

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES	
			J	1	2
2. AMENDMENT/MODIFICATION NO. 5	3. EFFECTIVE DATE 10-Oct-2002	4. REQUISITION/PURCHASE REQ. NO. W807PM-2198-4777		5. PROJECT NO.(If applicable)	
6. ISSUED BY CONSTRUCTION & A/E BRANCH 4155 CLAY STREET VICKSBURG MS 39183-3435	CODE DACW38	7. ADMINISTERED BY (If other than item 6) See Item 6		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X	9A. AMENDMENT OF SOLICITATION NO. DACW38-02-B-0042	
			X	9B. DATED (SEE ITEM 11) 16-Aug-2002	
				10A. MOD. OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<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 type="checkbox"/> is extended, <input checked="" 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 _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <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 Solicitation No. DACW38-02-B-0042, for FC/MR&T, West Bank Mississippi River Levees, Willow Point - Youngs Point, LA, Levee Enlargement, Item 457-R, scheduled for bids to open on 24 October 2002 at 1400 hours is hereby amended as follows: See Continuation sheet.					
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)		09-Oct-2002	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SOLICITATION, OFFER, AND AWARD (SF1442), is revised and replaced. The description of work in block 10 has been revised to change “crushed limestone” to “crushed stone”.

00010, BIDDING SCHEDULE, page 2 of 136 is revised and replaced. Under Item No. 0016 LEVEE AND ROADWAY SURFACING, in 0016AB, “OPTION B – CRUSHED LIMESTONE” has been changed to “OPTION B – CRUSHED STONE”.

NOTES: Page 4 of 136 is revised and replaced. Note (h) has been revised to change “crushed limestone” to “crushed stone”.

TECHNICAL SPECIFICATIONS

Section 01000 GENERAL CONTRACT REQUIREMENTS is reissued in its entirety.

Section 01025 MEASUREMENT AND PAYMENT is reissued in its entirety.

Section 01356 STORM WATER POLLUTION PREVENTION PLAN is reissued in its entirety.

Section 02301 LEVEE AND ROADWAY SURFACING is reissued in its entirety. The entire technical specifications have been revised to change “crushed limestone” to “crushed stone”. Paragraph 2.1.3.1 DEFINITION, which defined crushed stone as “crushed limestone only”, has been deleted. An updated STONE SOURCES list has been added at the end of the section.

Section 02610 WATER CONTROL STRUCTURES is reissued in its entirety.

Section 05560 CATTLE GUARDS is reissued in its entirety.

DRAWINGS

DRAWING NOS. 2 and 11 are reissued.

DRAWING NO. 3: Make “pen and ink” change to note in two locations; add “OR CRUSHED STONE” after the word “GRAVEL” and prior to the word “SURFACING”.

DRAWING NOS. 7, 9, and 14: Make “pen and ink” change to change “CRUSHED LIMESTONE” to “CRUSHED STONE” wherever these words appear.

Pages revised by this amendment have the notation “Revised by Amendment 0005” 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: Standard Form 1442, page 1
Bidding Schedule, page 2 of 136
Notes to Bidding Schedule, page 4 of 136
Section 01000, pages 1 thru 20
Section 01025, pages 1 thru 8
Section 01356, pages 1 thru 13
Section 02301, pages 1 thru 14
Section 02610, pages 1 thru 3
Section 05560, pages 1 thru 3

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0011	EROSION CONTROL	1	LS	FOR	\$ _____
0012	WATER CONTROL GATES AND RISERS	1	LS	FOR	\$ _____
0013	LEVEE EMBANKMENT, SEMICOMPACTED	1,470,800	CY	\$ _____	\$ _____
0014	BERM EMBANKMENT, SEMICOMPACTED	451,200	CY	\$ _____	\$ _____
0015	BERM EMBANKMENT, UNCOMPACTED	371,100	CY	\$ _____	\$ _____
0016	LEVEE AND ROADWAY SURFACING				
0016AA	OPTION A - SAND-CLAY-GRAVEL	13,570	TN	\$ _____	\$ _____
*0016AB	OPTION B - CRUSHED STONE	10,550	TN	\$ _____	\$ _____ *
0017	CATTLE GUARDS	6	EA	\$ _____	\$ _____
0018	CORRUGATED METAL PIPE, 24-INCH, BITUMINOUS COATED W/PAVED INVERT	92	LF	\$ _____	\$ _____
0019	CORRUGATED METAL PIPE, 24-INCH, POLYMER COATED	214	LF	\$ _____	\$ _____

NOTES:

- (a) THE SF1442, THE BIDDING SCHEDULE, AND THE SECTION 00600 (REPRESENTATIONS AND CERTIFICATIONS) MUST BE ACCURATELY COMPLETED AND RETURNED WITH YOUR BID OR IT MAY BE REJECTED AS NONRESPONSIVE.**
- (b) 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 (MAR 1998)."**
- (c) Bidders shall furnish unit prices for all items listed on the schedule of bid items which 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 the line item by the quantity. IF THE BIDDER OMITTS BOTH THE UNIT PRICE AND THE EXTENDED ESTIMATED AMOUNT FOR ANY ITEM, HIS BID WILL BE DECLARED NONRESPONSIVE.**
- (d) All quantities shown on the BIDDING SCHEDULE are estimated quantities except when the unit of measure is shown as "lump sum", "job" or "each".**
- (e) If a bid or 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.**
- (f) 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.**
- (g) Award will be made as a whole to the lowest responsive, responsible bidder as may be in the best interest of the Government.**
- (h) Under Item 0016, LEVEE AND ROADWAY SURFACING, bidders shall bid on either OPTION A – SAND-CLAY-GRAVEL or OPTION B – CRUSHED STONE, but not both.* Bidders shall bid on only one of these options and the Contractor will be required to provide that surfacing material.**

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SECTION 01000

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SECTION 01000

GENERAL CONTRACT REQUIREMENTS

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.

CODE OF FEDERAL REGULATIONS (CFR)

19 CFR 24.24	Harbor Maintenance Fee
33 CFR 156	Oil and Hazardous Material Transfer Operations

1.2 PARTNERING

To enhance the potential for success on this contract, the Government encourages formation of a project partnership among all stakeholders (Government, Contractor, Subcontractors, Suppliers and Customer as appropriate). Project partnering provides a structured management approach to facilitate teamwork across contractual boundaries. This proposed partnership would strive to develop a cooperative working relationship to jointly establish and effectively reach mutual project execution goals. Participation in such a partnership will be totally voluntary. The partnering process would normally include an initial offsite kickoff meeting and follow-on maintenance meetings as agreed by the partnership. Costs of such meetings would be shared between the Government and the contractor, based on a mutual agreement, without change to the contract price. The partnering process will in no way relax or stiffen the requirements of the contract, but will enhance the likelihood of success through improved working relationships.

1.3 RIGHTS-OF-WAY

a. The rights-of-way for the work to be constructed under this contract, within the limits indicated on the drawings, will be provided by the Government without cost to the Contractor. If these rights-of-way are used by the Contractor, he shall, at his own expense, do all work necessary to make such rights-of-way suitable for traveling to and from the worksite. Upon completion of the Contractor's work, any such rights-of-way furnished by the Government shall be left in a condition satisfactory to the Contracting Officer.

b. When so directed by the Contracting Officer, the Contractor shall, without expense to the Government and at any time during the progress of the work when it is not being actively used for contract operations,

promptly vacate and clean up any part of the Government grounds or rights-of-way that have been allotted to or have been in use by the Contractor.

c. The Contractor shall not obstruct any existing roads, including but not limited to the Madison Parish Port road, on lands controlled by the United States except with written permission of the Contracting Officer and shall maintain such roads in as good condition as exists at the time of commencement of work under this contract.

d. The Contractor shall procure, without expense to the Government, all additional lands, access roads, or rights-of-way necessary for his use in the performance of the work or as required by his method of operation. The Contractor shall submit written evidence to the Contracting Officer that he has obtained the rights-of-way from the property owners. The written evidence shall consist of an authenticated copy of the conveyance under which the Contractor acquired such rights-of-way, prepared and executed in accordance with the laws of the State in which the land is located. The Contractor shall also obtain from the owners a release for the Government for any damages which may result from his use of such rights-of-way. The written conveyance and release shall be provided to the Government prior to use of Contractor obtained additional lands, access roads, or rights-of-way. If temporary rights-of-way are obtained by the Contractor the period of time for those rights shall coincide with Section 00800 SPECIAL CONTRACT REQUIREMENTS, paragraph COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK, plus a reasonable time for any extension granted for the completion of the work. Any agreements or permits with levee boards, counties, parishes, municipalities, or other political subdivisions for moving material and equipment will be the responsibility of the Contractor and will be obtained at no expense to the Government. Any delays to the Contractor resulting from delays in procuring such additional lands, access roads, rights-of-way, or permits for moving material and equipment for his work under this contract will not be a basis for any claim for increase in the cost of this contract. The Contractor shall make his own investigations to determine the conditions, restrictions and difficulties which may be encountered in acquiring such rights-of-way and in the transportation of material and equipment. In addition, the Contractor shall be solely liable for any and all damages and claims of any nature whatsoever arising from or growing out of the acquisition and use of rights-of-way, etc., other than those furnished by the Government.

e. Notwithstanding any language or drawings to the contrary in this contract, the United States will not provide access or rights-of-way over any public lands and will not be responsible for acquiring such.

f. The Contractor shall repair at no expense to the Government, any and all damage to any existing roads and railroads, including but not limited to the Madison Parish Port road and railroad, when such damage is a result of his operations under this contract. (See also clause WORK ON OR ADJACENT TO RAILROAD.) (CEMVK-OC, 1989)

1.4 PRECONSTRUCTION CONFERENCE

a. A preconstruction conference will be arranged by the Area Engineer as soon after contract award as possible, and the conference will be conducted before work is allowed to commence. The Area Engineer will notify the Contractor of the time, date, and location for the meeting. At this conference, the Contractor will be oriented with respect to contract administration procedures, lines of authority, and construction matters. All known subcontractors performing at least 20 percent of the contract are required to attend this conference. Additional conferences may be established by the Area Engineer for any major subcontractors unknown at the time of the initial conference.

b. Submission by the Contractor of the items listed below will determine the date of the conference. The following items shall be submitted to the Area Engineer for review at least seven (7) calendar days prior to the preconstruction conference:

- (1) Accident Prevention Plan
- (2) Environmental Protection Plan
- (3) Quality Control Plan

c. The Contractor shall bring to this conference, in completed form the following:

- (1) Letter of superintendent appointment and authority
- (2) List of subcontractors

d. The Contractor should bring to this conference, or at least be prepared to discuss, the following:

- (1) Submittal register
- (2) Progress chart or Network Analysis System (as applicable)

e. Minutes of this conference will be taken and prepared by the Area Engineer and sent to the Contractor for his concurrence and signature.

1.5 SUBMITTAL OF SUBCONTRACTING PLAN

a. This paragraph does not apply to small business concerns.

b. After bid opening, and within 7 days, the apparent low bidder, upon telephone notification by the Small and Disadvantaged Business Utilization Specialist, shall submit a Small and Disadvantaged Business Subcontracting Plan. The plan shall be submitted in accordance with Contract Clauses UTILIZATION OF SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS CONCERNS and SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN - ALTERNATE 1, and the person responsible for administering the plan shall be named in paragraph AGENT FOR SUBMITTING SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN of the Representations

and Certifications.

1.6 NOTIFICATION OF AREA ENGINEER BEFORE BEGINNING WORK

At least 7 days before beginning work and at least one day before resuming work after a period of 7 days or more when no work has been performed, the Contractor shall notify Mr. Gerald R. McDonald, Area Engineer, Vidalia Area Office, 100 Advocate Row, Vidalia, Louisiana 71373-3032, telephone (318) 336-5226.

