

LEGEND:

- S# INDICATES RECORD DATA PER SURVEY REFERENCE NO. #
- () INDICATES RECORD DATA PER SURVEY REFERENCE NO. 1
- CP## INDICATES CONTROL POINT, 5/8" REBAR ROD WITH 2" ALUMINUM CAP SEE OPUS SHARED SOLUTION
- INDICATES FOUND AND HELD 4" ALUMINUM DISK STAMPED WITH PROJECT BOUNDARY IDENTIFICATION NUMBER PER S1 UNLESS OTHERWISE NOTED
- INDICATES CALCULATED POSITION
- ⊙ INDICATES 5/8" x 30" REBAR ROD WITH A 3-1/4" U.S.A.C.E. ALUMINUM CAP STAMPED "L.S. 37535 2020" SET SEE SHEET 3 OF 3 FOR DETAILS
- LCR INDICATES LAND CORNER RECORD
- INDICATES PROPOSED ADJUSTED PROJECT BOUNDARY
- - - INDICATES EXISTING PROJECT BOUNDARY

SURVEY

LOCATED IN A PORTION OF
THE B.B. BISHOP D.L.C. IN THE
SE 1/4 AND SW 1/4 OF SECTION 16
AND THE
NW 1/4 OF SECTION 21
T. 2 N., R 7 E., W.M.
SKAMANIA COUNTY, WASHINGTON



US Army Corps
of Engineers®

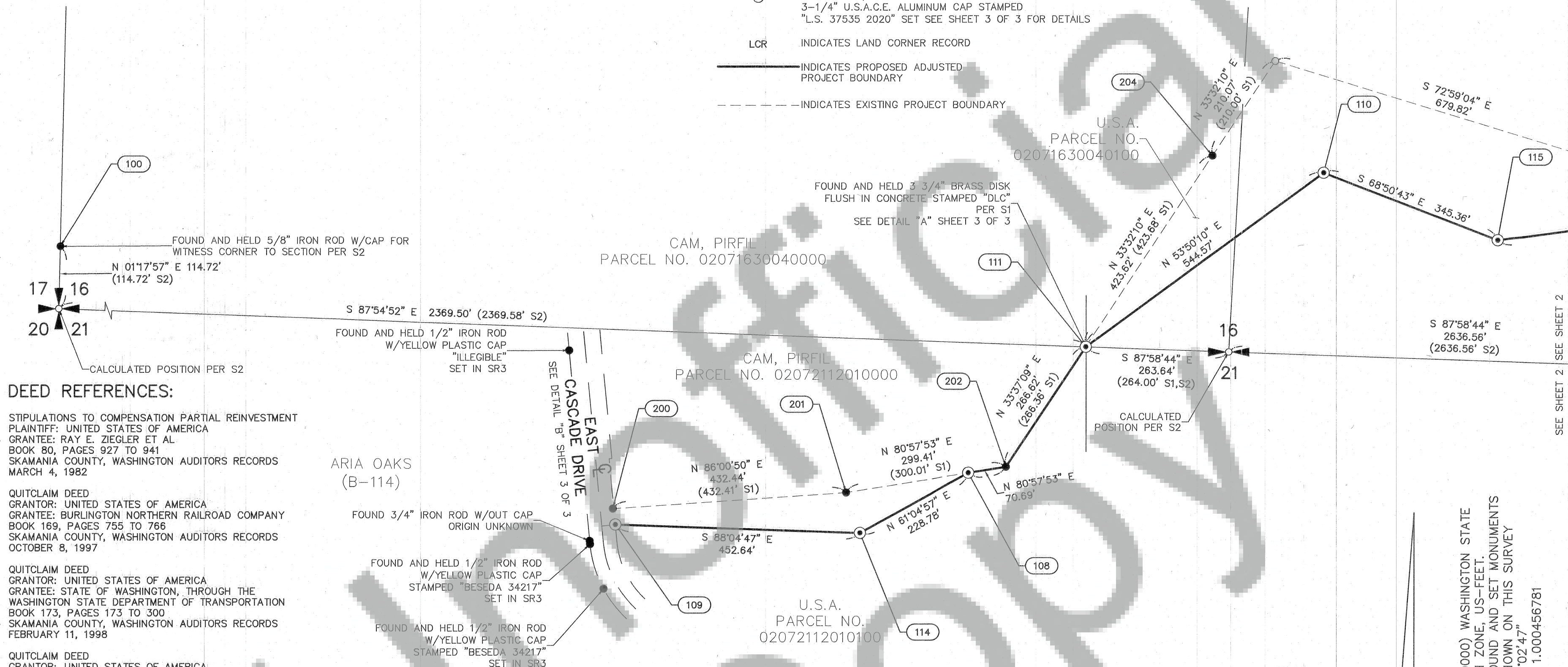
PREPARED FOR:
U.S. ARMY CORPS OF ENGINEERS
PORTLAND DISTRICT
333 SW FIRST AVE
PORTLAND OR 97204

