

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE <b>J</b>	PAGE OF PAGES <b>1   2</b>
2. AMENDMENT/MODIFICATION NO. <b>0003</b>		3. EFFECTIVE DATE <b>23-Apr-2003</b>	4. REQUISITION/PURCHASE REQ. NO. <b>W807PM-2065-</b>	
6. ISSUED BY VBURG CONSOL CONTRACTING 4155 CLAY VICKSBURG MS 39183-		CODE <b>DACW38</b>	7. ADMINISTERED BY (If other than item 6) <b>See Item 6</b>	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			<input checked="" type="checkbox"/> 9A. AMENDMENT OF SOLICITATION NO. <b>DACW38-02-B-0041</b>	5. PROJECT NO.(If applicable)
			<input checked="" type="checkbox"/> 9B. DATED (SEE ITEM 11) <b>01-Nov-2002</b>	
			<input type="checkbox"/> 10A. MOD. OF CONTRACT/ORDER NO.	
			<input type="checkbox"/> 10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE		
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended.				
Offer 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 <u>1</u> 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)				
<b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>				
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 <input type="checkbox"/> is not, <input type="checkbox"/> 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.) Reference Invitation for Bids No. DACW38-02-B-0041 for Flood Control-Construction General, Ouachita Basin, Ouachita River 'Ouachita Parish, LA, Bastrop to Monroe, Levee Enlargement, Item 2, postponed indefinitely by Amendment 0002, dated 25 Nov 2002, amended as follows:  <p style="text-align: center;"><b>BID OPENING</b></p> A new bid opening date and time of 27 May 2003, 1400 Hours, is hereby established.				
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)	
			TEL: _____ EMAIL: _____	
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)	23-Apr-2003

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

**SECTION 00010 – BIDDING SCHEDULE**

Page 3 of 146 and Page 4 of 146, are replaced by revised Page 3 of 146 and Page 4 of 146.

**SECTION 00700 – CONTRACT CLAUSES.**

Page 140 of 146 is replaced by revised Page 140 of 146.

**TECHNICAL SPECIFICATONS**

SECTION 00800, SPECIAL CONTRACT REQUIREMENTS, is reissued in its entirety.

SECTION 01025, MEASUREMENT AND PAYMENT, is reissued in its entirety.

SECTION 02230, EMBANKMENT, is reissued in its entirety.

**DRAWINGS**

DRAWING NOS. 6 and 8 are reissued.

Pages revised by this amendment have the notation “Revised by Amendment 0003” at the bottom of the page. Text added by this amendment is shown as underlined. Text deleted by this amendment is shown as overstruck.

Encls: Bidding Schedule, pages 3 and 4  
Section 00700, page 140  
Section 00800, pages 1 thru 6  
Section 01025, pages 1 thru 5  
Section 02230, pages 1 thru 7

(End of Summary of Changes)

**SECTION 00010 – BIDDING SCHEDULE**

**FLOOD CONTROL – CONSTRUCTION GENERAL  
 OUACHITA BASIN, OUACHITA RIVER LEVEES  
 OUACHITA PARISH, BASTROP TO MONROE  
 LEVEE ENLARGEMENT  
 ITEM 2**

ITEM NO	DESCRIPTION	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001	MOBILIZATION AND DEMOBILIZATION	1	LS	FOR	\$ _____
0002	CLEARING AND GRUBBING	1	LS	FOR	\$ _____
0003	LEVEE STATION MARKERS	1	LS	FOR	\$ _____
0004	RAMPS	1	LS	FOR	\$ _____
0005	MOWING AND TURFING	1	LS	FOR	\$ _____
0006	LEVEE EMBANKMENT	137,250	CY	\$ _____	\$ _____
0007	LEVEE SURFACING, CRUSHED STONE	28,420	TON	\$ _____	\$ _____
0008	LEVEE SURFACING, EXISTING	1	LS	FOR	\$ _____
*0009	PIPELINE CROSSINGS	1	LS	FOR	\$ _____ *
				TOTAL	\$ _____