1.7 ORDER OF WORK

The work shall be carried on in accordance with the Progress Chart (schedule) required by paragraph (a) of the Contract Clause SCHEDULES FOR CONSTRUCTION CONTRACTS. In preparing the Progress Chart (schedule), the Contractor shall give the following priorities to the work:

a. Except for the "NO LEVEE OR BERM WORK" reach shown on the drawings, construction of required embankment and berm shall begin at sta. 2525+51.56 and proceed continuously upstream to the end of the project at sta. 2322+00. Embankment and berm construction, including vegetation removal of the levee and berm surfaces, shall not be performed more than 5,000 feet upstream of the upstream limit of completed embankment and berm.

b. The landside seepage berm between stations 2421+00 and 2465+00, Ditch No. 1, Ditch No.2, and Ditch Cleanouts A, B, and C shall not be constructed until existing utilities have been relocated by others and approved by the Contracting Officer.

bc. Existing levee gravel and cattle guards shall be removed from the levee crown and ramps no less than 1,000 feet in advance of embankment construction, but no more than 5,000 feet in advance of embankment construction, and stockpiled.

ed. Existing levee gravel surfacing shall be removed from stockpile and placed on the new levee crown after each reach of levee embankment has been completed, and before levee embankment has been completed 2,000 feet in advance of the reach that has received existing gravel surfacing.

de. New surfacing material shall be placed on completed embankment so that the completed new surfacing shall be no less than 3,000 feet behind the completion of the levee embankment, and no more than 5,000 feet behind the completion of the levee embankment. Cattle guards and bedding beams shall be installed concurrently with placement of new surfacing material.

ef. The existing levee crown shall not be used as a haul road until existing gravel has been removed as required in Section 02301 LEVEE AND ROADWAY SURFACING. Completed levee embankment (with or without surfacing material) shall not be used as a haul road.

fg. See Section 02222 EXCAVATION, paragraph REQUIREMENTS for order of

work for borrow area excavation.

sh. The Contractor shall have completed excavation in Borrow Area No. 2 prior to installation of corrugated metal pipes with risers and water control gates.

1.8 PROGRESS CHART

The progress chart required by provisions of paragraph (a) of the Contract Clause SCHEDULES FOR CONSTRUCTION CONTRACTS shall be prepared on ENG FORM 2454, copies of which will be furnished to the Contractor by the Government. Three (3) copies of the schedule will be required. The Progress Chart shall be periodically updated.

1.9 DESIGNATED BILLING OFFICE

The designated billing office for this contract shall be U.S. Army Corps of Engineers, Vidalia Area Office, 100 Advocate Row, Vidalia, Louisiana 71373-3032.

1.10 PAYMENT INVOICES

a. The Federal Acquisition Regulation requires that the "REMIT TO" address on the invoice match the "REMIT TO" address on the contract or a proper notice of assignment. The Payment Office will verify a match of the "REMIT TO" address in the contract and Contractor's invoice prior to payment. If the addresses do not match, the invoice will be determined improper and returned to the Contractor for correction and resubmission. If an invoice is improperly returned, the original invoice receipt date shall be used as the basis for determining interest to be paid in accordance with the PROMPT PAYMENT ACT.

b. Among other things, the Contract Clause PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS requires that a proper invoice for payment include substantiation of the amounts requested. As required in Office of Management and Budget, Circular A-125 (Rev.), PROMPT PAYMENT, dated December 12, 1989, substantiation of the amount requested for progress payments under construction contracts includes the following:

- (1) An itemization of the amounts requested related to the various elements of work required by the contract covered by the payment request;
- (2) A listing of the amount included for work performed by each subcontractor under the contract;
- (3) A listing of the total amount of each subcontract under the contract;
- (4) A listing of the amounts previously paid to each such subcontractor under the contract; and,
- (5) Additional supporting data in a form and detail required by the contracting officer.

c. Failure to include the above information in a Contractor's invoice will result in the invoice being considered defective under the provisions of the PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS clause of the contract, and it will be returned to the Contractor for correction and resubmission. (CEMVK-OC, 1997)

1.11 TEMPORARY PROJECT FENCING

Temporary project fencing as required by Section 4, "Temporary Facilities", paragraph 04.A.04 of EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual, is not required on this project.

1.12 AS-BUILT DRAWINGS

This paragraph supplements the Contract Clause SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION.

a. As-Built Contract Drawings. The Contractor shall maintain two (2) half-size sets of blueline prints of the contract drawings depicting in red a record of as-built conditions. These drawings shall be maintained in current condition at all times during the entire contract period. The blueline drawings shall be updated daily by the Contractor showing all changes from the contract plans which are made in the work, additional information which might be uncovered in the course of construction, and information for future construction reference (such as debris disposed by burying). For levee and berm construction, the riverside toe of completed levee and berm sections shall be plotted on profiles of construction drawings. Levee and berm toe profiles shall depict elevations of newly constructed slope intersection with natural ground and depressions which extend the toe line between routine section surveys. This information shall be recorded on the blueline prints accurately and neatly by means of details and notes. Each month, prior to submitting a request for progress payment, the Contractor shall review the blueline as-built drawings with the Contracting Officer, and the Contractor shall certify that the as-built drawings are accurate and up-to-date before progress payment is made. The Contractor shall deliver to the Contracting Officer two (2) complete sets of the as-built marked blueline prints at the time of the final inspection of the project. In addition, the Contractor shall have the as-built marked prints scanned into full-size, 300 dpi TIFF (tagged image file format) black-and-white raster images and shall deliver to the Contracting Officer two (2) complete sets on CD-ROM at the time of final inspection. The as-built drawings shall be identified by entering the words "AS-BUILT DRAWINGS" in letters at least 3/16-inch high, placed in the lower right corner of each drawing.

b. As-Built Shop Drawings. Upon completion of individual features of work, the Contractor shall revise and resubmit any shop drawings for the feature as necessary to show as-built conditions. The notation "Revised to show as-built conditions" shall be placed in red in the lower right corner of each drawing, along with the initials of a responsible company representative. Each revised as-built shop drawing or catalog cut shall be resubmitted using ENG FORM 4025, enclosed at

the end of Section 01330 SUBMITTAL PROCEDURES.

c. No separate measurement or payment will be made for providing as-built drawings, as-built shop drawings, electronic drawings and plates, or for any of the work required by this clause, and all costs therefor shall be included in the applicable contract prices contained in the Bidding Schedule.

1.13 PROJECT SIGN (APR 1991)

The Contractor shall fabricate, erect and maintain one sign for project identification. The sign shall be displayed and positioned for reading by passing viewers. The exact location is subject to Contracting Officer's approval. Information for the right side of the project sign shall be as follows:

Title: WILLOW POINT - YOUNGS POINT, LA.
LEVEE ENLARGEMENT
ITEM 457-R

Project: FLOOD CONTROL, MISSISSIPPI RIVER AND TRIBUTARIES
WEST BANK MISSISSIPPI RIVER AND LEVEES

Contract No: DACW38-02-C-0XXX

Contractor: (Contractor's name and city)

The project identification sign shall meet the requirements specified in the U.S. Army Corps of Engineers Sign (USACES) Standards Manual, EP 310-1-6a and EP 310-1-6b. A copy of the sign standards manual is available for review at the office of the Vicksburg District Sign Program Manager and questions concerning manufacture and installation of the project identification sign may be addressed to:

Vicksburg District Sign Program Manager (Lawran Richter)
ATTN: CEMVK-OD-MN
4155 Clay Street
Vicksburg, MS 39183-3435
Telephone: (601) 631-5287

1.14 MINIMUM REQUIRED INSURANCE

The following paragraph is applicable if the services involved are performed on a Government Installation. Government Installation is defined as property where the Government holds by fee simple title, by construction rights-of-way, or perpetual easement, etc., an interest in real property. See Contract Clause INSURANCE-WORK ON A GOVERNMENT INSTALLATION.

- a. Workmen's Compensation and Employer's Liability Insurance. The Contractor shall comply with all applicable workmen's compensation Statutes of the State of Louisiana and shall furnish evidence of Employer's Liability Insurance in an amount of not less than \$100,000.
- b. General Liability Insurance. Bodily injury liability insurance in

the minimum limits of \$500,000 per occurrence on the comprehensive form of policy.

c. Automobile Liability Insurance. Minimum limits of \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage. This insurance shall be on the comprehensive form of policy and shall cover the operation of all automobiles used in performance of the contract.

1.15 WORK IN QUARANTINED AREA

The work called for by this contract involves activities in parishes quarantined by the Department of Agriculture to prevent the spread of certain plant pests which may be present in the soil. The Contractor agrees that all construction equipment and tools to be moved from such parishes shall be thoroughly cleaned of all soil residues at the construction site with water under pressure and that hand tools shall be thoroughly cleaned by brushing or other means to remove all soil. In addition, if this contract involves the identification, shipping, storage, testing, or disposal of soils from such quarantined area, the Contractor agrees to comply with the provisions of ER 1110-1-5, "Plant Pest Quarantined Areas and Foreign Soil Samples" attachments, a copy of which will be made available by the Contracting Officer upon request. The Contractor agrees to assure compliance with this obligation by all subcontractors.

1.16 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of material with specification requirements shall be executed in accordance with Section 01330 SUBMITTAL PROCEDURES. Each certificate shall be signed by an official authorized to certify on behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

1.17 PROCESS FOR OBTAINING CURRENT REQUIREMENTS OF THE U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL (EM 385-1-1)

Contractors are required to comply with the latest version, and all posted changes, of the U.S. Army Corps of Engineers Safety and Health Requirements Manual in effect on the issue date of this solicitation. EM 385-1-1 and changes are available on the Internet at <http://www.hq.usace.army.mil> (at the HQ home page, select "Safety and Occupational Health", and then select "EM 385-1-1" for the manual, or "Changes to EM" for the most recent changes to the manual). Prior to making an offer, offerors should check the referenced website for the latest changes. No separate payment will be made for compliance with the requirements of this paragraph, or for compliance with other safety requirements of the contract.

1.18 SAFETY SIGN

The Contractor shall fabricate, erect and maintain a safety sign at the site, as located by the Contracting Officer. The sign shall be erected as soon as practicable, but not later than 15 calendar days after the date established for commencement of work. The data required shall be current. The safety sign shall meet the requirements specified in the U.S. Army Corps of Engineers Sign (USACES) Standards Manual, EP 310-1-6a and EP 310-1-6b. A copy of the sign standards manual is available for review at the office of the Vicksburg District Sign Program Manager and questions concerning manufacture and installation of the safety sign may be addressed to:

Vicksburg District Sign Program Manager (Lawran Richter)
ATTN: CEMVK-OD-MN
4155 Clay Street
Vicksburg, MS 39183-3435
Telephone: (601) 631-5287

1.19 ACCIDENT PREVENTION PLAN

Refer to Contract Clause ACCIDENT PREVENTION (Alternate I). Within 15 days after receipt of award of the contract, an Accident Prevention Plan shall be submitted to the Contracting Officer for review and acceptance. The plan shall be prepared in the following format:

- a. An executed MVD FORM 358-R, "Administrative Plan" (available upon request), see Appendix A, "Minimum Basic Outline for Accident Prevention Plan" of EM 385-1-1.
- b. An executed MVD FORM 359-R, "Activity Hazard Analysis" (available upon request), see paragraph 01.A.09 and figure 1-1 of EM 385-1-1.
- c. A copy of company policy statement regarding accident prevention.
- d. When marine plant and equipment are in use under a contract, the method of fuel oil transfer shall be submitted on MVD Form 414R Fuel Oil Transfer, (available upon request). (Refer to 33 CFR 156.)
- e. The Contractor shall not commence physical work at the site until the plan has been accepted by the Contracting Officer, or his authorized representative. At the Contracting Officer's discretion, the Contractor may submit his Activity Hazard Analysis only for the first phase of construction provided that it is accompanied by an outline of the remaining phases of construction. All remaining phases shall be submitted and accepted prior to the beginning of work in each phase. Also, refer to Section 1, "Program Management", paragraph 01.B, "Indoctrination and Training" of EM 385-1-1.

1.20 DAILY INSPECTIONS

Refer to Contract Clause INSPECTION OF CONSTRUCTION. The Contractor shall perform daily safety inspections and record them on the forms approved by

the Contracting Officer. Reports of daily inspections shall be maintained at the job site. The reports shall be records of the daily inspections and resulting actions. As a minimum each report shall include the following:

- a. Phase(s) of construction underway during the inspection
- b. Locations or areas inspections were made.
- c. Results of inspection, including nature of deficiencies observed and corrective actions taken, or to be taken, date, and signature of the person responsible for its contents.

1.21 ACCIDENT INVESTIGATIONS AND REPORTING

Refer to EM 385-1-1, Section 1, "Program Management", paragraph 01.D, "Accident Reporting and Recordkeeping". Accidents shall be investigated and reports completed by the immediate supervisor of the employee(s) involved and reported in writing to the Contracting Officer or his representative within one working day after the accident occurs.

