

TEXAS 877 9724

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

TIDAL BENCH MARKS

QUEEN ISABEL CAUSEWAY, LAGUNA MADRE

LATTITUDE: 26°04.7'N LONGITUDE: 97°10.2'W  
NOAA CHART: 11301 USGS QUAD: PORT ISABEL

To reach the tidal bench marks from the intersection of Queen Isabel Causeway and Padre Boulevard (State Park Road 100) in South Padre Island, proceed SE on Padre Boulevard for 0.4 mile (0.6 km) to the old State Park Road 100, turn right and continue west on the old State Park Road 100 for 0.35 mile (0.56 km) to the old Queen Isabel Causeway bridge (presently a state fishing pier). The bench marks are on the bridge, along Padre Boulevard, and at the abandoned U.S. Coast Guard Station office building. The tide gage and staff were at the east end of the old causeway bridge.

BENCH MARK STAMPING: M 1142 1959

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: USC&GS Bench Mark  
SETTING CLASSIFICATION: Concrete Wing Wall

The bench mark is set in the top of the concrete wingwall at the east end of the old Queen Isabel Causeway, 56.9 feet (17.3 m) SE of the SE corner of the state building, 49.0 feet (14.9 m) south of the centerline of the highway, 35.9 feet (10.9 m) south of the south end of the east abutment, and level with the road.

BENCH MARK STAMPING: N 1142 1959

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: USC&GS Bench Mark  
SETTING CLASSIFICATION: Concrete Foundation

The bench mark is set in the top of a concrete foundation at the abandoned U.S. Coast Guard Station office building south of the old Queen Isabel Causeway, 28 feet (9 m) SW of the centerline of the road around the building, 2.4 feet (0.7 m) north of the east corner of the building, and 1 foot (0.3 m) above the ground.

File No. Sketch File 13E  
Cameron County  
NOS info on Tidal Bench Marks

Filed 4-26 19 93

GARRY MAURO, Com'r

By Douglas Howard

Counter 17298



TEXAS 877 9724

QUEEN ISABEL CAUSEWAY, LAGUNA MADRE

BENCH MARK STAMPING: M 9724 1977

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: NOS Tidal Bench Mark  
SETTING CLASSIFICATION: Concrete Foundation

The bench mark is set in the top of the south corner of the most southerly one of two abandoned concrete foundations for signs in a small grassy area in front of Sea Ranch Grocery, 97.5 feet (29.7 m) east of the north corner of Sea Ranch Grocery, 86.4 feet (26.3 m) north of the north corner of Sea Ranch Motel, 79.8 feet (24.3 m) SW of the centerline of the highway, and 1 foot (0.3 m) above the ground.

BENCH MARK STAMPING: NO 5

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: USC&GS Bench Mark  
SETTING CLASSIFICATION: Concrete Pavement

The bench mark is set in the concrete pavement at the abandoned U.S. Coast Guard Station office building south of the old Queen Isabel Causeway, 40.0 feet (12.2 m) west of the road leading to the new Coast Guard building, 4 feet (1 m) west of the east line of the building, 2 feet (1 m) west of a set of steps, 1 foot (0.3 m) south of the north line of the building, and 2 feet (1 m) above the ground.

BENCH MARK STAMPING: 8

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: County Bench Mark  
SETTING CLASSIFICATION: Concrete Bridge Railing

The bench mark is set in the base of the concrete railing at the east end of the old Queen Isabel Causeway, 35.7 feet (10.9 m) NE of the NE corner of the state building, 2.5 feet (0.8 m) west of the east end of the railing, and 0.8 foot (0.2 m) above the road.

Sketch File 13 E  
Cameron Co.

Counter 17299



TEXAS 877 9724

## QUEEN ISABEL CAUSEWAY, LAGUNA MADRE

Tidal datums at Queen Isabel Causeway, Laguna Madre are based on the following:

LENGTH OF SERIES	= 22 MONTHS
TIME PERIOD	= MARCH 1973-JULY 1975
TIDAL EPOCH	= 1960-1978
CONTROL TIDE STATION	= PORT ISABEL (877 9770)

Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL (09/01/77)	= 3.88 FEET
MEAN HIGHER HIGH WATER (MHHW)	= 1.30 FEET
MEAN HIGH WATER (MHW)	= 1.24 FEET
*NATIONAL GEODETIC VERTICAL DATUM- 1929 (NGVD)	= 0.71 FEET
MEAN TIDE LEVEL (MTL)	= 0.70 FEET
MEAN LOW WATER (MLW)	= 0.16 FEET
MEAN LOWER LOW WATER (MLLW)	= 0.00 FEET
LOWEST OBSERVED WATER LEVEL (01/19/77)	= -1.22 FEET

\*NGVD is based on elevations published in Quad 260971, 6/66 and NOS leveling of 1978.

Bench mark elevation information:

<u>BENCH MARK STAMPING</u>	<u>ELEVATION IN FEET ABOVE:</u>	
	<u>MLLW</u>	<u>MHW</u>
M 1142 1959	5.70	4.46
N 1142 1959	4.57	3.33
M 9724 1977	7.20	5.96
NO 5	4.57	3.33
8	8.30	7.06

The estimated highest water level to the nearest half-foot is 7.0 feet above mean lower low water. The estimated lowest water level to the nearest half-foot is 3.0 feet below mean lower low water. Estimates are based on observed extreme water levels at Port Isabel (877 9770).

