

# AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
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2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
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6. ISSUED BY <span style="float: right;">CODE</span>	7. ADMINISTERED BY (If other than Item 6) <span style="float: right;">CODE</span>
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 11)

CODE	FACILITY CODE
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### 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 \_\_\_\_\_ 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 your 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	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.)

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  <span style="float: right;">(Signature of person authorized to sign)</span>	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA  <span style="float: right;">(Signature of Contracting Officer)</span>	16C. DATE SIGNED

1. The specifications and drawings for Invitation No. DACW64-02-B-0004, Dredging, Mid Bayou (45-Foot Project), Houston-Galveston Navigation Channels, Texas, advertised 1 July 2002, and for which bids are to be opened on 15 August 2002, are hereby modified as follows:

**THE FOLLOWING ARE QUESTIONS BY REPRESENTATIVES OF SEVERAL COMPANIES AND ANSWERS GIVEN BY U.S. ARMY CORPS OF ENGINEERS' REPRESENTATIVES:**

QUESTION 1: Will there be the possibility of placing the dredged material from Section 21 in front of the downstream dredge in Mid Bayou Section 20?

ANSWER 1: The Contractor can elect to bucket dredge the material from Section 21 and place it temporarily within Section 16 through 20 as this reach is getting dredged. Temporary placement of the material shall be below the existing 40-foot channel template and not impede navigation in the channel. Material temporarily placed in Sections 16 through 20 shall be removed to the required Channel template prior to acceptance of the Section.

QUESTION 2: Is there a problem with the permit if we go in (Lost Lake southwest corner) and trench at minus ten contour and trench it and backfill it immediately?

ANSWER 2: The Contractor will have to put the pipeline across where Hollywood Marine comes in and will have to trench as necessary. There is an existing area on the south end of Lost Lake near the power line towers that has historically been used to access the site with dredge pipe.

QUESTION 3: Concerning the watering of the grass, is the Contractor supposed to supply water by barges out there or dig a well?

ANSWER 3: New seeding specifications provided in Amendment No. 1 address this issue.

QUESTION 4: Did the Bid Schedule or the yardage change in Amendment No. 1?

ANSWER 4: Yes.

QUESTION 5: Section 02388, paragraph 1.2, regarding pipelines, what is the Government's position on unknown or unmarked pipelines?

ANSWER 5: The Contractor shall notify the Contracting Officer immediately. The Contractor shall shut down operations within the vicinity of the unknown pipeline, until such time that the status of the unknowns are determined.

QUESTION 6: Section 02388, paragraph 1.7.1, regarding the 90% of pay, the cost is primary due to procurement of material and actual placement. Why not are there other bid items for the additional cost?

ANSWER 6: Amendment No. 0002 will clarify the rock payment.

QUESTION 7: Section 02388, paragraph 3.1.4, the stone size is quite large. Grading to such a tolerance is very difficult to bid. Consider a tolerance change?

ANSWER 7: Amendment No. 0002 will clarify the tolerance.

QUESTION 8: The outfall structures are based on the larger stone. What about a size change for these structures?

ANSWER 8: Amendment No. 0002 will clarify the size.

QUESTION 9: Please provide the end areas for channel and Lost Lake levees.

ANSWER 9: The Government will not supply the end areas.

QUESTION 10: What is the award schedule of the Options dredging and what determines that schedule?

ANSWER 10: The award schedule is outlined in Section 02482, paragraph 1.1.3, no later than 60 days before the completion of the dredging. The relocation of pipelines determines the Option award schedule. If the pipelines have been relocated prior to completion of the dredging, then the Option(s) will be awarded.

QUESTION 11: Section 02617-1, paragraph 1.1, states that circular weirs are “at the discretion of the Contractor.” What are you thinking?

ANSWER 11: Circular weirs are not required. The Contractor may elect to utilize the circular weir to its advantage in draining water out of the placement areas, and avoid water washing over or washing out the dike.

QUESTION 12: Section 2482, page 20, one foot of allowable overdepth is indicated. Why not two?

ANSWER 12: One-foot allowable overdepth helps reduce excess material going into the placement areas.

QUESTION 13: Does the first lift in Goat Island have to be dressed before the second hydraulic placement?

ANSWER 13: The initial placement of material will seal the voids in the rocks and provide a base and the material that will eventually be used to raise the exterior levees as shown. If the Contractor can place the material inside without it going over the initial placement elevation, than no dressing is required.

QUESTION 14: Is there an elevation for the Goat Island interior, for the second hydraulic fill elevation?

ANSWER 14: During pumping, the elevation is limited by not allowing material to spill over the containment levees and dikes. The final acceptance sections provide final grading requirements and an anticipated height of +17 MLT at the high point on the Islands.

QUESTION 15: The typical section indicates that pump height was up to a plus six maximum, is that correct?

ANSWER 15: The initial perimeter pumping is up to +6 MLT. Eventually the Contractor will need to mechanically raise exterior levees as the material height increase in the second stage fill.

QUESTION 16: Once the perimeter is done, the rest of the material can be pumped into the middle?

ANSWER 16: Right. However, as specified in Section 1121 the island high points toward the north end of the north island and the south end of the south island shall drain toward the drop-outlet structures. The Contractor shall not assume that each island can be filled from a single discharge point and in one event. Due to the sizes of the island, it is expected that the Contractor will be required to cycle the discharge between sites to dispose all material without overtopping the exterior levees and dikes or exceeding tolerable effluent at the drop-outlet structures.

QUESTION 17: So the dredge pipe may remain in the same place for the rest of the dredge?

ANSWER 17: The only specific requirements are that the material does not run over the dike, the Contractor controls its fill placement, and the final acceptance sections are met. See also answer to question 16.

QUESTION 18: Amendment 1, page 3, paragraph (13), indicates Section 02331, when it should be Section 02223.

ANSWER 18: Yes, it was incorrectly stated. Will be corrected in Amendment No. 0002.

QUESTION 19: Section 02315, page 7, paragraph 3.2.1, states filling site to required grades, maximizing the capacity of the site to contain the dredged material. What height in hydraulic fill is acceptable?

ANSWER 19: The question was previously answered on No. 14. In addition, the final acceptance sections have elevations that call for around +17 MLT at the high point of the islands.

QUESTION 20: Hydraulically constructed levees – if levees are not completed due to unsuitable material availability, what is the Contractors' responsibility?

ANSWER 20: The quantity of material required for the hydraulic levees is expected to be in abundance. A discharge corridor has been provided if there is an excess of material. In the unlikely event of a material shortage, monitoring of the construction progress will provide necessary information for making the required changes such as reduction in levee elevation or template. In addition, the hydraulic placement of these levees shall displace the soft foundations present, providing a better foundation for future raisings for maintenance.

QUESTION 21: On the Lost Lake 20 foot levee template, you don't expect to pump it up that high, that's going to be the finished grade?

ANSWER 21: Yes, that is the finished grade. The Contractor shall shape and grade to the final template. In addition, the Contractor shall control the levee construction so that the material is available for shaping to final grade.

QUESTION 22: Can a hopper dredge be used for any part of this contract? If not, what are the reasons?

ANSWER 22: The hopper dredge is not seen as a practical alternative. However, a hopper dredge can be used to dredge Section 21 but shall be discharged directly into Lost Lake.

