

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

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

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

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

12. ACCOUNTING AND APPROPRIATION DATA (If required)

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

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

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

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

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

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

1. The specifications and drawings for Invitation No. DACW64-02-B-0035, Placement Area Rehabilitation, House Tract, Houston Ship Channel, Texas, advertised 26 July 2002, and for which bids are to be opened on 27 August 2002, are hereby modified as follows:

BID OPENING DATE IS HEREBY RESCHEDULED FOR 2:00 PM LOCAL TIME, ROOM 225, JADWIN BUILDING, 28 AUGUST 2002.

- (a) Specifications.
 - (1) STANDARD FORM 1442, Item 12b. - Change "10" to "2."
 - (2) BIDDING SCHEDULE, Pages 00010-1 Through 00010-3. - The enclosed Bidding Schedule, Pages 00010-1 through 00010-3 shall supersede that issued with this Invitation.
 - (3) Page 00100-2, CLAUSE 52.1-4045. - In the first line, delete "five working days after" and substitute "at."
 - (4) SECTION 00800, SPECIAL CONTRACT REQUIREMENTS, STANDARD. - The enclosed SECTION 00800 entitled SPECIAL CONTRACT REQUIREMENTS, STANDARD supersedes that issued with this Invitation.
 - (5) SECTION 01100, NON-REGULATED SPECIAL CONTRACT REQUIREMENTS. - The enclosed SECTION 01100 entitled NON-REGULATED SPECIAL CONTRACT REQUIREMENTS supersedes that issued with this Invitation.
 - (6) SECTION 01312, QUALITY CONTROL SYSTEM. - The enclosed new SECTION 01312 entitled QUALITY CONTROL SYSTEM shall be added to and become a part of this Invitation.
 - (7) SECTION 01355, ENVIRONMENTAL PROTECTION. - The enclosed SECTION 01355 entitled ENVIRONMENTAL PROTECTION supersedes that issued with this Invitation.
 - (8) SECTION 01451, CONTRACTOR QUALITY CONTROL. - The enclosed SECTION 01451 entitled CONTRACTOR QUALITY CONTROL supersedes that issued with this Invitation.
 - (9) SECTION 02231, CLEARING, GRUBBING, AND REMOVAL OF DEBRIS. - The enclosed SECTION 02231 entitled CLEARING, GRUBBING, AND REMOVAL OF DEBRIS supersedes that issued with this Invitation.
 - (10) SECTION 02319, STRIPPING AND EXCAVATION. - The enclosed SECTION 02319 entitled STRIPPING AND EXCAVATION supersedes that issued with this Invitation.

(11) Page 02926-1, Subparagraph 2.1.5. - In the second line, delete the words “the Bayou and.”

(12) Page 02926-2, Subparagraph 3.3.1. - Delete the table and substitute the following:

<u>“Planting Window</u>	<u>Pure Line Seed</u>	<u>Rate/lbs/acre)</u>
Oct 1	Ky-31 Tall Fescue	15
to	Hulled Common Bermuda grass	50
Mar 31	Unhulled Common Bermuda grass	30
	Crimson Clover & Inoculant	20
April 1	Foxtail Millet	10
to	Hulled Common Bermuda grass	60
September 30	Sideoats Grama	15
NOTE: Pure Live Seed = % Purity x (% Germination + % Hard Seed) + 100.”		

(b) Drawings.

Drawings Nos. 1 Through 33. - Drawings Nos. 1 through 33 shall be superseded by the enclosed new Drawings Nos. 1 through 26.

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

9 Encls:

1. Bd Sched, Pgs 00010-1 thru 00010-3
2. SECTION 00800
3. SECTION 01100
4. SECTION 01312
5. SECTION 01355
6. SECTION 01451
7. SECTION 02231
8. SECTION 02319
9. Dwgs Nos. 1 thru 26

File 7850S
HOUSTON SHIP CHANNEL, TEXAS
HOUSE TRACT
PLACEMENT AREA REHABILITATION

INVITATION NO. DACW64-02-B-0035

BIDDING SCHEDULE
(TO BE ATTACHED TO STANDARD FORM 1442)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>SCHEDULE NO. 1</u>					
0001	Environmental Protection/ EPA Storm Water Pollution Prevention Plan	1	L.S.	\$ _____	\$ _____
0002	Clearing, Grubbing, and Removal of Debris	200	ACRE	\$ _____	\$ _____
0003	Stripping	1,200,000	S.Y.	\$ _____	\$ _____
0004	Borrow Excavation	1,500,000	C.Y.	\$ _____	\$ _____
0005	Excavation and Repair of Slope	1	L.S.	\$ _____	\$ _____
0006	Exterior Clearing	250,00	S.Y.	\$ _____	\$ _____
TOTAL SCHEDULE NO. 1					\$ _____

