



**U.S. Army Corps
of Engineers**
Galveston District

**Galveston Harbor Channel Extension
Feasibility Study
Houston-Galveston Navigation Channels, Texas**

**APPENDIX C
REAL ESTATE APPENDIX**

**U.S. Army Corps of Engineers
Southwestern Division
Galveston District
2016**

APPENDIX C - REAL ESTATE APPENDIX

HOUSTON-GALVESTON NAVIGATION CHANNELS, TEXAS GALVESTON HARBOR CHANNEL EXTENSION FEASIBILITY REPORT GALVESTON COUNTY, TEXAS

- 1. General Background:** This report is intended to supplement the information presented in the 1995 Houston-Galveston Navigation Channels Project, Texas, Limited Reevaluation and Final Supplemental Environmental Impact Statement (SEIS) by addressing issues related specifically to the Galveston Harbor Channel, and will accompany the Project Cooperation Agreement (PCA) when it is forwarded to Congress. The original study for improving the deep-draft navigation channels within the Galveston Bay area was authorized by a resolution of the House Committee on Public Works adopted on October 19, 1967. The Feasibility study for improving the Houston and Galveston channels was completed in July 1987, and a Report and Supplemental EIS were produced. The Non-Federal Sponsor (NFS) for this Project is the Board of Trustees of the Galveston Wharves (Port of Galveston), which was purchased in 1940 by and is a separate utility of the City of Galveston.
- 2. Project Location.** The Galveston Channel is subdivided into two reaches designated as the Offshore Reach and the Galveston Channel Reach. The Galveston Channel Reach is authorized to 45 feet deep from Station 0+000 to Station 20+000. From Station 20+000 to Station 22+571 the channel is only authorized to a depth of 40-feet. As such, the NFS and facilities at the far end of the 40-foot Galveston Ship Channel (last 0.5 mile) are not able to receive deeper draft vessels at their facilities without practices such as light-loading.
- 3. Project Description.** The section of the Galveston Harbor Channel addressed in this Project begins at Station 20+000 and continues to 22+571 in Galveston, Texas, as seen in Exhibit "A" attached hereto. Once construction occurs in this reach, the channel will be deepened to 45 feet with a maximum width of 1,075 feet. All channel improvements will take place within the previously established U.S. Harbor Line. The U.S. Harbor Line, as it pertains to the subject Project boundaries, shall be defined as 537.5 feet north and 537.5 feet south of the Galveston Harbor Channel center line.

4. **Real Estate Requirements.** The Galveston Harbor Channel will be dredged to a depth of 45 feet; new work dredging will take place from Station 20+000 to Station 22+571. Galveston Harbor Channel is shown on Exhibit "A". All dredging will occur within the navigational servitude. New work dredged material and all maintenance material for this reach of the Project will be placed in the confined Pelican Island Placement Area as shown on Exhibit "B", including the associated dredge material pipeline route. This area is fee-owned by the U.S. Government known as tract 301 & tract A. Tract 301 was acquired through General Warranty Deed granted by Mitchell Development Corporation of the Southwest to the United States of America dated 28 June 1974 filed on Book 2517 Page 595 of the Real Property Official Records at the Galveston County Clerk's Office. Tract A was acquired from the City of Galveston on 23 April 1859 and is recorded in Volume P, Page 37 of the Deed Records of Galveston County, Texas. The controlling agency is the U.S. Army Corps of Engineers. These areas are currently in use for the existing Project.

Two pipelines, described as: 12-inch waterline (-51 feet MLLW) and 12-inch sewer line (- 51 feet MLLW) were located at approximately Station 21+500 and 21+550, respectively, on the Galveston Harbor Channel within the Project area. The Preliminary Attorney's Opinion of Compensability (PAOC) described these pipelines as being solely the responsibility of the NFS for removal and/or relocation prior to the construction of this project. On 19 December 2016, the pipelines were removed by the City of Galveston.

Therefore, there are no new lands, easements, rights-of-way and relocations and disposal (LERRDs) required for the construction / implementation of the proposed Galveston Harbor Channel extension.

5. **Borrow Material.** The proposed Project does not require any borrow material.

6. **Access/Staging Area.** The proposed Project does not require any access/staging areas. All of the proposed work will be performed within the existing right-of-way of the Galveston Harbor Project. There are existing public roads to all work and placement areas.

7. **Recreation Features.** There are no recreation features for the proposed Project.

8. **Induced Flooding.** There will be no induced flooding by virtue of the construction of the Project. The proposed deepening and widening of the channel will be constructed within the existing U.S. Harbor Line.

9. **Mitigation.** Section 5.0 of EA states: "No impacts are expected to occur to natural resources or cultural resources as a result of the proposed Project." Therefore, no mitigation is needed for the proposed Project activities. This determination is consistent with the recommendations of the January 14, 2011, USFWS PAL for the Galveston Harbor Channel Extension (Appendix B)."

