

LINE	BEARING	DISTANCE	VARAS
L1	N 30°42'15" E	110.62'	39.822 VS
L2	N 20°33'25" E	114.25'	41.131 VS
L3	N 11°26'08" W	86.11'	30.999 VS
L4	N 11°09'22" W	93.18'	33.545 VS
L5	N 05°36'27" W	11.66'	4.199 VS
L6	N 33°23'47" W	98.49'	35.458 VS
L7	N 52°22'06" W	14.88'	5.355 VS
L8	S 89'18'26" W	15.87'	5.714 VS
L9	S 70°20'02" W	36.88'	13.276 VS
L10	S 67'13'06" W	31.21'	11.236 VS
L11	S 75.03'50" W	42.20'	15.193 VS
L12	N 72°16'07" W	32.49'	11.697 VS
L13	N 49'04'32" W	102.59'	36.932 VS
L14	N 15'53'05" E	95.73'	34.463 VS
L15 L16	N 42*49'09" E N 08*30'47" E	94.96'	34.184 VS
L17	N 35'37'16" E	103.69'	37.329 VS
L18	N 37'43'00" E	100.75' 100.90'	36.271 VS 36.326 VS
L19	N 16'02'45" E	95.19'	34.268 VS
L20	N 50°22'04" E	99.17'	35.702 VS
L21	N 32'57'09" E	108.25'	38.971 VS
L22	N 23°51'59" W	98.10'	35.316 VS
L23	N 41'35'14" W	98.38'	35.416 VS
L24	N 17°44'15" W	98.04'	35.295 VS
L25	N 53.03'03" W	115.72'	41.659 VS
L26	N 04'34'14" E	113.82'	40.976 VS
L27	N 40°43'17" W	110.70'	39.853 VS
L28	N 05°06'23" W	98.28'	35.379 VS
L29	N 03°15'19" E	100.16'	36.059 VS
L30	N 36'46'56" W	95.98'	34.553 VS
L31	N 17°44'37" W	107.49'	38.698 VS
L32	N 04°38'00" W	34.29'	12.345 VS
L33	N 49°53'57" W	28.32'	10.194 VS
L34	N 22°00'37" W	90.11	32.439 VS
L35	N 06°13'12" E	106.42'	38.310 VS
L36	N 07*58'18" W	97.09'	34.954 VS
L37	N 12°12'21" E	99.59'	35.851 VS
L38	N 15'50'26" E	105.11'	37.838 VS
L39	N 02'09'42" W	96.23'	34.644 VS
L40	N 22°11'38" W	112.22'	40.399 VS
L41 L42	N 26'57'05" E N 32'42'25" E	111.11'	40.001 VS
L42	N 03°27'56" E	121.95' 86.24'	43.902 VS 31.046 VS
L44	N 42'06'28" E	83.53'	31.046 VS 30.072 VS
L45	N 03°48'03" W	120.31	43.311 VS
L46	N 10°49'23" E	93.49'	33.656 VS
L47	N 13°44'12" E	101.96'	36.706 VS
L48	N 22°39'35" E	90.87'	32.713 VS
L49	N 18'17'10" E	114.39'	41.179 VS
L50	N 01°46'13" E	98.39'	35.421 VS
L51	N 30°13'16" E	98.64'	35.511 VS
L52	N 44°31'17" E	104.31'	37.552 VS
L53	N 19°13'33" E	107.02'	38.526 VS
1 = 4	Li coccimati a		