1.22 ACCOMMODATIONS FOR GOVERNMENT REPRESENTATIVES

a. Accommodations. The Contractor shall furnish and maintain a temporary building for the exclusive use of the Government Representatives. The building shall be of light, but weatherproof construction, approximately 120 square feet in size with not less than 7 feet of headroom. It shall have a substantial workbench along one side and sufficient number of windows to admit ample working light. Windows shall be arranged to open and to be securely fastened from the inside. The door shall be of wood panel or solid core construction and be equipped with a padlock and heavy duty hasp bolted to the door. Insect screens shall be provided for windows. Glass panels in windows shall be equipped with bars or heavy mesh screens which will prevent easy access to the building through these panels. The Contractor shall heat the building by means of heaters and shall cool the building by means of an air conditioning unit. Electric current shall also be provided for operation of lights, appliances, and electric calculators at 115 volts AC. Electric current may be provided by use of a portable generator. A minimum of two wall outlets and two ceiling drops shall be provided in the building. One office desk and a minimum of two chairs shall be provided in the building. Telephone service with two exclusive lines solely for Government use shall be furnished to the Government Representative building. Toilet facilities shall be provided in the building or adjacent thereto. The building shall remain the property of the Contractor and upon completion of all work under the contract shall be removed as provided in the Contract Clause OPERATIONS AND STORAGE AREAS. An office trailer meeting the above requirements will be acceptable.

b. Janitor Services. The Contractor shall furnish daily janitorial services for the above office and perform any required maintenance of subject facility and adjacent grounds during the entire life of the contract. Toilet facilities shall be clean and sanitary at all times. Services shall be performed at such a time and in such a manner to

least interfere with the operations but will be accomplished only when the office is in daily use. The Contractor shall also provide daily trash collection and cleanup of the building and adjacent outside areas, and shall dispose of all discarded debris in a manner approved.

c. Should the Contractor refuse, neglect, or delay compliance with the above requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amount due or to become due the Contractor.

1.23 MACHINERY AND MECHANIZED EQUIPMENT

Machinery and mechanized equipment used under this contract shall comply with the following:

a. When mechanized equipment is operated on floating plant, the Contractor shall provide positive and acceptable means of preventing this equipment from moving or falling into the water. The type of equipment addressed by this clause includes front-end loaders, bulldozers, trucks (both on- and off-road), backhoes, hydraulic excavators (track hoes), and similar equipment. If the Contractor plans to use such equipment on floating plant, an activity hazard analysis must be developed for this feature of work. The plan must include a detailed explanation of the type or types of physical barriers, curbs, structures, etc., which will be incorporated to protect the operator and prevent the equipment from entering the water. Nonstructural warning devices may be considered for situations where the use of structural barriers is determined to be impracticable. The activity hazard analysis must thoroughly address the procedure and be submitted to the Corps for review and acceptance prior to start of this feature of work.

b. The stability of crawler, truck, and wheel-mounted cranes shall be assured.

(1) The manufacturer's load-rating chart may be used to determine the maximum allowable working load for each particular crane's boom angle provided a test load, with a boom angle of 20 degrees, confirms the manufacturer's load-rating table.

(2) Stability tests are required if:

(i) there is no manufacturer's load-rating chart securely fixed to the operator's cab;

(ii) there has been a change in boom or other structural member or,

(iii) there has been a change in the counterweight.

The test shall consist of lifting a load with the boom in the least stable undercarriage position and at an angle of 20 degrees above the horizontal. The test shall be conducted under close supervision on a firm, level surface. The load that tilts the

machine shall be identified as the test load. The test load moment (in ft-lbs) shall then be calculated by multiplying the horizontal distance (in ft) from the center of rotation of the machine to the test load, times the test load (in lbs). Three-fourths of this test-load moment shall then be used to compute the maximum allowable operating loads for the boom at 20, 40, 60, and 80 degrees above horizontal. From these maximum allowable operating loads, curve shall be plotted and posted in the cab of the machine in sight of the operator. These values shall not be exceeded except in the performance test described below. The test load shall never exceed 100 percent of the manufacturer's maximum rated capacity.

(3) In lieu of the test and computations above, the crane may be load tested for stability at each of the four boom positions listed above.

c. Performance tests shall be performed in accordance with Section 16, "Machinery and Mechanized Equipment" of EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual, except as specified below. Performance tests shall be conducted after each stability test, when the crane is placed in service on a project, and at least every 12 months.

(1) When conducting a performance load test which is required of a new crane or a crane in which load sustaining parts have been altered, replaced, or repaired (excluding replacement of the rope), the test load shall be as specified in ASME/ANSI B30 Series. That is, for overhead, gantry, portal, pillar, tower, monorail, and underhung cranes, the test load shall not exceed 125 percent of the manufacturer's load rating capacity chart at the configuration of the test; and for hammerhead tower, mobile, and floating cranes and boom trucks, the test load shall not exceed 110 percent of the manufacturer's load rating capacity chart at the configuration of the test.

(2) When conducting a performance load test which is required because a crane is reconfigured, or reassembled after disassembly, or because the crane requires an annual load test, the test loads shall not exceed 100 percent of the manufacturer's load rating capacity chart at the configuration of the test.

(3) All load tests are required to be conducted in accordance with the manufacturer's recommendations.

d. Inspections shall be made which will ensure a safe and economical operation of both cranes and draglines with inspection documented. Copies of the inspections and tests shall be available at the job site for review. All stability and performance tests on cranes and all complete dragline inspections shall be witnessed by the Contracting Officer or his authorized representative.

e. A complete dragline inspection shall be made:

- (1) at least annually;
- (2) prior to the dragline being placed in operation; and
- (3) after the dragline has been out of service for more than 6 months.

f. All heavy equipment moved onto the worksite shall be inspected for compliance with this contract. Some MVD Inspection forms are attached at the end of this section. All completed forms, including abatement schedule of any violations, shall be maintained at the job site for continued review and update as needed.

1.24 VEHICLE WEIGHT LIMITATIONS

Vehicle weight limitations for operation on rural roads and bridges may affect the prosecution of work in this contract. The Contractor will be responsible for obtaining all necessary licenses and permits in accordance with the Contract Clause PERMITS AND RESPONSIBILITIES. Current information regarding road and bridge weight limits may be obtained by contacting the Louisiana Department of Transportation and Development and the police jury for the parishes through which equipment and materials will be transported as a result of this contract.

1.25 PUBLIC AND PRIVATE UTILITIES

a. Unless otherwise specified, shown on the drawings, or stated in writing by the Contracting Officer, the Contractor shall not remove or disturb any public or private utilities. Such removals, alterations, and relocations, where necessary, will be made by others. The locations, if any, shown on the drawings for underground utilities are approximate only. The exact locations of such utilities shall be determined by the Contractor in the field prior to commencing construction operations in their vicinity.

b. The attention of the Contractor is directed to the possibility that he may encounter, within the right-of-way limits, utilities, some of which may be buried, and the existence of which is presently not known. Should any such utilities be encountered, the Contractor shall immediately notify the Contracting Officer so that he may determine whether they shall be removed, relocated, or altered. After such determination is made, the Contractor shall, if so directed by the Contracting Officer, remove, relocate, or alter them as required, and an equitable adjustment will be made in accordance with the Contract Clause CHANGES. In event the Contracting Officer arranges for such removals, alterations, or relocations to be performed by others, the Contractor shall cooperate with such others during the latter's removal, alteration, or relocation operations in accordance with the Contract Clause OTHER CONTRACTS.

c. The Contractor shall give the utility owners and Contracting Officer 7 days notice before any work is performed within 100 feet of utilities. Also, the Contractor shall perform all work within 100 feet of utilities in accordance with the criteria provided by the owner. A

copy of these criteria shall be furnished to the Contracting Officer before any work within 100 feet of a utility may be performed. Extreme caution shall be used when near utilities. The Contractor shall locate each pipeline by probing. Point of contact for the utility companies crossing the construction rights-of-way are shown on Drawing No.2.

1.26 DAMAGE TO WORK

a. The responsibility for damage to any part of the permanent work shall be as set forth in the Contract Clause PERMITS AND RESPONSIBILITIES. However, if, in the judgement of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood (see Section 00800 SPECIAL CONTRACT REQUIREMENTS, paragraph PHYSICAL DATA, subparagraph FLOODS) or earthquake, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor shall make repairs as ordered by the Contracting Officer and full compensation for such repairs to permanent work will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, for any part of such damaged permanent work, there is no applicable contract unit or lump sum price, then an equitable adjustment pursuant to the Contract Clause CHANGES will be made as full compensation for the repairs for that part of the permanent work for which there is no applicable contract unit or lump sum price.

b. Except as herein provided, damage to all work (including temporary construction), utilities, materials, equipment, and plant shall be repaired to the satisfaction of the Contracting Officer, at the Contractor's expense, regardless of the cause of such damage.

1.27 ENERGY CONSERVATION

The Contractor shall ensure that construction operations are conducted efficiently and with the minimum use of energy.

1.28 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

a. This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with Contract Clause DEFAULT (FIXED PRICE CONSTRUCTION). In order for the Contracting Officer to award a time extension under this paragraph, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

b. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON FIVE (5) DAY WORK WEEK

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

(5) (4) (5) (5) (6) (4) (3) (3) (2) (3) (4) (5)

c. Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b, above, the contracting officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with Contract Clause DEFAULT (FIXED PRICE CONSTRUCTION).

1.29 EXCLUSION OF PERIODS IN COMPUTING COMPLETION SCHEDULES

Except for the work required in Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT, no work will be required during the period between 1 January and 31 May inclusive and such period has not been considered in computing the time allowed for completion. The Contractor may, however, perform work during all or any part of this period upon giving prior written notice to the Contracting Officer. If the work performed at the Contractor's option during such period is less than the average monthly work necessary to complete the contract within the time specified and the Contracting Officer maintains an inspection force during this period to inspect the work, the Contractor will be charged the percentage of the cost of maintaining such force that his work is less than the average monthly work necessary to complete the contract within the time specified.

1.30 CONTROL OF ACCESS TO CONSTRUCTION AREAS

a. This paragraph supplements the Contract Clauses PERMITS AND RESPONSIBILITIES and OPERATIONS AND STORAGE AREAS.

b. It shall be the responsibility of the Contractor to prevent possible injury to visitors to the project site. Only personnel engaged in contract work and others authorized by the Contracting

Officer shall be permitted to enter into the construction areas. Suitable barriers, warning signs and directives shall be placed by the Contractor to direct persons not engaged in the work away from the areas of danger. The Contractor shall be responsible for effective enforcement of this paragraph during the period of this contract.

1.31 MAINTENANCE OF TRAFFIC

- a. The Contractor shall conduct his operations in such manner as to offer the least possible obstruction to the safe and satisfactory movement of traffic over the existing roads, including but not limited to the Madison Parish Port road, during the life of the contract.
- b. The Contractor shall be responsible for providing, erecting, maintaining, and removal of all traffic signs, barricades, and other traffic control devices necessary for maintenance of traffic. See also paragraph entitled ACCIDENT PREVENTION PLAN and the Contract Clause entitled ACCIDENT PREVENTION.
- c. All barricades, warning signs, lights, temporary signals, other devices, flagmen, and signaling devices shall meet or exceed the minimum requirements of Louisiana DOTD, Manual On Uniform Traffic Control Devices (See EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Manual, 3 Section 21, Paragraph 21.1.09.) The Contractor is responsible for the protection, maintenance, and replacement of all existing signs, route markers, traffic control signals, and other traffic control features during the life of this contract.
- d. Prior to the commencement of construction operations the Contractor shall submit for the acceptance of the Contracting Officer, complete details of his proposed plans for the maintenance of traffic and access through the construction area.
- e. The requirements of this paragraph shall be met by the Contractor at no additional expense to the Government.

1.32 WORK ON OR ADJACENT TO RAILROAD

- a. This clause applies to contract operations on and adjacent to the premises of the Madison Parish Port railroad.
- b. Bidders should contact the Madison Parish Port Commission for further details as to requirements for crossing the Madison Parish Port railroad. The point of contact is Mr. Clyde Thompson, telephone (318) 574-2181.
- c. The Contractor shall at all times conduct his work with care so as to not damage, obstruct, or interfere with the operations of the railroad. The Contractor is solely responsible for all damages to the railroad and adjacent Madison Parish Port lands.
- d. As required by the Contract Clause entitled PERMITS AND RESPONSIBILITIES, the Contractor shall comply with all pertinent federal, state, and local laws. The Contractor shall also comply with

all regulations and requirements of the Surface Transportation Board, United States Department of Transportation, which pertain to working on and adjacent to the premises of the railroad.

e. The Contractor must give at least 48 hours advance notice of work for which a flagman or other protective service is required. Any flagging protection or watchman services required by the Port Commission for the safety of railway operations which are due to the work being performed by the Contractor, or in connection therewith, shall be provided by the Contractor at no additional expense to the Government.

f. Upon completion of work on or around the railroad premises, the Contractor shall remove all machinery, equipment, materials, rubbish, temporary structures, etc. and leave the premises in a neat, clean condition.

g. Any and all costs of complying with the requirements of this clause are the responsibility of the Contractor and such requirements shall be performed by the Contractor at no additional expense to the Government.