QUESTION 23: What is the scope of bid item 0017 – Mechanical Dredging? Section 02482, page 15, paragraph 3.2.4, alludes to the scope but is unclear.

ANSWER 23: The Contractor is required to use a bucket dredge at the Lynchburg Ferry. The Contractor may also use mechanical dredging elsewhere, but will not be paid under bid item 0017.

QUESTION 24: Does the mechanical (bucket) dredge fall under the requirement of the distance between dredges? Isn't it out of the channel?

ANSWER 24: Amendment No. 0002 will clarify this distance.

QUESTION 25: What is the rush on Lost Lake levees?

ANSWER 25: Lost Lake Placement Area is needed for immediate maintenance operations for various entities.

(a) Specifications.

(1) BIDDING SCHEDULE, Pages 00010-1 Through 00010-7 (Issued with Amendment No. 0001). - The enclosed new Bidding Schedule, Pages 00010-1 through 00010-7 supersedes that issued with Amendment No., 0001 to this Invitation.

(2) Page 0070-14 of 91, CLAUSE 52.217-7, OPTION FOR INCREASED QUANTITY - SEPARATELY PRICED LINE ITEM (MAR 1989). - In the third line, after the word "within," add: "60 days prior to the completion of the dredging specified in Schedule No. 1."

(3) Page 01100-1, Paragraph 1. - In the twelfth line, change "20,000" to "15,000."

(4) Page 01451-11, Paragraph 3.10. - At the end of this Paragraph, add the following new sentence: "The discharge effluent and testing for Goat Island and San Jacinto State Park are specified in the SECTION entitled GOAT ISLAND AND SAN JACINTO STATE PARK FILLING AND GRADING."

(5) SECTION 01520, CONSTRUCTION OFFICE. - The enclosed new SECTION 01520 entitled CONSTRUCTION OFFICE shall be added to and become part of this Invitation.

(6) Page 02115-2, Paragraph 3.3 (Issued with Amendment No. 0001). - At the end of this Paragraph, add the following new sentence: "The excavations shall be excavated so that the flow is directed to the outlet structures and not allowed to from standing water."

(7) Page 02312-1, Paragraph 2.1. - In the second line, after the word "and," delete the remainder of this sentence and substitute the following: "the graded riprap rock as specified in the SECTION entitled RIPRAP ROCK DIKE, SHORE PROTECTION, AND WAVE TRIP with a nominal diameter of 8 inches or less."

(8) SECTION 02223, LOST LAKE RETAINING LEVEES (Issued with Amendment No. 0001). - Delete this Section and substitute the enclosed new SECTION 02331 entitled LOST LAKE RETAINING LEVEES therefor.

(9) Page 02388-5, Subparagraph 1.7.1. - Delete the last two sentences and substitute the following: "Ninety-eight (98) percent of the unit costs associated with "Rock Dike-Goat Island" will be paid upon acceptance of the initial rock placement. The remaining 2 percent will be paid after final acceptance of the slope protection and rock dike at Goat Island."

(10) Page 02388-9, Subparagraph 3.1.4. - After the fourth sentence, insert the following: "The specified tolerances are provided to reasonably define the finish surface to minimize overruns or underruns in material quantities. It is recognized that the size of riprap will result in localized deviations exceeding the tolerances specified."

(11) Page 02388-10, Subparagraph 3.1.7.1. - After this Subparagraph, add the following new Subparagraph 3.1.7.2:

“3.1.7.2 Drop-outlet Structure Foundation. The foundation fill for the Drop-outlet Structure shall generally be the riprap specified herein. To facilitate achieving a level surface for placement of the structure, the Contractor shall use the lower end gradation of the riprap or satisfactory material for a depth of 6 inches to 1-foot under each structure.”

(12) Page 02482-2, Subparagraph 1.1.3. - Delete the third sentence and substitute the following: “Dredging for the pipeline plug for Options Nos. 1 and 2 will be awarded no later than 60 days prior to the completion of the dredging specified in Schedule No. 1.”

(13) Page 02482-15, Subparagraph 3.4.2. - At the end of this Subparagraph, add the following: “Payment for the required mechanical dredging between Houston Ship Channel Stations 464+50 and 469+95.77 only, shall be included in “Mechanical Dredging (Sec. No. 20)”. Use of a mechanical dredge in other sections of the Channel will be paid under the corresponding dredging bid item for that section.”

(14) Page 02482-16, Subparagraph 3.5.3.2 (Issued by Amendment No. 0001). - After this Subparagraph, add the following new Subparagraph 3.5.3.3:

“3.5.2.3 Temporary Placement. Material mechanically dredged from Section 20 may temporarily be placed in Sections 16 through 20 as these sections are being dredged. If the Contractor elects to mechanically dredge Section 21, the material may temporarily be placed in Sections 16 through 20 as these sections are being dredged. Temporary placement of the material in Sections 16 through 20 shall be below the existing 40-foot Channel template and not impede navigation in the Channel. Material temporarily placed in Sections 16 through 20 shall be removed to the required Channel template prior to acceptance of the Section. Dredge material removed from Sections 16 through 20 is to be placed in Lost Lake. No additional payment will be made for rehandling temporarily placed material.

(15) Page 02924-1, Paragraph 1.1 (Issued by Amendment No. 0001). - In the fifth line, delete “and soil surfaces at Goat Island as shown in the final acceptance sections” and substitute “as shown. No seeding and fertilizing shall occur at Goat Island and San Jacinto State Park Shoreline.”

(16) Page 02924-1, Subparagraph 1.3.1.1 (Issued by Amendment No. 0001). - In the second line, after the word “submitted” delete the period and add, “ prior to delivery of materials to the jobsite.”

(b) Drawings.

(1) Drawings Nos. F-16, F-17, and F-18 (Issued with Amendment No. 0001). - Delete these drawings.

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

4 Encls:

1. Q&A
2. Bd Sched
3. SECTION 01520
4. SECTION 02331

**HOUSTON-GALVESTON NAVIGATION  
CHANNELS, TEXAS, (45-FOOT PROJECT)  
MID BAYOU, DREDGING)**

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

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b><u>SCHEDULE NO. 1</u></b>					
0001	Environmental Protection	1	L.S.	\$ _____	\$ _____
0002	Grading-Goat Island	1	L.S.	\$ _____	\$ _____
0003	Grading-San Jacinto	1	L.S.	\$ _____	\$ _____
0004	Stripping, Lost Lake	1	L.S.	\$ _____	\$ _____
0005	Mechanically Constructed West Levees, Lost Lake	3,600	L.F.	\$ _____	\$ _____
0006	Hydraulically Constructed North Levees, Lost Lake	5,675	L.F.	\$ _____	\$ _____
0007	Slide Repair, Lost Lake	1,200	C.Y	\$ _____	\$ _____
0008	Rock Dike- Goat Island	292,000	TON	\$ _____	\$ _____
0009	Wave Trip- Goat Island	25,000	TON	\$ _____	\$ _____
0010	Rock Dike- San Jacinto	81,000	TON	\$ _____	\$ _____
0011	Slope Protection- Goat Island	10,590	L.F.	\$ _____	\$ _____

00010-1

(To Accompany Amendment No. 0002 to Invitation No. DACW64-02-B-0004)