30)	North	36.46'56"	West,	a	distance	of	95.98 feet (34.553 varas) to a point;
31)	North	17°44'37"	West,	a	distance	of	107.49 feet (38.698 varas) to a point;
32)	North	04'38'00"	West,	a	distance	of	34.29 feet (12.345 varas) to a point;
33)	North	49'53'57"	West,	a	distance	of	28.32 feet (10.194 varas) to a point;
34)	North	22.00,32"	West,	a	distance	of	90.11 feet (32.439 varas) to a point;
35)	North	06'13'12"	East,	a	distance	of	106.42 feet (38.310 varas) to a point;
36)	North	07*58'18"	West,	a	distance	of	97.09 feet (34.954 varas) to a point;
37)	North	12.12,21"	East,	a	distance	of	99.59 feet (35.851 varas) to a point;
38)	North	15.50'26"	East,	a	distance	of	105.11 feet (37.838 varas) to a point;
39)							96.23 feet (34.644 varas) to a point;
40)	North	22.11'38"	West,	a	distance	of	112.22 feet (40.399 varas) to a point;
41)	North	26.57'05"	East,	a	distance	of	111.11 feet (40.001 varas) to a point;
42)							121.95 feet (43.902 varas) to a point;
43)	North	03'27'56"	East,	a	distance	of	86.24 feet (31.046 varas) to a point;
44)							83.53 feet (30.072 varas) to a point;
45)							120.31 feet (43.311 varas) to a point;
46)							93.49 feet (33.656 varas) to a point;
47)							101.96 feet (36.706 varas) to a point;
48)							90.87 feet (32.713 varas) to a point;
49)							114.39 feet (41.179 varas) to a point;
50)							98.39 feet (35.421 varas) to a point;
51)							98.64 feet (35.511 varas) to a point;
52)							104.31 feet (37.552 varas) to a point;
53)							107.02 feet (38.526 varas) to a point;
54)							106.03 feet (38.172 varas) to a point;
55)							148.73 feet (53.543 varas) to a point;
56)							114.00 feet (41.040 varas) to a point;
57)							94.99 feet (34.196 varas) to a point;
58)							117.40 feet (42.266 varas) to a point;
59)							110.60 feet (39.815 varas) to a point;
60)							101.14 feet (36.409 varas) to a point;
61)							97.48 feet (35.091 varas) to a point;
62)							105.10 feet (37.836 varas) to a point;
63)							87.73 feet (31.582 varas) to a point;
64)							9.51 feet (3.422 varas) to a point;
65)							1.60 feet (0.574 varas) to a point;
66)							36.98 feet (13.312 varas) to a point;
67)		and an and all an an an an and an and					84.40 feet (30.383 varas) to a point;
							17.48 feet (6.292 varas) to a point;
							21.12 feet (7.603 varas) to a point;
							30.21 feet (10.877 varas) to a point;
							102.18 feet (36.785 varas) to the northerly end
							N= 13,627,800.81 feet (4,906,008.291 varas) and
							s), from which NGS Monument "HGCSD 61" bears
29.3	8 20	East, 29,58	54.72	tee	et (10,65	0.5	UU varas).



TEXAS GENERAL LAND OFFICE George P. Bush, Commissioner

Surveying Division Coastal Boundary Survey Approval

Project:Brazoria NWR-West Galveston Bay Submerged Tract Numbers 5 and 6,
and Jacob Bryan Survey, Abstract 155, Brazoria County, Texas.

Project No: GLO – CL20210003

Project Manager: Amy Nuñez, Manager, Corpus Christi-Lower Coast Texas General Land Office

Surveyor: William E. (Bill) Merten, Licensed State Land Surveyor

Description: Coastal Boundary Survey along the line of Mean High Water of West Galveston Bay Submerged Tract Numbers 5 and 6, and along a portion of the Jacob Bryan Survey, Abstract Number 155, Brazoria County, Texas. Survey dated September 2020, in connection with General Land Office CL-20210003. Centroid coordinates 29° 9'27.29"N, 95° 9'22.15"W WGS84. A copy of the survey has been filed in Instrument Number 2021042040 Official Public Records of Brazoria County, Texas

A Coastal Boundary Survey for the above-referenced project has been reviewed and accepted; upon completion of public notice requirements, the survey will be filed in the Texas General Land Office, Archives and Records, in accordance with provisions of the *Texas Natural Resources Code*, Chapter 33.136.

Approved: Signed: David Klotz, RPLS, LSLS Surveying Services

Approval Filed as:

TEXAS GENERAL LAND OFFICE

Tex. Nat. Res. Code Article 33.136 Brazoria County, Sketch No. 20 Art. 33.136, Natural Resources Code

Co. BRAZORIA , 516 NO. 20 File Date 06/14/2022 by K. Schreiber

1700 North Congress Avenue, Austin, Texas 78701-1495 P.O. Box 12873, Austin, Texas 78711-2873 512-463-5001 glo.texas.gov



July 1, 2021

Mr. David Klotz, RPLS, LSLS Asst. Chief Surveyor Texas General Land Office 1700 N. Congress Avenue Suite 131 Austin, Texas 78701

Re: Brazoria NWR, Brazoria County CBS (CL20210003)

Dear Mr. Klotz,

Attached please find the final Coastal Boundary Survey of the Brazoria NWR in West Galveston Bay for filing.

