

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE OF PAGES 1 4
2. AMENDMENT/MODIFICATION NO. 0007	3. EFFECTIVE DATE 8/24/01	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY U. S. ARMY CORPS OF ENGINEERS GALVESTON DISTRICT OFFICE P. O. BOX 1229 GALVESTON, TEXAS 77553-1229	CODE EC	7. ADMINISTERED BY (If other than Item 6) U. S. ARMY CORPS OF ENGINEERS GALVESTON DISTRICT OFFICE P. O. BOX 1229 GALVESTON, TEXAS 77553-1229		CODE CT
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)			(√)	9A. AMENDMENT OF SOLICITATION NO. DACW64-01-B-0019
			X	9B. DATED (SEE ITEM 11) 6/14/01
				10A. MODIFICATION OF CONTRACTS/ORDER NO.
				10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(√)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Houston-Galveston Navigation Channels, Texas (45-Foot Project) Dredging Mid Bay

(See Attached)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	

1. The specifications and drawings for Invitation No. DACW64-01-B-0019, Dredging Mid Bay, (45-Foot Project), Houston-Galveston Navigation Channels, Texas, advertised on 14 June 2001, and for which bids are rescheduled to be opened on 5 September 2001, are hereby modified as follows:

(a) **ON 6 AUGUST 2001, QUESTIONS WERE RECEIVED BY MAIL FROM GREAT LAKES DREDGE AND DOCK COMPANY AND ANSWERS FROM THE GALVESTON DISTRICT DESIGN TEAM REGARDING THE MID BAY DREDGING PROJECT ARE ENCLOSED.**

(b) **ON 14 AUGUST 2001, QUESTIONS WERE RECEIVED BY MAIL FROM GREAT LAKES DREDGE AND DOCK COMPANY AND ANSWERS FROM THE GALVESTON DISTRICT DESIGN TEAM REGARDING THE MID BAY DREDGING PROJECT ARE ENCLOSED.**

(c) **NOTE TO BIDDERS: ADDITIONAL GEOTECHNICAL INVESTIATIONS WITHIN THE MID BAY BENEFICIAL USE SITE PERFORMED BY NON-GOVERNMENTAL ENTITIES ARE AVAILABLE TO THE BIDDERS IN HARD COPY FORMAT AT THE GALVESTON DISTRICT OFFICE.**

(d) Specifications.

(1) BIDDING SCHEDULE, Pages 00010-1 Through 00010-11 (Issued with Amendment No. 0004. - The enclosed new Bidding Schedule, Pages 00010-1 through 00010-11 supersedes that issued by Amendment No. 0004 to this Invitation.

(2) Page 01100-6, Paragraph 1Z. - Delete the first sentence of this Paragraph and substitute the following:

"The Contractor shall have, in addition to the leverman or dredgemaster, a lookout posted in the dredge control room at all times when dredging within the boundaries of the Houston Ship Channel to visually monitor the movement of vessels around the dredge plant and to perform radio communications with company work boats and to deliver passing arrangements with other commercial, fishing, and recreational vessels."

(3) Page 01121-3, Subparagraph 3.2.2 (Issued with Amendment No. 0004). - Delete this Subparagraph.

(4) Page 01570-1, Subparagraph 3.1.2 (Issued with Amendment No. 0004). - Delete this Subparagraph.

(5) Page 02327-1, Paragraph 1.1 (Issued with Amendment No. 0004). - At the end of this Paragraph, add the following: "The Mid Bay Beneficial Use Site is located over an old existing open bay disposal site."

(6) Page 02327-5, Subparagraph 1.6.5 (Issued with Amendment No. 0004). - At the end of this Subparagraph, add the following: "The Contractor shall not be responsible for failures due to design errors."

(7) Page 02327-7, Subparagraph 1.9.7 (Issued with Amendment No. 0004). - Delete this Subparagraph in its entirety and substitute the following therefor:

"1.9.7 Site Erosion Protection. No payment will be made for Site Erosion Protection. It will be considered incidental to the construction of the Exterior Levee."

(8) Page 02327-7, Subparagraph 3.1.1 (Issued with Amendment No. 0004). - At the end of this Subparagraph, add the following: "Levee design is based on hydraulically constructed fill utilizing the foundation displacement technique."