SURVEY DATE: 12/11/2020	FILE NUMBER:
DESIGNED BY: DAN RENTON	CKD BY: NG
DWN BY: NG	DAR
SUBMITTED BY: DAN RENTON	PLOT DATE: 12/11/2020
1"=150'	SIZE: ARCH C
FILE NAME: 2026051.DWG	

U.S. ARMY
CORPS OF ENGINEERS
PORTLAND DISTRICT
333 SW FIRST AVE
PORTLAND OR 97204

RECORD OF SURVEY
LAND SURVEY FOR PROJECT BOUNDARY LINE
ADJUSTMENT/BASS LAKE
CONTRACT NO. W9127N16-D-3003,
MINISTER & GLAESER SURVEYING, INC.
PREAWARD NO. PANND-20-P-0000 005431
TASK ORDER W9127N20P0061

SHEET
IDENTIFICATION
1 OF 3



DEED REFERENCES:

STIPULATIONS TO COMPENSATION PARTIAL REINVESTMENT
PLAINTIFF: UNITED STATES OF AMERICA
GRANTEE: RAY E. ZIEGLER ET AL
BOOK 80, PAGES 927 TO 941
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
MARCH 4, 1982

QUITCLAIM DEED
GRANTOR: UNITED STATES OF AMERICA
GRANTEE: BURLINGTON NORTHERN RAILROAD COMPANY
BOOK 169, PAGES 755 TO 766
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
OCTOBER 8, 1997

QUITCLAIM DEED
GRANTOR: UNITED STATES OF AMERICA
GRANTEE: STATE OF WASHINGTON, THROUGH THE
WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
BOOK 173, PAGES 173 TO 300
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
FEBRUARY 11, 1998

QUITCLAIM DEED
GRANTOR: UNITED STATES OF AMERICA
GRANTEE: CITY OF NORTH BONNEVILLE
BOOK 180, PAGES 719 TO 721
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
AUGUST 27, 1998

STATUTORY WARRANTY DEED
GRANTOR: UNITED STATES OF AMERICA
GRANTEE: THE ESTATE OF RAYMOND E. ZIEGLER, DECEASED
BOOK 223, PAGES 945 TO 957
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
MAY 8, 2002

STATUTORY WARRANTY DEED
GRANTOR: THE ESTATE OF RAYMOND E. ZIEGLER, DECEASED
GRANTEE: PIRFIL CAM
AUDITORS FILE NUMBER: 2006162087
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
JUNE 26, 2006

STATUTORY WARRANTY DEED
(RE-RECORD OF AUDITORS FILE NUMBER: 2006162087)
GRANTOR: LAURINE MCGREW
GRANTEE: PIRFIL CAM
AUDITORS FILE NUMBER: 2007167155
SKAMANIA COUNTY, WASHINGTON AUDITORS RECORDS
AUGUST 6, 2007

SURVEY REFERENCES:

- HAGEDORN SURVEY BOOK 1 PAGES 168 THROUGH 170
- SIMED SURVEY AUDITORS FILE NUMBER 2011178518
- "ARIA OAKS SUBDIVISION" BOOK B PAGES 114