10. Federally-Owned Land & Existing Federal Project. HGNC is an existing Federal project. Exhibit “C” is the Galveston Harbor Project Real Estate Segment Map that shows all the federally-owned property within the Galveston Harbor Channel reach of the Project. Virtually all the land owned by the government within the Project limits was acquired for the Galveston Harbor. The U.S. Army Corps of Engineers is the controlling agency. Land acquired for the previously authorized Project is available for the proposed Project. However, the Non-Federal Sponsor will not receive LERRD credit for lands made available for the Project by the Corps of Engineers for lands previously credited as a LERRD for a project with Federal funds participation.

11. Non-Federal Sponsor Owned Land. The Port of Galveston, sponsor for the Project, has no fee-owned land within the Project area.

12. Navigation Servitude. All lands required for the proposed channel extension Project that lie below the ordinary mean high water mark are subject to Navigational Servitude and will not require acquisition.

Navigation servitude is the dominant right of the Government under the Commerce Clause of the U.S. Constitution (U.S. CONST. Art. I, §8, cl.3) to use, control and regulate the navigable waters of the United States and the submerged lands thereunder for various commerce-related purposes including navigation and flood control. In tidal areas, the servitude extends to all lands below the ordinary mean high water mark. In non-tidal areas, the servitude extends to all lands within the bed and banks of a navigable stream that lie below the ordinary high water mark.

13. Public Law 91-646 Relocation Assistance. Public Law 91-646, Uniform Relocation Assistance, provides entitlement for various payments associated with federal participation in acquisition of real property. Title II makes provision for relocation expenses for displaced persons, and Title III provides for reimbursement of certain expenses incidental to transfer of property. There will be no relocation of persons, Title II, or Title III costs associated with the proposed Project.

14. Assessment of Non-Federal Sponsor Land Acquisition Capabilities. Should land acquisition become necessary during the PED phase, the NFS, Port of Galveston, has the authority and capability to furnish LERRDs as stated in the previous Feasibility Cost-Sharing Agreement. Due to this previous agreement and the fact that additional acquisition is not expected for this extension, a Capability Assessment and Risk Notification is not included herein.

15. Baseline Cost Estimate for Real Estate. The cost estimate below reflects the estimated Federal cost for the Project. These costs include team meetings, mapping of Project and administrative costs. The Federal real estate costs for the proposed Project are

\$11,250.00. The non-Federal real estate costs for the proposed Project are \$0.00.

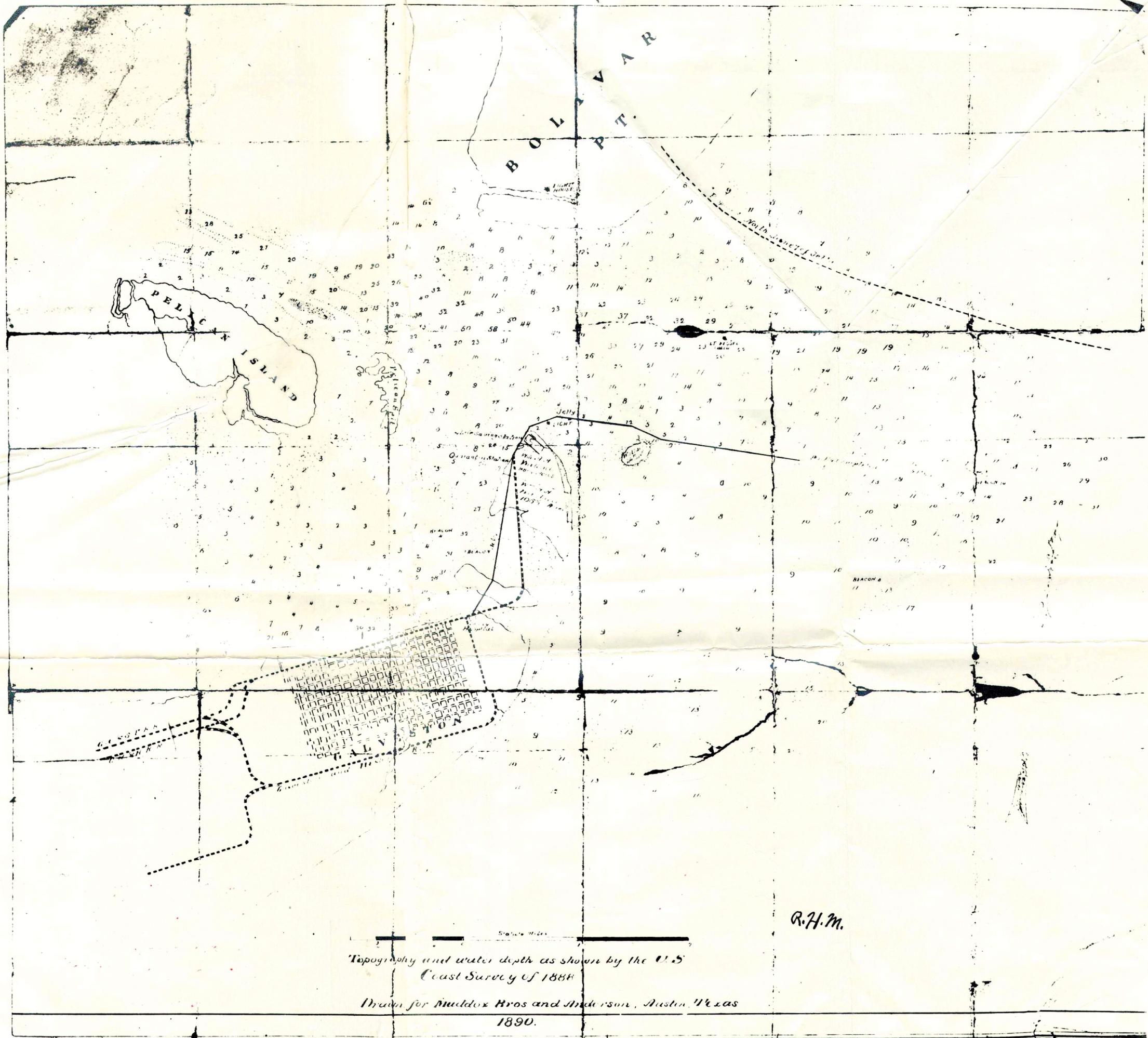
GALVESTON HARBOR CHANNEL EXTENSION
Real Estate Federal Cost Estimate