Revised by Amendment 0003

\* Bidders are reminded that a bid bond is required under the solicitation. Proper bid bonds and documents related to the bid are a matter of responsiveness which may not be corrected after bid opening. The Comptroller General of the General Accounting Office has issued a recent decision which may impact acceptability of bid bonds and related documents. This case is the All Seasons Construction, Inc., B-291166.2, December 6, 2002, and may be found at the GAO website at <http://www.gao.gov/decisions/bidpro/bidpro.htm>. Bidders are encouraged to refer to this case for guidance prior to submitting their bids. \*

Lack of registration in the CCR database will make an offeror ineligible for award. SEE CONTRACT CLAUSE 252.204-7004 ENTITLED "REQUIRED CENTRAL CONTRACTOR REGISTRATION.

**THE SF 1442, BIDDING SCHEDULE, AND SECTION 00600 (REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF BIDDERS) MUST BE ACCURATELY COMPLETED AND RETURNED WITH YOUR BID OR IT MAY BE REJECTED AS NONRESPONSIVE.**

**NOTES:**

(a) Bidders shall furnish unit prices for all items listed on the schedule of bids that require unit prices. If the bidder fails to insert a unit price in the appropriate blank for required items, but does furnish an extended total or an estimated amount for such items, the Government will deem his unit price to be the quotient obtained by dividing the extended estimated amount for that line item by the quantity. **IF THE BIDDER OMITTS BOTH UNIT PRICE AND THE EXTENDED ESTIMATED AMOUNT FOR ANY ITEM, HIS BID WILL BE DECLARED NONRESPONSIVE.**

(b) All quantities shown on the **BIDDING SCHEDULE** are estimated quantities except when the unit price is shown as "lump sum," "job" or "each."

(c) If a bid modification to a bid based on unit price is submitted which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment to the unit price in the 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 the unit price in the Bid Schedule.

(d) All extensions of the unit price shown will be subject to verification by the Government. In case of variation between the unit price and the extension, the unit price will be considered to be the bid.

(e) Award will be made as a whole to the lowest responsive, responsible bidder as may be in the best interest of the Government.

contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY
_____	_____	_____
_____	_____	_____
_____	_____	_____
TOTAL	_____	_____

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

52.000-4210 DEFINITIONS (APR 1984)(EFARS 52.101 (a) and 52.105/90 (a))

(The following clause is applicable if the procurement instrument identification number is prefixed by the letters "DACW".)

(a) The term "head of the agency" or "Secretary" as used herein means the Secretary of the Army; and the term "his duly authorized representative" means the Chief of Engineers, Department of the Army, or an individual or board designated by him.

(b) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

\* (c) The agency board of contract appeals having jurisdiction over all appeals from final decisions of the Contracting Officer under the Contract Disputes Act of 1978 is the Armed Services Board of Contract Appeals, Skyline 6, 7<sup>th</sup> Floor, 5109 Leesburg Pike, Falls Church, VA 22041-3208. \*

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- 1.3 EXCEPTION TO LIQUIDATED DAMAGES
- 1.4 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)
- 1.5 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)
- 1.6 WORK TO BE PERFORMED BY CONTRACTOR'S OWN ORGANIZATION
- 1.7 PHYSICAL DATA (APR 1984)
- 1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)
- 1.9 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)
- 1.10 COMMAND OVERSIGHT
- 1.11 YEAR 2000 COMPLIANCE
- 1.12 SECURITY REQUIREMENTS FOR UNCLASSIFIED CONTRACTS

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

PART 1 GENERAL

1.1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 425 calendar days after the date the Contractor receives the notice to proceed. The time stated for completion shall include final cleanup of the premises. (FAR 52.211-10)

1.2 LIQUIDATED DAMAGES-CONSTRUCTION (SEPT 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$475.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause. (FAR 52.211-12)

1.3 EXCEPTION TO LIQUIDATED DAMAGES

Since the Contractor's obligations specified in Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT and Section 01000 GENERAL CONTRACT REQUIREMENTS, paragraph LEVEE STATION MARKERS may extend beyond the completion time specified in paragraph COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK, these periods and the additional work, if required, will be exempt from liquidated damages provided all other work has been completed.