(9) Page 02327-9, Subparagraph 3.2.1 (Issued with Amendment No. 0004). - At the end of this Subparagraph, add the following:

"The levees and stockpile areas on Cells 14 and 15 within the work specified herein were placed hydraulically with material dredged from Houston Ship Channel. The material consisted of new work and maintenance material dredged from various locations between Station 0+000 at Morgans Point and Station 29+000. New work material was a heterogeneous mixture and may include silt, sand, clays of various stiffness, and pieces of sandstone. Placement of the levees begun in August 2000 and was completed in March 2001. No compactive effort was made on the levees after the material was placed."

(10) Page 02380-1, Paragraph 1.2 (Issued with Amendment No. 0004). - Delete the second sentence of this Paragraph and substitute the following: "Access channels may be mechanically or hydraulically dredged." Also, in the seventh line, after the word "levees," add "Hydraulically excavated material shall be contained within the Mid Bay Beneficial Use Site."

(11) SECTION 02482 (Issued by Amendment No. 0004). - The enclosed "North Boater's Cut Probings," inadvertently excluded from Amendment No. 0004, shall be added at the end of this Section.

(12) Page 02482-3, Subparagraph 1.1.3. - In the eighth line, delete "the final dredging" and substitute "re-dredging." Also, delete the last line and substitute "Option 3, if awarded, will be awarded any time prior to completion of the contract."

(b) Drawings.

(1) Drawing No. C-55, Figure 1 (Issued by Amendment No. 0001). - The enclosed new "Figure 1" supersedes that issued with Amendment No. 0001 to this Invitation.

(2) Drawing No. C 63, Figure 2 (Issued by Amendment No. 0001). - The enclosed new "Figure 2" supersedes that issued with Amendment No. 0001 to this Invitation.

2. This amendment shall be attached to and become a part of the specifications.

2 Encls

1. Questions & Answers (6 Aug 01)
2. Questions & Answers (14 Aug 01)
3. Bid Sched (Pgs 00010-1-00010-11)
4. Probings (Pgs 1-11)
5. FIGURES 1 & 2

Houston Galveston Navigation Channels, Texas  
45-Foot Project  
Dredging Mid Bay  
Questions from Great Lakes Dredge & Dock Company  
And Answers by the Galveston District Design Team  
For  
Amendment No. 7  
Questions dated 6 August 2001.

1. In Amendment No. 4 Section 01121-3 paragraph 3.2.2 and Section 01570 paragraph 3.1.2 outlines intermediate dredging for the Boaters Cuts. Will the intermediate dredging of the Boaters Cuts be paid for at the unit price in payment items 0022 and 0023?

Answer: Section 01121, paragraph 3.2.2 and Section 01570 paragraph 3.1.2 has been deleted by this amendment. The initial dredging of the Boaters Cut 39+600 includes sufficient advanced maintenance to accommodate a reasonable amount of material coming off the construction of the Mid Bay Beneficial Use Site.

2. Does the Corps of Engineers have a permit for placement of the "Temporary Erosion Protection"? If the Contractor chooses to place a sheet pile wall for it's temporary erosion protection, will the Contractor be required to procure permits for this work or has the Government already taken care of this when permitting this project?

Answer: No permit is required for the Temporary Erosion Protection.

3. If the Contractor places a substantial temporary barrier for the erosion protection, such as a sheet pile wall, and this temporary barrier has future benefits for protecting the Mid Bay Beneficial Use Site, is it an option to leave this barrier in place rather than remove it?

Answer: Section 02327-3, paragraph 1.3.1.3 (6) requires that temporary physical barriers be removed upon completion of the work.

4. In amendment No. 5 Section 02481-4 paragraph 3.1.5 states, we are subject to restrictions of the U.S. Coast Guard Marine Safety Office when towing scows in the Houston Ship Channel. There are currently no assist tugs require when towing scows astern South of Morgans Point, if assist tugs are later required, will this be a change of conditions?

Answer: If the U.S. Coast Guard MSO changes its requirements for all towed vessels, irrespective of owner, this will be considered a change of condition and the Contractor will be entitled to an equitable adjustment. However, if the MSO places certain restrictions only on the Contractor as a result of its actions or performance, the Contracting Officer will not consider this as a changed condition.