**BIDDING SCHEDULE (CONT'D)  
(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b><u>SCHEDULE NO. 1 (CONT'D)</u></b>					
0012	Mobilization and Demobilization	1	L.S.	\$ _____	\$ _____
0013	Dredging (Sec. Nos. 1 and 2)	559,500	C.Y.	\$ _____	\$ _____
0014	Dredging (Sec. Nos. 4 thru 11)	1,975,500	C.Y.	\$ _____	\$ _____
0015	Dredging (Sec. Nos. 14 and 15)	679,700	C.Y.	\$ _____	\$ _____
0016	Dredging (Sec. Nos. 16 thru 20)	1,719,200	C.Y.	\$ _____	\$ _____
0017	Mechanical Dredging (Sec. No. 20)	45,000	C.Y.	\$ _____	\$ _____
0018	Upper Bayou Dredging (Sec. No. 21)	272,600	C.Y.	\$ _____	\$ _____
0019	Debris Removal North Ferry Landing-Concrete and Rock Rubble	1	L.S.	\$ _____	\$ _____
0020	Debris Removal North Ferry Landing-Other Miscellaneous Debris	7.5	TON	\$ _____	\$ _____
0021	Debris Removal North Ferry Landing-Wooden Piling, Not Exceeding 40 Feet in Length With Appurtenances	2	EACH	\$ _____	\$ _____

INVITATION NO. DACW64-02-B-0004

**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><u>SCHEDULE NO. 1 (CONT'D)</u></b>					
0022	Pipelines	1	L.S.	\$_____	\$_____
0023	Drop-outlet Structures -Goat Island	2	EACH	\$_____	\$_____
0024	Seeding and Fertilizing	1	L.S.	\$_____	\$_____
<b>TOTAL SCHEDULE NO. 1</b>					\$_____

INVITATION NO. DACW64-02-B-0004

**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><u>OPTION NO. 1</u></b>					
0025	Dredging Pipeline Plug Sec. No. 3	335,300	C.Y.	\$ _____	\$ _____
<b>TOTAL OPTION NO. 1</b>					\$ _____
<b>TOTAL SCHEDULE NO. 1 AND OPTION NO. 1</b>					\$ _____

INVITATION NO. DACW64-02-B-0004

**BIDDING SCHEDULE (CONT'D)**  
**(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b><u>OPTION NO. 2</u></b>					
0026	Dredging Pipeline Plug Sec. Nos. 12 and 13	428,200	C.Y.	\$ _____	\$ _____
<b>TOTAL OPTION NO. 2</b>					\$ _____
<b>TOTAL SCHEDULE NO. 1 AND OPTIONS NOS. 1 AND 2</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 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 interest, 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:         \$\_\_\_\_\_

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**GENERAL REQUIREMENTS**

**SECTION 01520 - CONSTRUCTION OFFICE**

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**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

**SECTION 01520 - CONSTRUCTION OFFICE****PART 1 - GENERAL**

**1.1 GENERAL.** The Contractor shall provide for the duration of the site work, an on-site, field office complex with an office space of not less than 1,200 square feet, for exclusive use of Government personnel. The above facility shall be located adjacent to the project site as approved by the Contracting Officer. The office may be a portable trailer or building. The field office shall be secured in place using tie downs capable of withstanding winds of up to 75 miles per hour. In addition to the office space, the Contractor shall provide security fencing and easy access parking adequate for five (5) one-half ton pickup trucks. The Contractor shall provide full electric, water supply, and sewage removal utility services. The Contractor shall be responsible for physical and fire protection, security, repairs from vandalism, and replacements from theft of the office facility and contents. This facility shall be ready for occupancy within 30 days and fully completed within 45 days after acknowledgment of the Notice to Proceed.

**1.2 COMPLEX SITE** The Contractor shall prepare the complex site and the access routes to the site. The complex area and access roads shall be graded for good drainage, and shall have a prepared sub-base and minimum of 8-inches of flexible base course. The Contractor shall provide a 7-foot high chain link fence topped with three (3) strings of barbed-wire, and one powered sliding gate. The minimum requirements for the sliding gate are as follows:

- (1) The gate shall be at least 20 feet in length, 69 inches in height with three (3) strands of barbed wire across top of gate, making an overall height of the gate 7 feet 0 inches.
- (2) The gate shall be powered by at least a one-half horsepower gate operator.
- (3) The gate shall be designed to NOT open automatically during a power failure. - The gate design shall include a manual release.
- (4) Powered gate operator shall have an auto reverse safety system to prevent vehicle damage and shall also operate from a remote control.
- (5) The Contractor shall furnish five (5) each remotes of the type and frequency to operate the gate operator.

- (6) The Contractor shall furnish underground power wiring from the electrical panel at the office trailer to the gate operator. The gate operator shall have a power disconnect within easy access of the unit.
- (7) The gate system installation shall meet State and local codes regarding all or any part thereof.
- (8) A length of 3/8-inch hot-dipped galvanized chain suitable for padlocking shall be furnished for the gate. The Contractor shall provide and install a 20-foot high pole mounted exterior security light, located out of the way of vehicles, and shall be sufficient to provide a minimum of three 3 foot-candles illumination on the fence and within the fenced area. The Contractor shall be responsible for keeping the site graded, free from ponding water and free from unwanted vegetation. The office facility shall have a security system with at least five (5) individual key code capabilities. The system shall sound a 115 decibel or louder local alarm to notify law enforcement agencies. The Contractor shall provide installation of lines and equipment, and provide maintenance and monthly fees. The security service is to submit weekly a printout of the security system alarming activity sorted by time, including day, hour, and minute, of entries or exits and a listing of the key code used for the entry or exit.

**1.3 PROJECT FIELD OFFICE.** The Contractor shall establish the Project Office space of not less than 1,200 useable square feet with 8-foot high ceilings. The Government office shall have a minimum of three (3) separate office rooms, each of not less than 12-foot by 12-foot, and one (1) separate meeting room of 15-foot by 16-foot, minimum. The area under the office shall be crowned and graded to eliminate water ponding. Either a mail slot in the door or a lockable mail box mounted outside the office shall be provided. The office building shall be secured in place using tie downs capable of withstanding winds of up to 75 miles per hour. The office shall be insulated with an overhead insulation value of R19 and a wall and floor insulation value of R11 as a minimum. The office sub-floor shall be 3/4-inch plywood, or material of equal strength. The office shall have two (2) exterior doors, each with a 6-foot by 12-foot treated wood landing, with handrails and evenly spaced standard step risers. The Contractor shall provide a foot gear mud-scraper located outside and adjacent to each exterior door landing.

1.3.1 Building Floor Plan. The Contractor shall submit two (2) copies of the complex layout plan and building floor plans for approval prior to start of work. Anticipated substitution of the above specifically identified equipment shall be submitted for approval. Trailers, furnishings, and equipment shall be new.