REAL ESTATE COST ESTIMATE FOR PROJECT IMPLEMENTATION					
GALVESTON HARBOR CHANNEL EXTENTION-FEDERAL COST					
GALVESTON COUNTY, TEXAS					
ACCOUNT	DESCRIPTION	ESTIMATE		CONTINGENCIES	
		TOTAL	MITIGATION	TOTAL	MITIGATION
0102	Acquisitions (Review RE Planning Documents & Mapping)	\$5,000.00		\$1,250.00	
0103	Condemnations				
0104	In-Lease				
0105	Appraisals (SWG Review Appraiser Review for 201 acre expansion of PA 4)				
0106	Real Estate PL 91-646 Relocation Assistance				
0107	Temporary Permits/Licenses/R.O.W.				
0108	Audits				
0109	Encroachments and Trespass				
0110	Disposals				
0111	Real Property Accountability				
0112	Project Related Administration	\$2,000.00		\$500.00	
0113	Facility/Utility Relocations				
0114	Withdrawals (Public Domains)				
0115	Real Estate Payments				
011501	Payments by Sponsor (Land & Improvements)				
011502	Payments by Sponsor (PL 91-646)				
011503	Payments by Sponsor (Damages)				
02	Planning by Non Federal Sponsor				
02-0117	LERRD Crediting (SWG Technical, Appraisal, and Management Review plus Admin Cost)	\$,2,000.00		\$500.00	
	Total Admin & Payments (FED COSTS)	\$7,000.00			
	Total Admin & Payments (FED COSTS)			\$2,250.00	
	Total Admin & Payments (FED COSTS)	\$11,250.00			

GALVESTON HARBOR CHANNEL EXTENSION
Non-Federal Cost Estimate

REAL ESTATE COST ESTIMATE FOR PROJECT IMPLEMENTATION					
GALVESTON HARBOR CHANNEL EXTENSION- NON-FEDERAL COST					
GALVESTON COUNTY, TEXAS					
ACCOUNT	DESCRIPTION	ESTIMATE		CONTINGENCIES	
		TOTAL	MITIGATION	TOTAL	MITIGATION
0102	Acquisitions				
0103	Condemnations				
0104	In-Lease				
0105	Appraisals				
0106	Real Estate PL 91-646 Relocation Assistance				
0107	Temporary Permits/Licenses/R.O.W.				
0108	Audits				
0109	Encroachments and Trespass				
0110	Disposals				
0111	Real Property Accountability				
0112	Project Related Administration				
0113	Facility/Utility Relocations				
0114	Withdrawals (Public Domains)				
0115	Real Estate Payments				
011501	Payments by Sponsor (Land)				
011502	Payments by Sponsor (PL 91-646)				
011503	Payments by Sponsor (Damages)				
02	Planning by Non Federal Sponsor				
02-0117	LERRD Crediting				
	Total Admin & Payments (NON-FED COSTS)				
	Total Contingencies (NON-FED COSTS)				
	GRAND TOTAL NON-FED COSTS		\$0.00		

16. **Acquisition Schedule.** Project requirements are within navigational servitude and the federal fee owned Pelican Island placement area.
17. **Mineral Activity.** There is no mineral activity within the Project area.
18. **Facilities/Utilities/Pipeline Relocations & Removals.** As described in Section 4, the City of Galveston removed two pipelines on 19 December 2016. Therefore there will be no facility/utilities/pipeline relocations and removals within the Project area.
19. **HTRW or Other Environmental Contaminants.** Section 3.14 of the EA in the main report states, “No visual signs of environmental contamination or recognized environmental conditions, including spills or illegal waste disposal, were observed during the site inspection.”
20. **Attitudes of the Landowner.** Privately-owned shipping industry companies, The Port of Galveston, and the Federal Government own the majority of lands surrounding the Project boundaries. As owners, they are supportive and in favor of the Project. No resistance to the Project by other landowners is expected.