Houston Galveston Navigation Channels, Texas  
45-Foot Project  
Dredging Mid Bay  
Questions from Great Lakes Dredge & Dock Company  
And Answers by the Galveston District Design Team  
For  
Amendment No. 7  
Questions dated 14 August 2001.

1. (The pertinent part of a letter from Great Lakes dated August 14, 2001 to the Corps has been reproduced here in order to provide an answer relevant to all prospective bidders.) In question #22 of the answers to question dated 11 July 2001 on excavation of access channels for Cells 14 & 15 the contractor is again directed to use mechanical means. However, the material is only allowed to be placed on the inside slope of the existing levee. In some case, according to the cross sections provided, the distance can be several hundred feet. Casting the material mechanically with conventional equipment is limited to approximately 100 feet. Because the material is being placed into Cells 14 & 15 already, we request that the contractors be allowed to hydraulically excavate the access channels for Cells 14 & 15 with placement on the inside of the slopes of the existing levees at Cells 14 & 15.

Answer: The answer to Question No. 22 dated 11 July 2001 was in error and should have read "Floatation for rock placement shall be excavated by mechanical means only. Hydraulic dredging of floatation will not be permitted. Excavated material shall be placed to the inside of the slope protection. An additional note to drawings F-15 through F-20 was added with Amendment No. 4, which also states this.

File 7058S  
**HOUSTON-GALVESTON NAVIGATION  
CHANNELS, TEXAS, (45-FOOT  
PROJECT), DREDGING MID BAY**

**INVITATION NO. DACW64-01-B-0019**

**BIDDING SCHEDULE  
(TO BE ATTACHED TO STANDARD FORM 1442)**

<u>Item No.</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Estimated Amount</u>
<b>SCHEDULE NO. 1</b>					
0001	Environment Protection	1	L.S.	\$_____	\$_____
0002	Mid Bay Beneficial Use Site Habitat Filling and Grading North Habitat	1	L.S.	\$_____	\$_____
0003	Mid Bay Beneficial Use Site Habitat Filling and Grading South Habitat	1	L.S.	\$_____	\$_____
0004	Mid Bay Beneficial Use Site Marsh Filling Northeast Marsh	1	L.S.	\$_____	\$_____
0005	Mid Bay Beneficial Use Site Marsh Filling Southwest Marsh	1	L.S.	\$_____	\$_____
0006	Hydraulically Constructed Exterior Levees Baseline A	21,171	L.F.	\$_____	\$_____
0007	Hydraulically Constructed Interior Levees Baselines B and C	9,938	L.F.	\$_____	\$_____
0008	Hydraulically Constructed Marsh Terraces Baselines F and G	6,098	L.F.	\$_____	\$_____

00010-1

(To Accompany Amendment No. 0007 to Invitation No. DACW64-01-B-0019)

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b>SCHEDULE NO. 1 (Cont'd)</b>					
0009	Closure of Cell 15 Levee	2,200	L.F.	\$ _____	\$ _____
0010	Shaping Levees at Cells 14 and 15	17,100	L.F.	\$ _____	\$ _____
0011	Mid Bay Shore Protection	157,000	TONS	\$ _____	\$ _____
0012	Riprap (40-625 lbs)	74,400	TONS	\$ _____	\$ _____
0013	Quarry Run Stone (2" to 12")	140	C.Y.	\$ _____	\$ _____
0014	Mobilization and Demobilization	1	L.S.	\$ _____	\$ _____
0015	Dredging Houston Ship Channel for Offshore Placement (Sta. 57+000 to 80+000)	5,456,300	C.Y.	\$ _____	\$ _____
0016	Dredging Houston Ship Channel for Exterior Levee Construction (Sta. 29+000 to 57+000)	7,993,800	C.Y.	\$ _____	\$ _____
0017	Dredging Houston Ship Channel (Sta. 22+994 to 29+000)	1,124,700	C.Y.	\$ _____	\$ _____

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
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**SCHEDULE NO. 1 (Cont'd)**