1.33 HARBOR MAINTENANCE FEE

a. Offerors or bidders contemplating use of U.S. ports in the performance of contract are subject to paying a harbor maintenance fee on cargo. Federal law establishes an ad valorem port use fee on commercial cargo imported into or exported from various U.S. ports. The fee is 0.125 percent (0.00125). Cargo to be used in performing work under contracts with the U.S. Government is not exempt from the fee, although certain exemptions do exist. Offerors are responsible for ensuring that the applicable fee and associated costs are taken into consideration in the preparation of their offers. Failure to pay the harbor maintenance fee may result in assessment of penalties by the Customs Service.

b. The statute is at Title 26 U.S. Code section 4461 and 4462. Department of Treasury Customs Service regulations implementing the statute, including a list of ports subject to the fee, are found at 19 CFR 24.24, Harbor Maintenance Fee. Additional information may be obtained from local U.S. Customs Service Offices or by writing to the Director, Budget Division, Office of Finance, Room 6328, U.S. Customs Service, 1301 Constitution Avenue, N.W., Washington, D.C. 20229.

1.34 ACCEPTANCE OF COMPLETED WORK

For the purpose of acceptance, the work to be done is divided into sections as follows:

- a. Sections of levee embankment, including levee cap, 500 feet long.
- b. Sections of berm embankment 500 feet long.
- c. All remaining work.

1.35 COOPERATION WITH OTHER CONTRACTORS

This paragraph supplements the Contract Clause OTHER CONTRACTS.

The upper and lower adjacent Items 461-R and 453-R may be under contract during this contract. There is an overlap of right-of-way between these items and Item 457-R. The Contractor shall fully cooperate with the other Contractors and with Government employees and carefully fit his work to such adjacent work as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work on adjacent item by the other Contractors or by Government employees. Any costs or delays associated with fully complying with the provisions of this paragraph shall not form the basis for a claim against the Government.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01025

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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, submittal procedures, 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, 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. "Gravel Surfacing, Existing"

(1) Payment will be made for all costs associated with removing, salvaging, stockpiling, hauling, replacing, spreading, compacting,

and dressing the existing gravel surfacing from the levee crown and ramps as required, and all work incidental thereto.

(2) Unit of measure: lump sum.

d. "Mowing and Turfing"

(1) Payment will be made for all costs associated with establishment and maintenance of new turf; maintenance of existing turf, which includes mowing of undisturbed levee and berm embankment surfaces within the rights-of-way during the life of the contract; and all work incidental thereto. The work included in this payment item shall be as specified in Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT.

(2) Unit of measure: lump sum.

e. "Ramps"

(1) Payment will be made for all costs associated with constructing the levee ramps; including foundation preparation; excavating, stockpiling if necessary, hauling, placing, compacting and dressing material (to be obtained from Borrow Area No. 1 only); determining optimum moisture and maximum dry density; performing moisture control and field density testing; and all work incidental thereto.

(2) Unit of measure: lump sum.

f. "Stone Ditch Protection"

(1) Payment will be made for all costs associated with constructing the stone ditch protection for the inlets and outlets in borrow areas as shown on the drawings, including base preparation; furnishing, hauling and placing riprap; and all work incidental thereto.

(2) Unit of measure: lump sum.

g. "Landside Ditch Embankment"

(1) Payment will be made for all costs associated with constructing the landside ditch embankment as shown on the drawings, including foundation preparation; excavating, hauling, placing, compacting and dressing material, and all work incidental thereto.

(2) Unit of measure: lump sum.

h. "Relocation of Existing Gravel Road"

(1) Payment will be made for all costs associated with relocating the existing gravel road as indicated on the drawings, including removing, salvaging, stockpiling, hauling, replacing, spreading,

compacting, and dressing the existing gravel surfacing from the road to be relocated; and all work incidental thereto. New sand-clay-gravel or crushed limestone surfacing required to be placed on the relocated road surface will be paid for at the contract unit price per ton for "Levee and Roadway Surfacing".

(2) Unit of measure: lump sum.

i. "Ditch Excavation and Cleanout"

(1) Payment will be made for all costs associated with constructing all required ditches, drainage ditches and ditch cleanouts at the locations and as shown on the drawings, including excavating ditches, resetting the grades and backfilling for two existing corrugated metal pipes at approximate stations 2394+44 and 2395+79; disposal of materials from ditch excavation and cleanout; and all work incidental thereto.

(2) Unit of measure: lump sum.

j. "Borrow Area Dike Construction and Road Rehabilitation"

(1) Payment will be made for all costs associated with constructing the borrow area dike embankment and field road rehabilitation at Borrow Area No. 2 as shown on the drawings, including constructing the dike embankment, raising the existing field roads, rehabilitating slopes and ditches of the existing field roads, and all work incidental thereto.

(2) Unit of measure: lump sum.

k. "Erosion Control"

(1) Payment will be made for all costs associated with performing erosion control treatment of the areas as specified in Section 02960 EROSION CONTROL, including dressing, fertilizing, seeding, mulching, and all work incidental thereto.

(2) Unit of measure: lump sum.

l. "Water Control Gates and Risers"

(1) Payment will be made for all costs associated with furnishing and installing the complete and fully operational water control gates and risers on the corrugated metal pipe culverts as shown on the drawings, including one flap gate on 24-inch pipe, two combination flap and slide gates on 36-inch pipes, one slide gate on 24-inch pipe, and all appurtenances; furnishing and constructing the 72-inch corrugated metal riser pipes as shown, including corrugated metal stubs, concrete riser foundation, corrugated metal riser safety grating and appurtenances; and all work incidental thereto. All costs associated with the corrugated metal pipe culverts shall be included in the applicable contract unit price per linear foot for the corrugated metal pipes as

listed in the Bidding Schedule.

(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. 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, submittal procedures, 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, Semicompacted", "Berm Embankment, Semicompacted", and "Berm Embankment, Uncompacted"

(1) Payment for all costs associated with semicompacted and uncompacted material placed as required in levee embankment (including the 3 foot levee cap), and berm embankment, and including additional material placed by reason of foundation settlement and by reason of soft material in the foundation being forced outward from the section during construction (but not including materials for landside ditch embankment, borrow area dike and road rehabilitation embankment, and ramps), will be made at the applicable contract unit price. That price and payment shall constitute full compensation for performing foundation preparation; excavating, stockpiling (if necessary), hauling, placing, compacting and dressing the material; determining optimum moisture and maximum dry density; performing moisture control and field density testing; and all work incidental thereto. No separate measurement or payment will be made for placing embankment to replace material removed as a result of removal of existing gravel surfacing, and all costs therefor shall be included in the contract unit price for "Levee Embankment, Semicompacted" and the contract lump sum price for "Ramps", as applicable.

(1a) If the Contractor elects to use settlement gages as specified in Section 02230 EMBANKMENT, paragraph SETTLEMENT GAGES, the cost of furnishing, installing and maintaining the gages during embankment construction, including measurements required to be made by the Contractor, shall be at the expense of the Contractor. No separate payment will be made for additional effort required for compaction of fill around and over the settlement gages or for interference with the Contractor's operations resulting from the settlement gage installations.

(1b) If the Contractor elects to use settlement gages, failure to

utilize settlement gages in strict accordance with the specifications and drawings will result in a total forfeiture of any payment which may otherwise be due the Contractor for settlement of the foundation. In each case of (1) failure to recover any settlement gage, (2) construction of embankment over a settlement gage in excess of required construction lines plus the tolerance permitted in Section 02230 EMBANKMENT, paragraph GRADE TOLERANCES, or (3) failure to comply with the 72 hour requirement for determining gage elevations as specified in Section 02230 EMBANKMENT, paragraph SETTLEMENT GAGES, payment will be totally forfeited for the reach attributable to each gage so affected.

(1c) Payment for material which replaces soft material in the foundation of the berms forced outward from the section during construction will be made at the applicable contract unit price for "Berm Embankment, Semicompacted" or "Berm Embankment, Uncompacted".

(1d) Payment for material in ramps will be included in the contract lump sum price for "Ramps". Payment for material in landside ditch embankment will be included in the contract lump sum price for "Landside Ditch Embankment". Payment for material in the borrow area dike embankment and material for the existing field road raising and/or rehabilitation will be included in the contract lump sum price for "Borrow Area Dike Construction and Road Rehabilitation".

(2) Unless otherwise specified, semicompacted fill and uncompacted fill, and required fill and backfill materials of any description specified in Section 02230 EMBANKMENT (not including material for landside ditch embankment, borrow area dike and road rehabilitation embankment, and ramps), 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. The basis for the measurement will be original surveys of the areas to be filled taken by the Government prior to clearing, grubbing and vegetation removal operations, and prior to removal of existing gravel surfacing operations, and the theoretical gross cross section of the completed levee constructed within the specified tolerance. Quantities will be computed by the Government using the surface to surface method.

(2a) The basis for measurement of fill which replaces soft material in the foundation of the berms which is forced outward from the section will be a survey of the area outside the berm toe taken by the Government prior to the filling operations and a second survey of the same area after completion of the filling operations.

(2b) If the Contractor elects to use settlement gages, measurement of additional levee embankment fill material placed in each settlement measurement range shown on the drawings by reason of foundation settlement, will be based on measurements on the respective settlement gage installed as specified in Section 02230

EMBANKMENT, paragraph SETTLEMENT OF FOUNDATION and will be determined as follows:

(i) The settlement measured at each settlement gage will be considered to apply to the foundation area throughout the length of the settlement ranges specified herein in which the gage is located. No measurement for payment for settlement will be made in the event that embankment over a settlement gage is constructed to a height in excess of specified gross construction grade plus the tolerance permitted under Section 02230 EMBANKMENT, paragraph GRADE TOLERANCES. In instances where settlement plates have been set and cannot be found after completion of the embankment, no payment for settlement will be made for the reach of the plate.

(ii) The foundation settlement under the embankment at each transverse cross section within a settlement range will be considered to vary uniformly between break points in the cross section. At each breakpoint, the settlement allowance will be based upon the proportion that the specified fill height at the break point bears to the specified fill height at the settlement gage, in accordance with the following formula: $S = (h \times s_m) / h_m$, where S is settlement to be computed at a break point; h is specified gross fill height at S; s_m is measured or adjusted settlement at settlement gage; and, h_m is specified gross fill height above settlement gage. Except as provided above and in Section 02230 EMBANKMENT, paragraph SUDDEN FAILURE, no measurement for payment for additional fill materials placed by reason of foundation settlement will be made.

(3) Unit of measure: cubic yard.

b. "Levee and Roadway Surfacing, Option A - Sand-Clay-Gravel", or "Levee and Roadway Surfacing, Option B - Crushed ~~Lime~~Stone"

(1) Payment will be made at the contract unit price for all costs associated with constructing the new sand-clay-gravel surfacing or crushed ~~lime~~stone surfacing. That price and payment shall constitute full compensation for blading and shaping levee crown and ramps; furnishing, hauling, placing, spreading, compacting and dressing the finished surfacing; furnishing scales and weighing for measurement; 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 checked and 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.

c. "Cattle Guards"

(1) Payment will be made for all costs associated with removing and stockpiling the existing cattle guards; repairing or replacing existing cattle guards damaged by the Contractor's operation; removing and disposing of the existing concrete headers; constructing and installing new concrete headers; reinstalling the existing cattle guards; constructing approach ramps; and all work incidental thereto.

(2) Measurement will be made as a whole for each cattle guard, including new concrete headers, satisfactorily completed and accepted by the Contracting Officer.

(3) Unit of measure: each.

d. "Corrugated Metal Pipe, 24-inch, Bituminous Coated W/Paved Invert", "Corrugated Metal Pipe, 24-inch, Polymer Coated", "Corrugated Metal Pipe, 30-inch, Bituminous Coated W/Paved Invert", "Corrugated Metal Pipe, 36-inch, Polymer Coated", and "Corrugated Metal Pipe, 96-inch, Bituminous Coated W/Paved Invert"

(1) Payment will be made at the applicable contract unit price for all costs associated with constructing the corrugated metal pipe culverts as shown on the drawings, including excavation, removing the existing culverts, furnishing and installing the pipe culverts complete, making joints, backfill, control of water, and all work incidental thereto.

(2) Measurement for pipe culvert will be made by the linear foot in place, measured from inlet to outlet of each pipe to the nearest 1/10 of one foot.

