"DUMP" PID: AW7106
N: 13,692,570.68
E: 3,268,080.80

STATE TRACT 89A

N: 13,691,249.77
E: 3,273,882.22
ELEV: 7.3

N 73°38'16" W
7,421.80' 2,671.85v

LAND NAVIGATOR LTD.
1 POINT DR. SUITE 320
BREA CALIFORNIA, 92821
2009.010638

ROCK RIP RAP
POINT OF BEGINNING
N: 13,690,479.88
E: 3,275,202.01

N

0   300   600

RAILROAD

HWY 45

STATE TRACT 88A

SAMUEL C. BUNDICK LEAGUE
ABSTRACT NO. 7
T. NOV. 12, 1832

"DUMP" PID:AW7106
N = 13,692,570.68
E = 3,268,080.80

1,445 ACRE TRACT
SCENIC GALVESTON INC.
20 COLONY PARK CIR.
GALVESTON, TX 77551
2004.009347

GALVESTON BAY

STATE TRACT 87A

TO "DUMP"

N 32°52'06" W
13,567.93' 4,882.16v

GH&KC RAILROAD CO.

ROCK RIP RAP ALONG SHORELINE
IN FRONT OF CAMPSITES

ROCK RIP RAP ALONG SHORELINE

N: 13,681,095.13
E: 3,275,307.65

"1486 C 2012"
N: 13,680,977.18
E: 3,275,184.41
ELEV: 11.95

S 46°15'26" W
170.59' 61.41v

LINE	BEARING	DISTANCE	VARAS
L1	S 00°11'31" E	27.77'	10.00v
L2	S 23°05'25" E	310.48'	111.77v
L3	S 28°43'16" E	175.48'	63.17v
L4	S 65°47'02" E	158.47'	57.05v
L5	S 79°55'18" E	240.29'	86.51v
L6	S 38°29'47" E	172.26'	62.01v
L7	S 46°39'00" E	181.33'	65.50v
L8	S 16°54'15" E	168.35'	60.61v
L9	S 48°49'04" E	162.26'	58.41v
L10	S 28°00'12" E	124.37'	44.77v
L11	S 56°48'01" E	209.73'	75.50v
L12	S 26°34'05" E	157.81'	56.81v
L13	S 38°02'22" E	103.33'	37.20v
L14	N 72°47'53" E	37.23'	13.40v
L15	S 50°12'11" E	89.49'	32.22v
L16	S 76°39'27" E	232.78'	83.80v
L17	S 33°24'14" E	95.97'	34.55v
L18	S 57°27'53" W	26.81'	9.65v
L19	S 03°40'55" E	341.07'	122.79v
L20	S 25°46'19" E	122.83'	44.22v
L21	S 13°30'47" E	95.75'	34.47v
L22	S 22°45'08" E	443.28'	159.58v
L23	S 08°52'20" W	210.58'	75.81v
L24	S 39°31'38" E	39.31'	14.15v
L25	S 00°51'33" W	267.53'	96.31v
L26	S 16°35'08" E	409.64'	147.47v
L27	S 23°11'35" E	384.96'	138.59v
L28	S 12°26'12" E	216.32'	77.87v
L29	S 02°14'56" W	455.64'	164.03v
L30	S 08°50'37" W	420.88'	151.52v
L31	S 01°33'46" W	449.58'	161.85v
L32	S 04°47'28" E	343.73'	123.74v
L33	S 17°56'19" W	149.89'	53.96v
L34	S 44°10'31" W	338.10'	121.72v
L35	S 70°33'47" W	139.59'	50.25v
L36	S 35°25'54" W	158.47'	57.05v
L37	S 26°36'10" W	340.39'	122.54v
L38	S 17°29'02" W	717.49'	258.30v
L39	S 10°54'43" W	201.89'	72.68v
L40	S 01°47'58" W	244.98'	88.19v
L41	S 39°40'50" E	53.21'	19.16v
L42	S 01°03'04" E	147.96'	53.27v
L43	S 48°16'09" W	67.89'	24.44v
L44	S 14°57'01" W	46.52'	16.75v
L45	S 55°00'28" W	259.60'	93.46v
L46	S 36°20'21" W	199.67'	71.88v
L47	S 52°26'05" W	116.24'	41.85v
L48	S 21°44'15" W	212.39'	76.46v
L49	S 55°17'32" W	80.61'	29.02v
L50	S 39°36'54" W	78.90'	28.40v
L51	S 00°10'42" W	126.01'	45.36v
L52	S 14°57'01" W	145.11'	52.24v
L53	S 49°19'23" W	50.98'	18.35v
L54	S 33°01'23" W	132.96'	47.87v
L55	S 27°12'19" W	57.07'	20.55v
L56	S 39°14'00" W	69.97'	25.19v
L57	S 16°51'00" W	91.86'	33.07v