1.4 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall --

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors which might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general --

(1) Large-scale drawings shall govern small scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

FILE NO. 0-15-263

<u>DRAWING TITLE</u>	<u>DRAWING NO.</u>
PROJECT LOCATION, VICINITY MAP & INDEX	1
PLAN AND PROFILE	2
PLAN AND PROFILE	3
PLAN AND PROFILE	4
PLAN AND PROFILE	5
PLAN AND PROFILE	6
PLAN AND PROFILE	7
TYPICAL SECTIONS	8
TRAFFIC CONTROL PLAN	9
STORM WATER POLLUTION PREVENTION PLAN	10
STAGE HYDROGRAPH	11
BORING PROFILES	12
SOIL BORING LEGEND	13

(DFARS 252.236-7001)

1.5 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site and with its own organization, work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. (FAR 52.236-1)

1.6 WORK TO BE PERFORMED BY CONTRACTOR'S OWN ORGANIZATION

Within 10 days after award, the successful bidder/contractor must furnish the Contracting Officer a description of the items of work which will be performed with its own forces and the estimated cost of those items. (See paragraph PERFORMANCE OF WORK BY THE CONTRACTOR.)

1.7 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys and borings.

(b) Weather Conditions. Information with respect to temperatures and precipitation may be obtained from the National Weather Service.

(c) Transportation Facilities.

(1) Roads. Interstate 20, U.S. Highway Nos. 80 and 165, Louisiana State Highway Nos. 2 and 553 and local roads serve the general area.

(2) Railroads. The Illinois Central Railroad and the Ashley, Drew and Northern Railroad serve the general area.

(d) Floods. High water stages or events are not to be considered a "flood," and damages resulting therefrom are not compensable under Section 01000 GENERAL CONTRACT REQUIREMENTS, paragraph DAMAGE TO WORK unless river or stream stages within the Government-furnished rights-of-way exceed channel capacity and overtop the natural or artificial banks.

(e) Additional Data. Additional data consisting of additional cross sections, records of borings, and boring samples are available for inspection at:

U.S. Army Engineer District, Vicksburg  
4155 Clay Street  
Vicksburg, Mississippi 39183-3435

(FAR 52.236-4)

#### 1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) Sixty percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining forty percent upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in subparagraphs (a)(1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of -

- (i) Actual mobilization costs at completion of mobilization;
  - (ii) Actual demobilization costs at completion of demobilization;  
and
  - (iii) The remainder of this item in the final payment under this contract.
- (2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

(DFARS 252.236-7004)

#### 1.9 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)

(a) This clause does not apply to terminations. See 52.249-5000, Basis for settlement of proposals and FAR Part 49.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region III. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet. (EFARS 52.231-5000)

NOTE: EP-1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule" is available on the internet at <http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep.htm>, or may be purchased from the Government Printing Office on CD-ROM by calling (202) 512-1800.

#### 1.10 COMMAND OVERSIGHT

Although the U.S. Army Corps of Engineers has decided that effective 1 Oct 93 District and operating Major Subordinate Commanders will no longer be Contracting Officers, the Commanders will be expected to exercise oversight on (approve) critical decisions on this contract, including contract award (see FAR Clause 52.204-1, "Approval of Contract"), settlement actions and alternate dispute resolution (ADR).

#### 1.11 YEAR 2000 COMPLIANCE

In accordance with FAR 39.106, the Contractor shall ensure that with respect to any design, construction, goods, or services under this contract as well as any subsequent task/delivery orders issued under this contract (if applicable), all information technology contained therein shall be Year 2000 compliant. Specifically, the contractor shall:

(a) Perform, maintain, and provide an inventory of all major components to include structures, equipment, items, parts, and furnishing under this contract and each task/delivery order which may be affected by the Year 2000 compliance requirement.