0018	Dredging Houston Ship Channel for Atkinson Island Marsh Fill (Sta. 29+000 to 37+000)	1,530,000	C.Y.	\$_____	\$_____
0019	Dredging Circulation Channel No. 1	369,400	C.Y.	\$_____	\$_____
0020	Dredging Five Mile Cut	339,000	C.Y.	\$_____	\$_____
0021	Dredging Boaters Cut (Sta. 39+600)	332,000	C.Y.	\$_____	\$_____
0022	Dredging Boaters Cut (Sta. 57+636.57)	205,200	C.Y.	\$_____	\$_____
0023	Dredging Pipeline Plug (Sta. 90+200)	83,600	C.Y.	\$_____	\$_____
0024	Dredging Bayport Ship Channel (Sections 1-3)	1,960,100	C.Y.	\$_____	\$_____
0025	Dredging Bayport Ship Channel (Sections 4-6)	262,700	C.Y.	\$_____	\$_____
0026	Pipelines	1	L.S.	\$_____	\$_____
0027	Drop-outlet Structures at Cells 14 and 15	4	EA	\$_____	\$_____

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
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**SCHEDULE NO. 1 (Cont'd)**

0028	Drop-outlet Structures at Mid Bay External Levees	2	EA	\$_____	\$_____
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**TOTAL SCHEDULE NO. 1** \$\_\_\_\_\_

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b>OPTION NO. 1</b>					
0029	Dredging Circulation Channel No. 1	221,900	C.Y.	\$ _____	\$ _____
<b>TOTAL OPTION NO. 1</b>					\$ _____
<b>NET TOTAL OF SCHEULE NO. 1 AND OPTION NO. 1</b>					\$ _____

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b>OPTION NO. 2</b>					
0030	Dredging Five Mile Cut	213,500	C.Y.	\$_____	\$_____
<b>TOTAL OPTION NO. 2</b>					\$_____
<b>NET TOTAL OF SCHEULE NO. 1 AND OPTIONS NOS. 1 AND 2</b>					\$_____

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b>OPTION NO. 3</b>					
0031	Dredging Boaters Cut Sta. 39+600	101,200	C.Y.	\$ _____	\$ _____
0032	Dredging Boaters Cut Sta. 57+636.57	164,200	C.Y.	\$ _____	\$ _____
<b>TOTAL OPTION NO. 3</b>					\$ _____
<b>NET TOTAL OF SCHEULE NO. 1 AND OPTIONS NOS. 1, 2, AND 3</b>					\$ _____

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
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**OPTION NO. 4**

0033	Dredging Pipeline Plug Sta. 63+580	138,800	C.Y.	\$ _____	\$ _____
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**TOTAL OPTION NO. 4** \$ \_\_\_\_\_

**NET TOTAL OF SCHEULE NO. 1 AND OPTIONS  
 NOS. 1, 2, 3, AND 4** \$ \_\_\_\_\_

INVITATION NO. DACW64-01-B-0019

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

<u>Item</u> <u>No.</u>	<u>Description</u>	<u>Estimated</u> <u>Quantity</u>	<u>Unit</u>	<u>Unit</u> <u>Price</u>	<u>Estimated</u> <u>Amount</u>
<b>OPTION NO. 5</b>					
0034	Dredging Pipeline Plug Sta. 67+060	124,900	C.Y.	\$ _____	\$ _____
<b>TOTAL OPTION NO. 5</b>					\$ _____
<b>NET TOTAL OF SCHEULE NO. 1 AND OPTIONS NOS. 1, 2, 3, 4, AND 5</b>					\$ _____

**BIDDING SCHEDULE (Cont'd)  
(TO BE ATTACHED TO STANDARD FORM 1442)**

**1. ARITHMETIC DISCREPANCIES (EFARS 52.214-5000).**

(a) For the purpose of initial evaluation of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

- (1) Obviously misplaced decimal points will be corrected;
- (2) Discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected;
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the Government will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

**2. MODIFICATIONS (CESWG).** If a modification to a bid based on unit prices is submitted, which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment of each unit price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the bid schedule.

**3. SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN ((FAR 52.219-9) See CONTRACT CLAUSES.)** In reference to the above, the bidder/offeror shall take into consideration only those subcontracts which he/she will award when preparing the subcontracting plan required in FAR.

**BIDDING SCHEDULE (Cont'd)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

**4 EVALUATION OF OPTIONS (JUL 1990)(FAR 52.217-5).** Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the options.

**5. SALES TAX EXEMPTION.** The following blanks are not a part of your bid price. See Block 17 on Standard Form 1442. The Texas Tax Code has changed. If you intend seeking a sales tax exemption on this contract, complete the following. Such provides the "separated contract" requirement now critical to your obtaining an exemption certificate. For information concerning tax exemptions please contact the Comptroller of Public Accounts at 1 800-252-5555.