NOTES:

1. FIELD SURVEY CONDUCTED IN FEBRUARY AND MARCH, 2013 BY JAMES M. NAISMITH, BENJAMIN S. GAMBILL, AND KEVIN PARR OF NAISMITH MARINE SERVICES.

2. EROSION RESPONSE WORK WILL CONSIST OF THE FOLLOWING:

ERECTING ROCK BREAKWATERS TO REDUCE AND PREVENT EROSIVE WAVE ACTION. ALL WORK IS TO BE CONDUCTED UNDER GLO SPECIAL DOCUMENT SD20140007, CEPRA PROJECT #1596.

2. ALL BEARINGS ARE LAMBERT GRID BEARINGS AND ALL COORDINATES REFER TO THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (#4204), AS DEFINED BY ARTICLE 21.071 OF THE NATURAL RESOURCES CODE OF THE STATE OF TEXAS, 1983 DATUM, US FEET. ALL DISTANCES AND COORDINATES ARE GRID. THE SCALE FACTOR IS 0.99986709 AND MAPPING ANGLE IS +1d 59' 55.7".

3. COORDINATES AND ELEVATIONS ARE BASED ON MONUMENTS & ON OPUS SOLUTIONS.

"DUMP" PID:AW7106   "1486 C 2012"
N = 13,692,570.68   N = 13,680,977.18
E = 3,268,080.80   E = 3,275,184.41
                           NAVD 88 = 11.93

4. MEAN HIGHER HIGH WATER (MHHW) ELEVATION OF 1.03' FOR GALVESTON BAY NEAR VIRGINIA POINT WAS DERIVED FROM THE GALVESTON PIER 21 GAUGE. USING DATA COLLECTED AT THE GALVESTON RAILROAD BRIDGE TIDE GAUGE.

5. TO CONVERT FEET TO VARAS MULTIPLY BY 0.36.

6. PROPERTY LINES SHOWN HEREON ARE BASED ON GALVESTON COUNTY APPRAISAL DISTRICT MAP.

7. REFERENCE ACCOMPANYING REPORT DATED MARCH, 2013 FOR ADDITIONAL INFORMATION.

8. BACKGROUND IMAGE FROM GOOGLE EARTH AND IS FOR REFERENCE ONLY.

I, JAMES M. NAISMITH, HEREBY STATE THAT THIS DRAWING REPRESENTS A SURVEY THAT IS CORRECT; WAS MADE ACCORDING TO LAW; WAS MADE IN THE FIELD UNDER MY DIRECT CONTROL AND SUPERVISION; WAS MADE UTILIZING METHODOLOGY APPROVED BY THE GLO; AND IS RECORDED IN

BOOK I, PAGE 234-235, GALVESTON COUNTY SURVEYOR RECORDS

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.

EXCEPT FOR ROCK RIP RAP AS NOTED ON THE DRAWING, NO FILL OR BUILDUP IS LOCATED WITHIN THE SURVEYED AREA AND NO RETAINING WALLS OR STRUCTURAL MODIFICATIONS HAVE BEEN PLACED ALONG THE SURVEYED LITTORAL BOUNDARY.

3/10/2014

JAMES M. NAISMITH
LICENSED STATE LAND SURVEYOR

Naismith Marine
Sea Floor Surveying
3765 South Alameda, Suite 205
Corpus Christi, Texas 78411
WWW.NAISMITHMARINE.COM
(361) 945-0248

NO.	DATE:	REVISION
1	3/3/14	ADDED GLO NOs.