(3) Unit of measure: linear foot.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01356

STORM WATER POLLUTION PREVENTION PLAN

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 4354	(1999) Sampling of Geosynthetics for Testing
ASTM D 4439	(2000) Geosynthetics
ASTM D 4491	(1999a) Water Permeability of Geotextiles by Permittivity
ASTM D 4533	(1991; R 1996) Trapezoid Tearing Strength of Geotextiles
ASTM D 4632	(1997) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(1999a) Determining Apparent Opening Size of a Geotextile
ASTM D 4759	(1988; R 1996) Determining the Specification Conformance of Geosynthetics
ASTM D 4873	(1997) Identification, Storage, and Handling of Geosynthetic Rolls

1.2 SYSTEM DESCRIPTION

Pursuant to the State of Louisiana Storm Water General Permit for Construction Activities, the requirements contained herein shall constitute the Storm Water Pollution Prevention Plan, hereafter called the SWPP Plan for this contract. The Contractor shall implement and diligently pursue all measures required herein. The purpose of the SWPP Plan is to control soil erosion and storm water runoff caused by the construction activities under this contract to the extent necessary to prevent sediment from accumulating in existing drainage ditches, leaving the contract rights-of-way, or entering Talla Bena Bayou. Requirements under this section of the specifications are supplemental to and shall become part of the overall Environmental Protection Plan required by Section 01354 ENVIRONMENTAL PROTECTION.

1.2.1 Permit Notifications

The Contractor shall notify the permitting agency by submitting a revised Notice of Intent and Notice of Termination as required by the General Permit for storm water discharges for this project as stated below. The Contractor shall maintain copies of all correspondence with the permitting agency with the SWPP Plan for the duration of this contract.

1.2.2 Notice of Intent

A Notice of Intent (NOI) and the SWPPP required by the State of Louisiana will be filed by the Government with the permitting agency prior to the award of this contract. The Contractor shall revise the original NOI by identifying the Contractor's name, address, and the individual having the day to day control over the project. The Contractor shall certify and submit the revised NOI to the permitting agency at least 48 hours prior to beginning work. A NOI form is attached at the end of this section. A copy of the original NOI will be provided to the Contractor during the Preconstruction Conference.

1.2.3 Notice of Termination

Upon successful completion of all permanent erosion and sediment controls for this project, and at the direction of the Contracting Officer, the Contractor shall submit a Notice of Termination (NOT) to the permitting agency certifying that all permanent erosion and sediment controls have been completed. A copy of the NOT form is attached at the end of this section.

1.2.4 Permit Notice

The Contractor shall post a notice in a conspicuous place near the main entrance of the construction site providing: the Storm Water Permit number for this project or a copy of the NOI if a permit number has not been issued, the name and telephone number of a local contact person, a description of the project, and the location of the SWPP Plan.

1.3 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-13 Certificates

Filter Fabric; FIO.

The Contractor shall submit a certificate of compliance attesting that the filter fabric meets the specified requirements.

1.4 SITE DESCRIPTION

1.4.1 Nature of Construction Activity

The work consists of furnishing all plant, labor, materials and equipment, and constructing Item 457-R, levee enlargement and berms, in Madison Parish, Louisiana. Principal features of the work include mobilization and demobilization, clearing and grubbing, semicompacted levee embankment (including a levee cap), uncompacted berm embankment, compacted berm embankment, borrow area dike construction and road rehabilitation, relocation of existing gravel road, landside ditch embankment, sand-clay-gravel or crushed limestone surfacing, establishment of turf, erosion control, ditch excavation and cleanout, corrugated metal pipes, water control gates and riser pipes, concrete riser foundation, stone ditch protection, concrete cattle guard headers, salvaging and reinstalling existing cattle guards, storm water pollution prevention and environmental protection. The borrow areas excavated under this contract are required to be excavated considerably deeper than other recent projects of this type. See specifications, Section 02222 EXCAVATION, paragraph BORROW AREAS for complete excavation requirements.

1.4.2 Major Activities Which Disturb Soils

The major activities which will disturb the soil at the site include clearing and grubbing, excavation, embankment, and grading.

1.4.3 Estimated Areas Affected

The total area of the construction site is approximately 553 acres. The area of soil that will be disturbed is approximately 450 acres.

1.4.4 Runoff Coefficient

The estimated runoff coefficient at the site will be 0.30 after construction activities are completed.

1.4.5 Contract Drawings and Specifications

The following features are shown on or can be determined from the contract drawings and specifications:

- a. The approximate slopes after the major construction activities.
- b. Areas of soil disturbance.
- c. The location where stabilization practices are required.
- d. Surface waters.
- e. Typical best management practices which are anticipated to be used in the control of sediment and erosion control.

1.4.6 Waters Affected

The surface waters which may be affected by this contract are the Mississippi River and Talla Bena Bayou.

1.5 CONTROLS

The controls and measures required by the Contractor are described below.

1.5.1 Erosion and Sediment Controls

1.5.1.1 Stabilization Practices

a. General - The stabilization practices required to be implemented shall include permanent seeding, mulching, protection of trees, preservation of mature vegetation, etc. However, the Contractor may, at his option and at no additional cost to the Government, provide a fall and winter temporary erosion control measure by seeding with rye grass or other approved winter grasses. The Contractor shall maintain a log of the dates when the major grading activities occur, (e.g. clearing and grubbing, excavation, embankment, and grading); when construction activities permanently cease on a portion of the site; and when stabilization practices are initiated, and shall attach this log to the SWPP Plan. Except as precluded by unsuitable conditions caused by the weather, stabilization practices shall be initiated as soon as practicable, but within no more than 14 days, in any portion of the site where construction activities have permanently ceased.

b. Interim Stabilization Practices - The interim stabilization practices required are described below.

(1) Only trees that are within the indicated limits to construct the permanent work shall be removed.

(2) Existing vegetative cover shall be preserved to the extent possible to reduce erosion.

c. Permanent Stabilization Practices - The permanent stabilization practices to be implemented are described below.

(1) Permanent seeding (establishment of new turf) shall be established in accordance with Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT. Erosion control shall be in accordance with Section 02960 EROSION CONTROL.

(2) Mulch shall be placed on areas of permanent turfing treatment and erosion control treatment as specified.

1.5.1.2 Structural Practices

a. General - Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise control runoff in order to prevent sediments from accumulating in existing drainage ditches, leaving the contract rights-of-way, or entering Talla Bena Bayou. The Contractor shall implement the required structural practices and the necessary structural practices as may be required to control runoff for his construction methods and procedures. The installation of these measures may be subject to Section 404 of the

Clean Water Act. The Contractor shall be responsible for obtaining the Section 404 permit if required for any structural practice he proposes to implement. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices shall be removed after they have served their intended purpose and after their removal has been approved by the Contracting Officer.

b. Devices - Structural practices may include but shall not be limited to the following devices (typical details are shown on the drawings):

(1) Silt fences

(i) General

Filter fabric shall meet the requirements of PART 2 PRODUCTS, paragraph FILTER FABRIC.

Filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F.

If wooden stakes are utilized for silt fence construction, they shall have a minimum diameter of 2 inches when oak is used and 4 inches when pine is used. Wooden stakes shall have a minimum length of 5 feet.

If steel posts (standard "U" or "T" section) are utilized for silt fence construction, they shall have a minimum weight of 1.33 pounds per linear foot and a minimum length of 5 feet.

Wire fence reinforcement for silt fences using standard strength filter fabric shall be a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches.

(ii) Installation

The height of a silt fence shall be a minimum of 16 inches above the ground surface and shall not exceed 34 inches above the ground surface.

The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together only at a support post with a minimum 6 inch lap and securely sealed.

A trench shall be excavated approximately 4 inches wide and 4 inches deep on the upslope side of the proposed location of the measure.

When wire support is used, standard-strength filter fabric may be used. Posts for this type of installation shall be placed a maximum of 10 feet apart. The wire mesh fence shall be fastened

securely to the upslope side of the posts using heavy duty wire staples at least 1 inch long, tie wires or hog rings. The wire shall extend into the trench a minimum of 2 inches and shall not extend more than 34 inches above the ground surface. The standard strength fabric shall be stapled or wired to the wire fence, and 8 inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.

When wire support is not used, extra-strength filter fabric shall be used. Posts for this type of fabric shall be placed a maximum of 6 feet apart. The filter fabric shall be fastened securely to the upslope side of the posts using one inch long (minimum) heavy-duty wire staples or tie wires and 8 inches of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.

The 4 inch by 4 inch trench shall be backfilled and the soil compacted over the filter fabric.

Silt fences shall be removed upon approval by the Contracting Officer.

(2) Straw Bales.

(i) Installation

Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. Bale rows used to retain sediment shall be turned uphill at each end of each row.

All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings.

The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked and chinked (gaps filled by wedging), the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches against the uphill side of the barrier.

Each bale shall be securely anchored by at least two stakes (minimum dimensions 2 inches x 2 inches x 36 inches) or standard "T" or "U" steel posts (minimum weight of 1.33 pounds per linear foot) driven through the bale. The first stake or steel post in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or steel pickets shall be driven a minimum 18 inches deep into the ground to securely anchor the bales.

The gaps between bales shall be chinked (filled by wedging) with

straw to prevent water from escaping between the bales. Loose straw may be scattered over the area immediately uphill from a straw bale barrier to increase barrier efficiency.

Straw bale barriers shall be removed upon approval by the Contracting Officer.

(3) Diversion Dikes

(i) Installation

Diversion dikes shall have a maximum channel slope of 2 percent and shall be adequately compacted to prevent failure. The minimum height measured from the top of the dike to the bottom of the channel shall be 18 inches. The minimum base width shall be 6 feet and the minimum top width shall be 2 feet. Diversion dikes shall be located to minimize damages caused by construction operations and traffic.

c. Device Applicability

(1) Straw bales, silt fences, earth dikes, and drainage swales for diversion of runoff upstream from work areas.

(2) Straw bales, silt fences and earth dikes for retention of flow in drains.

(3) Stone outlet protection at culverts.

(4) Sediment containment by providing straw bales or silt fences along the toe of fill and cut slopes.

(5) Earth dikes for temporary sediment basins in major drainage channels downstream from work areas.

Structural practices shall be properly placed to effectively retain sediment immediately after completing each phase of work (e.g. clearing and grubbing, excavation, embankment, and grading) in each independent runoff area (e.g. after clearing and grubbing in an area between a ridge and drain). Structural practices shall be placed, and as work progresses, removed/replaced/relocated as needed for work to progress in each runoff area. Structural practices, to the extent necessary to prevent sediment from accumulating in existing drainage ditches, leaving the contract rights-of-way, or entering Talla Bena Bayou, shall be implemented as follows:

(1) Along the downhill perimeter edge of disturbed areas.

(2) Along the top of the slope or top bank of drainage ditches, channels, swales, etc. that traverse disturbed areas.

(3) Along the toe of cut slopes and fill slopes of the construction areas.

(4) Perpendicular to the flow in the bottom of existing drainage ditches, channels, swales, etc. that traverse disturbed areas or carry runoff from disturbed areas. Rows of straw bales or silt fences shall be spaced a maximum of 100 feet apart in such existing drains that are within the limits of the work.

(5) Perpendicular to the flow in the bottom of new drainage ditches, channels, and swales. Rows of straw bales or silt fences shall be spaced a maximum of 200 feet apart in drains with slopes equal to or less than 5 percent and 100 feet apart in drains with slopes steeper than 5 percent.

(6) At the entrance to culverts that receive runoff from disturbed areas.

1.5.2 Storm Water Management

1.5.2.1 Management Practices

The storm water management practices that shall be permanently installed under this contract are as follows:

- a. Establishment of new turf and erosion control.
- b. Stone ditch protection.

1.5.2.2 Methods

- a. Establishment of new turf shall be in accordance with Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT. Erosion control shall be in accordance with Section 02960 EROSION CONTROL.
- b. Stone ditch protection shall be in accordance with Section 02542 STONE DITCH PROTECTION.

1.5.3 Other Controls

1.5.3.1 Waste Disposal

No solid materials, including building materials, shall be discharged to waters of the United States, except as authorized by a Section 404 permit. Other requirements are included in Section 01354 ENVIRONMENTAL PROTECTION.

1.5.3.2 Off-site Vehicle Tracking

Off-site vehicle tracking of sediments shall be minimized.

1.5.3.3 Compliance with Regulations

The Contractor shall ensure and demonstrate compliance with applicable State or local waste disposal, sanitary sewer or septic system regulations.

PART 2 PRODUCTS

2.1 FILTER FABRIC FOR SILT SCREEN FENCE

The geotextile, as defined by ASTM D 4439, shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. The filament shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of ester, propylene, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistance to deterioration due to ultraviolet and heat exposure. The geotextile shall conform to the physical property requirements in paragraph ACCEPTANCE REQUIREMENTS, subparagraph TESTING.