SHEET INDEX

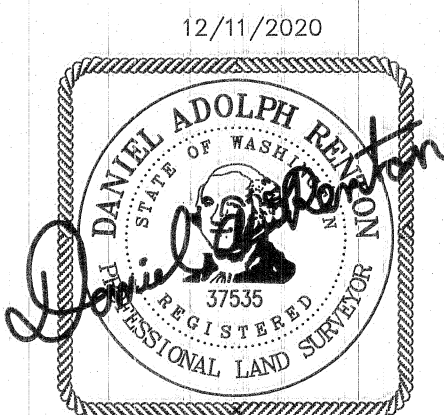
SHEET 1: SITE (WEST SECTION), LEGEND, REFERENCES AND CERTIFICATES.
SHEET 2: SITE (EAST SECTION), LEGEND AND NARRATIVE.
SHEET 3: SET AND FOUND MONUMENT TABLES, CONTROL TABLE, DETAIL A AND B, SET MONUMENT AND SIGN DETAILS.

AUDITOR'S CERTIFICATE

FILED FOR RECORD THIS 21ST DAY OF December, 2020
AT 8:18 O'CLOCK AM/PM, IN BOOK OF SURVEYS,
AT PAGE
AT THE REQUEST OF MINISTER AND GLAESER SURVEYING INC.
Mona McClellan
DEPUTY/COUNTY AUDITOR
2020-003508
AUDITORS FILE NUMBER

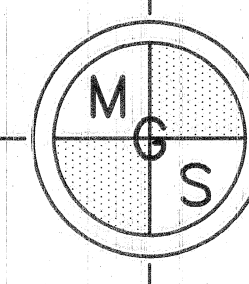
SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION
IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE
REQUEST OF USACE, IN AUGUST 2020.
Daniel Adolph Renton 12/11/2020
DANIEL ADOLPH RENTON, PROFESSIONAL LAND SURVEYOR, LS# 37535



150 75 0 150 225 300
SCALE 1 INCH = 150 FEET

THE DISTANCES SHOWN HEREON ARE GRID
TO OBTAIN GROUND DISTANCES, DIVIDE THE GRID
DISTANCES BY THE
COMBINED SCALE FACTOR OF 1.0000456781
(0.24' PER MILE / 0.005' PER 100')



MINISTER-GLAESER
SURVEYING INC.
2200 E. EVERGREEN BLVD.
VANCOUVER, WA 98661
(360) 694-3313

BASIS OF BEARING:
NAD83(2011)(EPOCH: 2010.0000) WASHINGTON STATE
PLANE COORDINATE, SOUTH ZONE, US-Feet.
N 01°01'01" E, BETWEEN FOUND AND SET MONUMENTS
LABELED 113 & 104 AS SHOWN ON THIS SURVEY
CONVERGENCE ANGLE: -01°02'47"
COMBINED SCALE FACTOR: 1.000456781

NARRATIVE

THE PURPOSE OF THIS SURVEY WAS TO MONUMENT, MARK AND POST THE PROPOSED ADJUSTED BOUNDARY LINE BETWEEN THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE), PORTLAND DISTRICT PROPERTY (PARCELS: 02072112010100, 02071630040100 AND 02071600070200) AND THE PIRFIL CAM PROPERTY (PARCELS: 02072112010000, 02071630040000 AND 02071600070000) AT BASS LAKE, NORTH BONNEVILLE, SKAMANIA COUNTY, WASHINGTON

PROJECT BACKGROUND

IN 2010, A CONTRACT WAS ORDERED TO SURVEY THE GOVERNMENT BOUNDARY THAT INCLUDED FEE OWNED TRACT 2547 (DT CIVIL CASE NO. C67-767, JULY 8, 1977). HOWEVER, IN THE PROCESS OF COMPILING ALL KNOWN INFORMATION CONCERNING TRACT HISTORY, A JUDGMENT (DATED JULY 8, 1981) TO RE-VEST THE NORTHWEST SECTION OF THE TRACT BACK TO THE LANDOWNERS AFFECTED BY THE DECLARATION TAKING, WAS MISSED. IN ADDITION, IT WAS ALSO FOUND THAT THE LEGAL DESCRIPTION OF THE REVISED BOUNDARY WAS NOT ACCURATELY RECORDED IN 1981. THIS ERROR WAS NOTED AT A LATER DATE IN AN INTERNAL MEMO DATED SEPTEMBER 12, 1983. THIS MEMO STATED IT WAS THE CORPS' INTENT TO MATCH THE RE-VESTED MAP, BUT THE LEGAL DESCRIPTION WAS NEVER CORRECTED NOR APPLIED.

