCRIBING. BLAZE ON NW SIDE. CORNER FALLS IN SWAMP. NOT IN. NO EVIDENCE OF FIR OR CRABAPPLE TREES." THIS MAY BE THE 36" DIAMETER SPRUCE CALLED FOR IN THE GLO NOTES, HOWEVER, IT IS INCONCLUSIVE. IT MAY HAVE BEEN THE FOREST SERVICE THAT WAS LOOKING FOR SCRIBING ON THIS TREE.

IN 1980, RICHARD HINTZ PERFORMED A SURVEY FOR CHAMPION INTERNATIONAL CORP. AND INTERNATIONAL PAPER CO. WHERE HE SET A 2" IRON PIPE WITH BRASS CAP AT THE CORNER BY DOUBLE PROPORTIONION PER M79-30. HINTZ HELD SECTION CORNERS ONE MILE TO THE NORTH, EAST, AND WEST, AND HELD A SECTION CORNER THREE MILES TO THE SOUTH TO CALCULATE THE CORNER POSITION. IN 1981, HINTZ RESET THE PIPE, THEN IN 1991, HE FILED M114-22, A SURVEY FOR INTERNATIONAL PAPER CO. STATING HE RESET THE PIPE AND CAP PER M79-30 AS IT WAS INCORRECTLY SET DURING THE 1980 SURVEY.

THE BPA SECTION CORNER TRAVERSE NOTES WERE RETRACED. TRANSMISSION LINE STRUCTURES ON THE MAPLETON-REEDSPORT LINE WERE SURVEYED AND HELD TO CALCULATE THE CORNER POSITION, PER BPA DRAWING NO. 38229B. THE BPA TRAVERSE CLOSED TO THE CENTER LINE OF THE RAILROAD TRACKS, IDENTIFIED IN SAID NOTES BEING HUB 19, WHERE THE CALCULATED MISCLOSURE TO THE RETRACED ALIGNMENT "D" CENTER LINE WAS 1.42 FEET, AND WITHIN 0.5 FEET OF THE EXISTING TRACK CENTER LINE.

THE CALCULATED POSITION OF THE SECTION CORNER PER THE BPA TRAVERSE WAS FOUND TO BE IN HARMONY WITH THE REMNANTS OF SAID FENCE ON THE NORTHERLY LINE DESCRIBED IN CIRCUIT COURT CASE NO. E82-0230.

FILE NAME: WO_356103-68_ROS.dgn

OBEC CONSULTING ENGINEERS
A DOWL LLC Company
CORPORATE OFFICE: 920 COUNTRY CLUB ROAD, SUITE 100B EUGENE, OREGON 97401-6089
REGIONAL OFFICES: LAKE OSWEGO, SALEM; MEDFORD, OREGON; VANCOUVER, WASHINGTON

BONNEVILLE POWER ADMINISTRATION logo and title: TAHKENITCH SUBSTATION RECORD OF SURVEY DOUGLAS COUNTY, OREGON

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON JANUARY 8, 2019 REED CARLSON BEAUDUY 93377PLS

RENEWAL: DEC. 31, 2021 SIGNED: [Signature] 9/26/2019

DESIGNED: R. BEAUDUY PROJ. NO. 684-004.61
DRAWN: A. DOUGHAN CHK'D: N. WARDELL SER. NO. 336869-C

MAP FILE M176-4B

MAP FILE M176-4B