COASTAL BOUNDARY SURVEY OF THE LITTORAL BOUNDARY OF A 1,445 AC UPLAND TRACT IN THE SAMUEL C. BUNDICK SURVEY, A-7 ADJACENT TO ST 87A & 88A, GALVESTON BAY, GALVESTON COUNTY, TEXAS

SCALE: 1" = 600'   DATE: MARCH 2013
DRAWN BY: JMN   SHEET: 1 OF 1

NRC Art. 33.136 Galveston Co. Sketch 75

95118

Surveying Division
Coastal Boundary Survey Approval

Project: Virginia Point Wetland Protection

Project No: SD20140007 (GLO)
                        CEPRA 1596 (Coastal Erosion Planning and Response Act)

Project Manager: Mollie Powell, Upper Coast Regional Manager
                        Texas General Land Office

Surveyor: James M. Naismith, Licensed State Land Surveyor

Description: Being a Coastal Boundary Survey, dated February and March, 2013, by James M. Naismith, Licensed State Land Surveyor, delineating the line of Mean Higher High Water along the western shore of Galveston Bay and State of Texas Submerged Land Tracts 87A and 88A, same line being a portion of the littoral boundary of the Samuel Bundick Survey, Abstract 7. The survey is associated with and in support of rock breakwater construction, proposed under Texas General Land Office permit numbered SD20140007 and CEPRA Project No. 1596 and extends northerly from the GH & KC Railroad near Interstate Highway 45, approximately two miles. The mid-point of the surveyed line plots at coordinates N29° 18' 58.3", W94° 53' 31.6" WGS84. A copy of the survey plat and it's accompanying report are recorded in Book 1, at Pages 234-235, Galveston County Surveyor's Records.

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 A. Ryle_____   _March 29 2014_
                    Surveying Division   **TEXAS GENERAL LAND OFFICE**
                                                  Art. 33.136, Natural Resources Code

Approval Filed as:
Tex.Nat.Res.Code Article 33.136, Galveston County, Sketch No. 75 _Galveston_ , Sketch No. _75_

                                                  File Date _06/20/2018_ by _R. Kartye_

95119

Naismith Marine Services, Inc.
3765 South Alameda, Suite 205
Corpus Christi, Texas 78411
(361) 945-0248 www.naismithmarine.com

Naismith Marine Services
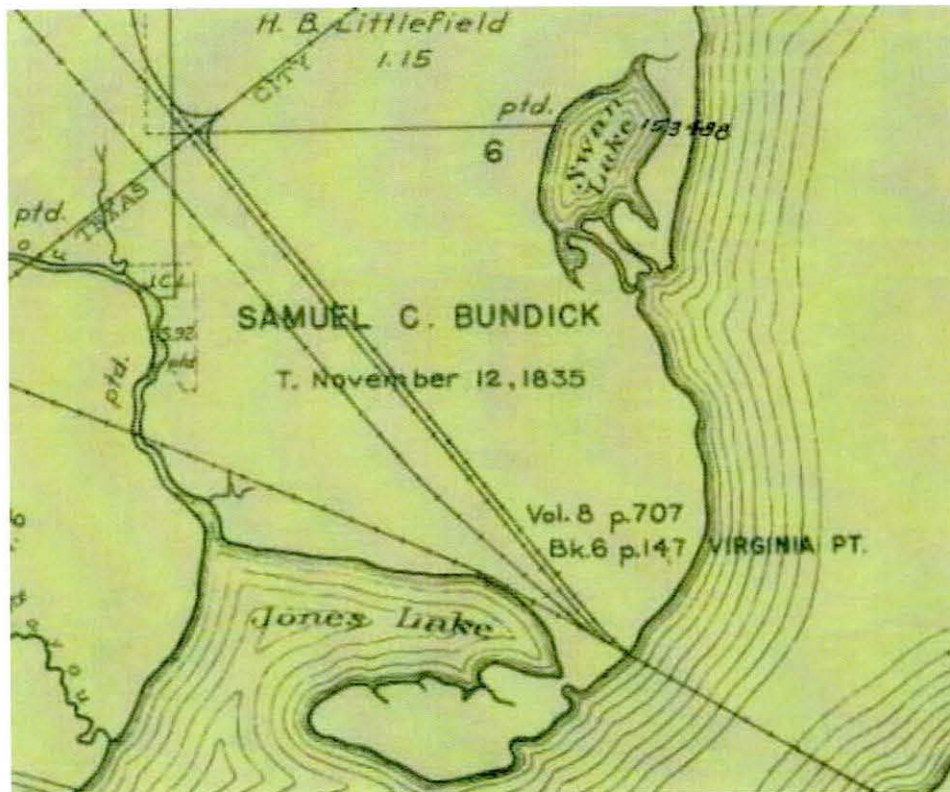**Sea Floor Surveying**

March, 2013

Report of a Coastal Boundary Survey for

A 1,445 Ac Tract on Galveston Bay in the
Samuel C. Bundick, Abstract No. 7
Galveston County, Texas

This report accompanies a map of survey dated March, 2013.