Sketch File 13E  
Cameron Co.

Counter 17300



GENERAL LAND OFFICE

GARRY MAURO  
COMMISSIONER

MEMORANDUM

DATE: April 26, 1993

TO: The File

FROM: C. B. Thomson, Director of Surveying *CBT*

SUBJECT: Survey of line of mean higher high water adjacent to Lots 26 and 27, Block 101, Padre Beach Section VII, South Padre Island, Cameron County, Texas.

Having reviewed the survey submitted by C. L. Fabian, Licensed State Land Surveyor, regarding the above referenced boundary, it is my opinion that the line of mean higher high water is shown correctly on the plat of survey by Mr. Fabian dated March 25, 1993, a copy of which is attached hereto.

This conclusion was reached after a thorough study of the supporting documents tendered by Mr. Fabian and consultation with National Ocean Service personnel.

cc: Spencer Reid  
Maria Elena Ramon  
Lloyd Mullins  
Claudette Carr

*See Flattened Rolled Sketch 31*  
File No. *Sketch File 13* County  
Date *Cameron*  
*Correspondance*  
Date *April 26* 19 *93*  
By *GARRY MAURO, Com'r*  
*Douglas Howard*



# FABIAN, NELSON AND MEDINA, INC.

*Consulting Engineers*

## LAND SURVEYING

PLINIO C. MEDINA, R.P.L.S.      STEVE SPOOR, P.E.  
MICHAEL FABIAN, R.P.L.S.      GILBERTO A. GRACIA, P.E.

320 N. 15TH STREET  
McALLEN, TEXAS 78501  
PHONE (210) 682-3414  
FAX (210) 682-3416

April 12, 1993

File No. Sketch File 13A pg. 1 of 3  
Cameron County  
Procedure for determining MHHW  
Filed 4-26 19 93  
By GARRY MAURO, Com'r  
Douglas Howard

Mr. Ben Thompson  
General Land Office  
1700 North Congress  
Austin, TX 78701-1495

Re: Lots 26 & 27, Block 101, Padre  
Beach Section VII, Town of  
South Padre Island, Cameron  
County, Texas

Dear Mr. Thompson:

In accordance with your request, the following information is submitted.

Attached is Publication 877 9724 of the National Ocean Service (NOS) dated 11-08-90. On Page 1 of 3 is a description and location of BM #M1142, as found. On Page 3 of 3 are elevations of tidal datums referenced to mean low water and height above mean high water of BM #M1142. A sketch furnished with the publication shows location of their tide gauge and said BM #M1142.

I was told by NOS that the tide gauge reading of 0.71 was equal to zero on U.S.C. & G.S. datum. MHHW being at elevation 0.59. By interpolation, using the height of 4.46 above MHW, the elevation of 1142 is 4.99, a difference of 0.01 foot from elevation of 4.98 used in this survey.

At the site the benchmark is a railroad spike set in the west side of a power pole located about 5 feet east of the northeast corner of Lot 26, elevation 5.03 feet.

Tide gauges set by us are located as follows:

On the north side of the old causeway approach opposite 1142, more precisely a 2" X 4" set at the west end of south dock of the State boat ramp, about 200 feet northeast of BM #1142.

Counter 17302



Mr. Ben Thompson  
April 12, 1993  
Page 2

File No. Sketch File 13A pg. 2 of 3  
Cameron County  
Procedure for determining MHHW  
Filed 4-26 19 93  
By GARRY MAURO, Com'r  
Douglas Howard

In general vicinity shown in Publication 877 9724 of tide gauge set by NOS.

The north gauge was placed near the northwest corner of the site about 3 feet south of concrete block retaining wall. Gauges were set to U.S.C. & G.S. datum and elevations read directly.

The gauges, being on the lee side of the island in a relatively protected area, were not difficult to read.

Prior to reading the tide gauges, the MHHW of 0.59 called for at BM #M1142 was set on the ground at the site without adjustment.

On Monday, 3-15-93, with tide dropping, gauges were read at 10 minute intervals from 8:00 P.M. to 9:10 P.M. north and from 8:00 P.M. to 8:40 P.M. south.

Maximum elevation - south 0.18, north 0.18.  
Minimum elevation - south -0.05, north 0.10.

8 readings north, 5 readings south.  
Average of all - 0.08 south, 0.15 north.

On 3-16-93, readings were taken at 15 minute intervals, staggered, from 12:45 P.M. to 3:40 P.M.

Maximum elevation - south 0.71, north 0.61.  
Minimum elevation - south 0.61, north 0.55.  
Average of all - south 0.66, north 0.58.  
Average of 4 highest - south 0.69, north 0.61.

On 3-17-93, readings were taken at 10 minute intervals, from 2:00 P.M. to 5:10 P.M., taken simultaneously at both sites. Tides at south station started at 0.40, dropped to 0.29, rose to 0.42 and began dropping again. The north station started at 0.21, rose to 0.30, dropped to 0.25, rose to 0.32. The peaks and lows north lagged behind south by about 30 minutes.