(b) Indicate whether each component is currently Year 2000 compliant or requires an upgrade for compliance prior to government acceptance.

#### 1.12 SECURITY REQUIREMENTS FOR UNCLASSIFIED CONTRACTS

All Contractor employees (U.S. citizens and Non- U.S. citizens) working under this contract who require access to Automated Information Systems (AIS), (stand alone computers, network computers/systems, e-mail) shall, at a minimum, be designated into an ADP-III position (non-sensitive) in accordance with DoD 5220-22-R, Industrial Security Regulation. The investigative requirements for an ADP-III position are a favorable National Agency Check (NAC), SF-85P, Public Trust Position. The contractor shall have each applicable employee complete a SF-85P and submit to the Security Officer, ATTN: CEMVK-PM, 4155 Clay Street, Vicksburg, MS 39183-3435 within three (3) working days after award of any contract or task order, and shall be submitted prior to the individual being permitted access to an AIS. Contractors that have a commercial or government entity (CAGE) Code and Facility Security Clearance through the Defense Security Service shall process the NACs and forward visit requests/results of NAC to the Security Officer, ATTN: CEMVK-PM, 4155 Clay Street, Vicksburg, MS 39183-3435. For those contractors that do not have a CAGE Code or Facility Security Clearance, Security Officer, ATTN: CEMVK-PM, 4155 Clay Street, Vicksburg, MS 39183-3435 Security Office will process the investigation in coordination with the Contractor and contract employees.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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  - 1.1.1 General
  - 1.1.2 Lump Sum Items
- 1.2 UNIT PRICE PAYMENT ITEMS
  - 1.2.1 General
  - 1.2.2 Unit Price Items

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

1.1.1 General

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, storm water pollution prevention, environmental protection, meeting safety requirements, tests and reports, providing as-built drawings (both blue-line and electronic), and for performing all work required for which separate payment is not otherwise provided.

1.1.2 Lump Sum Items

a. "Mobilization and Demobilization"

(1) Payment will be made for all costs associated with mobilization and demobilization, as defined in Section 00800 SPECIAL CONTRACT REQUIREMENTS, paragraph PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

(2) Unit of measure: lump sum.

b. "Clearing and Grubbing"

(1) Payment will be made for all costs associated with clearing and grubbing (including vegetation removal) of the areas specified herein or indicated on the drawings, including the demolition and removal of existing concrete pad, removing and disposing of all cleared and grubbed materials, filling holes resulting from clearing and grubbing operations, placing embankment to replace earthen materials removed as a result of clearing and grubbing operations, and all work incidental thereto.

(2) Unit of measure: lump sum.

c. "Levee Station Markers"

(1) Payment will be made for all costs associated with removing and stockpiling existing levee station markers for removal by others; and fabricating, cleaning, painting, numbering, and installing new levee station markers complete, and all work incidental thereto.

(2) Unit of measure: lump sum.

d. "Ramps"

(1) Payment will be made for all costs associated with constructing the ramps, including foundation preparation; excavating materials; blending of materials in the borrow area as specified in Section 02230 EMBANKMENT, paragraph EMBANKMENT MATERIALS; hauling, placing and compacting the material; performing moisture control and all required testing; and all work incidental thereto.

(2) Unit of measure: lump sum.

e. "Mowing and Turfing"

(1) Payment will be made for all costs associated with maintenance of existing turf and establishment and maintenance of new turf, including mowing of levee and berm embankment surfaces within the rights-of-way during the life of the contract, and all work incidental thereto.

(2) Unit of measure: lump sum.

f. "Levee Surfacing, Existing"

(1) Payment will be made for all costs associated with removing, salvaging, stockpiling, hauling, placing, spreading, compacting, and dressing the existing gravel surfacing as required, and all work incidental thereto.