Survey area is along the East side of the Bundick Survey.

1,445 Ac Tract, Page 1

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Survey Control

Horizontal control for this project is based on the control point "DUMP", a benchmark near the survey area, and "1486 C 2012" a control monument set for the Galveston Railroad Tide Gauge near the south end of the project site. Multiple OPUS solutions were used to check the published coordinates of "DUMP" in the South Central Zone of the Texas State Plane Coordinate system. Datum is NAD83, US Feet.

Tidal Datums

The tide gauge "Galveston Pier 21" and four months of tidal observations at the tide gauge "Galveston Railroad Bridge" were used to establish MHHW (Mean Higher High Water) for this survey.

As referenced to this survey, the elevation of MHHW on the Galveston Bay shoreline is 1.0 feet (datum is NAVD 88).

MHHW Survey

The MHHW line was measured along the shoreline of Galveston Bay at the 1,445 acre tract. The shoreline of the 1,445 acre tract is composed clay, sand, and shell, except for the north east corner where rock was previously placed and the south east corner where rock was placed in front of the campsites for purposes of shoreline stabilization.
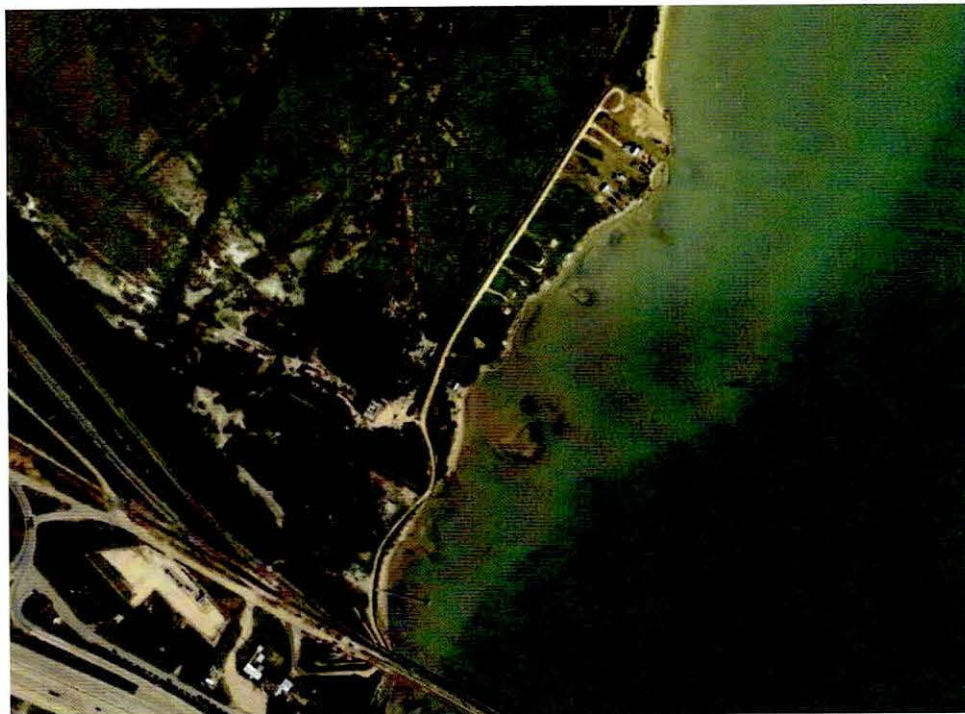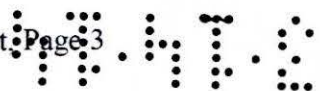

Southeast Corner of Survey "The Campsites"

Typical Shoreline

Typical Shoreline

Proposed Erosion Response Activity

The nature of the erosion response activities consist of erecting rock breakwaters to reduce and prevent erosive wave action.   All work is to be conducted under GLO Special Document SD20140007, CEPRA Project #1596

Field Notes for the littoral boundary of a 1,445 acre tract described in file no. 2004.009347 Official Public Records of Real Property of Galveston County, in the Samuel E. Bundick Survey, A-7, surveyed in 1832, adjacent to State Tracts 87A and 88A in Galveston Bay, Galveston County, Texas. Distances, Bearings, and Coordinates are grid, North American Datum of 1983, Texas South Central Zone.