00010-1

(To Accompany Amendment No. 0001 to Invitation No. DACW64-02-B-0035)

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

1. ARITHMETIC DISCREPANCIES (EFARS 52.214-5000).

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

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

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

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

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

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

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

Materials: \$ _____

Services: \$ _____

Total: \$ _____

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HOUSE TRACT
PLACEMENT AREA REHABILITATION**

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3.	LIQUIDATED DAMAGES - CONSTRUCTION (SEP 2000) (FAR 52.211-12)	00800-02
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SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS, STANDARD

**1. CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)
(DFARS 252.236-7001).**

(a) The Government will provide the Contractor, without charge, one (1) set of contract drawings and specifications except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

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

(c) In general-

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

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

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

TITLE	FILE	DRAWING NO.
Houston Ship Channel, Texas House Tract Placement Area Rehabilitation	HSC 401-491	26 Sheets (See Index of Drawings)

2. PHYSICAL DATA (APR 1984). (FAR 52.236-4). Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for the interpretation of or conclusion drawn from the data or information by the Contractor. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys.

**3. LIQUIDATED DAMAGES - CONSTRUCTION (SEP 2000)
(FAR 52.211-12).**

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$1,591.00 for each calendar day of delay until the work is completed or accepted.

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

**4. PERFORMANCE OF WORK BY CONTRACTOR (APR 1984)
(FAR 52.236-1).** The Contractor shall perform on the site, and with its own organization, work equivalent to at least forty (40) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

5. CONTINUING CONTRACTS (MAR 1995) (EFARS 52.232-5001).

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of \$50,000 has been reserved for this contract and is available for payments to the Contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the Contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one (1) year due solely to a failure to reserve sufficient additional funds therefore.

(d) The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The Contracting Officer will promptly notify the Contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

(e) If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the Contractor shall give written notice to the Contracting Officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

(f) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The Contractor shall be entitled to simple interest on any payment that the Contracting Officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

(g) Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the Contractor to any price adjustment under the CONTRACT CLAUSE entitled SUSPENSION OF WORK or in any other manner under this contract.

(h) An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

(i) If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the Contractor, by written notice delivered to the Contracting Officer at any time before such additional funds are reserved, may elect to treat its right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

(j) If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the Contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the Contractor, to reduce said reservation by the amount of such excess.

**6. EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE
(MAR 1995) (EFARS 52.231-5000).**

(a) This clause does not apply to terminations. See EFARS 52.249-5000, BASIS FOR SETTLEMENT OF PROPOSALS and FAR PART 49.

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

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(2) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the Contracting Officer shall request the Contractor to submit either certified cost or pricing data, or partial or limited data, as appropriate.

NOTE: A copy of EP 1110-1-8 "CONSTRUCTION EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE" is available for review in the Contracting Division, Room 379F, 2000 Fort Point Road, Galveston, Texas or at the following website: <http://www.hnd.usace.army.mil/techinfo.htm>. Also, copies are available for review in the Northern, Bay, and Southern Area Offices within the Galveston District. The Pamphlet may be purchased directly from the Government Printing Office by calling (202) 512-1800 or (301) 951-7974. The postal address is United States Printing Office, Document Warehouse, 8160 Cherry Lane, Laurel, Maryland 20707.

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**HOUSTON SHIP CHANNEL, TEXAS
HOUSE TRACT
PLACEMENT AREA REHABILITATION**

SECTION 01100 - NON-REGULATED SPECIAL CONTRACT REQUIREMENTS

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SECTION 01100 - NON-REGULATED SPECIAL CONTRACT REQUIREMENTS

1. COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (CESWG). The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date of receipt of the Notice to Proceed, (b) prosecute the work diligently, and except for turfing, (c) complete the entire work not later than 400 calendar days after date of receipt of Notice to Proceed.

1.1 **Turfing.** The Contractor shall complete the turfing within the time limits specified in the SECTION entitled TURF ESTABLISHMENT, with completion not later than the first planting season following the completion of the work specified in the Paragraph: COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK above.

2. TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER. (31 OCT 1989) (ER 415-1-15).

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

(a) 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.

(b) 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.

2.2 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 CALENDAR DAYS

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(12)	(9)	(10)	(7)	(8)	(9)	(9)	(9)	(9)	(7)	(9)	(10)

2.3 Upon acknowledgement of the Notice to Proceed and continuing throughout the contract, the Contractor will record on the daily Contractor Quality Control 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 delay 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 in each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in Subparagraph 2.2 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 the CONTRACT CLAUSE entitled DEFAULT (FIXED-PRICE CONSTRUCTION).