EQUIPMENT

- 1 2019 GMC SIERRA 2500 HD SURVEY RIG
- 2 TRIMBLE R8S GNSS RECEIVER'S
- 2 TRIMBLE R12 GNSS RECEIVER
- 1 TRIMBLE S8 TOTAL STATION
- 1 TRIMBLE TDL 450H 35-WATT RADIO
- 1 TRIMBLE TSC3 DATA COLLECTOR WITH TRIMBLE ACCESS SOFTWARE
- AUTODESK CIVIL 3D (2020)
- TRIMBLE BUSINESS CENTER
- STAR-NET LEAST SQUARES ADJUSTMENT SOFTWARE

LEGEND:

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- LCR INDICATES LAND CORNER RECORD
- INDICATES PROPOSED ADJUSTED PROJECT BOUNDARY
- - - INDICATES EXISTING PROJECT BOUNDARY

NARRATIVE (CONT)

PROCEDURE

A TRIMBLE R8S GNSS BASE RECEIVER WAS SET ON OPUS SHARED SOLUTION POINT "BASS 1" (PID: BBGZ71) A SECOND TRIMBLE R8S GNSS BASE RECEIVER WAS SET ON OPUS SHARED SOLUTION POINT "BASS 2" (PID: BBGZ72). THE TWO BASE RECEIVERS WERE OPERATING IN A REAL TIME KINEMATIC (RTK) MODE AND THE TWO RECEIVERS WERE TRANSMITTING REAL TIME CORRECTION USING A TRIMBLE TDL 450H 35-WATT RADIO. TWO TRIMBLE R12 GNSS ROVER RECEIVER OPERATING IN A RTK MODE AND RECEIVING CORRECTIONS FROM THE TWO BASE RECEIVERS, WERE USED TO CHECK EXISTING USACE CONTROL, SET ADDITIONAL CONTROL, TIE GPS ACCESSIBLE FOUND MONUMENTS AND TIE FENCES. ALL POINTS TIED WITH THE RTK GPS HAD TWO 3-MINUTE OCCUPATION FROM EACH BASE STATION AND WAS AVERAGED TO A SINGLE POSITION. THERE WERE ALSO CROSS CHECKS MADE TO CONTROL AND FOUND MONUMENTS USING THE WASHINGTON STATE REFERENCE NETWORK (WSRN) AND THE OREGON REAL TIME GNSS NETWORK (ORGN). A TRIMBLE S8 TOTAL STATION WAS USED TO SET CORNERS AND TIE CORNERS THAT WERE NOT GPS ACCESSIBLE. ALL DATA WAS PROCESSED IN TRIMBLE BUSINESS CENTER (TBC). ALL TRAVERSES WERE BALANCED USING STAR-NET LEAST SQUARES ADJUSTMENT SOFTWARE. ALL MAPPING WAS DONE IN AUTODESK CIVIL3D (2020) SOFTWARE. ALL CONTROL MONUMENT FOUND MONUMENTS AND SET MONUMENTS WERE SUBMITTED THE USACE SURVEY MONUMENT ARCHIVAL AND RETRIEVAL TOOL (U-SMART).

BOUNDARY RESOLUTION

THE SCOPE OF WORK REQUIRED THE PROPOSED ADJUSTED BOUNDARY TO BE MONUMENTED AND POSTED. LISTED BELOW WERE THE TASK IMPLEMENTED TO RESOLVE THE ADJUSTED BOUNDARY:

TASK-1

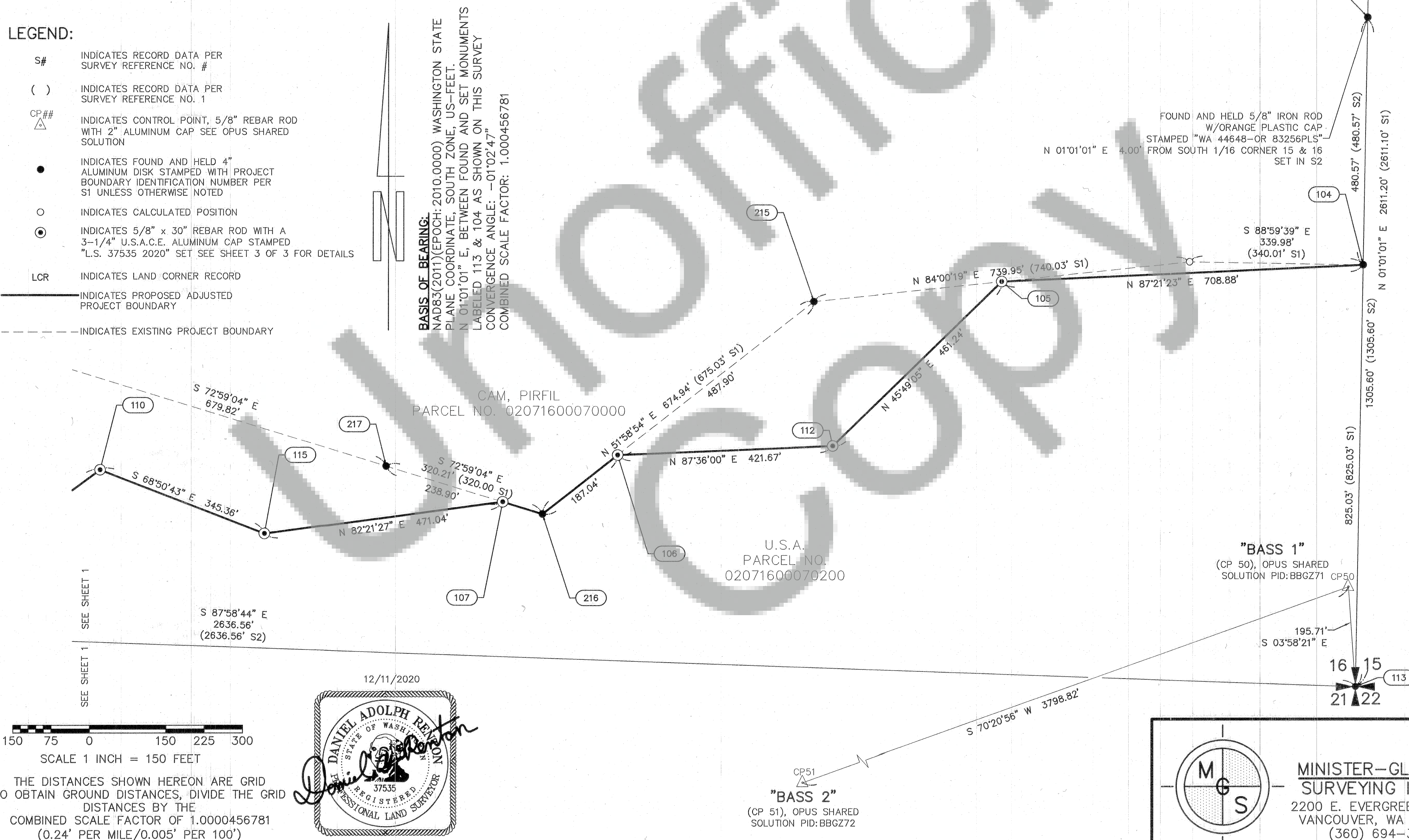
CONSISTED OF SURVEYING THE SECTION CONTROL IN SECTION 16 (SURVEY REFERENCE NUMBER 1&2), SURVEYING THE RIGHT OF WAY OF "EAST CASCADE DRIVE" (SURVEY REFERENCE NUMBER 3) AND SURVEYING THE CONTROLLING MONUMENTS ALONG THE EXISTING BOUNDARY LINE (SURVEY REFERENCE NUMBER 1)

TASK-2

CONSISTED OF USING THE SURVEYED CONTROLLING MONUMENTS IN TASK 1 AND TRANSLATING AND ROTATING THE PROPOSED ADJUSTED BOUNDARY LINE AS PREPARED BY THE UNITED STATES ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT, ONTO SAID CONTROLLING MONUMENTS. SET MONUMENT "115" WAS MOVED SOUTH OF THE PROPOSED POSITION, SINCE IT FELL IN THE CENTER OF A DIRT/GRAVEL ROAD.