(2) Unit of measure: lump sum.

g. "Pipeline Crossings"

(1) Payment will be made for all costs associated with constructing the pipeline crossings as indicated, including excavating materials; blending of materials in the borrow area as specified in Section 02230 EMBANKMENT, paragraph EMBANKMENT MATERIALS; hauling, placing and compacting the material; performing moisture control and all required testing; and all work incidental thereto.

(2) Unit of measure: lump sum.

1.2 UNIT PRICE PAYMENT ITEMS

1.2.1 General

Payment items for the work of this contract for which contract unit price payments will be based are listed in the BIDDING SCHEDULE and described below and in the sections of the technical specifications. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, storm water pollution prevention, environmental protection, meeting safety requirements, tests and reports, providing as-built drawings (both blue-line and electronic), and for performing all work required for each of the unit price items.

1.2.2 Unit Price Items

a. "Levee Embankment"

(1) Payment for all semicompacted material placed as required in embankments, fill and backfill, not including material in ramps, and including additional material placed by reason of soft material in the foundation being forced outward from the section during construction, will be made at the contract unit price per cubic yard for "Levee Embankment", which price and payment shall constitute full compensation for performing all operations necessary for foundation preparation; excavating materials; blending of materials in the borrow area as specified in Section 02230 EMBANKMENT, paragraph EMBANKMENT MATERIALS; hauling, placing and compacting the material; performing moisture control and all required testing; and all work incidental thereto.

(2) Unless otherwise specified, semicompacted levee embankment and required fill and backfill materials of any description specified in Section 02230 EMBANKMENT, not including material in ramps, but including fill placed by reason of soft material in the foundation being forced outward from the section, will be measured for payment by the cubic yard. Quantities will be determined by the Government. The basis for the measurement will be surveys of the areas to be filled taken prior to clearing, grubbing, and vegetation removal operations and the theoretical design cross section of the completed levee constructed within the specified tolerance. No measurement or payment will be made for settlement of foundation, and all costs for placing additional fill due to foundation settlement during construction shall be included in the contract unit price for "Levee Embankment".

(3) Unit of measure: cubic yard.

b. "Levee Surfacing, Crushed Stone"

(1) Payment will be made at the contract unit price for all costs associated with constructing the crushed stone surfacing on the levee crown, ramps, and roads, which price and payment shall constitute full compensation for furnishing scales and weighing material for measurement; furnishing, placing, spreading, compacting and dressing the finished surfacing; and all work incidental thereto.

(2) Surfacing material shall be measured for payment by being weighed by the Contractor on approved scales before being placed into the work. Each truck load shall be weighed to the nearest 0.1 ton and the final quantity rounded to the nearest whole ton. The Contractor shall furnish the scales and shall weigh the surfacing material in the presence of the Government representative, who will certify to the correctness thereof. Scales shall be of sufficient length to permit simultaneous weighing of all axle loads and shall be inspected, tested and sealed as directed by the Contracting Officer to assure an accuracy within 0.5 percent throughout the range of the scales. The scale's accuracy shall be certified by an acceptable scales company representative prior to weighing any surfacing material and rechecked and recertified whenever a variance is suspected. The scales shall be located at the site of work. If commercial scales are readily available in close proximity (within 10 miles)

of site of work, the Contracting Officer may approve the use of the scales. The Contracting Officer may elect to accept certified weight certificates furnished by a public weigh master in lieu of scale weights at the jobsite. Quarry weights will not be accepted.

(3) Unit of measure: ton.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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DIVISION 02 - SITE WORK

SECTION 02230

EMBANKMENT

PART 1 GENERAL

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## SECTION 02230

### EMBANKMENT

#### PART 1 GENERAL

##### 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

##### AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 698	(2000a) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/cu. ft. (600 kN-m/cu. m.))
ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2922	(1996e1) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)

