DWG FILE: 17063S.DWG MINISTER AND GLAESER SURVEYING, INC. MAKES NO WARRANTIES AS TO MATTERS UNWRITTEN TITLE SUCH AS ADVERSE POSSESSION, ACQUIESCENCE, ESTOPPLE, ETC. A FIELD TRAVERSE WAS PERFORMED USING A THREE SECOND TOTAL STATION. THE FIELD TRAVERSE MET THE MINIMUM STANDARDS FOR SURVEYS AS DESIGNATED IN WAC 332-130-090. ALL CORNERS NOTED AS FOUND WERE VISITED ON 03-15-17. NARRATIVE AND LEGAL DESCRIPTION SITE MAP, CERTIFICATES, LEGEND, DEED AND SURVEY REFERENCES AND SURVEY NOTES. SHEET INDEX: SURVEY NOTES: LEASE AREA: BEDLANDS: ±66,725 SQ.FT. OR ±1.53 ACRES HORIZONTAL DATUM:
NAD 83(2011), WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH
BASED ON WSDOT GEODETIC CONTROL POINT "GP30014-5" (PID: 255) STATE OF WASHINGTON TIDE LAND DEED GRANTOR: STATE OF WASHINGTON GRANTEE: RENA G. SWIGERT VOLUME 16, PAGE 459 (STATE RECORD OF TIDE LAND DEED DATE: JUNE 6, 1929 VOLUME W, PAGE 209 & 209 (SKAMANIA COUNTY DEEDS) DATE: JUNE 28, 1929 VERTICAL DATUM:
NAVD 88, BASED ON WSDOT GEODETIC CONTROL
POINT "GP30014-5" (PID: 255). PUBLISHED ELEV=709.38" GRANTOR: ERNEST G. SWIGERT GRANTEE: ERNEST G. SWIGERT, TRUSTEE BOOK 68, PAGE 927-930 DATE: MAY 27, 1975 LEGEND: SQ-FT
CRD
MHT
MHT
NAD
NAVD
RM:
E:
Pip: INDICATES FOUND AND HELD SECTION CONTROL INDICATES LAND CORNER RECORD INDICATES POINT ID INDICATES MEAN LOW TIDE INDICATES STEEL "H" PILING, STEEL ROUND PILING AND STEEL BATTER PILING. INDICATES RIGHT OF WAY CENTERLINE INDICATES COLUMBIA RIVER MILE INDICATES EASTING INDICATES NORTH AMERICAN VERTICAL DATUM INDICATES NORTH AMERICAN DATUM INDICATES COLUMBIA RIVER DATUM INDICATES LINE OF EXTREME LOW TIDE INDICATES LEASE BOUNDARY INDICATES CALCULATED POSITION INDICATES NORTHING INDICATES SQUARE FEET INDICATES LINE OF MEAN HIGH TIDE TIDE LAND DEEDS) 읶 544'84, 2 01.15,21, E FOUND AND HELD A 1" IRON PIPE WITH A 3" SKAMANIA COUNTY BRASS DISK.
SEE SURVEY REFERENCE 1
SEE LCR BOOK 1/5, PAGE 24 BNSF RAILROAD PAGE 459 ±0.65 ACRES 17.37 ±28448 SQ-F LEASE AREA ±1.53 ACRES ±66725 SQ-FT SECOND CL TIDELANDS WE BALANCEDE LINE DE. LINE OF