R.H.M.

Topography and water depth as shown by the U.S.
Coast Survey of 1888

Drawn for Muldox Bros and Anderson, Austin, Texas
1890.

PROJECT OWNERSHIP MAP

STATE TEXAS
COUNTY GALVESTON
DIVISION SOUTHWESTERN
DISTRICT FORT WESTON
4 TH ARMY AREA

— LOCATION OF PROJECT —

3 MILES N.E. OF GALVESTON
MILES OF

— TRANSPORTATION FACILITIES —

RAILROADS
STATE ROADS
FEDERAL ROADS 75 (45)
AIRLINES

— ACQUISITION —

FOR DEPT. OF THE ARMY
TOTAL ACRES ACQUIRED 939.47
ACRES FEE (as of 1 July 1940) 938.75
ACRES TRANSF'D. (1) EASMT. *12.09
ACRES LEASED 0.37
ACRES LESSER INTERESTS
*11.70 AC. TRANS. TO DEPT. OF NAVY & RETRANS. INCL. IN 938.75 AC. FEE PRIOR ACQ.

— DISPOSAL —

By DEPT. OF THE ARMY
TOTAL ACRES DISPOSED OF 939.47
ACRES SOLD FEE ** 939.10
ACRES TRANSF'D. (1) EASMT. * 0.37
ACRES RETRANSF'D. TO GOV'T. AGCY.
ACRES LEASES TERMINATED
ACRES LESSER INT'S. TERM.
ACRES TO
** INCLUDES 11.70 AC. TRANS. & RETRANSFERRED & LATER TRANS. TO CIVIL WORKS

— LEGEND —

NOTE: USE SYMBOLS FROM FM-21-30 (WAR DEPT. BASIC FIELD MANUAL) PAGES 21 TO 27 INCL.

RESERVATION LINE	---
RESERVATION LINE (ACTUAL SURVEY)	—○—
DAM SITE (TAKING LINE)	D
RESERVOIR SITE (TAKING LINE)	R
CONTOUR LINES	470
AVIGATION EASEMENTS	▨
TRACT NUMBER	99

ACQUISITION AUTHORIZATION

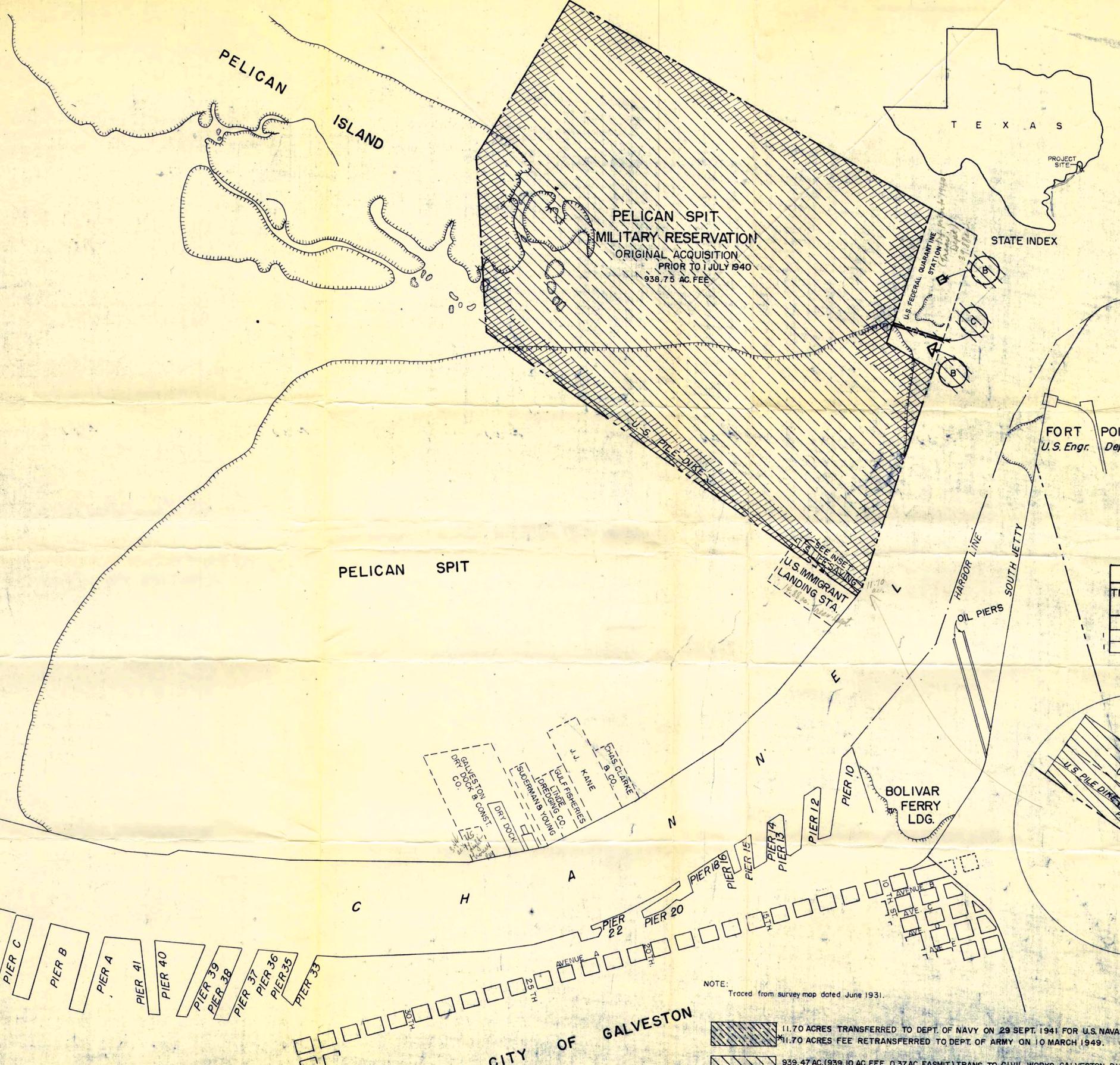
ORIGINAL ACQUISITION
(ACQUIRED PRIOR TO 1 JULY 1940)
938.75 AC. FEE
LTR. SWD TO GSA DTD. 29 DEC. 1950