1.3.2 Building Interior. The office shall have one (1) restroom, with (1) lavatory and mirror, water closet, and approved hot and cold potable water to each sink. The restroom shall have one 2-foot wide opaque glass operable window with screen. The Contractor shall provide a break or kitchen room or area with a 24-inch by 36-inch minimum stainless steel double sink with approved potable hot and cold running water, a 21 cubic foot refrigerator and freezer, and a microwave with exhaust hood and kitchen cabinets. Microwave shall be a Sharp Carousel Convection Oven (Model No. R-9H84B) or approved equal. Lower cabinets shall have a Formica-finished counter top. The upper cabinets shall extend to the ceiling and cover the area above the sink and microwave. Lighting for each office, meeting room, and common areas shall be fluorescent with illumination of 30-foot candles minimum. Lights shall be switched in each room or area. One 110-Volt duplex receptacle shall be provided on each wall of the office rooms and in the meeting room. The common areas shall have a minimum of one 110-Volt duplex receptacle every 10 feet of wall space, with a minimum total number of outlets of one (1) each for the water cooler, copier, FAX machine, and one (1) additional outlet for the computer station with computer and monitor. The break or kitchen room shall have at least one 110-Volt duplex receptacle near the counter top. Interior wall color shall be light beige, with white ceilings and the floor covering shall be a light colored earth-tone non-cushion vinyl flooring having a through the tile color pattern.

1.3.3 Exterior Doors shall be solid core 36-inch by 1-1/2 inch standard size, with three (3) hinges and swing inward. Each exterior door shall be equipped with doorknob lock sets and dead bolts. The doorknob locksets shall be matching and have eight (8) keys provided. The deadbolt locks shall be matching and have eight (8) keys provided. The deadbolt locks shall be different from the doorknob lock sets. Lock sets and dead bolts shall be Schlage or an approved equal.

1.3.4 Interior Doors shall be solid core 36-inch by 1-1/2 inch standard size, with three (3) hinges. The three (3) offices, meeting room, and the restroom shall have matching, privacy lock (non-keyed) doorknobs.

1.3.5 Windows shall be operable, screened, with the bottom of the window approximately 2-foot above the floor, having a minimum area of approximately 2-foot by 4-1/2 foot, have 3M Scotchtint Sun Control Window Film RE50SLAR or approved equal, metallic venetian blinds, and exterior security bars. Each office room and the meeting room shall have a minimum of two (2) windows.

#### 1.3.6 Utilities.

1.3.6.1 The Contractor shall provide a central Heating, Ventilating, and Air-Conditioning (HV AC) system having an air conditioning or heat pump compressor and be protected from rain runoff.

1.3.6.2 The Contractor shall install an integrated voice/data premises wiring system to provide data and voice service to every work area. A minimum of three "information" outlets per faceplate, capable of voice or data applications, shall be wired

to each work area. The premises wiring system shall consist of Category 5E components in accordance with applicable industry. All components for the premises wiring system will be clearly and consistently labeled for management purposes. Wire should be green, yellow and blue. LAN/WAN equipment should include 1 Cisco 2620 Ethernet modular w/Cisco IOS IP SW, 1-port T1/Fractional T1 CSU/DSU WAN interface, Cisco 2920 24 port Catalyst switch and SMARTnet 8x5xNBD service agreement for all Cisco equipment. The Government will be responsible for configuration of communications equipment to assure security is maintained.

1.3.6.3 Four (4) AT&T Intercom Speaker Phone Model # 944 shall be provided. Four (4) 12' with single RJ45 568A 8-PIN at one end to a double RJ11 4-PIN Pair 1-2 and Pair 3-4 at other end special line cords will be provided for AT&T Intercom Speaker Phone Model # 944 connectivity to LAN/WAN outlet. Telephones, telephone cable, and other materials and the workmanship shall be in accordance with Southwestern Bell standards and recommendations. Telephone lines shall be terminated in a common area inside the facility that will provide adequate ventilation, cooling, and easy accessibility. The Contractor shall have a minimum 12 pair line terminated to a RJ21 (66 block) brought to this area from the Local Telephone Company. A minimum of a 4X8, ½ inch plywood backboard should be mounted to the wall for the Local Telephone Company's telephony equipment installation. The Contractor shall provide maintenance service on the installation and equipment.

1.3.6.4 The Government shall subscribe to and pay for its own phone and fax lines and high speed transmission line for LAN/WAN connectivity.

**1.4 ELECTRONIC EQUIPMENT.** The Contractor shall allow \$30,000 for purchase of Computers and other electronic equipment. Purchase will be made as directed, and on an as-needed basis. Purchases shall include but not be limited to computers, printers, fax machines, scanners, and digital cameras. The Contractor shall keep a log of all purchases made and submit a detailed listing monthly. Upon completion of this contract, all equipment will remain the property of the contractor and measures will be taken to recover any unexpended portion of the allocated funds.

1.4.1 Excluded from the \$30,000 allocation, the Contractor shall provide; three (3) digital cellular phones with unlimited service throughout the life of the contract; one (1) Xerox Copier, 5820 with sort, or approved equivalent; and, all supplies for electronic equipment, to include copy paper, fax paper, ink cartridges, and toner cartridges.

**1.5 OTHER CONTRACTOR-FURNISHED ITEMS.**

The Contractor shall also furnish the following equipment:

Seven (7) 3-foot by 6-foot office tables. Four (4) 3-foot by 5-foot desks.

Three (3) 3-foot wide by 1.5 deep by 6-foot high bookshelves (4 levels)

One automatic coffee maker, Bunn Pour-Omatic or approved Equal

One roll type paper towel dispenser by kitchen sink

Three (3) 2 foot by 2 foot printer tables

Four 5-gallon size trash cans and two 13-gallon size trash cans One 32-gallon galvanized metal exterior trash can with lid

A water cooler, with paper cups and dispenser, and bottled water service Four (4) high back office chairs with casters

Fifteen (15) office chairs, United Chair Company, Model NS 543701, or approved equal

Fire extinguishers as required by OSHA.

Three (3) Vehicle First Aid Kits

One (1) Office First Aid Kit with refills as necessary.

**1.6 ADDITIONAL REQUIREMENTS.** The Contractor shall provide full cleaning services twice weekly, including trash removal. Cleaning shall be done during the Government's normal business hours. The Contractor shall provide janitorial supplies including items for bathrooms, to include liquid soap and dispenser, bathroom air-freshener, toilet paper, paper towel holder with paper towels, and trash can liners, and trash bags. Janitorial supplies, including paper items will be approved prior to their procurement. The Contractor shall provide full maintenance service on the equipment and complex.

**1.7 COMPLEX COMPLETE.** The Contractor shall have the facility ready for occupancy within 30 days and fully completed within 45 days after acknowledgement of the Notice to Proceed. Liquidated damages of \$200.00 daily will be assessed for failure to complete by the specified schedule.

**1.8 COMPLEX REMOVAL.** The Contractor shall dismantle the complex starting no sooner than 15 calendar days after, and completing no later than 30 calendar days after final acceptance of the constructed facilities including correction of deficiencies. Contractor-furnished equipment shall become the property of the Contractor. Fencing, security lights, trailers, and equipment shall be removed and disposed by the Contractor. The flexible base parking lot shall be removed and the entryway and parking lot shall be re-graded and restored to the original condition.

**1.9 PAYMENT.** No separate payment will be made for the work covered in this Section and the costs in connection therewith shall be considered a subsidiary obligation of the Contractor.

## **PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

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**SECTION 023313 - LOST LAKE RETAINING LEVEES****PART 1 - GENERAL**

**1.1 SCOPE OF WORK.** The work in this Section consists of furnishing plant, labor, equipment, supplies, and materials, and performing the operations to construct and shape levees and berms utilizing mechanical construction and hydraulic dredging placement methods, as shown and specified herein.