3. DAMAGE TO WORK (CESWG). The responsibility for damage to any part of the permanent work shall be as set forth in the CONTRACT CLAUSE entitled PERMITS AND RESPONSIBILITIES. However, if, in the judgment of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood, earthquake, hurricane or tornado, 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 will make the repairs as ordered by the Contracting Officer and full compensation for such repairs 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, there are no contract unit or lump sum prices applicable to any part of such work an equitable adjustment pursuant to the CONTRACT CLAUSE entitled CHANGES of the contract, will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. 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.

4. CERTIFICATES OF COMPLIANCE (CESWG). Certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in three (3) copies. Each certificate shall be signed by an official authorized to certify in 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.

5. ENVIRONMENTAL LITIGATION (CESWG).

(a) If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of

the Contractor or a subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the CONTRACT CLAUSE entitled SUSPENSION OF WORK. The period of such suspension, delay or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

(b) The term "environmental litigation," as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

6. NATIVE AMERICAN GRAVES PROTECTION (CESWG).

(a) The Native American Graves Protection and Repatriation Act, hereinafter referred to as "the Act," enacted November 16, 1990, (Public Law 101-601, 25 U.S. Code) is applicable to this contract.

(b) The Contractor may discover Native American human remains and objects, as defined in the Act, during contract execution. In the event of such discovery the Contractor shall immediately cease activity in the area of the discovery and shall immediately notify the Contracting Officer to protect the items discovered in accordance with the Act and before resuming such activity. Fines and penalties for illegal trafficking in Native American human remains and cultural items are as defined in the Act.

(c) Upon receipt of notification of the discovery, the Contracting Officer shall notify the appropriate authorities as required by the Act. The cessation of the activity in the area shall be for a minimum period of 30 days after the Contracting Officer has received certification of receipt of notification from the appropriate authorities, in accordance with the Act.

(d) The Contractor shall not resume the activity in the area of the discovery until the Contracting Officer has given the Contractor notice that the Contractor may resume the activity.

7. CONTRACTING OFFICER SIGNATURE (CESWG). The Contracting Officer signing this contract is the primary Contracting Officer on this contract. However, any Contracting Officer assigned to the Galveston District and Acting within its authority may take formal action on this contract when a contract action needs to be taken and the primary Contracting Officer is away from the office.

8. TRADE NAMES AND PROPRIETARY ITEMS (CESWG). The use of trade names or proprietary items is only for specified materials or equipment generally known to and used by the industry that meets minimum requirements in terms of physical characteristics, chemical composition, laboratory test results performance in actual use, or a combination of these as applicable. Other trade names or proprietary items may be substituted if approved equal.

9. VEHICLE INSURANCE (CESWG). The Contractor's employees, who drive vehicles on the site, shall show proof of vehicle insurance at the gate before they will be allowed access to the facility.

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SECTION 01312 - QUALITY CONTROL SYSTEM**PART 1 - GENERAL**

1.1 GENERAL. The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as the Quality Control System (QCS), to record, maintain, and submit various information throughout the contract period. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. The QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import and /Export of Data

1.1.1 Correspondence and Electronic Communications. For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version

1.1.2 Other Factors. Particular attention is directed to the CONTRACT CLAUSES entitled SCHEDULES FOR CONSTRUCTION CONTRACTS and PAYMENTS, and the SECTIONS entitled PROJECT SCHEDULE, SUBMITTAL PROCEDURES, and CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS.

1.2 QUALITY CONTROL SYSTEM SOFTWARE. The QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website or use the executable program is available on the bid CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS. The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS:

Hardware

Personal computer with Pentium or higher processor

32+ MB RAM

4 GB hard drive disk space for sole use by the QCS system

3 1/2 inch high-density floppy drive

Compact disk (CD) Reader

Color monitor

Laser printer compatible with HP LaserJet III or better, with minimum 4 MB installed memory

Connection to the Internet, minimum 56 BPS

Software

MS Windows 95, 98, NT, ME, or 2000 operating system (MS Windows NT 4.0 or newer is recommended)

Word Processing software compatible with MS Word 97 or newer

Internet browser

The Contractor's computer system shall be protected by virus protection software that is regularly upgraded with all issued manufacturer's updates throughout the life of the contract

Electronic mail (E-mail) compatible with MS Outlook

1.4 RELATED INFORMATION.

1.4.1 Quality Control System User Guide. After contract award, the Contractor may download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. If there are justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions. The manual is also included on the bid CD-ROM.