REVISIONS	DATE	BY
		REDRAWN
8-3-50		DISPOSAL REMOVED
5-13-63		DISPOSAL ADDED. DUE TO FINAL AUDIT. (Approved 16 July 63)
2-7-64		REVISED DUE TO FINAL AUDIT. (Approved 16 Aug 64)

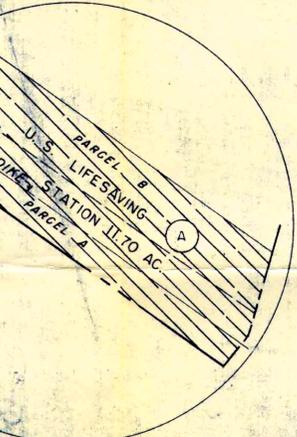
DEPARTMENT OF THE ARMY
OFFICE OF SOUTHWESTERN DIVISION

REAL ESTATE
PELICAN SPIT
MILITARY RESERVATION
DRAWN BY: C.M.
TRACED BY: C.M.
CHECKED BY: J.T.S.
SUBMITTED BY: J.T. SAMMONS
CHIEF DRAFTSMAN
RECOMMENDED BY: R.M. FOWLER
CHIEF, REQUIREMENT & RECORDS
APPROVED BY: *[Signature]*
CHIEF, REAL ESTATE DIVISION
DATE: 13 JAN 1948

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D. C.
AUDITED 394
INSTALLATION OR PROJECT NO. SHEET 1 OF 1 DRAWING NO.