EXTREME LOW TIDE

(ELT) BATTER
9.04' NAVD 88 PILE

0.0 CRD COLUMBIA RIVER MILE ±134.5 EB C FLOOD N 88'07'20" 270.78' NO 212 PARCEL ID 01051110240000 MEZ. WHOY OF ORNER 90.21 (1254.00') (SOUTH) (GLO 19 CHAINS) NAVO 88 53.68 S 0111'45" W 1256.97' 12.03' W my 010501000 FOUND AND HELD A 1" IRON PIPE WITH A 3" SKAMANIA COUNTY BRASS DISK, 2.15 FEET ABOVE GROUND AND LEANING O.6", S36"E.
TIED SPIN HOLE SEE SURVEY REFERENCE 1 NO LCR .81 OREGON 310.49° W FILED. SURVEYOR'S AUDITOR'S DATE: SCALE: CHECKED BY: DRAWN BY: CALC BY: JOB NO. THE DISTANCES SHOWN HEREON ARE GRID TO OBTAIN GROUND DISTANCES, DIVIDE THE GRID DISTANCES BY THE COMBINED SCALE FACTOR OF 1.0000620924 (0.33' PER MILE/0.006 PER 100') 60 1:24 O'CLOCK AM PM IN BOOK AGE 04-13-17 ORMANCE WITH THE REQUIREMENTS OF THE STORMANCE WITH THE REQUIREMENTS OF THE STORMANCE OF SWIGERT PRINDLE TRUST, IN MARCH PENTON, PROFESSIONAL LAND S SCALE 17-63 "=60' DAR DAR  $\triangleright$ AQUATIC LANDS 1 INCH = BASIS OF BEARING:
NAD83(2011)(EPOCH: 2010.0000) WASHINGTON STATE
PLANE COORDINATE, SOUTH ZONE, US-FEET.
N01"11"45"E, ALONG THE EAST LINE SECTION 11
(GOVERNMENT LOT 4)
AS SHOWN ON THIS SURVEY
CONVERGENCE ANGLE: -01"11"45"
COMBINED SCALE FACTOR: 1.0000620924 CERTIFICATE CERTIFICATE 60 FEET 60 AND GLAESER SURVEYING INC. COMBINED SCALE FACTOR: 1.0000620924 90 LEASE 120 MINISTER—GLAESER
SURVEYING INC.
2200 E. EVERGREEN BLVD.
VANCOUVER, WA 98661
(360) 694—3313 #20170DD743 NO. BY ME OR UNDER MY DIRECTION SURVEY RECORDING ACT AT THE 2017. 20-B09594 유 1811 SURVEYS,

## EASE JRVEY

DEED REFERENCES:

N: 99179.08 E: 1213720.43

5270.51' (5270.57' S1) S 88'42'29" E

N: 99060.278 E: 1218989.607

SURVEY REFERENCES:

OLSON

SURVEY BOOK 1, PAGE 233

PORTION OF THE TIDELANDS OF THE SECOND CLASS AND BEDLANDS OF THE COLUMBIA RIVER, OWNED BY THE STATE OF WASHINGTON, FRONTING GOVERNMENT LOT 4 OF SECTION 11,

T. 1 N., R. 5 E., W.M.

SKAMANIA COUNTY, WASHINGTON
SHEET 1 OF 2

1. ESTABLISH CONTROL AND COLLECT DATA
SET A TRIMBLE R8—3 GNSS BASE WAS SET ON NGS GEODETIC CONTROL POINT
"TIDAL 1 RESET (PID:RD0109)". A TRIMBLE R—10 GNSS ROVER RECEIVING
REAL TIME CORRECTION FROM THE BASE STATIONS WAS USED TO ESTABLISH THE
ONSITE CONTROL (HORIZONTAL AND VERTICAL), SURVEY SECTION CONTROL, SURVEY
RAILROAD RIGHT OF WAY, COLLECT DATA TO ESTABLISH THE LINE OF EXTREME LOW
TIDE (ELT), THE LINE OF MEAN HIGH TIDE (MHT) AND SURVEY THE GANGWAY AND
PILING.

2. EAST LINE OF GOVERNMENT LOT 4 APPLIED THE CARDINAL EQUIVALENT WITH THE RESULT OF S01"11"45"W. 유 01°11'45'

7

Τ

GLO

BEARING

윽

**SOUTH** 

3. UPL SINCE ONLY E THE LIN 30.38 IPLAND BOUNDARY

IF THE PROPERTY BORDERS THE COLUMBIA RIVER, THE UPLAND OWNERSHIP

Y EXTENDS TO THE LINE OF MEAN HIGH TIDE (MHT) NOT THE MEANDER LINE.