Maximum elevation - south 0.41 & 0.42, north 0.30 & 0.32.  
Average of all - south 0.364, north 0.273.  
Average of 4 highest - south 0.415, north 0.308.

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*Consulting Engineers - Land Surveyors*

Counter 17303



File No. Sketch File 13A, pg 3 of 3  
Cameron County  
Procedure for determining MHHW  
Filed 4-26 19 93  
By GARRY MAURO, Com'r  
Douglas Howard

Mr. Ben Thompson  
April 12, 1993  
Page 3

Based on gauge readings summarized on the preceding page, water surface at the survey site does not rise above water surface at BM #M1142 under normal conditions, and is higher only when tides are flowing out.

Selected elevations on 3-17-93 taken from 3:10 P.M. to 3:40 P.M. south and from 3:30 P.M. to 4:00 P.M. north averaged 0.295 and 0.252 respectively, very close to being equal.

The MHHW elevation of 0.59 as applied to the survey site (paragraph four on preceding page), without adjustment lies approximately 15 feet west of the retaining wall at the north and south property lines of Lot 27 and approximately 21 feet west of the wall at the center.

Based on these findings, the wall does not encroach on State property.

A list of water surface elevations taken on 3-17-93 is attached.

Yours truly,

  
\_\_\_\_\_  
C.L. FABIAN  
Licensed State Land Surveyor



CLF/jr  
Attachments

**FABIAN, NELSON AND MEDINA, INC.**

*Consulting Engineers - Land Surveyors*

Counter 17304



Surveyor's Report  
Lots 26 and 27, Block 101  
Padre Beach Section VII  
in the Town of South Padre Island  
Cameron County, Texas, as Recorded  
in Vol. 15, Page 21, Map Records

1 of 3  
Sketch File B.B. p. 1 of 3  
Cameron County  
Surveyor's Report  
4-26  
GARRY MAURO, Com'r  
By Douglas Howard

The primary objective of this survey was to determine the division line between State owned land and private ownership within the above referenced lots. Also shown for information purposes are concrete bulkhead, wooden bulkhead and tide line as set.

Field work was commenced on March 4, 1993 and completed March 18, 1993. The upland boundaries of the property were determined from pins found in the ground within the block and at the site. The transit work was performed using a Lietz TM6 theodolite with Top Con Model DMS-2 equipment. Level work was carried out using a Lietz automatic level. A line of levels was carried to the site from USGS Benchmark #M1142 1959, located on the east end of the Queen Isabela Fishing Pier (old causeway), elevation 4.98. A benchmark set by Mejia and Rose, Surveyors was verified and tide gauges were set at the site and on the north side of the Queen Isabela Fishing Pier opposite said benchmark. From information furnished by the Department of Commerce, National Ocean Service, the elevation of mean higher high tide at

**FABIAN, NELSON AND MEDINA, INC.**  
*Consulting Engineers - Land Surveyors*

Counter 17305



BM #M1147 is 0.59 feet USC&GS 1959 datum.

Water surface elevations recorded simultaneously at the fishing pier and at the site over periods of about 3 hours at high tide, indicated the elevation of water surface at the site to be 0.07 feet lower (elevation 0.52 feet).

Other observations during lowering tides indicated water surface elevations to be about 0.1 foot higher at the site than at the fishing pier.

Markers were then set on the Laguna Madre tidal plain and around the tidal lagoon within the site at elevation 0.52 feet. These markers were then located by angle and distance from a common point and the traverses calculated.

The lines on the west side of the concrete retaining wall between the 0.52 foot line and the concrete retaining wall, intersecting the wall near the angles in the wall, indicate the limit of the tidal plain that is obviously submerged or washed clean by waves. Wave action may be greater this time of year when winds are often from the north and west.

As the site now exists, water cannot enter the tidal lagoon at elevation 0.52, and has to be at about 0.8 to enter. As a guess, the lagoon is about 2 feet deep. The bottom is very soft and mud brought up on boots had a foul smell.

The water has a salty taste and may be diluted with drainage water. Spoil from construction of the wall appears

File No. Sketch File 13 B, pg 2 of 3  
Cameron County  
Surveyor's Report

**FABIAN, NELSON AND MEDINA, INC.** Filed 4-26 19 93

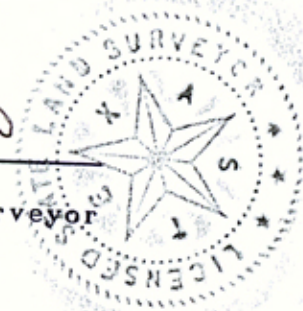
*Consulting Engineers - Land Surveyors* GARRY MAURO, Com'r

By Douglas Howard  
 Counter 17306



to have covered some of the ground on each side of the  
influant swale. To avoid the spoil a line of levels was  
taken 19 feet east of and parallel to the wall.