All comments from your review of March 2021 have been addressed and the results recorded in the Brazoria County Official Public Records (copy attached).

Thank you and if you have any questions, please do not hesitate to give me a call

Sincerely,

William E. (Bill) Merten Licensed State Land Surveyor

Encl.



	NERAL LAND OFFICE Natural Resources Code
Co. BRAZO	Natural The No. 20 214, <u>5k</u> No. 20 6/14/2022 by K. Selve. Ser
File Date -	6/14/2000 03

1920 Country Place Parkway, Suite 400 | Pearland, Texas 77584 | 281.993.4952 | fax 281.993.8086 | www.cobbfendley.com TBPELS Firm Registration No. F-274 and No. 10046703

TEXAS GENERAL LAND OFFICE

Art. 33.136, Natural Resources Code

2021042040 Total Pages: 6 PC

Co. <u>BRAZORIA</u>, <u>5K</u> No. <u>20</u> K. Schreiber File Date <u>06/14/2022</u> by <u>DECLARATION OF A COASTAL BOUNDARY SURVEY</u>

PURPOSE AND NOTICE:

This survey was performed in accordance with Section 33.136, Natural Resources Code, for the purpose of evidencing the location of the shoreline in the area depicted in this survey as that shoreline existed before commencement of erosion response activity, as required by Chapter 33, Natural Resources Code. The line depicted on this survey fixes the shoreline for the purpose of locating a shoreline boundary, subject to movement landward as provided by Section 33.136, Natural Resources Code.

FIELD NOTE DESCRIPTION

Being the line of Mean High Water of West Galveston Bay Submerged Tract Numbers 5 and 6, along a portion of the Jacob Bryan Survey, Abstract Number 155, Brazoria County, Texas. The meander line of said Mean High Water being more particularly described as follows (coordinates and bearings are grid values referenced to the Texas Coordinate System of 1983, South Central Zone and NGS Monuments "HGCSD 61" and "HGCSD 62". Distances shown are grid distances unless noted):

COMMENCING at NGS Monument "HGCSD 61", which has grid coordinates of N=13,602,086.97 feet (4,896,751.309 varas) and E=3,210,358.58 feet (1,155,729.089 varas), from which NGS Monument "HGCSD 62" bears North 50°56'05" East, 46,724.20 feet (16,820.712 varas);

THENCE, North 36°16'21" West, a distance of 25,364.27 feet (9,131.138 varas) to a point on the line of Mean High Water of West Galveston Bay and the easterly line of said Jacob Bryan for the POINT OF BEGINNING and southerly end of said meander line, having grid coordinates of N=13,622,535.93 feet (4,904,112.934 varas) and E=3,195,352.37 feet (1,150,326.852 varas);

THENCE, in a northerly direction, along the meander line of Mean High Water of West Galveston Bay and the easterly line of said Jacob Bryan Survey, the following seventy-one (71) courses:

- 1) North 30°42'15" East, a distance of 110.62 feet (39.822 varas) to a point;
- 2) North 20°33'25" East, a distance of 114.25 feet (41.131 varas) to a point;
- 3) North 11°26'08" West, a distance of 86.11 feet (30.999 varas) to a point;
- 4) North 11°09'22" West, a distance of 93.18 feet (33.545 varas) to a point;
- 5) North 05°36'27" West, a distance of 11.66 feet (4.199 varas) to a point;
- 6) North 33°23'47" West, a distance of 98.49 feet (35.458 varas) to a point;
- 7) North 52°22'06" West, a distance of 14.88 feet (5.355 varas) to a point;
- 8) South 89°18'26" West, a distance of 15.87 feet (5.714 varas) to a point;
- 9) South 70°20'02" West, a distance of 36.88 feet (13.276 varas) to a point;

RECORDER'S MEMORANDUM:

At the time of recordation, this instrument was found to be inadequate for the best photographic reproduction because of illegibility, carbon, or photo-copy, discolored paper, etc. All blockouts, additions and changes were present at the time the instrument was filed and recorded. Page 2