LINE OF MEAN HIGH TIDE WAS COMPUTED TO BE AT NAVD88 ELEVATION OF

5. TIDELAND BOUNDARY
SINCE THE SECOND CLASS TIDELANDS FRONTING GOVERNMENT LOT OF OF SECTION
11 WAS PURCHASED FROM THE STATE OF WASHINGTON AFTER TO 1911, THEN THE
RIVERWARD EXTENT OF THE SECOND CLASS TIDELAND WILL EXTEND TO THE LINE OF
EXTREME LOW TIDE (ELT). THE LINE OF EXTREME LOW TIDE (ELT) WAS COMPUTED TO
BE 9.04' NAVD88 DATUM OR 0.00' COLUMBIA RIVER DATUM (CRD). THE SIDE LINES
OF THE SECOND CLASS TIDELAND WERE MADE PERPENDICULAR TO THE RIGHT BANK
THE COLUMBIA RIVER. THE AREA OF THE SECOND CLASS TIDE LANDS SHOWN ON
THIS SURVEY IS JUST THE AREA FRONTING THE AQUATIC LAND LEASE BOUNDARY.

6. AQUATIC LAND LEASE BOUNDARY
THE LANDWARD AQUATIC LAND LEASE BOUNDARY IS THE LINE OF EXTREME
TIDE (ELT). THE REMAINING LEASE BOUNDARY WAS COMPUTED FROM THE 19
WASHINGTON DEPARTMENT OF NATURAL RESOURCES AQUATIC LAND LEASE S
NUMBER 20—A09594. SURVEY MOT

## LEGAL DESCRIPTION

AN AQUATIC LAND LEASE PARCEL LOCATED IN THE BEDLANDS OF THE COLUMBIA RIVER (RIVER MILE +/-134.5) FRONTING THE SECOND CLASS TIDE LANDS AS RECORDED IN DEED RECORD BOOK W, AT PAGE 208 AND 209, SKAMANIA COUNTY, WASHINGTON DEED RECORDS AND ALSO IN VOLUME 16 OF THE STATE OF WASHINGTON SECOND CLASS TIDE LAND DEEDS, AT PAGE 459, IN A PORTION OF GOVERNMENT LOT 4 OF SECTION 11, TOWNSHIP 1 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN SKAMANIA COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS;

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 11;

THENCE S SOUTH 88'42'29" EAST, A ALONG THE NORTH LINE OF SAID SECTION 11, FOR A DISTANCE OF 5270.51 THEREOF (NORTHEAST CORNER OF GOVERNMENT LOT 4.

THENCE LEAVING SAID NORTH LINE, SOUTH 01"11"45" WEST, ALONG THE EAST LINE OF SECTION 11(EAST LINE OF GOVERNMENT LOT 4, FOR A DISTANCE OF 1163.79 FEET TO THE SOUTH RIGHT OF WAY OF THE BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT OF WAY

THENCE CONTINUING COMPUTED MEANDER ALONG SAID CORNER BET EAST LINE, SOUTH 0111'45" WEST FOR A DISTANCE OF 90.21 FEET TO THE TWEEN SECTIONS 11 AND 12;

THENCE CONTINUING ON AN EXTENSION OF SAID EAST LINE, SOUTH 01"11"45" WEST FOR A DISTANCE OF 2.97 FEET TO THE LINE OF MEAN HIGH TIDE (MHT);

THENCE LEAVING SAID EAST LINE THE LINE OF EXTREME LOW TIDE EXTENSION, SOUTH 20'08'09" EAST FOR A DISTANCE (ELT) AND THE TRUE POINT OF BEGINNING; OF 198.69 FEET TO

THENCE ALONG THE LINE OF EXTREME LOW TIDE (ELT) THE FOLLOWING COURSES AND DISTANCES;

SOUTH 71"20"24" WEST FOR A DISTANCE OF 25.79 FEET;

SOUTH 29\*47'03" WEST FOR A DISTANCE OF 55.17 FEET;

THENCE NORTH 76.04'30" WEST FOR A DISTANCE OF

THENCE NORTH 88'07'20" EAST FOR A DISTANCE OF 270.78 FEET;

OF EXTREME LOW TIDE, SOUTH 01"12"31" EAST FOR A DISTANCE

THENCE LEAVING SAID LINE OF 244.64 FEET;

THENCE NORTH 86'29'11" WEST FOR A DISTANCE OF 15.03 FEET; THENCE

THENCE SOUTH 52'40'22" WEST FOR A DISTANCE OF 75.86 FEET;

129.13 FEET

THENCE SOUTH 74.45.33" WEST FOR A DISTANCE OF 17.37 FEET.