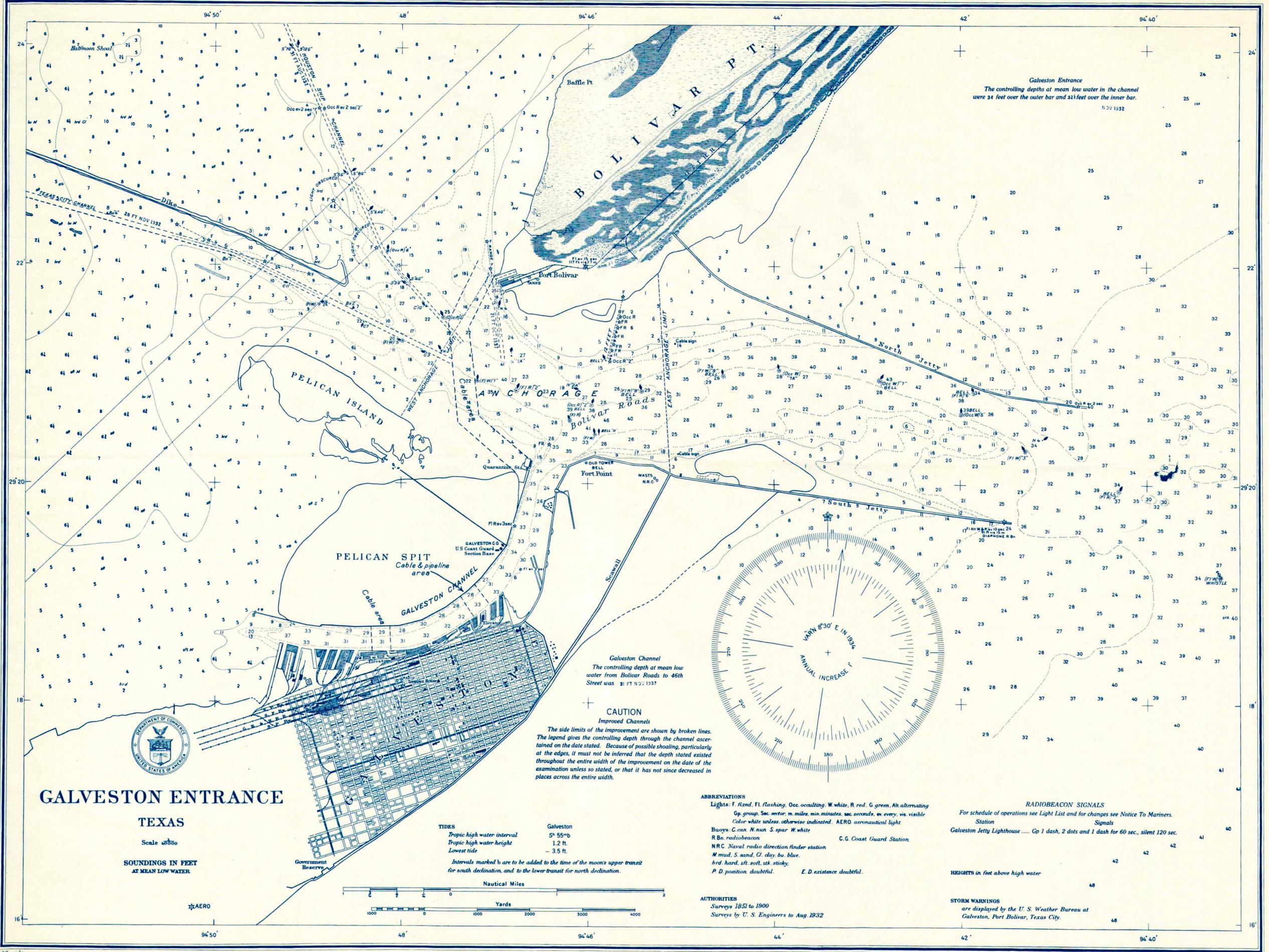


ACQUISITION TRACT REGISTER	
TRACT NO.	LAND OWNER
A	DEPT. OF THE NAVY
B	TREASURY DEPARTMENT
C	TREASURY DEPARTMENT



NOTE: Traced from survey map dated June 1931.

- ▨ 11.70 ACRES TRANSFERRED TO DEPT. OF NAVY ON 29 SEPT. 1941 FOR U.S. NAVAL FRONTIER BASE.
- ▨ *11.70 ACRES FEE RETRANSFERRED TO DEPT. OF ARMY ON 10 MARCH 1949.
- ▨ 939.47 AC. (939.10 AC. FEE, 0.37 AC. EASMT.) TRANS. TO CIVIL WORKS GALVESTON DISTRICT ON 2 JULY 1954 FOR GALVESTON SEAWALL & SOUTH JETTY, TEXAS.



Galveston Entrance
 The controlling depths at mean low water in the channel
 were 31 feet over the outer bar and 31 1/2 feet over the inner bar.
 NOV 1932

Galveston Channel
 The controlling depth at mean low water from Bolivar Roads to 46th Street was 31 FT NOV 1932

CAUTION
 Improved Channels
 The side limits of the improvement are shown by broken lines. The legend gives the controlling depth through the channel ascertained on the date stated. Because of possible shoaling, particularly at the edges, it must not be inferred that the depth stated existed throughout the entire width of the improvement on the date of the examination unless so stated, or that it has not since decreased in places across the entire width.

ABBREVIATIONS
 Lights: F. fixed, Fl. flashing, Occ. occulting, W. white, R. red, G. green, Alt. alternating
 Gp. group, Sec. sector, m. miles, min. minutes, sec. seconds, ev. every, vis. visible
 Color white unless otherwise indicated. AERO aeronautical light
 Buoys: G. can. N. nun. S. spar W. white
 R. Bn. radio beacon C. G. Coast Guard Station
 N. R. C. Naval radio direction finder station
 M. mud, S. sand, Cl. clay, bu. blue.
 hrd. hard, st. soft, stk. sticky.
 P. D. position doubtful. E. D. existence doubtful.

RADIOBEACON SIGNALS
 For schedule of operations see Light List and for changes see Notice To Mariners.
 Station
 Galveston Jetty Lighthouse Gp 1 dash, 2 dots and 1 dash for 60 sec., silent 120 sec.

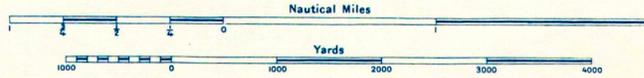


GALVESTON ENTRANCE
TEXAS

Scale 1:5000
 SOUNDINGS IN FEET
 AT MEAN LOW WATER

TIDES
 Galveston
 Tropic high water interval 5h 55m
 Tropic high water height 1.2 ft.
 Lowest tide - 3.5 ft.

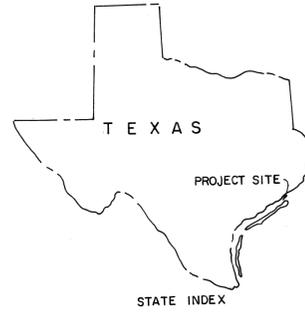
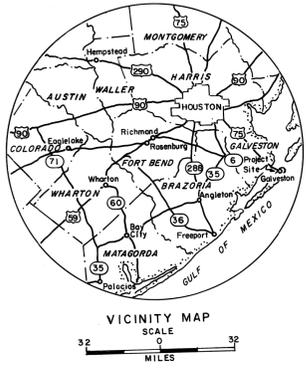
Intervals marked h are to be added to the time of the moon's upper transit for south declination, and to the lower transit for north declination.