Materials: \$ \_\_\_\_\_

Services: \$ \_\_\_\_\_

Total: \$ \_\_\_\_\_



# Probing Log

Project:	Mid-Bay Boater's Cuts	Driller:	JO. ARH
		Engineer:	RDK
Location:	Galveston Bay	Vessel:	James Simmons
	North Boater's Cut	Pump:	

Date:	02.15.01	Easting:	3293310	Northing:	659366
Hole Number:	BC046	Station:		Range:	
Time:	10:01				
Sounding Depth:	8 ft.	Bottom of Probe:	15 ft.	Penetration:	7 ft.
Bottom Character	soft				
0-8 ft	water				
8-10 ft	WOR				
10-11 ft	medium stiff clay				
11-15 ft	stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	stiff clay			Tide:	1.51 ft.

Date:	02.15.01	Easting:	3293714	Northing:	659661
Hole Number:	BC047	Station:		Range:	
Time:	10:07				
Sounding Depth:	6.5 ft.	Bottom of Probe:	15 ft.	Penetration:	8.5 ft.
Bottom Character	medium stiff clay				
0-6.5 ft	water				
6.5-7.5 ft	medium stiff clay				
7.5-15 ft	very soft clay				
15 ft	stiff clay				
	:				
	:				
	:				
	:				
Character of Finish	stiff clay			Tide:	1.53 ft.

# Probing Log

Project: Mid-Bay Boater's Cuts

Driller: JO. ARH

Engineer: RDK

Location: Galveston Bay

Vessel: James Simmons

North Boater's Cut

Pump:

Date:	02.15.01	Easting:	3294118	Northing:	659955
Hole Number:	BC048	Station:		Range:	
Time:	10:13				
Sounding Depth:	6 ft.	Bottom of Probe:	15 ft.	Penetration:	8.5 ft.
Bottom Character	medium stiff clay				
0-6 ft	water				
6-7 ft	medium stiff clay				
7-15 ft	loose sand/medium stiff clay				
15 ft	medium stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	medium stiff clay			Tide:	1.54 ft.
Date:	02.15.01	Easting:	3294522	Northing:	660250
Hole Number:	BC049	Station:		Range:	
Time:	10:20				
Sounding Depth:	7.5 ft	Bottom of Probe:	15 ft.	Penetration:	7.5 ft.
Bottom Character	very soft clay				
0-7.5 ft	water				
7.5-15 ft	very soft clay with shell				
15 ft	stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	stiff clay			Tide:	1.55 ft

# Probing Log

Project: Mid-Bay Boater's Cuts

Driller: JO, ARH

Engineer: RDK

Location: Galveston Bay

Vessel: James Simmons

North Boater's Cut

Pump:

Date:	02.15.01	Easting:	3294926	Northing:	660544
Hole Number:	BC050	Station:		Range:	
Time:	10:27				
Sounding Depth:	8 ft.	Bottom of Probe:	15 ft.	Penetration:	7 ft.
Bottom Character	very soft clay				
0-8 ft	water				
8-15 ft	very soft clay with sand				
15 ft	very stiff clay with sand (refusal)				
	:				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.57 ft.
Date:	02.15.01	Easting:	3295330	Northing:	660839
Hole Number:	BC051	Station:		Range:	
Time:	10:32				
Sounding Depth:	9.5 ft	Bottom of Probe:	15 ft.	Penetration:	5.5 ft.
Bottom Character	very soft clay				
0-9.5 ft	water				
9.5-15 ft	very soft clay				
15 ft	very stiff clay (refusal)				
	:				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.58

# Probing Log

Project: Mid-Bay Boater's Cuts

Driller: JO, ARH

Engineer: RDK

Location: Galveston Bay

Vessel: James Simmons

North Boater's Cut

Pump:

Date:	02.15.01	Easting:	3295734	Northing:	661133
Hole Number:	BC052	Station:		Range:	
Time:	10:39				
Sounding Depth:	8.5 ft.	Bottom of Probe:	18 ft.	Penetration:	9.5 ft.
Bottom Character	soft				
0-8.5 ft	water				
8.5-10 ft	WOR				
10-15 ft	soft clay with sand				
15-18 ft	very stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.59 ft.