*C.L. Fabian*  
C.L. FABIAN  
Licensed State Land Surveyor  
McAllen, Texas



File No. Sketch File 13B, pg. 3 of 3  
Cameron County  
Surveyor's Report  
Filed 4-26 19 93  
By GARRY MAURO, Com'r  
Douglas Howard

**FABIAN, NELSON AND MEDINA, INC.**

*Consulting Engineers - Land Surveyors*

*Counter 17307*



March 23, 1993

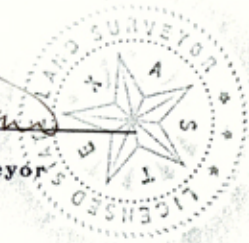
FIELD NOTES FOR SURVEY OF DIVISION LINE BETWEEN STATE LANDS AND LOT 27, BLOCK 101, PADRE BEACH SECTION VII, IN THE TOWN OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS, AS RECORDED IN VOL. 15, PG. 21, CAMERON COUNTY MAP RECORDS.

-----  
COMMENCING at the Southeast corner of Lot 27, Block 101, on the North line of 50.0 foot Huisache Avenue; THENCE, with the North line of 50.0 foot Huisache Avenue and South line of Lot 27, South 83 Deg. 56 Min. West, 60.5 feet to its intersection with the mean higher high tide elevation of 0.52 feet, of the Laguna Madre as it presently exists, for the POINT OF BEGINNING of the following described line;

THENCE, with the meanders of the mean higher high tide line of the Laguna Madre as follows:

- North 6 Deg. 05 Min. 20 Sec. East, 24.30 feet;
- North 9 Deg. 35 Min. 20 Sec. West, 25.70 feet;
- North 17 Deg. 37 Min. 10 Sec. West, 24.30 feet;
- North 32 Deg. 01 Min. 30 Sec. West, 22.90 feet;
- North 37 Deg. 07 Min. 40 Sec. West, 23.05 feet;
- North 57 Deg. 44 Min. 20 Sec. West, 18.45 feet to a point on the North line of said Lot 27, for end of this survey, whence the common North corner of said Lots 27 and 26 bears North 83 Deg. 56 Min. East, 98.35 feet.

*C. L. Fabian*  
C.L. FABIAN  
Licensed State Land Surveyor  
McAllen, Texas



File No. Sketch File 13 C County \_\_\_\_\_  
Cameron  
 Filed 4-26 19 93  
 By GARRY MAURO, Com'r  
Douglas Howard



March 23, 1993

FIELD NOTES FOR SURVEY OF A TIDAL POND LOCATED IN LOT 26 AND LOT 27, BLOCK 101, PADRE BEACH SECTION VII, IN THE TOWN OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS, RECORDED IN VOL. 15, PG. 21, CAMERON COUNTY MAP RECORDS.

-----  
COMMENCING at the Southeast corner of said Lot 26; said corner located on the North line of 50.0 foot Huisache Avenue; THENCE, with the East line of said Lot 26, North 6 Deg. 00 Min. West, 48.2 feet to its point of intersection with the South line of said tidal pond, elevation 0.52, for the POINT OF BEGINNING and the Southeast corner of the following described parcel of land;

THENCE, with the meanders of said tidal pond and elevation 0.52, as follows:

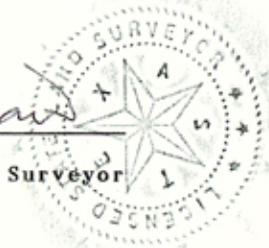
- South 89 Deg. 20 Min. 10 Sec. West, 33.10 feet;
- South 80 Deg. 21 Min. 50 Sec. West, 17.10 feet;
- North 55 Deg. 10 Min. West, 19.10 feet;
- North 62 Deg. 17 Min. 10 Sec. East, 17.7 feet;
- North 19 Deg. 16 Min. 50 Sec. West, 13.9 feet;
- North 68 Deg. 34 Min. East, 18.1 feet;
- South 89 Deg. 59 Min. 20 Sec. East, 33.9 feet to point of intersection of tide line with the East line of Lot 26;
- whence the Northeast corner of Lot 26 bears North 6 Deg. 00 Min. West, 41.0 feet from said point;

THENCE, crossing the lagoon, South 6 Deg. 00 Min. East, 35.8 feet to the POINT OF BEGINNING. Containing 0.04 acre of land, more or less.

Note:  
Water surface of lagoon 0.80. Lagoon extends a short distance eastward beyond the East line of Lot 26.

File No. Sketch File 13D County \_\_\_\_\_  
Cameron  
 Filed 4-26 19 93  
GARRY MAURO, Com'r  
 By Douglas Howard

*C. L. Fabian*  
 C.L. FABIAN  
 Licensed State Land Surveyor  
 McAllen, Texas





Tide Gauge Readings  
 Lots 26 & 27, Block 101  
 Padre Beach Section VII  
 Town of South Padre Island  
 Cameron County, Texas  
 March 17, 1993

<u>Time</u>	<u>Pier</u>	<u>Site</u>
2:00 P.M.	0.38	0.21
2:10 "	0.40	0.23
2:20 "	0.40	0.25
2:30 "	0.40	0.25
2:40 "	0.40	0.28
2:50 "	0.35	0.29
3:00 "	0.31	0.30
3:10 "	0.29	0.28
3:20 "	0.29	0.27
3:30 "	0.30	0.25
3:40 "	0.30	0.25
3:50 "	0.32	0.25
4:00 "	0.36	0.26
4:10 "	0.38	0.28
4:20 "	0.42	0.28
4:30 "	0.42	0.29
4:40 "	0.42	0.30
4:50 "	0.40	0.32
5:00 "	0.38	0.31
5:10 "		0.30