2.2 ACCEPTANCE REQUIREMENTS

2.2.1 General

All brands of geotextile to be used will be accepted on the following basis.

2.2.2 Mill Certificates or Affidavits

The mill certificate or affidavit shall attest that the filter fabric and factory seams meet chemical, physical, and manufacturing requirements specified. The mill certificate of affidavit shall specify the actual Minimum Average Roll Values and shall identify the fabric supplied by roll identification numbers.

2.2.3 Testing

If requested by the Contracting Officer, Government personnel shall collect filter fabric samples in accordance with ASTM D 4354 for testing to determine compliance with any or all of the requirements specified pursuant to ASTM D 4759 and the following table:

EXTRA STRENGTH FILTER FABRIC FOR SILT SCREEN FENCE

PHYSICAL PROPERTY	TEST PROCEDURE	REQUIREMENTS
Grab Tensile Strength	ASTM D 4632	100 lbs. min.
Elongation (%)	ASTM D 4632	30 percent max.
Trapezoid Tear	ASTM D 4533	55 lbs. min.
Permittivity	ASTM D 4491	0.2 sec-1 min.
AOS (U.S. Std Sieve)	ASTM D 4751	20-100

NOTE: Standard strength filter fabric for silt screen fence shall meet the same minimum requirements for AOS and Permittivity as the extra strength filter fabric, but may have lower strengths for the remaining properties listed in the table.

2.3 IDENTIFICATION, STORAGE AND HANDLING

Filter fabric shall be identified, stored and handled in accordance with ASTM D 4873.

PART 3 EXECUTION

3.1 MAINTENANCE

The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures identified in the SWPP Plan.

a. Silt Fences

Silt fences shall be inspected in accordance with paragraph INSPECTIONS. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier or a maximum height of nine (9) inches. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be seeded in accordance with Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT, paragraph SEEDING. The coverage requirements in paragraph ESTABLISHMENT do not apply to these areas.

b. Straw Bales

Straw bale barriers shall be inspected in accordance with paragraph INSPECTIONS. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits shall be removed when deposits reach one-half of the height of the barrier. When a straw bale barrier is no longer required, it shall be removed. The immediate area occupied by the bales and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be seeded in accordance with Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT, paragraph SEEDING. The coverage requirements in paragraph ESTABLISHMENT do not apply to these areas.

c. Diversion Dikes

Diversion dikes shall be inspected in accordance with paragraph INSPECTIONS. Close attention shall be paid to the repair of damaged diversion dikes and necessary repairs shall be accomplished promptly. When diversion dikes are no longer required, they shall be shaped to an

acceptable grade. The areas disturbed by this shaping shall be seeded in accordance with Section 02933 EXISTING TURF MAINTENANCE AND NEW TURF ESTABLISHMENT, paragraph SEEDING. The coverage requirements in paragraph ESTABLISHMENT do not apply to these areas.

3.2 INSPECTIONS

3.2.1 General

The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and areas where vehicles exit the site at least once every seven (7) calendar days and within 24 hours of the end of any storm that produces 0.5 inches or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every month.

3.2.2 Field Inspections

Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPP Plan shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether storm water pollution prevention measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

3.2.3 Inspection Reports

For each inspection conducted, the Contractor shall complete a Louisiana Storm Water Pollution Prevention Inspection Report form. The report shall be signed by the Contractor. The report shall be furnished to the Contracting Officer within 24 hours of the inspection as a part of the Contractor's daily CQC REPORT. A copy of the Louisiana Storm Water Pollution Prevention Plan Inspection Report form is included at the end of this section. A log of the inspection dates shall be maintained on the job site and become a part of the SWPP Plan.

3.2.4 Revisions to the SWPP Plan

Based on the results of the inspection and immediately after the inspection, the Contractor shall provide to the Contracting Officer any recommended changes to the SWPP Plan. The Contracting Officer will approve or disapprove the proposed changes within seven (7) calendar days after receipt. Changes to the SWPP Plan shall be implemented within seven (7) calendar days following approval.

-- End of Section --

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SECTION 02301

LEVEE AND ROADWAY SURFACING

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 ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
(AASHTO)

- | | |
|-------------|---|
| AASHTO T 27 | (1993) Sieve Analysis of Fine and Coarse Aggregates |
| AASHTO T 96 | (1994) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine |

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- | | |
|-------------|--|
| ASTM C 127 | (1988; R 2001) Specific Gravity and Absorption of Coarse Aggregate |
| ASTM C 131 | (1996) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine |
| ASTM C 295 | (1998) Petrographic Examination of Aggregates for Concrete |
| ASTM C 535 | (1996e1) Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine |
| ASTM D 3740 | (1999c) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction |
| ASTM D 4318 | (2000) Liquid Limit, Plastic Limit, and Plasticity Index of Soils |
| ASTM D 4992 | (1994e1) Evaluation of Rock to be Used for Erosion Control |
| ASTM E 548 | (1994e1) General Criteria Used for Evaluating Laboratory Competence |

CORPS OF ENGINEERS (COE)

COE CRD-C 148

(1969) Testing Stone for Expansive
Breakdown on Soaking in Ethylene Glycol

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-09 Reports

Testing

Required testing and reporting shall be in accordance with paragraph TESTING.

Evaluation Tests; FIO.

Quality tests on the crushed ~~lime~~ limestone material in accordance with paragraph EVALUATION TESTING shall be the responsibility of the Contractor and submitted prior to delivery of such material to the worksite.

SD-13 Certificates

Sand-Clay-Gravel; FIO. Crushed ~~Lime~~Stone; FIO.

Laboratory; FIO.

Certificates of compliance attesting that the surfacing materials meet specification requirements shall be submitted to the Contracting Officer.

A copy of the testing laboratory's certification and inspection report shall be submitted along with actions taken to correct deficiencies.

1.3 LOCATIONS AND DIMENSIONS

The locations and dimensions of the sand-clay-gravel or crushed ~~lime~~ limestone surfacing shall be as shown on the drawings.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 General

The Contractor shall provide only the type of surfacing material that he optioned to bid under the item "Levee and Roadway Surfacing" contained in the Bidding Schedule, and as specified herein. (See also the "Notes" to the Bidding Schedule.)

2.1.2 Sand-Clay-Gravel

The new sand-clay-gravel material shall be composed of a natural mixture of hard, durable particles of gravel mixed with sand and clay and shall meet the following gradation requirements:

U.S. STD. SQUARE MESH SIEVE DESIGNATIONS	PERCENTAGE BY WEIGHT PASSING (AASHTO T 27 METHOD OF TEST)
2 inch	100
1 1/2 inch	95 - 100
1 inch	75 - 100
1/2 inch	45 - 90
No. 4	30 - 65
No. 10	20 - 50
No. 40	10 - 30
No. 200	5 - 15

The fraction of the material passing the No. 200 sieve shall be less than one-half that of the fraction passing the No. 40 sieve. The portion of the binder material passing the No. 40 sieve shall have a liquid limit of not more than 30 and a plasticity index of not more than 15 nor less than 5 as determined by ASTM D 4318. Any material that does not meet these requirements shall be stabilized with either sand, sand-clay, or gravel; in such proportions that the finished surface course will meet the requirements of the specified gradation. The coarse aggregate shall have a percentage of wear not to exceed 50 after 500 revolutions of testing via the Los Angeles Testing Machine in accordance with AASHTO T 96. If material from the source has previously met this wear test, it need not be repeated.

2.1.3 Crushed ~~Lime~~Stone

~~2.1.3.1 Definition~~

~~For the purpose of this specification, "crushed stone" is defined as being crushed limestone only. All other sedimentary rock, igneous, and metamorphic rock are not to be defined as crushed stone and will not be accepted as crushed stone.~~

2.1.3.2 Gradation

All crushed ~~lime~~stone shall conform to the following gradation:

U.S. STD. SQUARE MESH SIEVE DESIGNATIONS	PERCENTAGE BY WEIGHT PASSING (AASHTO T 27)
1 1/2 inch	100
3/4 inch	50 - 95
1/2 inch	42 - 85
No. 4	25 - 65
No. 40	10 - 32
No. 200	3 - 12

The fraction of crushed ~~lime~~stone passing the No. 40 sieve shall conform to the following requirements:

Liquid Limit (Max.)	30
Plasticity Index (Max.)	6

The crushed ~~lime~~stone shall be well graded between the limits shown. All points on the individual grading curves obtained from representative samples of material shall lie between the boundary limits as defined by smooth curves drawn through the tabulated gradation limits plotted on ENG form 2087 (Exhibit A) or similar form. The individual gradation curves within these limits shall not exhibit abrupt changes in slope denoting either skip grading or scalping of certain sizes or other irregularities which would be detrimental to the proper functioning of the material.

2.1.3.3 Crushed ~~lime~~Stone Sources

Crushed ~~lime~~stone meeting the requirements of this contract has been produced in the past from the sources shown at the end of this section. Crushed ~~lime~~stone may be supplied from any of these sources or from another source subject to the conditions described below. However, by listing these sources the Government neither warrants that crushed ~~lime~~stone from these sources will necessarily meet the requirements of this contract nor provides any immunity from the testing of crushed ~~lime~~stone proposed to be furnished from these sources.

2.1.3.4 Crushed ~~lime~~Stone From Sources Not Listed

If the Contractor proposes to furnish crushed ~~lime~~stone from a source not listed at the end of this section, then, prior to beginning any deliveries, the crushed ~~lime~~stone shall be subject to the testing requirements contained in paragraph EVALUATION TESTING OF STONE, as directed by the Contracting Officer and at no additional cost to the Government.

2.1.3.5 Evaluation Testing of Stone

If the Contractor proposes to furnish stone from an unlisted crushed ~~lime~~stone source, the Contractor shall have evaluation tests performed on stone samples collected from the proposed source. The quarry investigation shall be performed by a registered geologist or registered engineer. The tests to which the stone shall be subjected include petrographic examination (ASTM C 295), bulk specific gravity (SSD), unit weight, absorption (ASTM C 127), Los Angeles Abrasion Test (ASTM C 131 or ASTM C 535).

The laboratory to perform the required testing shall be validated based on compliance with ASTM E 548 and relevant paragraphs of ASTM D 3740, and no work requiring testing shall be permitted until the laboratory has been inspected and validated. The first inspection of the facilities shall be at the expense of the Government and any subsequent inspections required because of failure of the first inspection shall be at the expense of the Contractor.

- a. Unit Weight and Absorption. Stone shall weigh more than 155 pounds

per cubic foot and have a bulk specific gravity, saturated surface dry, greater than 2.48. The stone shall have an absorption less than 2 percent unless other tests and service records show that the stone is satisfactory. The method of test for unit weight and absorption shall be ASTM C 127, except the unit weight shall be calculated in accordance with Note No. 5 using bulk specific gravity, saturated surface dry.

b. Petrographic Examination. Stone shall be evaluated in accordance with ASTM C 295 which shall include information required by ASTM D 4992, paragraphs 4, 5, 7 and 10. COE CRD-C 148 shall be used to perform Ethylene glycol tests required on rocks containing smectite as specified in ASTM D 4992 and on samples identified to contain swelling clays.

c. Los Angeles Abrasion Test. Crushed ~~lime~~ limestone shall be evaluated in accordance with either ASTM C 131 or ASTM C 535. The crushed ~~lime~~ limestone shall have a percentage of wear less than 40 percent.

2.1.4 Filler For Blending

In addition to the filler material that is naturally present in the surface course material, the filler material, that is necessary for meeting the requirements or for satisfactory binding of the material, shall be uniformly blended with the surface course material before it is delivered to the job site. The material for such purpose shall be approved by the Contracting Officer, shall be free from hard lumps and shall not contain more than 15 percent of material retained on a No. 4 sieve.

2.2 EQUIPMENT

The new sand-clay-gravel or crushed ~~lime~~ limestone shall be delivered in vehicles approved by the Contracting Officer. Each vehicle shall bear a plainly legible identification mark.

PART 3 EXECUTION

3.1 PREPARATION

The crown of the levee and ramps shall be bladed and shaped prior to the placement of the sand-clay-gravel or crushed ~~lime~~ limestone surfacing. The centerline of the levee crown and ramps shall be approximately 4 inches higher than the outer edge of the roadway crown, and the crown shall be heeled to each side into a windrow that can be dressed against the new surfacing to hold it in place.