**1.2 REFERENCES.** The publication listed below forms a part of the specification to the extent referenced. The publication is referred to in the text by the basic designation only.

American Society for Testing and Materials (ASTM) Publication.

D 2487-00

Classification of Soils for Engineering Purposes  
(Unified Soil Classification System).

**1.3 SUBMITTALS.**1.3.1 SD-01 Data.

1.3.1.1 Construction Plan: GA. Prior to stripping Lost Lake, the Contractor shall submit a Plan for the construction of the Mechanically Constructed Levees and the Hydraulically Constructed Levees depicting as a minimum the following:

- (1) The Phasing and construction of the Mechanically Constructed West Levee, including construction methods, and equipment suitable for working inside a Placement Area.
- (2) The Phasing and construction of the Hydraulically Constructed North Levees, including discharge pipeline placements, with sketches where applicable, and design and construction of the exterior and interior containment levees, and other techniques to ensure maximum retainage of dredged materials within the lines and grades shown.
- (3) The phasing and repair of the slide area near Station 98+00.
- (4) Compliance with the order of work specified herein.
- (5) Estimated start and completion dates for each phase of construction.

- (6) A complete list of plant and equipment to be used for each phase of construction.
- (7) A brief description of the proposed execution of required monitoring of the initial fill placement, as specified in the Paragraph: CONTRACTOR QUALITY CONTROL, below. The description shall include details on how the monitoring information will be used by the Contractor to control placement of the hydraulic fill, to achieve the specified requirements to place sufficient hydraulically dredged materials at all locations along the levee. The description shall include details and calculations to be made to access the production rate throughout this contract, and a description of the format the Contractor will use to report the levee construction progress during the hydraulic fill placement.

1.3.1.2 Surveys. GA. The Contractor shall submit plots of cross section surveys and other information as specified, for required monitoring and acceptance of the completed levee construction.

#### 1.3.2 SD-07 Schedules.

1.3.2.1 Project Schedule: GA. The overall project schedule shall identify construction phases as separate line items.

### **1.4 DEFINITIONS.**

1.4.1 Initial Placement. The Initial Placement shall be hydraulic fill discharged from the dredge pipe along the alignment indicated, for the required Hydraulically Constructed North Levees. The Initial Placement quantity along the levee alignment shall provide sufficient material to be safely recovered by the Contractor's equipment from outside the lines and grades indicated, to accomplish Final Shaping and Grading to the minimum lines and grades indicated.

1.4.2 Final Shaping and Grading. The work performed by the Contractor's equipment after Initial Placement. This work shall ensure that the hydraulically and mechanically placed material is placed to the minimum lines and grades indicated.

1.4.3 Final Grade. The elevations and grades of the Hydraulically and Mechanically Constructed Levees, indicated by cross sections taken after completion of Final Shaping and Grading.

1.4.4 Limits of Recovery. A description of the limits of depth and distance from the existing baseline, where material shown by cross sections after Initial Placement, can be recovered during Final Shaping and Grading, to construct the levee to Final Grade. The bottom limit of recovery is defined as the elevation of the interior placement area surface prior to dredging, as indicated. The interior distance limit shall be

determined by the Contractor and shown on the plotted surveys of Initial Placement cross sections, as specified.

1.4.5 Net Retention Rate. The neat-line fill quantity, computed from Final Grade cross sections shown, divided by the gross quantity of material dredged, for a particular levee reach.

1.4.6 Gross Retention Rate. The sum of actual quantity of fill measured within the Limits of Recovery, by Quality Control cross section surveys, divided by the gross quantity of material dredged, for a particular levee reach.

## **1.5 GENERAL PROVISIONS.**

1.5.1 Lines and Grades. The Hydraulically and Mechanically Constructed Levees shall conform to the lines, grades, and cross sections shown, unless otherwise directed. The Government reserves the right to increase or decrease the foundation widths or the embankment slopes, or make changes in the embankment sections as may be deemed necessary to produce a safe structure. Government directed field changes in embankment sections will be covered in accordance with the CONTRACT CLAUSE entitled CHANGES.

1.5.2 Conduct of Work. The Contractor shall maintain and protect the levee embankment in a satisfactory condition at all times until completion and acceptance of the work under this contract. If, in the opinion of the Contracting Officer the hauling equipment causes shears or slickensides, rutting, quaking, heaving, cracking, or excessive deformation of the levee embankment, the Contractor shall limit the type, load, or travel speed of the equipment on the embankment.

1.5.3 Order of Work. The Contractor shall perform the required work in the following order:

- (1) Mechanical Construction. The Contractor shall construct earthen containment levees on either side of the alignment for the Hydraulically Constructed North Levees, as specified herein, to ensure maximum containment of hydraulic fill along the alignment indicated. The interior containment levee between Station 3+00 and Station 44+40 may need to be constructed as the hydraulic levee advances. In addition, the Contractor shall complete the Mechanically Constructed West Levee to the lines and grades specified herein, as well as complete repairs to the slide area on the interior of the existing perimeter levee near Station 98+00. Upon completion of the mechanical construction specified herein, the completed levees shall be seeded and fertilized to the limits indicated, as specified in the SECTION entitled SEEDING AND FERTILIZING. Earthwork to be performed using mechanical methods, as specified above, shall be completed prior to placement of dredged materials into the Lost Lake Placement Area.

- (2) Hydraulic Dredging. The Contractor shall dredge Sections 16 through 20, beginning at Station 420+00 and proceeding to Station 469+99.77, in order. The dredged materials removed from this reach of channel shall be placed along the alignment for the Hydraulically Constructed North Levees beginning at Station 44+40 and proceeding west until the placement operations lie between Stations 25+00 and 15+00. The Contractor shall then cease placement in this reach, and re-start placement of the Hydraulically Constructed North Levee at Station 3+00 and proceed east until full closure of the Hydraulically Constructed North Levee to the lines and grades indicated, is completed in the reach of hydraulic levee between Stations 3+00 and 44+40. At that time, the Contractor will again re-start placement of the Hydraulically Constructed North Levee at Station 221+35 to the lines and grades indicated, and shall proceed west to Station 206+00, to connect with and match the new Mechanically Constructed West Levee and accomplish full closure of the perimeter retaining levee. Excess materials may be placed into the discharge corridor designated to receive materials from Station 16 through 20, as indicated. The Contractor shall dredge Section 21 at its discretion, using acceptable dredging methods and techniques, subject to approval. However, it shall not be allowed to place materials from required dredging into the Lost Lake Placement Area until completion of mechanical construction, as specified above. If the Contractor elects to place materials dredged or otherwise excavated from Section 21 directly into the Lost Lake Placement Area, it shall be required to place all materials into the "Discharge Corridor for Material Dredged from Section 21" indicated. Material placed into the discharge corridor for Section 21 and Sections 16 to 20 shall be shaped and graded to drain.
- (3) Final Shaping and Grading. Upon completion of the Hydraulically Constructed North Levees and Mechanically Constructed Levees, the Contractor shall be required to grade and shape the perimeter levee as indicated, and seed and fertilize the completed embankment to the limits indicated, as specified in the SECTION entitled SEEDING AND FERTILIZING.