File No. Sketch File 13 F  
Cameron County  
 Tide Gauge Readings  
 Filed 4-26 19 93  
 By GARRY MAURO, Com'r  
Douglas Howard



**FABIAN, NELSON AND MEDINA, INC.**

*Consulting Engineers - Land Surveyors*

*Counter 17310*



TEXAS 877 9724

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

TIDAL BENCH MARKS

QUEEN ISABEL CAUSEWAY, TAMPA BAY

NOAA CHART: 11501 USGS QUAD: PORT ISABEL  
LATITUDE: 26°04'N LONGITUDE: 87°10'W

To reach the tidal bench marks from the intersection of Queen Isabel Causeway and State Parkway (State Park Road 100) in South Tampa Island, proceed SE on State Parkway for 0.4 mile (0.6 km) to the old State Park Road 100, turn right and continue west on the old State Park Road 100 for 0.35 mile (0.56 km) to the old Queen Isabel Causeway bridge (presently a state fishing pier). The bench marks are on the bridge, along State Parkway, and at the abandoned U.S. Coast Guard Station office building. The tide gage and staff were at the east end of the old causeway bridge.

BENCH MARK STAMPING: M 1142 1989

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: USCGS Bench Mark  
SETTING CLASSIFICATION: Concrete Wing Wall

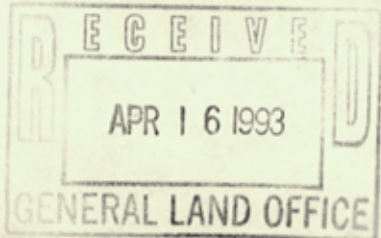
The bench mark is set in the top of the concrete wingwall at the east end of the old Queen Isabel Causeway, 56.9 feet (17.3 m) SE of the SE corner of the state building, 49.0 feet (14.9 m) south of the centerline of the highway, 32.9 feet (10.0 m) south of the south end of the east abutment, and level with the road.

BENCH MARK STAMPING: N 1142 1989

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: USCGS Bench Mark  
SETTING CLASSIFICATION: Concrete Foundation

The bench mark is set in the top of a concrete foundation at the abandoned U.S. Coast Guard Station office building south of the old Queen Isabel Causeway, 28 feet (9 m) SW of the centerline of the road around the building, 2.4 feet (0.7 m) north of the east corner of the building, and 1 foot (0.3 m) above the ground.

File No. Sketch File 13E  
County Camden  
Filled 4-28-93  
GARRY MAURO, Com'r  
By Douglas H. Hurd



Counter # 80106



March 23, 1993

FIELD NOTES FOR SURVEY OF A TIDAL POND LOCATED IN LOT 28 AND LOT 27, BLOCK 101, PADRE BEACH SECTION VII, IN THE TOWN OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS, RECORDED IN VOL. 15, PG. 21, CAMERON COUNTY MAP RECORDS.

COMMENCING at the Southeast corner of said Lot 28; said corner located on the North line of 50.0 foot Huissache Avenue; THENCE, with the East line of said Lot 28, North 6 Deg. 00 Min. West, 48.2 feet to its point of intersection with the South line of said tidal pond, elevation 0.52, for the POINT OF BEGINNING and the Southeast corner of the following described parcel of land;

THENCE, with the meanders of said tidal pond and elevation 0.52, as follows:  
South 89 Deg. 20 Min. 10 Sec. West, 33.10 feet;  
South 80 Deg. 21 Min. 50 Sec. West, 17.10 feet;  
North 55 Deg. 10 Min. West, 19.10 feet;  
North 62 Deg. 17 Min. 10 Sec. East, 17.7 feet;  
North 19 Deg. 16 Min. 50 Sec. West, 13.8 feet;  
North 68 Deg. 34 Min. East, 18.1 feet;  
South 89 Deg. 59 Min. 20 Sec. East, 33.8 feet to point of intersection of tide line with the East line of Lot 28; whence the Northeast corner of Lot 28 bears North 6 Deg. 00 Min. West, 41.0 feet from said point;  
THENCE, crossing the lagoon, South 6 Deg. 00 Min. East, 35.8 feet to the POINT OF BEGINNING. Containing 0.04 acre of land, more or less.

Note:  
Water surface of lagoon  
0.80. Lagoon extends a  
short distance eastward  
beyond the East line of  
Lot 28.



C.L. FABIAN  
Licensed State Land Surveyor  
McAllen, Texas

RECEIVED  
APR 16 1993  
COUNTY CLERK  
GARRY MAURO, County Clerk  
19 93

Count # 80116



March 23, 1993

FIELD NOTES FOR SURVEY OF DIVISION LINE BETWEEN STATE LANDS AND LOT 27, BLOCK 101, PADRE BEACH SECTION VII, IN THE TOWN OF SOUTH PADRE ISLAND, CAMERON COUNTY, TEXAS, AS RECORDED IN VOL. 15, PG. 21, CAMERON COUNTY MAP RECORDS.