3.2 RELOCATION OF EXISTING GRAVEL ROAD

All existing sand-clay-gravel surfacing on the existing gravel road, landside and parallel to the levee and as shown on the drawings to be relocated, shall be salvaged and stockpiled within the rights-of-way as directed. The stockpiled existing surfacing material shall be evenly distributed and spread over the entire length and to the width indicated upon the relocated road, and compacted as specified for new surfacing material in paragraph PLACING NEW SURFACING MATERIAL. New sand-clay-gravel

or crushed ~~lime~~ limestone surfacing for the relocated road shall be placed in accordance with paragraph PLACING NEW SURFACING MATERIAL.

3.3 EXISTING LEVEE AND RAMP SURFACING

All existing sand-clay-gravel surfacing on the existing levee and ramps shall be salvaged in accordance with Section 01000 GENERAL CONTRACT REQUIREMENTS, paragraph ORDER OF WORK and stockpiled within the rights-of-way as directed. The stockpiled existing surfacing material shall be evenly distributed for the entire length of this project on the completed levee crown, spread to the specified width, and compacted as specified for new surfacing material in paragraph PLACING NEW SURFACING MATERIAL and in accordance with Section 01000 GENERAL CONTRACT REQUIREMENTS, paragraph ORDER OF WORK.

3.4 MOISTURE CONTROL

No moisture control will be required for new surfacing material unless the desired compaction is not being obtained due to the material being too wet or too dry. In such cases, the Contractor will be required to perform moisture control as follows. If the material is too wet, it shall either be stockpiled and allowed to drain before it is placed, or the wet material shall be dried by successive blading until the moisture content is sufficiently reduced. If the material is too dry, sufficient moisture shall be uniformly distributed by approved methods before beginning compaction. No additional payment will be made for performing moisture control as specified above.

3.5 PLACING NEW SURFACING MATERIAL

A surfacing course of new sand-clay-gravel material (only if Option A - Sand-Clay-Gravel is bid), or new crushed ~~lime~~ limestone material (only if Option B - Crushed ~~Lime~~ Stone is bid), shall be placed and spread uniformly on the crown of the levee and ramps and road relocation after the existing gravel surfacing has been replaced for each reach. Either sand-clay-gravel material shall be used for the entire project, or crushed ~~lime~~ limestone material shall be used for the entire project. A combination of both types of surfacing material will not be acceptable. The Contractor shall not dump any load until it has been inspected and weighed in accordance with Section 01025 MEASUREMENT AND PAYMENT. The new surfacing shall be placed in one 9 inch loose measure layer of sand-clay-gravel, or one 7 inch loose measure layer of crushed ~~lime~~ limestone, at the widths shown on the drawings. The surfacing shall not be placed on a wet surface. The surface course shall be compacted as evenly and densely as practicable by the controlled movement of the hauling equipment over the entire area. After the new surfacing material has been placed and compacted, it shall be dressed with a motor grader or similar equipment to present a uniform appearance and a smooth riding surface, without sharp breaks or depressions which will collect or hold water. Any damage to the finished surfacing caused by the Contractor's hauling operations or other construction operations shall be repaired at the Contractor's expense by adding crushed ~~lime~~ limestone surfacing material, compacting, and blading as necessary to obtain the required roadway section.

3.6 TESTING

3.6.1 Sand-Clay-Gravel

The Contractor shall determine the percentage of wear, gradation, liquid limit, and plasticity index of the sand-clay-gravel material. As a minimum for each pit or quarry, providing sand-clay-gravel, the material shall be tested once before delivery begins and once for each 700 tons delivered. Once delivery has begun, samples for tests shall be taken from material that has been delivered to the jobsite. The on-site Government representative shall be notified when a sample is to be taken for each test and shall be given the opportunity to witness the taking of each sample. The Contractor shall accomplish the testing within two working days after the sample is taken and shall provide the original and one copy of all test results to the Government representative within three working days after the test is taken. The tests shall be performed by a laboratory that has been approved by the Contracting Officer.

3.6.2 Crushed ~~Lime~~Stone

The Contractor shall determine the percentage of wear, gradation, liquid limit, and plasticity index of the crushed ~~lime~~stone material. As a minimum for each quarry providing crushed ~~lime~~stone, the material shall be tested once before delivery begins and once for each 1500 tons delivered up to a required quantity of 15,000 tons, and thereafter, a minimum of once for every additional 7,500 tons delivered. Once delivery has begun, samples for tests shall be taken from material that has been delivered to the jobsite. The on-site Government representative shall be notified when a sample is to be taken for each test and shall be given the opportunity to witness the taking of each sample. The Contractor shall accomplish the testing within two working days after the sample is taken and shall provide the original and one copy of all test results to the Government representative within three working days after the test is taken. The tests shall be performed by a laboratory that has been approved by the Contracting Officer. Any additional sampling and testing shall be performed as part of the quality control testing program at the quarry and certified test reports shall be furnished to the Contracting Officer. The quarry laboratory shall provide documentation that they have been validated and/or certified under the requirements of ASTM or ASSHTO Standards for Evaluation of Testing Facilities (based on compliance with ASTM E 548 and relevant paragraphs of ASTM D 3740).

~~STONE PROTECTION SOURCES~~

LAT/LONG	QUARRY LOCATION, ADDRESS	MAIN OFFICE ADDRESS
(TESTED)	AND TELEPHONE NUMBER	TELEPHONE NUMBER

~~ALABAMA~~

34/88/11	Alsboro Quarry- 8 miles east	Hoover Incorporated
	of intersection of MS Hwy 25	1205 Bridgestone Parkway
	and Tish. Co. #957 at Midway,	P.O. Box 1700
	MS, just across AL. state line	LaVergne, TN 37086-1700

~~STONE PROTECTION SOURCES~~

LAT/LONG (TESTED)	QUARRY LOCATION, ADDRESS AND TELEPHONE NUMBER	MAIN OFFICE ADDRESS TELEPHONE NUMBER
		(615) 793-2600
	Hoover Incorporated P.O. Box 613 Iuka, MS 38852 (256) 360-2400 (800) 535-2636	
34/88/11(1999)	Pride Quarry located on N side of US Hwy 72, Pride, AL	SRM Aggregates 4200 Colonnade Parkway Suite 100 Birmingham, AL 35243 (205) 970-2497
	Southern Ready Mix 18055 Hwy 72 Tuscumbia, AL 35674 (256) 381-0012	
34/87/5(2000)	Cherokee Quarry- 3 miles east of Cherokee, AL on old Hwy 72	VULCAN Materials Co. Southern Division P.O. Box 385016 Birmingham, AL 35238-5016 (205) 298-3701
	Vulcan Materials Co. P.O. Box 459 Cherokee, AL 35616 Vulcan Materials Co. (256) 359-6404	

~~ARKANSAS~~

36/91/(2000)	Sloan/Cavanaugh - 4.5 miles northwest of Black Rock, AR off U.S. Hwy 63 on County Rd. 208	Meridian Aggregates Co. P.O. Box 260 Black Rock, AR 72415 (870) 878-6201
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~~ILLINOIS~~

37/88(2000)	Cave-In-Rock Quarry is located approximately 5 miles east of Cave in Rock, IL. From the flashing light on Illinois Highway 1, for the ferry across the Ohio River, head east past Cave-in-Rock State Park to intersection with next road and turn south toward river. Quarry is on right 0.25 miles from intersection. (618) 289-3262	Martin Marietta Aggregates 125 Augusta Place Suite C Paducah, KY 42003 (270) 554-0804
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~~KENTUCKY~~

37/88/29	Three Rivers Quarry - 7 miles	Martin Marietta
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~~STONE PROTECTION SOURCES~~

LAT/LONG (TESTED)	QUARRY LOCATION, ADDRESS AND TELEPHONE NUMBER	MAIN OFFICE ADDRESS TELEPHONE NUMBER
(2000)	northeast of Smithland, KY, off U.S. Hwy 60 (Cumberland Road). From I-24 exit 31 and go N on KY Hwy 453 to intersection with U.S. Hwy 60 and turn right and go over Cumberland River. Quarry is on the right 4.5 mile from bridge	Aggregates 830 Three Rivers Quarry Rd Smithland, KY 42081 (270) 928-2141
37/88/11 (2000)	Gilbertsville Quarry - On US Hwy 62/641, "Between the Dams", Lake City, KY. From I-24 exit 31 and go S on KY Hwy 453 to ramp for US Hwy 62/641 and go west to quarry office on left.	VULCAN Materials Co Reed Quarry 947 U.S. Hwy 62 Grand Rivers, KY 42045 (270) 362-1282

~~MISSOURI~~

38/90/29 (2000)	Old Menefee Quarry @MRM 136.8 above the mouth of the Ohio River, take I-55 4 miles north of Bloomsdale, MO, exit 162, and take exit for County Rds. DD & OO and turn east and go 1 mile to Hwy 61 and continue straight ahead thru intersection on Brickeys Rd. to quarry. (Formerly Brickeys Stone LLC.)	APAC 13588 Brickeys Rd Bloomsdale, MO 63627 (573) 483-3475
37/89/18 (2000)	Gray's Point Quarry - MRM 46.2, above the mouth of the Ohio River. Take Exit 91 of I-55 on Rd. AB at Scott City, MO, and go east 4 miles to quarry.	Tower Rock Stone Co. P.O. Box 50 Columbia, IL 62236 (618) 281-4106
	Tower Rock Stone Co. P.O. Box 4248 Scott City, MO 63780 (573) 264-3800	
38/90/40&51 (2000)	Bussen Quarry - 5 miles north of St. Genevieve, MO, MRM 127.6, above the mouth of the Ohio River, 19829 Lower Frenchman Rd.	Tower Rock Stone Co. P.O. Box 50 Columbia, IL 62236 (618) 281-4106
	Tower Rock Stone Co. P.O. Box 111 St. Genevieve, MO 63670 (573) 883-7415	

STONE PROTECTION SOURCES

<u>LAT/LONG</u> <u>(TESTED)</u>	<u>QUARRY LOCATION, ADDRESS</u> <u>AND TELEPHONE NUMBER</u>	<u>MAIN OFFICE ADDRESS</u> <u>TELEPHONE NUMBER</u>
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TENNESSE

35/87(2000)	Clifton Quarry on the Ten Tom WW, located west of Clifton TN off TN State Secondary 128, 5.5 miles from intersection of TN State Secondaries 114 and 128 (NW of Waynesboro, TN) (or approx. 1.5 miles N of intersection of TN State Secondaries 128 and 278 on west side of 128) (931) 676-3598	Vulcan Materials Co. Southern Division P.O. Box 385016 Birmingham, AL 35238-5016 (205) 298-3701
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STONE SOURCES

<u>LAT/LONG</u> <u>(TESTED)</u>	<u>QUARRY LOCATION, ADDRESS</u> <u>AND TELEPHONE NUMBER</u>	<u>MAIN OFFICE ADDRESS</u> <u>AND TELEPHONE NUMBER</u>
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ALABAMA

34/88/11 (2000)	Allsboro Quarry is located 8 miles east of intersection of MS Hwy 25 and Tishomingo County Rd 957 at Midway, MS, just across AL state line.	Hoover Incorporated 1205 Bridgestone Parkway P.O. Box 17000 LaVergne, TN 37086-1700 (615)793-2600
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	Hoover Incorporated P.O. Box 613 Iuka, MS 38852 (256)360-2400 (800)535-2636	
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34/88/11 (1999)	Pride Quarry is located N. side of U.S. Hwy 72, Pride, Alabama	Vulcan Materials Co. Southern Division P.O. Box 385016 Birmingham, AL 35238-5016 (205)298-3701
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	Vulcan Materials Co. 18055 Hwy 72 Tuscumbia, AL 35674 (256)381-0012	
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34/87/5 (2000)	Cherokee Quarry is located 3 miles east of Cherokee, AL on old Hwy 72.	Vulcan Materials Co. Southern Division P.O. Box 385016 Birmingham, AL 35238-5016 (205)298-3701
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STONE SOURCES

<u>LAT/LONG</u> <u>(TESTED)</u>	<u>QUARRY LOCATION, ADDRESS</u> <u>AND TELEPHONE NUMBER</u>	<u>MAIN OFFICE ADDRESS</u> <u>AND TELEPHONE NUMBER</u>
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	<u>Vulcan Materials Co.</u>	
	<u>P.O. Box 459</u>	
	<u>Cherokee, AL 35616</u>	
	<u>(256)359-6404</u>	