#### PART 2 PRODUCTS

##### 2.1 EMBANKMENT MATERIALS

###### 2.1.1 General

The levee embankment, pipeline crossings, and ramps shall be constructed of earth obtained from the borrow area and other required excavations as prescribed in Section 02222 EXCAVATION and to the extent shown on the drawings. Contractor furnished borrow areas will not be permitted. The levee embankment, pipeline crossings, and ramps shall be constructed of earth that is free from unsuitable and frozen materials as defined in paragraphs UNSUITABLE MATERIALS and FROZEN MATERIALS. If a portion of the available borrow material classifies in accordance with ASTM D 2487 as gravels (GW, GP, GM) or sands (SW, SP, SM), it shall not be wasted, but shall be suitably blended with less pervious material to the extent that it no longer classifies as these materials. No additional payment will be made for blending materials, and all costs therefor shall be included in the contract prices for "Levee Embankment", "Pipeline Crossings", or "Ramps", as applicable.

###### 2.1.2 Unsuitable Materials

Materials which are classified as unsuitable for levee embankment, pipeline crossings, ramps, or fill material are defined as masses of organic matter, sticks, branches, roots, and other debris.

###### 2.1.3 Frozen Materials

Under no circumstances shall frozen earth, snow, or ice be placed in levee embankment, pipeline crossings, or ramps. The Contracting Officer may require the wasting of frozen material in order that construction may proceed and such material wasted, if directed by written order of the Contracting Officer, will be paid for in accordance with the Contract Clause CHANGES.

### PART 3 EXECUTION

#### 3.1 EMBANKMENT FOUNDATION PREPARATION

##### 3.1.1 General

After clearing and grubbing and any required excavation of the embankment foundation, test areas and other similar cavities and depressions shall be broken down, where so directed, to flatten out the slopes. The entire earth surface on or against which fill is to be placed shall be thoroughly broken to a depth of 6 inches. If for any cause, this broken surface becomes compacted in such a manner that, in the opinion of the Contracting Officer, a plane of seepage or weakness might be induced, it shall again be adequately scarified before depositing material thereon. For levee enlargement work, both the natural surface of the ground and the surface of the existing levee to be occupied by the new work shall be prepared as specified above. All scarifying and breaking of ground surface shall be done parallel to the centerline of the levee. All of the foregoing work shall be completed at least 200 feet but not greater than 500 feet in advance of the levee embankment construction.

##### 3.1.2 Drainage

The foundation receiving fill and all partially completed fill shall be kept thoroughly drained.

##### 3.1.3 Frozen Ground

No fill shall be placed upon frozen ground.

#### 3.2 ~~LEVEE~~ EMBANKMENT CONSTRUCTION

##### 3.2.1 Semicompacted Fill (Levee Embankment, Pipeline Crossings, and Ramps)

###### 3.2.1.1 General

The location and extent of the semicompacted fill shall be as shown on the drawings. Semicompacted fill shall not be placed in water. The materials for semicompacted fill shall be placed or spread in layers, the first layer not more than 6 inches in thickness and the succeeding layers not more than 12 inches in thickness prior to compaction. Layers shall be started full out to the slope stakes and shall be carried substantially horizontal and parallel to the levee centerline with sufficient crown or slope to provide satisfactory drainage during construction. Benching into the slope of the existing levee embankment is required in order to place and compact the material in horizontal layers. The vertical face of the existing embankment resulting from the benching operation shall be a minimum of 1 foot in height but shall not exceed 2 feet in height. When the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be adequately scarified before the next layer is placed thereon.

### 3.2.1.2 Moisture Control

The Contractor shall control the moisture content of the ~~levee~~semicompacted embankment material. The optimum moisture content shall be determined by the Contractor from representative samples of each type of material in accordance with ASTM D 698, with at least one test performed for each 50,000 cubic yards of embankment placed. Optimum moisture test results shall be furnished to the Contracting Officer prior to placing material. Material placed in the fill shall have a moisture content ranging between the following limits above and below the optimum moisture content:

TYPE OF MATERIAL	MOISTURE CONTENT (IN PERCENT OF OPTIMUM)	
	MAXIMUM	MINIMUM
CLAY (CH)	+5%	-5%
CLAY (CL)	+4%	-4%
SILT (ML)	+3%	-3%

NOTE: See Unified Soil Classification Chart for explanation of symbols and Plasticity Chart for classification determination, both shown on the contract drawings.