AUTHORITIES
 Surveys 1851 to 1900
 Surveys by U. S. Engineers to Aug 1932

HEIGHTS in feet above high water

STORM WARNINGS
 are displayed by the U. S. Weather Bureau at Galveston, Port Bolivar, Texas City.



TRACT NO.	LAND OWNER	ACREAGE		REMARKS
		FEE	ESM'T	
A	DEPT. OF THE ARMY (Military)	939.10	0.37	Formerly Pelican Spit Military Reservation, transferred Jul 54
BE	DEPT. OF THE ARMY			Perp. Pipeline Esm't Formerly Pelican Spit Military Res. transferred 2 Jul 54
301	MITCHELL DEVELOPMENT CORP.	1341.45		Dead dtd 28 Jun 74 (includes 340ac overlap of Tr. A100E-2 & A100E-3 of project C-869)
302 E-1	MITCHELL DEVELOPMENT CORP.		2.85	Perp. Pipeline Esm't Deed dtd 28 Jun 74
302 E-2	MITCHELL DEVELOPMENT CORP.		7.26	Perp. Road Esm't Deed dtd 28 Jun 74 (includes 1.45ac overlap of Tr. 302E-3)
302 E-3	MITCHELL DEVELOPMENT CORP.		1.83	Perp. Pipeline Esm't Deed " " (additional 1.45ac included in Tr. 302E-2)
302 E-4	MITCHELL DEVELOPMENT CORP.		2.74	Perp. Pipeline Esm't Deed " " " "
303 E	MITCHELL DEVELOPMENT CORP.		1.84	Perp. Pipeline Esm't Deed dtd 15 May 74 Reserved in fee disposal of part of Tr. A
304 E	CITY OF GALVESTON		304.67	Revoc. Spoil Esm't. Deed dtd 23 June 65 (additional 5.25ac incl. in Tr. 302E-2,3,4)