1.5.4 Slides. In the event of sliding of any part of a levee, during its construction or after its completion, but prior to its acceptance, the Contractor shall, upon written directions from the Contracting Officer, rebuild that portion of the levee. If the slide is caused through fault of the Contractor, the foregoing operations shall be performed without cost to the Government. If the slide is due to no fault of the Contractor, payment will be as specified below, in addition to payment due the Contractor for materials previously placed.

1.5.5 Changes in Embankment Alignment. The Contracting Officer reserves the right to make changes in the embankment alignment as may be found necessary before completion of the work. If it becomes necessary, through no fault of the Contractor, to abandon a line or location on work that has been done, payment for material placed will be made as specified below.

## **1.6 MEASUREMENT.**

1.6.1 Containment Levees (Station 3+00 to Station 44+40 and Station 206+00 to Station 221+35) shall not be measured for payment.

1.6.2 Mechanically Constructed West Levee (Station 170+00 to Station 206+00) shall be measured for payment by the linear foot of completed levee, placed to the minimum lines and grades indicated and as specified herein.

1.6.3 Hydraulically Constructed North Levee (Station 3+00 to Station 44+40 and Station 206+00 to Station 221+35) shall be measured for payment by the linear foot of completed levee, shaped and graded to the minimum lines and grades, as specified herein.

1.6.4 Slide Repair (Station 98+00) shall be measured for payment by the cubic yard of compacted fill placed to the lines and grades indicated. The basis of measurement will be cross sections of the area taken by the Contractor prior to filling, and again immediately after completion of repairs and restoration of the embankment to the lines and grades indicated.

1.6.5 Surveys shall not be measured for payment.

1.6.6 Haul Roads shall not be measured for payment.

## **1.7 PAYMENT.**

1.7.1 Containment Levees (Station 3+00 to Station 44+40 and Station 206+00 to Station 221+35) will not be paid separately, but will be considered a subsidiary cost of the item to which the work pertains.

1.7.2 Mechanically Constructed West Levee (Station 170+00 to Station 206+00) will be paid for at the contract unit price per linear foot for “Mechanically Constructed West Levee, Lost Lake,” measured as specified herein

1.7.3 Hydraulically Constructed North Levee (Station 3+00 to Station 44+40 and Station 206+00 to Station 221+35) will be paid for at the contract unit price per linear foot for “Hydraulically Constructed North Levees, Lost Lake,” measured as specified herein.

1.7.4 Slide Repair (Station 98+00) will be paid for at the contract unit price per cubic yard for “Slide Repair, Lost Lake,” measured as specified herein.

1.7.5 Surveys. No separate payment will be made for surveys. The cost of this work will be incidental to the cost of the paid work item for which the surveys are performed.

1.7.6 Haul Roads. No separate payment will be made for haul roads. The cost of this work will be incidental to the cost of the paid work item for which the haul roads are used.

## **PART 2 - PRODUCTS**

**2.1 EQUIPMENT.** A list of equipment, with accompanying specifications information, shall be submitted prior to commencement of construction.

2.1.1 Crawler-type Tractors used for spreading and compaction shall weigh not less than 30,000 pounds, shall exert a unit tread pressure of not less than 7 pounds per square inch and shall not be operated at a speed to exceed 5 miles per hour.

2.1.2 Power-driven Tampers. Compaction of material in areas where it is impracticable to use a tractor shall be performed by the use of approved power-driven tampers of the rammer type having a static weight of at least 70 pounds or by hydraulic actuated tractor-mounted tampers as approved.

2.1.3 Miscellaneous Equipment. Scarifiers, disks, motorized graders, spreaders, marsh buggies, and other equipment shall be of approved types, suitable for construction of levee embankments in upland and marsh-type conditions. Only trucks, scrapers, and other types of earth-hauling equipment that are approved and suitable for construction shall be used.

## **2.2 MATERIALS.**

2.2.1 Satisfactory Materials. Earth materials considered satisfactory for use as fill in the Mechanically Constructed West Levees, required exterior containment levees, and slide repair area shall consist of cohesive or cohesionless material classified in ASTM D 2487 as CH and CL, and SW, SP, SM, SM-SC, and SC. Material classified as CH or CL shall have the consistency of medium, stiff, or very stiff, as determined using a SOIL TEST DIRECT READING POCKET PENETROMETER MODEL CL-700, or approved equal. However, satisfactory soils for the slide repair shall not include SW, SP, or SM-SC. Satisfactory material used for mechanically type earthwork shall be free from roots, brush, sod, or other perishable materials. Satisfactory materials for use as fill in the Hydraulically Constructed Levees shall consist of all hydraulically pumped materials within the limits of recovery and filled to the lines and grades indicated, as specified herein.

## **PART 3 - EXECUTION**

**3.1 CONTAINMENT LEVEES.** The Contractor will be responsible for the design and construction of mechanically constructed containment levees along the north levee (Station 3+00 to Station 44+40 and Station 206+00 to Station 221+35). The levees shall be designed and constructed to function as “containment levees” for ensuring that the placement of fill for the Hydraulically Constructed North Levees is as much as practicable, retained with reasonable limits of recovery during placement operations. There shall be two (2) types of containment levees used in this contract, including exterior containment levees, located on the approximate centerline of the existing perimeter levees, and interior containment levees, located within the placement area. Interior containment levees shall serve to retain as much of the hydraulically placed dredged materials within the proposed hydraulic levee alignment as possible. The locations, size, shape, and integrity of the containment levees shall be the sole responsibility of the Contractor. Earth borrow materials for constructing exterior containment levees shall be obtained from the interior of the Placement Area as specified in the SECTION entitled STRIPPING AND EXCAVATION LOST LAKE. Earth borrow materials for constructing interior containment levees shall be obtained from the interior of the Placement Area as side cast material. Compaction of exterior containment levees shall, as a minimum, meet the requirements specified in the Paragraph: COMPACTED FILL, below. The Contractor shall not be allowed to degrade the existing perimeter levee crown or exterior side slopes to obtain earth materials for mechanically constructed containment levees.

**3.2 MECHANICALLY CONSTRUCTED WEST LEVEE.** The Contractor shall construct the west mechanical levee between Stations 170+00 and 206+00 to the lines and grades indicated. Excavation, hauling, spreading, grading, and compaction of earth materials shall be accomplished by mechanical methods, utilizing equipment suitable for the work. The Contractor shall excavate sufficient satisfactory materials from the adjacent borrow area, to construct the levee to the lines and grades indicated. The Contractor shall not be allowed to excavated below Elevation +14.0 feet MLT within the limits of the borrow area;; however, the width of the borrow area is not specified, to allow the Contractor to recover the necessary quantity of satisfactory materials to complete the work specified herein. Fill used in construction of the west levee shall be satisfactory earth material, as specified in the Paragraph: SATISFACTORY MATERIALS, above, and shall be compacted as specified in the Paragraph: COMPACTED FILL, below. Excavated materials that are not satisfactory for use in construction of the west mechanical levee shall be disposed in abandoned portions of the borrow area, as approved. Upon completion of final shaping and grading of the west mechanical levee to the lines and grades indicated, the completed embankment shall be seeded and fertilized to conform to the requirements specified in the SECTION entitled SEEDING AND FERTILIZING.