SURVEY

LOCATED IN A PORTION OF
THE B.B. BISHOP D.L.C. IN THE
SE 1/4 AND SW 1/4 OF SECTION 16
AND THE
NW 1/4 OF SECTION 21
T. 2 N., R 7 E., W.M.
SKAMANIA COUNTY, WASHINGTON



U.S. Army Corps of Engineers®

PREPARED FOR:
U.S. ARMY CORPS OF ENGINEERS
PORTLAND DISTRICT
333 SW FIRST AVE
PORTLAND OR 97204

SURVEY DATE:
12/11/2020

DESIGNED BY:
DAN RENTON

DWN BY:
NG

CKD BY:
DAR

SUBMITTED BY:
DAN RENTON

PLOT DATE:
12/11/2020

FILE NAME:
2026031.DWG

SIZE:
ARCH C

U.S. ARMY
CORPS OF ENGINEERS
PORTLAND DISTRICT
333 SW FIRST AVE
PORTLAND OR 97204

RECORD OF SURVEY
LAND SURVEY FOR PROJECT BOUNDARY LINE
ADJUSTMENT/BASS LAKE

CONTRACT NO. W9127N16-D-3003,
MINISTER & GLAESER SURVEYING, INC.
PREAWARD NO. PANNWD-20-P-0000 005431
TASK ORDER W9127N20F0061

SHEET
IDENTIFICATION
2 OF 3



US Army Corps
of Engineers®

PREPARED FOR:
U.S. ARMY CORPS OF ENGINEERS
PORTLAND DISTRICT
333 SW FIRST AVE
PORTLAND OR 97204

SURVEY DATE:
12/11/2020

DESIGNED BY:
DAN RENTON

CKD BY:
DAR

FILE NUMBER:

U.S. ARMY
CORPS OF ENGINEERS
PORTLAND DISTRICT
333 SW FIRST AVE
PORTLAND OR 97204

RECORD OF SURVEY
LAND SURVEY FOR PROJECT BOUNDARY LINE
ADJUSTMENT/BASS LAKE
CONTRACT NO. W9127N16-D-3003,
MINISTER & GLAESER SURVEYING, INC.
PREAWARD NO. PANNWD-20-P-0000 005431
TASK ORDER W9127N20P0061

SHEET
IDENTIFICATION
3 OF 3

SURVEY

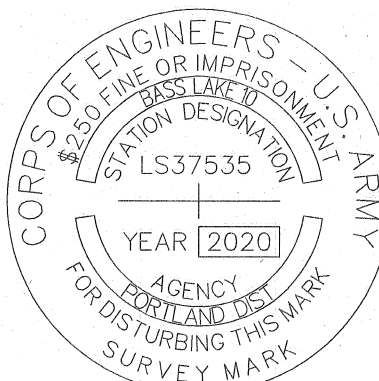
LOCATED IN A PORTION OF
THE B.B. BISHOP D.L.C. IN THE
SE 1/4 AND SW 1/4 OF SECTION 16
AND THE
NW 1/4 OF SECTION 21
T. 2 N., R 7 E., W.M.
SKAMANIA COUNTY, WASHINGTON