FINAL

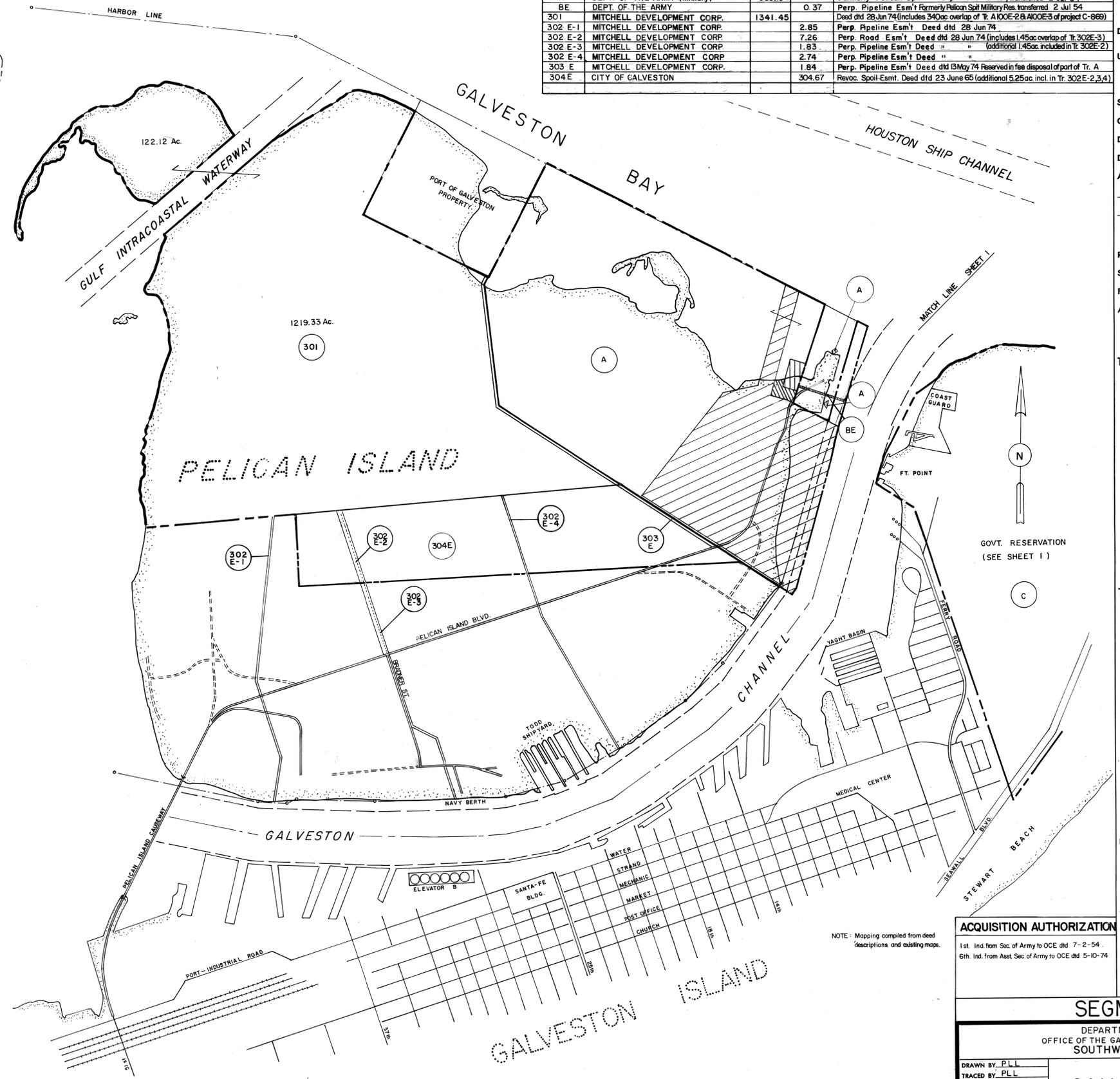
PROJECT MAP

DEPT. OF THE ARMY
 USING SERVICE CORPS OF ENGINEERS

LOCATION OF PROJECT

STATE TEXAS
 COUNTY GALVESTON
 DIVISION SOUTHWESTERN
 DISTRICT GALVESTON
 ARMY AREA 5th
 IN CITY LIMITS OF GALVESTON
 MILES OF

- 264.61 Acres Fee Conveyed to Mitchell Development Corp. by Deed Dated 13 May 74 in Exchange for Tract 301
- 5.39 Acres Fee & 0.37 Acres Easement Reported Excess on SF 118 to General Services Administration 17 Mar 70, who Conveyed to City of Galveston by Deed Dated 23 Feb 71
- 3.55 Acres Fee Reported Excess on SF 118 to General Services Administration on 6 Aug 73; Conveyed by Dept. of Interior to the City of Galveston by QCD dtd. 16 May 74



TRANSPORTATION FACILITIES

RAILROADS _____
 STATE ROADS _____
 FEDERAL ROADS _____
 AIR LINES _____

ACQUISITION

TOTAL ACRES ACQUIRED _____

FEE _____

PUBLIC DOMAIN WITHDRAWAL
 USE PERMIT

USE PERMIT (OTHER THAN P. D.) _____

TRANSFER SEE SHEET 1

LEASE _____

LESSER INTERESTS _____

DISPOSAL

TOTAL ACRES DISPOSED OF _____

SOLD _____

PUBLIC DOMAIN WITHDRAWAL
 USE PERMIT

USE PERMIT (OTHER THAN P. D.) _____

TRANSFERRED SEE SHEET 1

LEASES TERMINATED _____

LESSER INTERESTS TERM. _____

REASSIGNED _____

OTHER _____

LEGEND

EXCEPT FOR THE SPECIAL SYMBOLS SHOWN BELOW MAP SYMBOLS ARE STANDARD IN ARMY MAP SERVICE TECHNICAL MANUAL NO. 23.

RESERVATION LINE

RESERVATION LINE (Actual Survey)

TRACT BOUNDARY LINE

TRACT NUMBER

CONTOUR LINE

DISPOSAL

EXTENDED OWNERSHIP LINE

ACQUISITION AUTHORIZATION

1st. Ind. from Sec. of Army to OCE dtd 7-2-54
 6th. Ind. from Asst. Sec. of Army to OCE dtd 5-10-74

SEGMENT 3

DEPARTMENT OF THE ARMY
 OFFICE OF THE GALVESTON DISTRICT ENGINEER
 SOUTHWESTERN DIVISION

REAL ESTATE
GALVESTON HARBOR AND CHANNEL PROJECT

DRAWN BY P.L.L.
 TRACED BY P.L.L.
 CHECKED BY P.L.L.

SUBMITTED BY:
 J. M. ROOPE
 J. M. ROOPE
 Realty Specialist

RECOMMENDED BY:
 J. M. ROOPE
 Realty Specialist

APPROVED BY:
 J. M. ROOPE
 Realty Specialist

DATE 1 JAN 1974

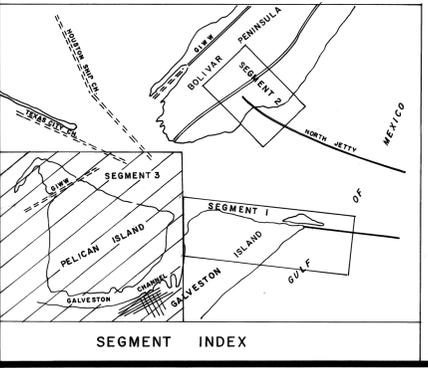
OFFICE, CHIEF OF ENGINEERS, WASHINGTON 25, D. C.

AUDITED

INSTALLATION OR PROJECT NO GALV-2-Q008

Scale 1 in Feet = 1000 Feet

SHEET 3 OF 3 DRAWING NO.



DATE AUDIT APPROVED	DATE	REVISIONS	BY
9-27-84	FINAL AUDIT		J.M.R.