### **3.3 HYDRAULICALLY CONSTRUCTED NORTH LEVEES.**

3.3.1 General. Satisfactory materials used for Hydraulically Constructed North Levees shall be obtained from required dredging. Hydraulic fill for the Hydraulically Constructed North Levee (Station 3+00 to Station 44+00 and Station 206+00 to Station

221+35) shall be obtained from Sections 16 through 20 (Station 420+00 to Station 469+95.77) of the required dredging. The Contractor shall evenly distribute sufficient hydraulic material at all locations along the levee alignment so that the final new levee section can be shaped and graded to the lines and grades indicated. The Contractor shall take the measures necessary to ensure that no water is allowed to pond between the hydraulically placed fill and the exterior and interior containment levees or existing perimeter levee. Deposits of soft mud from the backwash that may accumulate in low areas of the fill shall be immediately drained and the area completely dried prior to performing the final grading and shaping of the fill to lines and grades indicated. The foundation of the new levee from approximately Station 206+00 to Station 221+35 and Station 3+00 to Station 44+40 is very soft to soft dredged materials placed in past dredging projects. The new work dredged materials shall be used to displace the very soft foundation material adjacent to the existing levees, and for the raised levee section to be constructed from the new work dredged material.

3.3.2 Initial Placement. The initial placement of material for the hydraulically constructed levees shall consist of controlled discharge of the dredged material along the alignment indicated. The Contractor shall take reasonable measures available to retain satisfactory material within the specified limits of recovery, including the control of discharge actions specified herein. The limits of recovery, as specified in the Paragraph: DEFINITIONS above, shall be determined by the Contractor, based on observed behavior of the discharged material, the type of equipment, and the procedures used to recover the initial placement material. The limits that basically identify materials to be used for construction, shall be identified on individual cross sections to allow monitoring of initial placement as required by the specifications. Details of initial placement shall be included in the Construction Plan.

3.3.3 Control of Discharge. During the initial placement, the Contractor shall use frequent movement of the discharge point, along with an effective directing of the discharge flow in the same direction as the levee construction, to retain the maximum quantity of material possible within the limits of recovery. Directing of the discharge flow, when discharging clay materials, shall be accomplished using marsh excavating equipment, or suitable approved, alternate equipment, to provide for continuous removal of material mounding in front of the discharge pipe or other locations, which can result in lateral-direction "wash" of material from the limits of recovery. Additionally, spreaders, spoons, or other effective measures shall be employed as required, to limit lateral wash loss of sands. The Contractor shall also use a "Y" valve and a lateral "shunt" discharge line for discharging water and maintenance slurry, to minimize erosion of previously placed levee fill. The Contractor shall include details in the Construction Plan regarding the proposed technique and equipment to be used to accomplish the required control of discharge.

3.3.4 Excess Materials. If the Contractor completes the placement of hydraulic fill for final grading of the Hydraulically Constructed North Levees, prior to the completion of dredging of Sections 16 through 20, the excess material shall be deposited into the "Discharge Corridor for Excess Material Dredged from Sections 16 through 20" adjacent to the east levee, as indicated.. Placement of excess materials shall proceed

using a method that will retain clay balls and sands along the alignment of the east levee for the length of the discharge corridor. The excess material placed in the discharge corridor shall be shaped and graded to drain.

3.3.5 Misplaced Materials. At no time will material or water be allowed to overflow the mechanically constructed exterior levees or the existing perimeter levee. Construction operations shall be so sequenced as to allow fines pumped in with the levee building material, time to settle and the water to be discharged through the drop-outlet structure. While placing the Hydraulically Constructed Levees, the Contractor shall be responsible for maintaining the mechanically constructed exterior levee and existing levee heights to prevent spillover from the levee construction operations. If the dredged material approaches the height of the mechanically constructed exterior levees or existing perimeter levee, the Contractor shall raise the elevation of the levees by constructing earthen embankments of sufficient size to contain the material. Failure to contain dredged materials may result in the requirement for the Contractor to remove misplaced material or unauthorized placement of material in accordance with the SECTION entitled DREDGING. The misplaced material shall be removed at no cost to the Government.

3.3.6 Final Shaping and Grading. During final shaping and grading operations, the Contractor shall excavate, grade, fill, and compact earth materials as required, to ensure contract requirements for final lines and grades are satisfied, as indicated. Areas requiring fill shall be excavated to neat lines and grades to facilitate compaction with crawler-type tractors or hand tampers. Fill materials shall be placed in horizontal layers not exceeding 12 inches in depth, and compacted to the density of the undisturbed surrounding materials using hand tampers or crawler-type tractors.

**3.4 SLIDE REPAIR.** Satisfactory earth material shall be used as fill material to repair the interior slope of the east levee embankment near Station 98+00, and shall be obtained from the borrow area near Station 118+00, as indicated. The damaged slope of the embankment shall be repaired by excavating, hauling, spreading, compacted, and grading satisfactory earth fill materials to the lines, grades, and elevations indicated. Earth borrow materials used as fill that can be excavated using draglines, backhoes, dozers, or other suitable equipment, transported to the repair site, and placed, spread, compacted, and graded to conform to the requirements specified in the Paragraph: COMPACTED FILL, below.

**3.5 COMPACTED FILL.** Earth materials used as fill for construction or final shaping and grading of the newly constructed or repaired perimeter levees, within the foundation area limits specified herein, shall consist of satisfactory materials conforming to the requirements of the Paragraph; SATISFACTORY MATERIALS, above. Fill material shall be transported to the foundation areas and placed in horizontal layers not exceeding 12 inches in thickness before compaction. In areas having standing water or soft foundation conditions, borrow materials shall be placed in a single lift (layer) of sufficient thickness to support hauling and compaction equipment. The moisture content of each layer of material placed shall be suitable to obtain the maximum compaction with the equipment used. If the fill material is either too wet or too dry to

obtain proper compaction, the material shall be disked and aerated to dry the material, or moistened and disked to distribute moisture throughout each layer. After placement, each layer shall be compacted by not less than four (4) coverages of a crawler-type tractor conforming to the requirements specified in the Paragraph: EQUIPMENT, above.

**3.6 TOLERANCES AND SHRINKAGE ALLOWANCES FOR LEVEES.** The Hydraulically Constructed North Levees shall be constructed, as a minimum, to the grades and elevations indicated. After completion of recovery of fill within the limits of recovery, and final shaping and grading for acceptance, an over height of +2 feet above the minimum required elevation will be allowed at all locations. No additional over height will be accepted unless approved in advance for the specific location. Graded surfaces shall be sloped to drain. The alignment of the centerline of the levees shall not deviate more than 5 feet over a length of 100 feet of the specified alignment.