FOUND MONUMENT TABLE		
POINT NO.	NORTHING	EASTING
100	119590.1400	1266736.7000
104	120111.8249	1272015.0695
200	119090.1400	1268226.4800
201	119120.2000	1268657.8700
202	119167.2200	1268953.5600
203	119389.2140	1269102.0290
204	119742.4000	1269335.1400
205	120596.3186	1272023.6686
207	124546.3943	1272124.1201
210	118941.6400	1268209.4800
211	119024.1400	1268184.3800
212	119030.4000	1268183.5500
213	119382.0000	1268145.3600
215	120040.5141	1270939.2437
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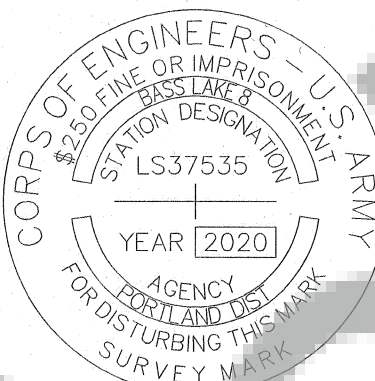
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POINT NO.	NORTHING	EASTING
105	120079.1277	1271306.9451
106	119740.0110	1270554.8726
107	119648.6041	1270329.7688
108	119156.1189	1268883.7496
109	119060.6592	1268231.1018
110	119710.5949	1269540.8282
111	119389.2449	1269101.1796
112	119757.6696	1270976.1752
113	119286.9248	1272000.4286
114	119045.4907	1268683.4910
115	119585.9600	1269862.9100

CONTROL TABLE			
POINT NO.	NORTHING	EASTING	OPUS SHARED SOLUTION
50	119482.1599	1271986.8706	PID: BBGZ71
51	118204.6519	1268409.2992	PID: BBGZ72

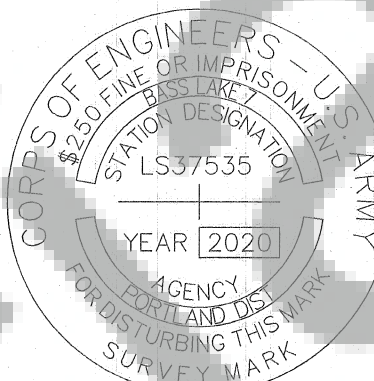
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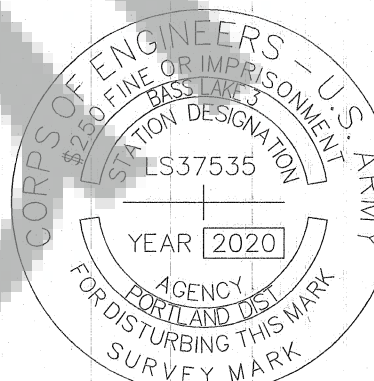
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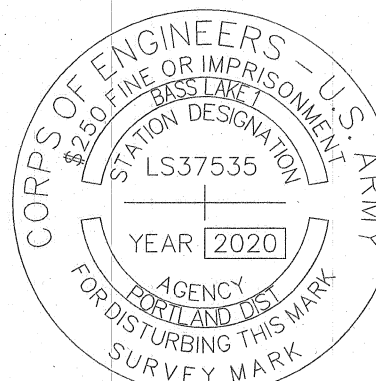
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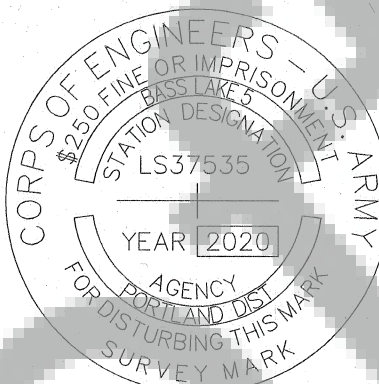
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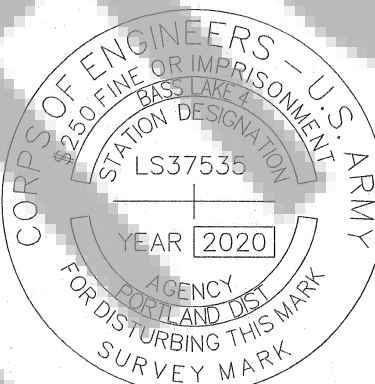
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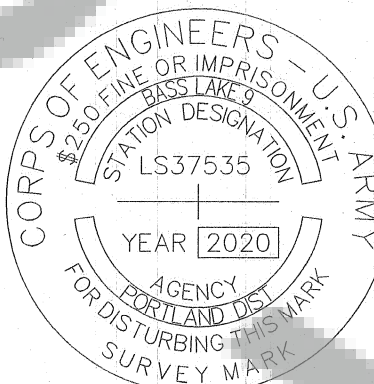
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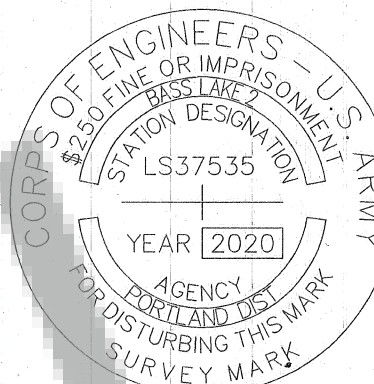
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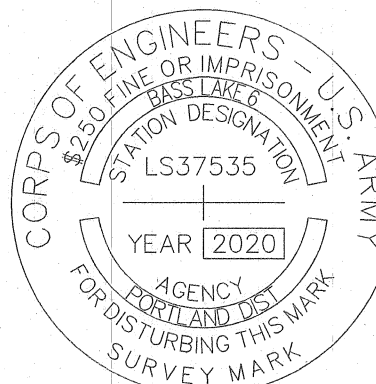
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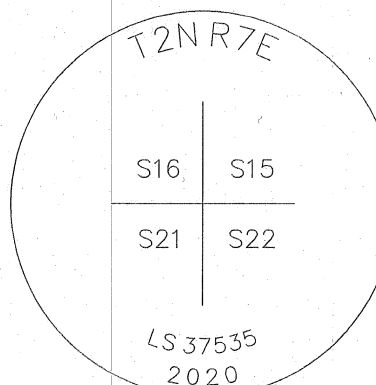
SET MONUMENT NO. 114