The Contractor shall perform the necessary work in moisture control to bring the material to a moisture content within the range specified above in order that compaction requirements can be met. If the material is too wet, it shall either be stockpiled and allowed to drain before it is placed in the ~~levee~~semicompacted embankment cross sections and/or the wet material shall be processed by discing and harrowing, if necessary, until the moisture content is reduced sufficiently. If the material is too dry, sufficient moisture shall be uniformly distributed in each layer before compacting.

### 3.2.1.3 Compaction

When the moisture content and conditions of the spread layers are satisfactory, each layer of semicompacted embankment shall be compacted to at least 90 percent of the maximum dry density. The maximum dry density shall be determined by the Contractor from representative samples of each type of material in accordance with ASTM D 698, with at least one test performed for each 50,000 cubic yards of embankment placed. Maximum dry density test results shall be furnished to the Contracting Officer prior to placing material.

### 3.2.2 Dressing

The entire embankment shall be brought to not less than the prescribed gross cross section, within allowable tolerance, at all points. Unreasonable roughness of surface shall be dressed out to permit turving operations.

### 3.3 FIELD TESTING CONTROL

Testing shall be the responsibility of the Contractor and shall be performed by an approved commercial testing laboratory or by the Contractor subject to approval. Field density and moisture content tests shall be performed on every 1,000 cubic yards of material placed. Field in-place density shall be determined in accordance with ASTM D 2922. The calibration checks of both the density and moisture gages shall be made at the beginning of a job on each different type of material encountered and

at intervals as directed. The Contractor shall submit three copies daily of control tests and reports as well as records of corrective action taken in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

### 3.4 CROSS SECTIONS AND ZONING OF MATERIALS

#### 3.4.1 Levee Embankment Sections

Unless otherwise specified, the dimensions and slopes shall conform to the applicable cross sections shown on the drawings, within allowable tolerance.

#### 3.4.2 Zoning of Materials for Levee Construction

In general, the levee section shall be homogeneous; however, where materials of varying permeabilities are encountered in the borrow area, the more impervious material shall be placed toward the riverside slope, and the more pervious material toward the landside slope.

### 3.5 ACCESS ROADS, RAMPS AND CROSSINGS, AND RUNWAYS

#### 3.5.1 Temporary Roads

At locations where existing roads are destroyed because of the work required under this contract, the Contractor shall provide temporary roads to give access during the construction period. The temporary roads shall be constructed by placement of fill as specified in paragraph SEMICOMPACTED FILL. The temporary roads shall be removed after permanent access has been provided. No separate payment will be made for this work.

#### 3.5.2 Ramps and Crossings

##### 3.5.2.1 General

Ramps and crossings shall be constructed at the locations shown on the drawings by placement of a fill as specified in paragraph SEMICOMPACTED FILL. Ramps shall be constructed only by adding material to the levee crown and slopes. Ramps shall have a 18-foot crown width, 1V on 10H crown slope, and 1V on 3H side slopes. Payment for ramp construction will be made at the contract lump sum price for "Ramps".

##### 3.5.2.2 Changes in Ramp Dimensions or Locations

The Contracting Officer reserves the right to modify the dimensions and shift the locations of the ramps, to eliminate ramp construction, and to order the construction of additional ramps at other locations. Payment will be made in accordance with the Contract Clause CHANGES.

#### 3.5.3 Runways

##### 3.5.3.1 Temporary Runways

Where material is hauled over an existing levee for construction, the Contractor at his expense will be permitted to construct temporary runways over the levee by the addition of material to the levee cross section. In the construction of runways, if the Contractor so desires, he may cut the existing levee, but not to exceed a depth of 5 feet below the crown and not to exceed 10 feet below the project flowline or one half the height of the levee, whichever is less, and provided that the cut is made with side slopes not steeper than 1V on 1H, and not flatter than 1V on 3H, and with a