**3.7 HAUL ROADS** shall be constructed as required on Lost Lake Placement Area to enable borrow material to be transported as needed for construction of mechanically constructed levees and for disposal of other materials as specified previously. If the crown of the existing levee is used as a haul road, the Contractor shall construct and maintain the haul road at elevations equal to or higher than the crown elevations that existed prior to construction. Degrading or re-shaping on the levee crown shall not be allowed until the hydraulically constructed levees have been shaped to grade, as specified herein

### **3.8 SURVEYS.**

3.8.1 General. During the course of levee construction, the Contractor shall perform daily topographic surveys for submittal. The surveys shall encompass the previous day's construction to the maximum extent practicable. The results shall be presented in both graphical and digital formats. The digital shall be ASCII X, Y, Z in the project data. The graphical format shall consist of cross sections at scales not smaller than 1 inch equals 10 feet horizontal, and 1 inch equals 2 feet vertical. Cross section intervals shall be 50 feet on center with a data density no smaller than one (1) elevation shot every 10 linear feet on line. Additional elevation shots shall be taken at the levee crossing and at abrupt changes in grade. Temporary bench marks and controls established by the Contractor to perform the surveys shall be verified by Real Time Kinematic Global Positioning Systems on a weekly basis, at a minimum. The results of the surveys shall be submitted with the Daily Quality Control Report.

3.8.2 Levee Cross Sections. At a minimum, three (3) sets of cross sections shall be taken as follows: (1) cross sections at 50-foot intervals before initial placement of material; (2) cross sections at 50-foot intervals after initial placement; and (3) cross sections at 200-foot intervals after shaping and grading. Information from the first two sets of cross sections shall be used for the initial placement monitoring. The third cross section will be used for acceptance. The cross sections shall extend from the exterior toe of the existing perimeter levee, to a point 100 feet beyond the location of the interior toe of the new levee. Cross sections shall be taken at the same stationing to facilitate

quantity calculations. A minimum of four (4) cross sections shall be taken during each set at the slide repair area.

3.8.3 Scheduling Surveys and Reporting Results. Quality Control surveys of initial placement shall be taken as soon as practicable, after the initial placement of each 50-feet of levee material. Survey data shall be reduced, plotted, and submitted before discharge proceeds more than 200 feet beyond a surveyed location. Information from surveys required for the Quality Control initial placement monitoring shall be entered into the spreadsheet within 3 days of the survey. Quality Control surveys for final shaping and grading shall be taken as required by the Contractor to ensure full compliance with the specified tolerance for the completed levees and as specified in the Paragraph: ACCEPTANCE AND CORRECTIVE ACTION below.

### **3.9 ACCEPTANCE AND CORRECTIVE ACTION.**

3.9.1 Acceptance of Completed Levees. After completion of the final shaping and grading, the final grade levees will be accepted in 2,000-foot sections. Acceptance will be based on topographic surveys performed by the Contractor as specified in the Paragraph: SURVEYS above. The Government shall be notified 3 days prior to the Contractor performing the acceptance surveys so that the Contracting Officer may be present to observe. Request for acceptance shall be in writing. Prior to acceptance, the Government will conduct spot check, Quality Assurance surveys to verify proper elevations and grades. If there is a disagreement between the Contractor and Government surveys, the Government information shall govern. The Contractor shall take additional surveys as directed to eliminate discrepancies or check questionable elevations. Corrective action shall be required on out-of-tolerance levee sections prior to acceptance as specified herein.

3.9.2 Corrective Action. The Contractor shall provide additional material from an approved source for levee sections below minimum grade to bring the section to the required lines and grades.

### **3.10 CONTRACTOR QUALITY CONTROL.**

3.10.1 Quality Control Inspections. The Contractor shall conduct daily Quality Control inspections of the construction activities for compliance with the contract requirements and record the information as specified herein. A copy of the records of Quality Control inspections, as well as the corrective action taken, shall be filed daily and submitted as directed. The Quality Control Reports shall be submitted on an approved Quality Control Report form. Retention Rate Monitoring information shall be submitted on an approved Retention Rate Spreadsheet. Required survey information and plots of the surveys shall be attached to the Quality Control Reports and Retention Rate Spreadsheets, as specified.

3.10.2 Monitoring of Initial Placement. Monitoring of the initial placement material shall be made based on Contractor Quality Control cross section surveys, taken as specified herein. Quantity calculations required for completing the Retention Rate

Spreadsheet shall be made for each 200-foot section (length) of levee, unless otherwise directed. The required Report information and entries to the Spreadsheet shall be recorded daily. In areas where surveys indicate the quantity of material within the limits of recovery is below the calculated amount required to construct the required levee, the Contractor shall place additional material and perform additional surveys to verify material quantity is within specified tolerance. No immediate corrective action is required in areas where surveys indicate over placement, unless specifically directed. If volume calculations indicate insufficient material placement or excessive replacement, a descriptive note shall be made on the Quality Control Daily Report. The Contractor shall then make adjustments to the work procedure necessary to accomplish proper distribution of initial material placement.

3.10.3 Retention Rate Spreadsheet. A Retention Rate Spreadsheet programmed to make appropriate calculations, shall be set up on a Microsoft Excel 97 spreadsheet computer program, with the following column headings which are required for Retention Rate Monitoring and reporting: Cross Section Station, Neat Line Cross Section Area, Actual Cross Section Area, Over-Placement Ratio, Average End-Area (Actual), Distance, Volume Between Cross Sections, Cumulative Volume, Gross Dredging Between Stations, Gross Dredging to Date, Gross Retention Rate, Net Retention Rate, Over-Placement (or Under-Placement) Quantity, and Acceptance (Check). Copies of a pre-programmed example spreadsheet and explanation of use will be provided to the Contractor at the Pre-Construction Conference.

3.10.4 Quality Control Report. A copy of the records of Quality Control inspections and tests, as well as the records of corrective action shall be submitted as directed. In addition, the Quality Control Report shall include the information required to accomplish monitoring of Initial Placement, including ongoing Retention Rates, as specified. The Report shall include a description of the Control of Discharge and a discussion of prior and ongoing placement activities during the previous 24 hours, to include the following:

- (1) Date,
- (2) Gross dredging quantity for the last 24 hours,
- (3) Gross dredging quantity to date,
- (4) End Stations of Initial Placement and Final shaping and Grading for the last 24 hours,
- (5) End Stations of Initial Placement and Final shaping and Grading to date,
- (6) Station and Offset Boundaries of dredging for the last 24 hours,
- (7) Control of Discharge, other comments.

A Quality Control Daily Report Form, containing blanks for required information shall be developed by the Contractor for use during this contract. A copy of the Quality Control Report form shall be furnished with the Quality Control Plan for approval.

3.10.5 Submittal of Reports. Daily Reports shall be submitted as directed. A copy of the completed spreadsheet shall be attached to the Daily Quality Control Report on the Thursday of each week, or as directed. Additionally, on the Thursday of each week or as often as directed, the Contractor shall send the spreadsheet to seven electronic mail (e-mail) addresses that will be provided at the Pre-Construction Conference.

3.10.6 Compliance Inspection. The Contractor shall inspect for compliance with contract requirements and record the inspection of operations including, but not limited to the following:

- (1) Placement of fill, thickness of layers, spreading and compacting.
- (2) Construction to lines and grades shown, final shaping as indicated.
- (3) Misplaced materials - Monitoring and removal if required.
- (4) Length of levee constructed, utilization of satisfactory material, and estimated quantity of remaining satisfactory material available for levee construction.
- (5) Drainage of ponded water as required, between hydraulically placed fill and exterior and interior containment levees or existing perimeter levee.
- (6) Uniform shaping of perimeter levee proper drainage.

3.10.7 Records. A copy of the records of inspections and tests, as well as the records of corrective action shall be submitted as directed.

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