COMMENCING at the Southeast corner of Lot 27, Block 101, on the North line of 50.0 foot Huische Avenue; THENCE, with the North line of 50.0 foot Huische Avenue and South line of Lot 27, South 83 Deg. 56 Min. West, 60.5 feet to its intersection with the mean higher high tide elevation of 0.52 feet, of the Laguna Madre as it presently exists, for the POINT OF BEGINNING of the following described line; THENCE, with the meanders of the mean higher high tide

line of the Laguna Madre as follows:

- North 6 Deg. 05 Min. 20 Sec. East, 24.30 feet;
- North 9 Deg. 35 Min. 20 Sec. West, 25.70 feet;
- North 17 Deg. 37 Min. 10 Sec. West, 24.30 feet;
- North 32 Deg. 01 Min. 30 Sec. West, 22.90 feet;
- North 37 Deg. 07 Min. 40 Sec. West, 23.05 feet;

North 57 Deg. 44 Min. 20 Sec. West, 18.45 feet to a point on the North line of said Lot 27, for end of this survey, whence the common North corner of said Lots 27 and 26 bears North 83 Deg. 56 Min. East, 98.35 feet.



C.L. FABIAN  
Licensed State Land Surveyor  
McAllen, Texas

Sketch File 13C  
Cameron  
Field Notes  
Darius Howard  
4-20

RECEIVED  
APR 16 1993  
GENERAL LAND OFFICE



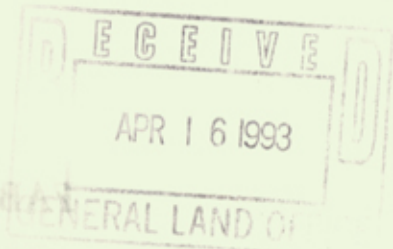
to have covered some of the ground on each side of the  
influent swale. To avoid the spoil a line of levels was  
taken 13 feet east of and parallel to the wall.



*C.L. Fabian*

C.L. FABIAN  
Licensed State Land Surveyor  
McAllen, Texas

FABIAN, NELSON AND MEDINA, INC.  
General Land Surveyors



County # 80114



BM #M147 is 0.58 feet USCGS 1929 datum.

Water surface elevations recorded simultaneously at the fishing pier and at the site over periods of about 3 hours high tide, indicated the elevation of water surface at the site to be 0.07 feet lower (elevation 0.52 feet).

Other observations during lowering tides indicated water surface elevations to be about 0.1 foot higher at the site than at the fishing pier.

Markers were then set on the Laguna Madre tidal plain and around the tidal lagoon within the site at elevation 0.52 feet. These markers were then located by angle and distance from a common point and the traverses calculated.

The lines on the west side of the concrete retaining wall between the 0.52 foot line and the concrete retaining wall, intersecting the wall near the angles in the wall, indicate the limit of the tidal plain that is obviously submerged or washed clean by waves. Wave action may be greater this time of year when winds are often from the north and west.

As the site now exists, water cannot enter the tidal lagoon at elevation 0.52, and has to be at about 0.8 to enter. As a guess, the lagoon is about 2 feet deep. The bottom is very soft and mud brought up on boots had a foul smell.

The water has a salty taste and may be diluted with

Spill from construction of the wall appears

The No. 20113 is a

Canada

Survey

Survey

Survey

Survey

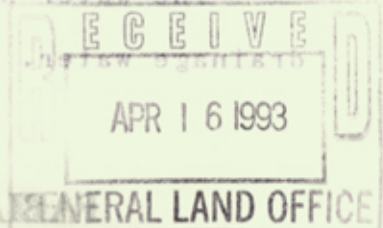
Survey

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Survey



Counter # 80113

Surveyor's Report

Lots 26 and 27, Block 101

Padre Beach Section VII

in the Town of South Padre Island  
Cameron County, Texas, as Recorded

in Vol. 15, Page 21, Map Records

The primary objective of this survey was to determine

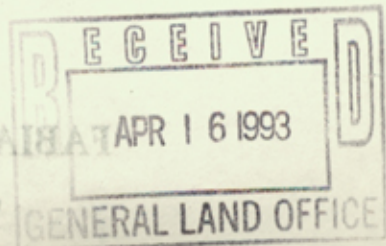
the division line between State owned land and private  
ownership within the above referenced lots. Also shown for  
information purposes are concrete bulkhead, wooden bulkhead  
and tide line as set.

Field work was commenced on March 4, 1993 and completed

March 18, 1993. The upland boundaries of the property were  
determined from pins found in the ground within the block and  
at the site. The transit work was performed using a Leitz  
TME theodolite with Top Con Model DMS-2 equipment. Level  
work was carried out using a Leitz automatic level. A line  
of levels was carried to the site from USGS Benchmark #M1142  
1959, located on the east end of the Queen Isabela Fishing  
Pier (old causeway), elevation 1.98. A benchmark set by  
Mejia and Rose, Surveyors was verified and tide gauges were  
set at the site and on the north side of the Queen Isabela  
Fishing Pier opposite said benchmark. From information  
furnished by the Department of Commerce, National Ocean  
Service, the elevation of mean higher high tide at

TABIAN, NELSON AND MEDINA, INC.