minimum width of haul road of 25 feet for one-way traffic, and 60 feet for two-way traffic. Cutting into the existing levee at intervals of less than 500 linear feet for the 25-foot bottom widths or less than 1,000 linear feet for the 60-foot bottom widths will not be allowed, and no more than 2 runways shall be open at one time. The Contractor shall stockpile, as directed by the Contracting Officer, sufficient suitable levee embankment material to construct emergency closure of the cuts. As soon as any runway has served the purpose for which it was constructed, the levee shall be restored to the prescribed grade and section, the crown resurfaced and the disturbed areas dressed, fertilized, and turfed as specified in Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT, all at no additional cost to the Government. Just prior to such restoration, the bottom of any cut made in the levee shall be broken to a depth of 6 inches, and the side slopes thoroughly scarified. The restoration shall be made with suitable levee embankment material, placed and compacted as provided in paragraph SEMICOMPACTED FILL. In no case shall the material grade more impervious landward in the cross section. Material used in the construction of the approach ramps of the runways shall be removed and may be used for borrow, if suitable. If not used for borrow, the material shall be disposed of by placing in abandoned portions of the borrow area, at no additional cost to the Government. The areas on the levee slopes formerly covered by the ramps shall be returfed. No section of the levee shall be degraded or weakened to provide runways without prior written approval of the Contracting Officer.

#### 3.5.3.2 Closure of Runways

Where runways have been cut through the levee, the Contracting Officer reserves the right to order their closure at no additional cost to the Government at any time that such runways may endanger the security of the levee. In such an emergency should the Contractor, after specific notification from the Contracting Officer, fail to close the runways without delay and in the manner specified herein, the Contracting Officer shall have the right to utilize the Contractor's equipment and labor and to employ any other equipment and labor that may be needed to perform such work at no additional cost to the Government. Any damages or expenses occasioned by the refilling of the runways or by delays incidental thereto or by any operations necessary or incidental to the restoration of protection impaired by the Contractor, will not be a basis for a claim.

#### 3.5.3.3 Reconstruction of Gravel Surfacing

The Contractor shall, at his own expense, reconstruct the road surfacing where it has been cut for runways through and/or over the existing levee. The surfacing shall be reconstructed as directed with the reconstruction of the surfacing conforming to the requirements of Section 02301 LEVEE SURFACING.

### 3.6 GRADE TOLERANCES

All levee embankments shall be constructed to the design grade and cross section shown on the drawings. For semicompacted fill at all points, a tolerance of 3/10 of 1 foot above or below the prescribed design grade and cross section shown will be permitted in the final dressing provided that the crown of the levee drains, there are no abrupt humps or depressions in surfaces or bulges in the width of the crown, and the side slopes are uniform. The extreme minus tolerance provided herein shall not be continuous over an area greater than 1,000 square feet and abrupt changes from one extreme to the other will not be permitted. Any partial fill or

temporarily stockpiled material placed within the design section shall not exceed the design grade or design slopes of the embankment by more than 2-feet, and shall have side slopes not steeper than 1V on 3H.

### 3.7 SETTLEMENT OF FOUNDATION

No measurement or payment will be made for settlement of foundation, and all costs for placing additional fill due to foundation settlement during construction shall be included in the contract unit price for "Levee Embankment".

### 3.8 SLIDES

Should sliding occur in any part of the embankment during its construction, or after its completion, but prior to its acceptance, the Contractor shall upon written order of the Contracting Officer, either cut out and remove the slide from the embankment and then rebuild that portion of the embankment, or construct a stability berm of such dimensions, and placed in such manner, as the Contracting Officer shall prescribe. In case the slide is caused through the fault or negligence of the Contractor, the foregoing operations shall be performed at no additional cost to the Government. In case the slide is not caused through the fault or negligence of the Contractor, the prescribed repair will be paid in accordance with the Contract Clause CHANGES. Fill material for stability berms will be paid for in accordance with the Contract Clause CHANGES in addition to any payment due the Contractor for materials previously placed. The method of slide correction will be determined by the Contracting Officer.

-- End of Section --