SET MONUMENT NO. 115

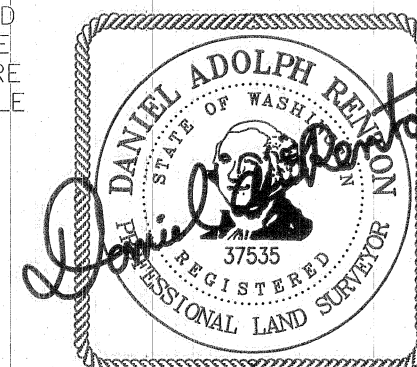


SET MONUMENT NO. 113

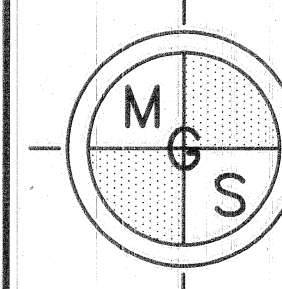


SEE LCR
AFN: 2020-003432
FOR DETAIL DESCRIPTION

12/11/2020



THIS 6 TALL ORANGE
CARSONITE POST WAS
PLACED ON THE PROPOSED
ADJUSTED BOUNDARY LINE
AT A SPACING OF NO MORE
THAN 150 FEET INTERVISABLE



MINISTER-GLAESER
SURVEYING INC.
2200 E. EVERGREEN BLVD.
VANCOUVER, WA 98661
(360) 694-3313

BASIS OF BEARING:
NAD83(2011) (EPOCH: 2010.0000) WASHINGTON STATE
PLANE COORDINATE, SOUTH ZONE, US-Feet.
N 01°01'01" E, BETWEEN FOUND AND SET MONUMENTS
LABELED 113 & 104 AS SHOWN ON THIS SURVEY
CONVERGENCE ANGLE: -01°02'47"
COMBINED SCALE FACTOR: 1.000456781

WITNESS POST
PLEASE DO
NOT DISTURB
NEARBY
SURVEY
MARKER
FOR INFORMATION
WRITE TO THE DISTRICT
ENGINEER, CORPS OF
ENGINEERS P.O. BOX
2945 PORTLAND,
OREGON 97208

THIS WHITE METAL SIGN WAS
PLACED ON A 6 FOOT
GREEN STEEL POST AT
EACH SET AND
CONTROLLING MONUMENTS

LEGEND:

- S# INDICATES RECORD DATA PER SURVEY REFERENCE NO. #
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- INDICATES PROJECT BOUNDARY
- INDICATES SIGN