THENCE NORTH 0112'19" WE ST FOR A DISTANCE OF 310.49 FEET TO THE TRUE POINT OF BEGINNING;

1.53 ACRES

SQUARE FEET) OF BEDLANDS MORE OR LESS

LEASE SURVEY LANDS

A PORTION OF THE TIDELANDS OF THE SECOND CLASS AND BEDLANDS OF THE COLUMBIA RIVER, OWNED BY THE STATE OF WASHINGTON, FRONTING GOVERNMENT LOT 4 OF SECTION 11, T. 1 N., R. 5 E., W.M.

SKAMANIA COUNTY, WASHINGTON SHEET 2 OF 2

## EXTREME LOW TIDE DETERMINATION

DETERMINE T G STEPS WERE LOW TIC TIDE (ELT) AT COLUMBIA RIVER MILE 134.5,

A HYDROGRAPHIC SURVEY WAS PERFORMED USING A SINGLE BEAM ECHO SOUNDER TO MAP THE AREA FRONTING THE SECOND CLASS TIDELAND. THE DATA FROM THE HYDROGRAPHIC SURVEY WAS USED TO PRODUCE A CONTOUR LINE AT 9.04' NAVD88 WHICH EQUALS 0.00' COLUMBIA RIVER DATUM (CRD) WHICH IS THE EXTREME LOW TIDE. EXTREME LOW TIDE IS THE RIVERWARD LIMIT OF THE SECOND CLASS TIDELANDS SINCE THEY WERE SOLD AFTER 1911.

## MEAN HIGH TIDE DETERMINATION

TO DETERMINE THE MEAN FOLLOWING STEPS WERE 1 N HIGH TIDE (MHT) AT COLUMBIA RIVER MILE TAKEN: 134.5,

COMPUTE THE COLUMBIA RIVER DATUM (CRD) TO MEAN RELATIONSHIP AT THE FOLLOWING NOAA COLUMBIA RIVE RIVER TIDAL STATIONS:

0 TO MHT @ VANCOUVER =4.21'(CRD)RM 105 MHT @ BEACON ROCK =25.39'(CRD)RM 141

COMPUTE THE MEAN HIGH TIDE (MHT) SLOPE BETWEEN VANCOUVER NOAA STATION (RM 105, 4.21') AND BEACON ROCK NOAA TIDE STATION (RM 141, TIDE .39'):

.39'-4.21'=21.18'/36 MILES=0.00011

APPLY THE SLOPE SUBJECT SITE (RM OPE TO THE DISTANCE FROM VANCOUVER NOAA (RM 134.5) TO GET THE DIFFERENCE IN ELEVATION IN ELEVATION: TIDE STATION

0.00011x29.5MILES=17.13'

ADD THE ELEVATION DIFFERENCE OF VANCOUVER NOAA TIDAL STATION ELEVATION DIFFERENCE 읶 OF 17.13' (4.21' CR CRD): FROM Τ **ELEVATION** 9

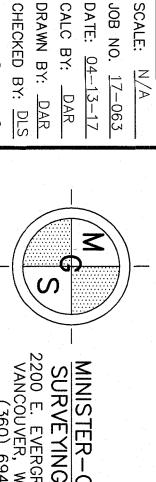
4.21'+17.13'=21.34' \_Y THE CONVERSIONS FROM CRD USACE PORTLAND DISTRICT: @ RM 134.5 TO NAVD 88  $\nearrow$ T

21.34'+9.04' (CRD 70 NAVD 88) = 30.38

AQUATIC LANDS LEASE NO. 20-B09594

TOWAL LAND

**公**三分



CALC BY:

DAR

JOB NO. SCALE:

N/A

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

DWG FILE: 17063S.DWG

DRAWN BY: DAR

SHEET 2 OF CHECKED BY: DLS