Date:	02.15.01	Easting:	3296138	Northing:	661428
Hole Number:	BC053	Station:		Range:	
Time:	10:45				
Sounding Depth:	9 ft.	Bottom of Probe:	18 ft.	Penetration:	9 ft.
Bottom Character	soft				
0-9 ft	water				
9-10 ft	soft clay				
10-18 ft	stiff clay (refusal)				
18 ft	:				
	:				
	:				
	:				
	:				
Character of Finish	stiff clay			Tide:	1.6 ft.

# Probing Log

Project: Mid-Bay Boater's Cuts

Driller: JO. ARH

Engineer: RDK

Location: Galveston Bay  
North Boater's Cut

Vessel: James Simmons

Pump:

Date:	02.15.01	Easting:	3296542	Northing:	661722
Hole Number:	BC054	Station:		Range:	
Time:	10:50				
Sounding Depth:	9	Bottom of Probe:	17 ft	Penetration:	8 ft.
Bottom Character	soft				
0-9 ft	water				
9-10.5 ft	WOR				
10.5-17 ft	soft clay				
17 ft	very stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.86 ft.

Date:	02.15.01	Easting:	3296947	Northing:	662107
Hole Number:	BC055	Station:		Range:	
Time:	10:55				
Sounding Depth:	10 ft.	Bottom of Probe:	16.5 ft	Penetration:	6.5 ft
Bottom Character	soft				
0-10 ft	water				
10-11 ft	WOR				
11-16.5 ft	very soft clay with shell				
16.5 ft	very stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.62 ft.

# Probing Log

Project:	Mid-Bay Boater's Cuts	Driller:	JO. ARH
		Engineer:	RDK
Location:	Galveston Bay	Vessel:	James Simmons
	North Boater's Cut	Pump:	

Date:	02.15.01	Easting:	3297351	Northing:	662311
Hole Number:	BC056	Station:		Range:	
Time:	11:01				
Sounding Depth:	10 ft.	Bottom of Probe:	16 ft.	Penetration:	6 ft
Bottom Character	soft				
0-10 ft	water				
10-11 ft	WOR				
11-16 ft	very soft clay with shell				
16 ft	very stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.64 ft.

Date:	02.15.01	Easting:	3297755	Northing:	662605
Hole Number:	BC057	Station:		Range:	
Time:	11:05				
Sounding Depth:	10 ft.	Bottom of Probe:	10 ft.	Penetration:	6 ft.
Bottom Character	soft				
0-10 ft	water				
10-11 ft	WOR				
11-16 ft	very soft clay with shell				
16 ft	very stiff clay (refusal)				
	:				
	:				
	:				
	:				
Character of Finish	very stiff clay			Tide:	1.65 ft.

# Probing Log

Project: Mid-Bay Boater's Cuts

Driller: JO. ARH

Engineer: RDK

Location: Galveston Bay

Vessel: James Simmons

North Boater's Cut

Pump:

Date:	02.15.01	Easting:	3291693	Northing:	658188
Hole Number:	BC058	Station:		Range:	
Time:	9:06				
Sounding Depth:	14	Bottom of Probe:	19 ft	Penetration:	5 ft
Bottom Character	very soft clay				
0-14 ft	water				
14-19 ft	very soft clay with shell (no refusal)				
	:				
	:				
	:				
	:				
	:				
	:				
	:				
Character of Finish	very soft clay with shell			Tide:	1.42 ft.

Date:	02.15.01	Easting:	3291289	Northing:	657894
Hole Number:	BC059	Station:		Range:	
Time:	9:16				
Sounding Depth:	11.5 ft.	Bottom of Probe:	19 ft.	Penetration:	7.5 ft.
Bottom Character	soft				
0-11.5 ft	water				
11.5-19 ft	WOR				
19 ft	medium stiff clay (no refusal)				
	:				
	:				
	:				
	:				
	:				
	:				
Character of Finish	medium stiff clay			Tide:	1.44 ft.