10)	South 67°13'06" West, a distance of 31.21 feet (11.236 varas) to a point;
11)	South 75°03'50" West, a distance of 42.20 feet (15.193 varas) to a point;
12)	North 72°16'07" West, a distance of 32.49 feet (11.697 varas) to a point;
13)	North 49°04'32" West, a distance of 102.59 feet (36.932 varas) to a point;
14)	North 15°53'05" East, a distance of 95.73 feet (34.463 varas) to a point;
15)	North 42°49'09" East, a distance of 94.96 feet (34.184 varas) to a point;
16)	North 08°30'47" East, a distance of 103.69 feet (37.329 varas) to a point;
17)	North 35°37'16" East, a distance of 100.75 feet (36.271 varas) to a point;
18)	North 37°43'00" East, a distance of 100.90 feet (36.326 varas) to a point;
19)	North 16°02'45" East, a distance of 95.19 feet (34.268 varas) to a point;
20)	North 50°22'04" East, a distance of 99.17 feet (35.702 varas) to a point;
21)	North 32°57'09" East, a distance of 108.25 feet (38.971 varas) to a point;
22)	North 23°51'59" West, a distance of 98.10 feet (35.316 varas) to a point;
22)	North 41°35'14" West, a distance of 98.38 feet (35.416 varas) to a point;
23)	North 17°44'15" West, a distance of 98.04 feet (35.295 varas) to a point;
,	North 53°03'03" West, a distance of 115.72 feet (41.659 varas) to a point;
25)	
26)	North 04°34'14" East, a distance of 113.82 feet (40.976 varas) to a point;
27)	North 40°43'17" West, a distance of 110.70 feet (39.853 varas) to a point;
28)	North 05°06'23" West, a distance of 98.28 feet (35.379 varas) to a point;
29)	North 03°15'19" East, a distance of 100.16 feet (36.059 varas) to a point;
30)	North 36°46'56" West, a distance of 95.98 feet (34.553 varas) to a point;
31)	North 17°44'37" West, a distance of 107.49 feet (38.698 varas) to a point;
32)	North 04°38'00" West, a distance of 34.29 feet (12.345 varas) to a point;
33)	North 49°53'57" West, a distance of 28.32 feet (10.194 varas) to a point;
34)	North 22°00'37" West, a distance of 90.11 feet (32.439 varas) to a point;
35)	North 06°13'12" East, a distance of 106.42 feet (38.310 varas) to a point;
36)	North 07°58'18" West, a distance of 97.09 feet (34.954 varas) to a point;
37)	North 12°12'21" East, a distance of 99.59 feet (35.851 varas) to a point;
38)	North 15°50'26" East, a distance of 105.11 feet (37.838 varas) to a point;
39)	North 02°09'42" West, a distance of 96.23 feet (34.644 varas) to a point;
40)	North 22°11'38" West, a distance of 112.22 feet (40.399 varas) to a point;
41)	North 26°57'05" East, a distance of 111.11 feet (40.001 varas) to a point;
42)	North 32°42'25" East, a distance of 121.95 feet (43.902 varas) to a point;
43)	North 03°27'56" East, a distance of 86.24 feet (31.046 varas) to a point;
44)	North 42°06'28" East, a distance of 83.53 feet (30.072 varas) to a point;
45)	North 03°48'03" West, a distance of 120.31 feet (43.311 varas) to a point;
46)	North 10°49'23" East, a distance of 93.49 feet (33.656 varas) to a point;
47)	North 13°44'12" East, a distance of 101.96 feet (36.706 varas) to a point;
48)	North 22°39'35" East, a distance of 90.87 feet (32.713 varas) to a point;
49)	North 18°17'10" East, a distance of 114.39 feet (41.179 varas) to a point;
50)	North 01°46'13" East, a distance of 98.39 feet (35.421 varas) to a point;
51)́	North 30°13'16" East, a distance of 98.64 feet (35.511 varas) to a point;
52)́	North 44°31'17" East, a distance of 104.31 feet (37.552 varas) to a point;
53)	North 19°13'33" East, a distance of 107.02 feet (38.526 varas) to a point;
- /	