Consulting Engineers - Land Surveyors



Counter # 80112

1 of 1  
GALATI MAURO, COURT  
19 93  
Cameron County  
Surveyor's Report  
19 93



The no. Station File 154-44242  
 (Survey) Processed for Station MHHW  
 4-50-93  
 GARY SAUNDERS, CORP.  
 1200 1st St. N.E.

Mr. Ben Thompson  
 April 12, 1993  
 Page 3

Based on gauge readings summarized on the preceding page, water surface at the survey site does not rise above water surface at BM #M142 under normal conditions, and is higher only when tides are flowing out.

Selected elevations on 3-17-93 taken from 3:10 P.M. to 3:40 P.M. south and from 3:30 P.M. to 4:00 P.M. north averaged 0.295 and 0.252 respectively, very close to being equal.

The MHHW elevation of 0.29 as applied to the survey site (paragraph four on preceding page), without adjustment lies approximately 15 feet west of the retaining wall at the north and south property lines of Lot 27 and approximately 21 feet west of the wall at the center.

Based on these findings, the wall does not encroach on State property.

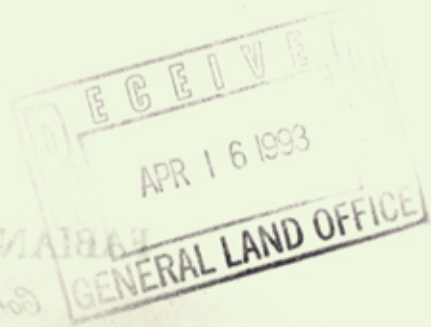
A list of water surface elevations taken on 3-17-93 is attached.

Yours truly,



*C.L. Fabian*  
 C.L. FABIAN  
 Licensed State Land Surveyor

CLE/jr  
 Attachments



FABIAN, NELSON AND MEDINA, INC.  
 Consulting Engineers - Land Surveyors

Counter # 8011





FABIAN, NELSON AND MEDINA, INC.

Surveying Engineers

250 N. 15TH STREET  
MEALLEN, TEXAS 78201  
PHONE (512) 682-3414  
FAX (512) 682-3416

LAND SURVEYING  
RIZZO C. MEDINA, R.L.S. STEVE SPOOR, P.E.  
MICHAEL FABIAN, R.L.S. GILBERTO A. GRACIA, P.E.

April 12, 1993

The No. of this report is 1442  
County  
Filed  
GARRY MAURO Comy

Mr. Ben Thompson  
General Land Office  
1700 North Congress  
Austin, TX 78701-1485

Re: Lots 26 & 27, Block 101, Padre  
Beach Section VII, Town of  
South Padre Island, Cameron  
County, Texas

Dear Mr. Thompson:

In accordance with your request, the following  
information is submitted.

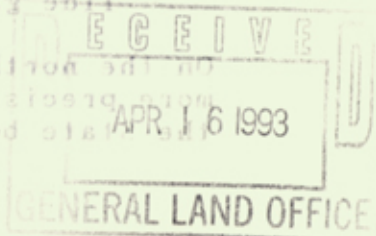
Attached is Publication 877 9724 of the National Ocean  
Service (NOS) dated 11-08-90. On Page 1 of 3 is a  
description and location of BM #1142, as found. On Page 3  
of 3 are elevations of tidal datums referenced to mean low  
water and height above mean high water of BM #1142. A  
sketch furnished with the publication shows location of their  
tide gauge and said BM #1142.

I was told by NOS that the tide gauge reading of 0.71  
was equal to zero on U.S.C. & G.S. datum. MHHW being at  
elevation 0.59. By interpolation, using the height of 4.46  
above MHHW, the elevation of 1142 is 4.99, a difference of  
0.01 foot from elevation of 4.98 used in this survey.

At the site the benchmark is a railroad spike set in the  
west side of a power pole located about 5 feet east of the  
northeast corner of Lot 26, elevation 5.03 feet.

The gauges set by us are located as follows:

On the north side of the old causeway approach opposite 1142,  
precisely a 2" X 4" set at the west end of south dock of  
the boat ramp, about 200 feet northeast of BM #1142.



Counter # 20109 :

TEXAS 877 9770

QUEEN ISABEL CAUSEWAY, LAGUNA MARSH

Tidal datum at Queen Isabel Causeway, Laguna Marsh are based on the following:

- CONTROL TIDE STATION
- TIDAL EPOCH
- TIME PERIOD
- LENGTH OF SERIES
- PORT ISABEL (877 9770)
- 1960-1978
- MARCH 1973-JULY 1978
- 32 MONTHS

Elevations of tidal datum related to mean lower low water (MLLW) are as follows:

- HIGHEST OBSERVED WATER LEVEL (02/01/77) = 3.88 FEET
- MEAN HIGHER HIGH WATER (MHHW) = 1.30 FEET
- MEAN HIGH WATER (MHW) = 1.24 FEET
- MEAN TIDE LEVEL (MTL) = 0.71 FEET
- MEAN LOW WATER (MLW) = 0.70 FEET
- MEAN LOWER LOW WATER (MLLW) = 0.16 FEET
- LOWEST OBSERVED WATER LEVEL (01/19/77) = -1.22 FEET

MHW is based on elevations published in Quad 260971, 600 and MSL leveling of 1978.