# Probing Log

Project: Mid-Bay Boater's Cuts

Driller: JO, ARH

Engineer: RDK

Location: Galveston Bay

Vessel: James Simmons

North Boater's Cut

Pump:

<b>Date:</b>	02.15.01	<b>Easting:</b>	3290885	<b>Northing:</b>	657599
<b>Hole Number:</b>	BC060	<b>Station:</b>		<b>Range:</b>	
<b>Time:</b>	9:20				
<b>Sounding Depth:</b>	12 ft.	<b>Bottom of Probe:</b>	16 ft.	<b>Penetration:</b>	4 ft.
<b>Bottom Character</b>	soft				
0-12 ft	water				
12-16 ft	WOR				
16 ft	stiff clay with shell (refusal)				
	:				
	:				
	:				
	:				
	:				
<b>Character of Finish</b>	stiff clay			<b>Tide:</b>	1.44 ft.
<b>Date:</b>	02.15.01	<b>Easting:</b>	3290481	<b>Northing:</b>	657305
<b>Hole Number:</b>	BC061	<b>Station:</b>		<b>Range:</b>	
<b>Time:</b>	9:23				
<b>Sounding Depth:</b>	12 ft.	<b>Bottom of Probe:</b>	18 ft.	<b>Penetration:</b>	6 ft.
<b>Bottom Character</b>	soft				
0-12 ft	water				
12-15 ft	WOR				
15-18 ft	very soft clay with sand (no refusal)				
	:				
	:				
	:				
	:				
	:				
<b>Character of Finish</b>	very soft clay with sand			<b>Tide:</b>	1.45 ft.

# Probing Log

Project: Mid-Bay Boater's Cuts  
 Location: Galveston Bay  
 North Boater's Cut

Driller: JO. ARH  
 Engineer: RDK  
 Vessel: James Simmons  
 Pump:

Date:	02.15.01	Easting:	3290077	Northing:	657011
Hole Number:	BC062	Station:		Range:	
Time:	9:23				
Sounding Depth:	12 ft.	Bottom of Probe:	19 ft.	Penetration:	7 ft.
Bottom Character	soft				
0-12 ft	water				
12-19 ft	WOR with shell (no refusal)				
	:				
	:				
	:				
	:				
	:				
	:				
	:				
	:				
Character of Finish	very soft material			Tide:	1.46 ft.

Date:	02.15.01	Easting:	3289673	Northing:	656716
Hole Number:	BC063	Station:		Range:	
Time:	9:33				
Sounding Depth:	12.5 ft.	Bottom of Probe:	17 ft.	Penetration:	4.5 ft.
Bottom Character	soft				
0-12.5 ft.	water				
12.5-17 ft	WOR with shell				
17 ft	stiff clay (refusal)				
	:				
	:				
	:				
	:				
	:				
	:				
	:				
Character of Finish	stiff clay			Tide:	1.46 ft.

# Probing Log

Project:	Mid-Bay Boater's Cuts	Driller:	JO. ARH
		Engineer:	RDK
Location:	Galveston Bay	Vessel:	James Simmons
	North Boater's Cut	Pump:	

Date:	02.15.01	Easting:	3289269	Northing:	656422
Hole Number:	BC064	Station:		Range:	
Time:	9:37				
Sounding Depth:	12 ft.	Bottom of Probe:	15.5 ft.	Penetration:	3.5 ft.
Bottom Character	soft				
0-12 ft	water				
12-15.5 ft	WOR with shell				
15.5 ft	stiff clay (refusal)				
Character of Finish	stiff clay			Tide:	1.47 ft.

Date:		Easting:		Northing:	
Hole Number:		Station:		Range:	
Time:					
Sounding Depth:		Bottom of Probe:		Penetration:	
Bottom Character					
Character of Finish				Tide:	

### Cell 15 Cut and Fill Quantities

(Based on Existing & New levees using End Area)