Page 3

54) North 06°29'33" East, a distance of 106.03 feet (38.172 varas) to a point; 55) North 57°25'47" East, a distance of 148.73 feet (53.543 varas) to a point; 56) North 23°58'05" West, a distance of 114.00 feet (41.040 varas) to a point; 57) North 26°49'17" East, a distance of 94.99 feet (34.196 varas) to a point; 58) North 31°59'09" East, a distance of 117.40 feet (42.266 varas) to a point; 59) North 11°54'09" West, a distance of 110.60 feet (39.815 varas) to a point; 60) North 02°30'17" West, a distance of 101.14 feet (36.409 varas) to a point; 61) North 06°35'52" West, a distance of 97.48 feet (35.091 varas) to a point; 62) North 02°40'09" West, a distance of 105.10 feet (37.836 varas) to a point; 63) North 09°27'08" West, a distance of 87.73 feet (31.582 varas) to a point; 64) North 29°05'31" West, a distance of 9.51 feet (3.422 varas) to a point; 65) North 23°39'02" East, a distance of 1.60 feet (0.574 varas) to a point; 66) North 34°40'38" East, a distance of 36.98 feet (13.312 varas) to a point; 67) North 15°25'58" East, a distance of 84.40 feet (30.383 varas) to a point; 68) North 09°46'52" East, a distance of 17.48 feet (6.292 varas) to a point; 69) North 77°58'28" West, a distance of 21.12 feet (7.603 varas) to a point; 70) North 72°09'30" East, a distance of 30.21 feet (10.877 varas) to a point; 71) North 16°58'02" East, a distance of 102.18 feet (36.785 varas) to the northerly end of said meander line, having grid coordinates of N= 13,627,800.81 feet (4,906,008.291 varas) and E=3,195,727.99 feet (1,150,462.076 varas), from which NGS Monument "HGCSD 61" bears South 29°38'20" East, 29,584.72 feet (10,650.500 varas).

NOTES:

1) All coordinates and bearings shown hereon are grid values referenced to the Texas Coordinate System of 1983, South Central Zone and NGS Monuments "HGCSD 61" and "HGCSD 62". All distances shown hereon are grid distances unless noted and may be converted to surface distances by dividing by a scale factor of 0.99987597. Mapping angle for this project is 01°54'20". Elevations are referenced to NAVD '88 datum and NGS Monument "HGCSD 61" having an elevation of 5.60' NAVD '88.

2) Elevation of Mean High Water was determined by use of an on-site tide gauge adjusted to the NOAA gauges "San Luis Pass" and "Galveston Pier 21". Elevation of Mean High Water was determined to be 1.05' NAVD '88.

3) There exists concrete slab slope protection at the south end of the project area as shown.

4) This is a construction of breakwaters project.

5) A full size copy of the attached 'Exhibit A" is on file in a the Texas General Land Office Records.

Page 4

SURVEYORS CERTIFICATE:

I, William E. Merten, Licensed State Land Surveyor in and for the State of Texas, do hereby certify that during the month of September, 2020, I have located the natural contour line of Mean High Water in accordance with methodology approved by the General Land Office, on the ground, under my direct control and supervision, according to law, in accordance with Natural Resources Code Section 21.042 and with the personnel stated, and that said contour line is true and correct as described above and as shown on the attached "Exhibit A". To the best of my knowledge no artificial fill, any development or placement of retaining walls, other than as shown hereon, that would cause alteration to said contour line has occurred within the area surveyed.

Field Personnel: Michael Orchin and Jose Villanueva

William E. Merten Licensed State Land Surveyor Cobb Fendley & Associates, Inc. TBPELS Firm Reg. No. 100467 1920 Country Place Parkway, Suite 400 Pearland, Texas 77584 281-993-4952



Subscribed and sworn to me on the 24th day of June, 2021.

Notary Rubli My commission expires FCD. 23,2025





FILED and RECORDED

Instrument Number: 2021042040

Filing and Recording Date: 06/25/2021 02:29:52 PM Pages: 6 Recording Fee: \$42.00

I hereby certify that this instrument was FILED on the date and time stamped hereon and RECORDED in the OFFICIAL PUBLIC RECORDS of Brazoria County, Texas.



ajathidman

Joyce Hudman, County Clerk Brazoria County, Texas

ANY PROVISION CONTAINED IN ANY DOCUMENT WHICH RESTRICTS THE SALE, RENTAL, OR USE OF THE REAL PROPERTY DESCRIBED THEREIN BECAUSE OF RACE OR COLOR IS INVALID UNDER FEDERAL LAW AND IS UNENFORCEABLE.

DO NOT DESTROY - Warning, this document is part of the Official Public Record.

cclerk-april