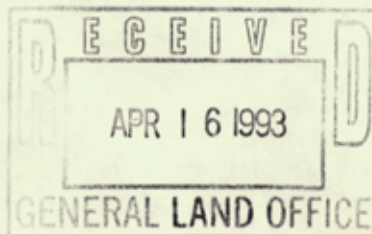
Each mark elevation information:

ELEVATION IN FEET ABOVE:

MLW	MLLW	BENCH MARK STAMPING
4.48	5.70	M 1142 1952
3.33	4.57	N 1142 1952
5.86	7.20	M 9724 1977
3.33	4.57	NO 2
7.06	8.30	8

The estimated highest water level to the nearest half-foot is 7.0 feet above mean lower low water. The estimated lowest water level to the nearest half-foot is 3.0 feet below mean lower low water. Estimates are based on observed extreme water levels at Port Isabel (877 9770).

Station File 13E  
Cameron Co



Counter # 80108



TEGS 877 9724

QUEEN ISABEL CAUSEWAY, LAGUNA MARKE

BENCH MARK STAMPING: M 9724 1977

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: NOS Tidal Bench Mark  
SETTING CLASSIFICATION: Concrete Foundation

The bench mark is set in the top of the south corner of the most southerly one of two abandoned concrete foundations for signs in a small grassy area in front of Sea Ranch Grocery, 97.5 feet (29.7 m) east of the north corner of Sea Ranch Grocery, 86.4 feet (26.3 m) north of the north corner of Sea Ranch Hotel, 79.8 feet (24.3 m) SW of the centerline of the highway, and 1 foot (0.3 m) above the ground.

BENCH MARK STAMPING: NO 5

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: USGS Bench Mark  
SETTING CLASSIFICATION: Concrete Pavement

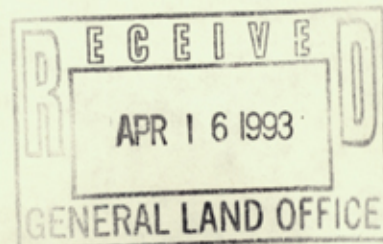
The bench mark is set in the concrete pavement at the abandoned U.S. Coast Guard Station office building south of the old Queen Isabel Causeway, 40.0 feet (12.2 m) west of the road leading to the new Coast Guard building, 4 feet (1 m) west of the east line of the building, 2 feet (1 m) west of a set of steps, 1 foot (0.3 m) south of the north line of the building, and 2 feet (1 m) above the ground.

BENCH MARK STAMPING: 8

MONUMENTATION: Survey Disk  
AGENCY/DISK TYPE: County Bench Mark  
SETTING CLASSIFICATION: Concrete Bridge Railing

The bench mark is set in the base of the concrete railing at the east end of the old Queen Isabel Causeway, 39.7 feet (10.9 m) NE of the NE corner of the state building, 2.6 feet (0.8 m) west of the east end of the railing, and 0.8 foot (0.2 m) above the road.

Sketch File 15 E  
Compton Co.



Counter # 80107

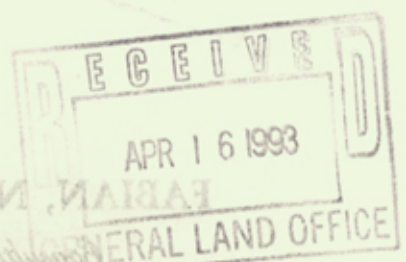
Tide Gauge Readings  
 Lots 28 & 27, Block 101  
 Padre Beach Section VII  
 Town of South Padre Island  
 Cameron County, Texas  
 March 17, 1993

Time	High	Low
2:10	0.38	0.30
"	"	"
2:00 P.M.	0.38	0.31
"	"	"
2:10	0.40	0.30
"	"	"
2:20	0.40	0.30
"	"	"
2:30	0.40	0.30
"	"	"
2:40	0.40	0.30
"	"	"
2:50	0.35	0.30
"	"	"
3:00	0.31	0.30
"	"	"
3:10	0.29	0.30
"	"	"
3:20	0.29	0.30
"	"	"
3:30	0.30	0.30
"	"	"
3:40	0.30	0.30
"	"	"
3:50	0.32	0.30
"	"	"
4:00	0.38	0.30
"	"	"
4:10	0.38	0.30
"	"	"
4:20	0.42	0.30
"	"	"
4:30	0.42	0.30
"	"	"
4:40	0.42	0.30
"	"	"
4:50	0.40	0.30
"	"	"
5:00	0.38	0.30
"	"	"
5:10	0.38	0.30



*[Handwritten signature]*

The State Engineer of Texas  
 Austin, Texas  
 Received from  
 Fabian, Nelson and Medina, Inc.  
 1993



FABIAN, NELSON AND MEDINA, INC.  
 Consulting Engineers - Land Surveyors

Counter # 80117