ARKANSAS

<u>34/92/5&14</u> <u>(2000)</u>	<u>Big Rock Quarry is located off AR</u> <u>Hwy 367, 0.5 mile north of junction</u> <u>with 65th Street, Little Rock, AR</u>	<u>Souter Construction Co.</u> <u>P.O. Box 876</u> <u>Conway, AR 72032</u> <u>(501)354-0137</u> <u>Fax -2521</u>
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<u>34/93/19</u> <u>(2002)</u>	<u>Hollywood Quarry is located 3</u> <u>miles north of Hollywood, AR</u> <u>on AR Hwy 53 and then one mile</u> <u>east on Matts Trail.</u>	<u>Souter Construction Co.Inc.</u> <u>P.O. Box 876</u> <u>Conway, AR 72032</u> <u>(501)354-0137</u> <u>Fax -2521</u>
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CLASSIFIED AS INACTIVE

<u>34/92/12</u> <u>(2000)</u>	<u>Granite Mountain Quarry #1 is</u> <u>located on east side of I-530</u> <u>and just north of Dixie Road,</u> <u>AR Hwy 338</u>	<u>McGeorge Corporation</u> <u>P.O. Box 138</u> <u>Sweet Home, AR 72164</u> <u>(501)490-1535</u>
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	<u>Granite Mountain Quarries</u>	
	<u>P.O. Box 138</u>	
	<u>Sweet Home, AR 72164</u>	
	<u>(501)490-1535</u>	

<u>34/92</u> <u>(2000)</u>	<u>Granite Mountain Quarry #2 is</u> <u>located on west side of I-530</u> <u>and just north of Dixie Road,</u> <u>AR Hwy 338</u>	<u>McGeorge Corporation</u> <u>P.O. Box 138</u> <u>Sweet Home, AR 72164</u> <u>(501)490-1535</u>
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	<u>Granite Mountain Quarries</u>	
	<u>P.O. Box 138</u>	
	<u>Sweet Home, AR 72164</u>	
	<u>(501)490-1535</u>	

<u>36/91</u> <u>(2000)</u>	<u>Sloan/Cavanaugh Quarry is located</u> <u>4.5 miles northwest of Black Rock,</u> <u>AR, off U.S. Hwy 63, on County</u> <u>Road 208</u>	<u>Meridian Aggregates Co.</u> <u>P.O. Box 260</u> <u>Black Rock, AR 72415</u> <u>(870)878-6201</u>
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<u>34/95/10</u> <u>(2000)</u>	<u>River Mountain Quarry- from</u> <u>intersection of AR Hwys 7 and 22</u> <u>in Dardanelle, AR, go west to</u> <u>Delaware, AR and turn left onto</u>	<u>Pine Bluff Sand and Gravel</u> <u>P.O. Box 7008</u> <u>Pine Bluff, AR 71611-7008</u> <u>(870)534-7120</u>
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STONE SOURCES

<u>LAT/LONG</u> <u>(TESTED)</u>	<u>QUARRY LOCATION, ADDRESS</u> <u>AND TELEPHONE NUMBER</u>	<u>MAIN OFFICE ADDRESS</u> <u>AND TELEPHONE NUMBER</u>
	River Mountain Road, and go 4.0 miles entrance to quarry at ARK River Mile 218.5	(800)850-2300
	Pine Bluff Sand & Gravel P.O. Box 96 Delaware, AR 72835-0096 (501)938-7018	

ILLINOIS

37/88 (2000)	Cave-In-Rock Quarry is located app. 5 miles east of Cave-in-Rock, IL. From the flashing light on Illinois Highway 1, for the ferry across the Ohio River, head east past Cave-in- Rock State Park to intersection with next road and turn south toward river. Quarry is on right 0.25 miles from intersection.	Martin Marietta Aggregates 125 Augusta Place, Suite C Paducah, KY 42003 (270)554-0884
	(618)289-3262	

KENTUCKY

37/88/29 (2000)	Three Rivers Quarry is located 7 miles northeast of Smithland, KY, off Hwy 60 (Cumberland Road) From I-24, exit 31 and go north on KY Hwy 453 to intersection with U.S. Hwy 60 and turn right and go over Cumberland River. Quarry is on the right 4.5 miles from the bridge.	Martin Marietta Aggregates 830 Three Rivers Quarry Rd. Smithland, KY 42081 (270) 928-2141
37/88/11 (2000)	Gilbertsville Quarry is located on U.S. Hwy 62 "Between the Dams", Lake City, KY. From KY Hwy 453 to ramp for U.S. Hwy 62/641 and go west to quarry office on left.	Vulcan Materials Co. Reed Quarry 947 U.S. Hwy 62 Grand Rivers, KY 42045 (270)362-4265

MISSOURI

38/90/29 (2000)	Old Menefee Quarry - Take I-55, 4 mi. north of Bloomsdale, MO and take exit for State Rds DD & OO and turn east and go 1 mile to Hwy 61, continue straight ahead thru intersection on Brickeys Rd	APAC 13588 Brickeys Rd. Bloomsdale, MO 63627 (573)483-3475
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STONE SOURCES

<u>LAT/LONG</u> <u>(TESTED)</u>	<u>QUARRY LOCATION, ADDRESS</u> <u>AND TELEPHONE NUMBER</u>	<u>MAIN OFFICE ADDRESS</u> <u>AND TELEPHONE NUMBER</u>
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	to quarry at MRM 136.8 above the mouth of the Ohio River. (Formerly Brickeys Stone LLC.)	
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37/89/18 (2000)	Gray's Point Quarry is located at MRM 46.2, above the mouth of the Ohio River. Take Exit 91 of I-55 on Rd. AB at Scott City, MO, and east 4 east to quarry.	Tower Rock Stone Co. P.O. Box 50 Columbia, IL 62236 (618)281-4106
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	Tower Rock Stone Co. P.O. Box 4248 Scott City, MO 63780 (573) 264-3800	
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38/90/40&51 (2000)	Bussen Quarry is located 5 miles north of St. Genevieve, MO, MRM 127.6, above the mouth of the Ohio River, 19829 Lower Frenchman Rd	Tower Rock Stone Co. P.O. Box 50 Columbia, IL 62236 (618)281-4106
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	Tower Rock Stone Co. P.O. Box 111 St. Genevieve, MO 63670 (573)883-7415	
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TENNESSEE

35/87	Clifton Quarry - on the Ten Tom Waterway, located west of Clifton, TN off TN State Secondary 128, 5.5 miles from intersection of TN State Secondaries 114 and 128 (NW of Waynesboro, TN)(or 1.5 miles North of intersection of TN State Sec 128 and 278 on west side of 128).	Vulcan Materials Co. Southern Division P.O. Box 385016 Birmingham, AL 35238-5016 (205)298-3701
	(931)676-3598	

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 02 - SITE WORK

SECTION 02610

WATER CONTROL GATES

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-- End of Section Table of Contents --

SECTION 02610

WATER CONTROL GATES

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Water Control Gates and Appurtenances; GA.

The Contractor shall submit shop drawings and all applicable manufacturer's data showing the details of the design and construction of all water control gates and appurtenances to be furnished.

PART 2 PRODUCTS

2.1 COMBINATION FLAP AND SLIDE GATES AND APPURTENANCES

The combination flap and slide gates for the 36-inch diameter corrugated metal pipe culverts at the locations shown on the drawings shall be designed to allow free flow and prevent back flow. The gates shall be round with a spigot back and shall be able to withstand a seating head of 10 feet. The gates and appurtenances shall be manufactured as a self-contained unit. The gate shall have bronze or stainless steel bolts, studs, pins and links, and bronze bushings. Gates shall be furnished complete with all appurtenances necessary for installation. The gate, except bronze or stainless steel, shall be painted in accordance with the manufacturer's standard practice or recommendation. The hand wheel shall be located 4 to 6 inches above the top of the riser. Approval of all gates shall be obtained before delivery to the work site.

2.2 SLIDE GATE AND APPURTENANCES

Approval of the slide gate shall be obtained before delivery to the work site. The slide gate and appurtenances for the 24-inch diameter corrugated metal pipe culvert at the locations shown on the drawings shall be designed to prevent back flow. The gate shall be cast iron and round with a spigot back and shall be able to withstand a seating head of 20 feet and a unseating head of 10 feet. The gate and appurtenances shall be manufactured as a self-contained unit. The gate shall have bronze or stainless steel bolts, ~~studs, pins and links,~~ and bronze bushings. The gate shall be furnished complete with all appurtenances necessary for installation. The gate, except bronze or stainless steel, shall be painted in accordance with the manufacturer's standard practice or recommendation.

The hand wheel shall be located 4 to 6 inches above the top of the riser.

2.3 FLAP GATE AND APPURTENANCES

The flap gate and appurtenances for the 24-inch corrugated metal pipe culvert at the locations shown on the drawings shall be designed to allow free flow and prevent back flow through the structure. The gate shall be round with a spigot back and shall be able to withstand a seating head of 10 feet. The gate shall have bronze or stainless steel bolts, studs, pins and links, and bronze bushings. The gate shall be furnished complete with all appurtenances necessary for installation. The gate, except bronze or stainless steel, shall be painted in accordance with the manufacturer's standard practice or recommendation. Approval of the flap gate shall be obtained before delivery to the work site.

PART 3 EXECUTION

3.1 INSTALLATION

The water control gates shall be installed on the culverts at the locations shown on the drawings and in strict accordance with the manufacturer's instructions and drawings. Riser pipe shall be constructed in accordance with the applicable provisions of Section 02719 CORRUGATED METAL PIPES, paragraph RISER.

3.2 CONCRETE WORK

Concrete riser foundation shall be constructed in accordance with the details shown on the drawings. Concrete work for the concrete riser foundation shall be in accordance with all requirements for concrete specified in Section 05560 CATTLE GUARDS, paragraph SUBMITTALS and paragraph CONCRETE WORK.

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SECTION 05560

CATTLE GUARDS

PART 1 GENERAL

1.1 REGULATORY REQUIREMENTS

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

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT (LA DOTD)

LA DOTD-01 (1992) Standard Specifications for Roads and Bridges

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-08 Statements

Concrete Mixture Proportions; FIO.

Concrete mixture proportions shall be the responsibility of the Contractor. Not less than ten days prior to placement of concrete, the Contractor shall submit the mixture proportions that will produce concrete of the qualities required. Mixture proportions shall include the dry weights of cementitious material(s); the nominal maximum size of the coarse aggregate; the specific gravities, absorptions, and saturated surface-dry weights of fine and coarse aggregates; the quantities, types, and names of admixtures; and quantity of water per cubic yard of concrete. All materials included in the mixture proportions shall be of the same type and from the same source as will be used on the project.

SD-13 Certificates

Concrete; FIO.

Concrete will be accepted on the basis of a manufacturer's certificate of compliance stating that the concrete furnished meets all contract strength and quality requirements.

PART 2 PRODUCTS

2.1 NEW CONCRETE HEADERS

New concrete headers shall be constructed as shown on the drawings.
Concrete work shall be in accordance with paragraph CONCRETE WORK.

PART 3 EXECUTION

3.1 EXISTING CATTLE GUARDS AND HEADERS

Existing cattle guards shall be salvaged and removed by the Contractor and stockpiled in locations within the rights-of-way as directed by the Contracting Officer. The Contractor shall exercise all care to not damage the existing cattle guards. The existing concrete headers shall become the property of the Contractor and shall be removed from the site of work. Any damages to the existing cattle guards caused by the Contractor's operation shall be immediately reported to the Contracting Officer, and shall be welded and/or otherwise repaired to the satisfaction of the Contracting Officer, or replaced with new and at least equal cattle guards, all at no additional cost to the Government. Damages to existing cattle guards not caused by the Contractor's operation's, if any, may be directed to be repaired or replaced, and payment for such work, if ordered by the Contracting Officer, will be made in accordance with the Contract Clause CHANGES.

3.2 PREPARATION

The existing levee shall be brought to the gross construction grade prior to installation of the new concrete headers and reinstallation of existing cattle guards. The surface to receive the new concrete headers shall be cleared of all loose material.

3.3 APPROACH RAMPS

The cattle guard approach ramps and temporary approach ramps shall be constructed of suitable material placed and compacted in accordance with Section 02230 EMBANKMENT, paragraph SEMICOMPACTED EMBANKMENT.

3.4 CONCRETE WORK

Concrete for new cattle guard headers and concrete riser foundation shall have a compressive strength of 3,000 psi. All concrete work shall be in accordance with LA DOTD-01 as in paragraph REGULATORY REQUIREMENTS.

3.5 INSTALLATION

The new concrete headers and the existing cattle guards shall be installed at each levee station where existing cattle guards are removed. The new concrete headers shall be installed in such a manner that the top of the new headers will be within a tolerance of plus or minus 0.1 foot in elevation of the average elevation of outer crowns and centerline of the adjacent compacted sand-clay-gravel or crushed limestone levee and roadway surfacing.

-- End of Section --