Beginning at a point , N= 13,690,479.88, E= 3,275,202.01, on the MHHW (Mean Higher High Water) line on the west shoreline of Galveston Bay; from which "DUMP" bears N 73°38'16" W a distance of 7,421.80' (2,671.85v);

thence S 00°11'31" E a distance of 27.77' (10.00v);
thence S 23°05'25" E a distance of 310.48' (111.77v);
thence S 28°43'16" E a distance of 175.48' (63.17v);
thence S 65°47'02" E a distance of 158.47' (57.05v);
thence S 79°55'18" E a distance of 240.29' (85.61v);
thence S 38°29'47" E a distance of 172.26' (62.01v);
thence S 46°39'00" E a distance of 181.93' (65.50v);
thence S 16°54'15" E a distance of 168.35' (60.61v);
thence S 48°49'04" E a distance of 162.26' (58.41v);
thence S 28°00'12" E a distance of 124.37' (44.77v);
thence S 56°48'01" E a distance of 209.73' (75.50v);
thence S 26°34'05" E a distance of 157.81' (56.81v);
thence S 38°02'22" E a distance of 103.33' (37.20v);
thence N 72°47'53" E a distance of 37.23' (13.40v);
thence S 50°12'11" E a distance of 89.49' (32.22v);
thence S 76°39'27" E a distance of 232.78' (83.80v);
thence S 33°24'14" E a distance of 95.97' (34.55v);
thence S 53°27'53" W a distance of 26.81' (9.65v);
thence S 03°40'55" E a distance of 341.07' (122.79v);
thence S 25°46'19" E a distance of 122.83' (44.22v);
thence S 13°30'47" E a distance of 95.75' (34.47v);
thence S 22°45'08" W a distance of 443.28' (159.58v);
thence S 08°52'20" W a distance of 210.58' (75.81v);
thence S 39°31'38" E a distance of 39.31' (14.15v);
thence S 00°51'33" W a distance of 267.53' (96.31v);
thence S 16°35'08" E a distance of 409.64' (147.47v);
thence S 23°11'25" E a distance of 384.96' (138.59v);
thence S 12°26'12" E a distance of 216.32' (77.87v);

95123

thence S 02°14'56" W a distance of 455.64' (164.03v);
thence S 08°50'37" W a distance of 420.88' (151.52v);
thence S 01°33'46" W a distance of 449.58' (161.85v);
thence S 04°47'28" E a distance of 343.73' (123.74v);
thence S 17°56'19" W a distance of 149.89' (53.96v);
thence S 44°10'31" W a distance of 338.10' (121.72v);
thence S 70°33'47" W a distance of 139.59' (50.25v);
thence S 35°25'54" W a distance of 158.47' (57.05v);
thence S 26°36'10" W a distance of 340.39' (122.54v);
thence S 17°29'02" W a distance of 717.49' (258.30v);
thence S 10°54'43" W a distance of 201.89' (72.68v);
thence S 01°47'58" W a distance of 244.98' (88.19v);
thence S 39°40'50" E a distance of 53.21' (19.16v);
thence S 01°03'04" E a distance of 147.96' (53.27v);
thence S 48°16'09" W a distance of 67.89' (24.44v);
thence S 13°58'31" E a distance of 46.52' (16.75v);
thence S 55°00'28" W a distance of 259.60' (93.46v);
thence S 36°20'21" W a distance of 199.67' (71.88v);
thence S 52°26'05" W a distance of 116.24' (41.85v);
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thence S 39°38'54" W a distance of 78.90' (28.40v);
thence S 00°10'42" W a distance of 126.01' (45.36v);
thence S 14°57'01" W a distance of 145.11' (52.24v);
thence S 49°19'23" W a distance of 50.98' (18.35v);
thence S 33°01'23" W a distance of 132.96' (47.87v);
thence S 27°12'19" W a distance of 57.07' (20.55v);
thence S 39°14'00" W a distance of 69.97' (25.19v);
thence S 16°51'00" W a distance of 91.86' (33.07v); to the **end** point, N=13,681,095.13,
E= 3,275,307.65 , from which "1486 C 2012" bears S 46°15'26" W a distance of 170.59'
(61.41v), from which "DUMP" bears N 32° 12' 04" W a distance of 13,561.55'
(4,882.16v).

James M. Naismith, RPLS, LSLS
3/10/2014

Naismith Marine Services, Inc.

1,445 Ac Tract, Page 5

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