Station	Cut (SF)	Fill (SF)	Station	Cut (SF)	Fill (SF)
2+00	25.02	296.47	70+00	0	722.59
2+07.56	29.71	329.62	70+84.7	10.08	544.48
4+00	779.53	24.95	72+00	27.86	414.21
6+00	125.39	227.60	74+00	172.77	208.18
6+69.83	41.32	209.06	76+00	847.56	28.02
8+00	196.83	234.55	78+00	1070.57	1.54
10+00	34.62	154.36	80+00	722.13	0.22
10+25.02	10.01	148.84	82+00	834.57	0
12+00	67.56	182.41	83+23.65	975.52	0.53
12+15.06	33.58	269.90	84+00	1153.16	4.11
14+00	104.29	409.91	86+00	865.04	0.24
15+20.55	13.13	198.26	88+00	619.33	15.17
16+00	18.29	134.11	90+00	679.41	23.46
18+00	13.95	110.48	90+91.56	867.92	5.09
19+00.91	90.51	115.94	92+00	755.82	11.16
20+00	2.10	98.64	94+00	710.85	11.08
21+51.99	142.70	52.65	94+05.85	690.94	13.05
22+00	188.52	51.68	95+15.03	348.97	58.47
24+00	241.02	32.32	96+00	387.97	45.27
26+00	237.64	60.11	98+00	426.81	64.03
28+00	219.75	67.85	98+15.93	434.70	65.31
30+00	308.50	51.48	99+27.76	562.75	95.78
30+90.46	185.84	95.28	100+00	681.8	50.13
32+00	255.63	73.34	102+00	356.43	37.73
34+00	120.75	111.33	103+05.63	303.25	45.58
36+00	163.14	118.78	104+00	263.63	27.31
36+45.85	130.74	164.98	106+00	487.65	5.61
38+00	161.18	31.14	108+00	679.66	4.07
40+00	168.81	139.06	110+00	530.80	149.54
41+37.83	278.09	98.53	111+38.06	686.95	29.78
42+00	400.76	68.29			
43+88.05	477.67	89.72	<b>Totals</b>	<b>26901</b>	<b>15710</b>
44+00	902.32	48.38			
45+17.42	938.07	45.34			
46+00	1107.35	68.71			
48+00	632.22	48.19			
50+00	343.91	106.91			
52+00	103.57	245.33			
54+00	124.43	379.01			
56+00	147.51	692.91			
58+00	87.93	725.12			
60+00	41.97	1015.73			
60+39.11	50.09	953.04			
62+00	0.00	1172.23			
64+00	0.00	1216.55			
66+00	0.00	1053.25			
68+00	0.00	806.21			

FIGURE 2

(To Accompany Amendment No. 0007 to Invitation No. DACW64-01-B-0019)

### Cell 14 Cut and Fill Quantities

(Based on Existing & New levees using End Area)

Station	Cut (SF)	Fill (SF)	Station	Cut (SF)	Fill (SF)
-26+11.84	291.87	10.62	38+00	338.7	175.92
-26+00	181.05	15.66	40+00	343.76	204.85
-24+00	236.83	78.93	41+05.53	330.85	265.12
-23+06.49	476.09	293.16	42+00	338.41	287.27
-22+00	262.22	308.74	44+00	367.15	31.50
-20+00	138.96	144.09	46+00	210.53	311.13
-18+48.59	162.34	189.33	48+00	405.54	170.40
-18+00	99.29	245.88	50+00	244.73	59.52
-16+00	110.13	52.10	52+00	348.7	71.53
-14+76.74	144.57	112.93	54+00	243.96	86.85
-14+03.09	175.33	111.36	55+79.23	184.21	144.27
-14+00	164.40	110.11	56+00	181.02	149.30
-12+00	43.20	169.66	56+79.23	161.49	158.46
-10+00	142.37	32.26			
-8+00	145.24	103.65			
-6+00	364.80	137.49			
-4+98.43	151.33	120.86			
-4+18.71	123.55	211.84			
-4+00	432.21	198.23			
-2+52.5	319.32	154.15			
-2+00	261.47	123.50			
-0+00.49	190.81	102.00			
0+00	191.71	101.67			
0+99.51	191.12	129.74			
1+81.25	126.81	150.86			
2+00	134.82	123.65			
3+81.7	141.28	71.79			
4+00	144.47	70.43			
6+00	259.32	111.60			
7+05.08	338.69	124.39			
8+00	369.60	116.76			
10+00	181.59	108.05			
12+00	102.17	92.75			
14+00	102.04	98.34			
14+99.96	120.68	113.80			
16+00	140.18	129.25			
18+00	258.69	72.39			
19+99.97	230.05	233.52			
20+00	415.06	59.54			
22+00	221.21	156.09			
24+00	171.50	174.46			
26+00	214.13	114.44			
28+00	260.50	98.30			
30+00	170.60	135.73			
32+00	104.98	214.03			
34+00	248.95	73.84			
36+00	343.12	86.90			

FIGURE 1

(To Accompany Amendment No. 0007 to Invitation No. DACW64-01-B-0019)