1.4.2 Contractor Quality Control Training. The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5 CONTRACT DATABASE. Prior to the pre-construction conference, the Government will provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will usually consist of submittal reviews, correspondence status, Quality Assurance (QA) comments, and other administrative and QA data

1.6 DATABASE MAINTENANCE. The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, for example: daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The QCS database typically shall include current data on the items listed below.

1.6.1 Administration.

1.6.1.1 Contractor Information. The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information. The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor will be listed separately for each trade to be performed. Each subcontractor and trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence. Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (For example: H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.5 Equipment. The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.7 Management Reporting. The QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances.

1.6.2.1 Pay Activity Data. The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of these pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs shall equal the Contract Amount.

1.6.2.2 Payment Requests. Progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under this contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, that shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control. The QCS provides a means to track implementation of the 3-phase Contractor Quality Control (CQC) System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a CQC Plan within the time required in the SECTION entitled CONTRACTOR QUALITY CONTROL. Within 7 calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan, including the schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control Reports. The QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by the SECTION entitled CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking. The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings. The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident and Safety Tracking. The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports: for example: ENG Form 3394 and OSHA Form 200.

1.6.3.5 Features of Work. The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity as specified in the Subparagraph: Pay Activity Data above, will only be linked to a single feature of work.

1.6.3.6 Quality Control Requirements. The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update the data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management. The Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. The Resident-Engineer Management System (RMS) will be used to update, store, and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule. (NOTE: If the contract requires a schedule, use the SECTION entitled PROJECT SCHEDULE; if not, use the CONTRACT CLAUSE specified below.). The Contractor shall develop a construction schedule consisting of pay activities, in accordance with the CONTRACT CLAUSE entitled SCHEDULES FOR CONSTRUCTION

CONTRACTS or the SECTION entitled PROJECT SCHEDULE, as applicable. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF) as specified in the SECTION entitled PROJECT SCHEDULE. The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Import and Export of Data. The QCS includes the ability to export Contractor data to the Government and to import the submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION. Contractor use of QCS as specified in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. The QCS shall be an integral part of the Contractor's management of Quality Control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM. The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance as specified below.

1.8.1 File Medium. The Contractor shall submit required data on 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running using Microsoft Windows 95 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. Data shall be provided in English.

1.8.2 Disk or CD-ROM Labels. The Contractor shall affix a permanent exterior label to each diskette and CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names. The Government will provide the file names to be used by the Contractor with the QCS software.

1.9 MONTHLY COORDINATION MEETING. The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in the CONTRACT CLAUSE entitled Payments, at least 1 week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by

incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE. The Contracting Officer will notify the Contractor of detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. This notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

1.11 PAYMENT. No separate payment will be made for establishing and maintaining the QCS database; costs associated therewith shall be included in the work to which it pertains.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

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SECTION 01355 - ENVIRONMENTAL PROTECTION**PART 1 - GENERAL**

1.1 SCOPE OF WORK. This Section covers prevention of environmental pollution and damage as the result of construction operations under this contract and for those measures set forth in other Sections of these specifications. For the purpose of this specification, environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural and historical purposes. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

1.2 QUALITY CONTROL. The Contractor shall establish and maintain Quality Control for environmental protection of the items set forth herein. The Contractor shall record on daily reports problems in complying with laws, regulations, and ordinances, and the corrective action taken.

1.3 SUBMITTALS. The Contractor shall submit two (2) sets of the Environmental Protection Plan, including the Contractor's Storm Water Pollution Prevention Plan, 21 days after receipt of the Notice to Proceed in accordance with provisions as herein specified. The Contractor shall allow 21 working days for Government approval.

1.3.1 Environmental Protection Plan shall include but not be limited to the following:

- (1) A list of Federal, State and local laws, regulations, and permits concerning environmental protection, pollution control and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations and permits. For project sites greater than 5 acres in size, including temporary access roads, trailer sites, storage areas, and other disturbed areas associated with construction activities, this submittal shall include a copy of the Contractor's Storm Water Pollution Prevention Plan as prepared prior to submitting Notice of Intent for a General Permit for Storm Water Discharges as administered by the Environmental Protection Agency (EPA).
- (2) Methods for Protection of Features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, such as, trees,

shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources.

- (3) Procedures to be Implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures set out in accordance with the Environmental Protection Plan.
- (4) Permit or License and the Location of the solid waste disposal area.
- (5) Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or disposed materials.
- (6) Traffic Control Plan.
- (7) Work Area Plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan shall include measures for marking the limits of use areas.
- (8) Method of Marking and Maintaining Markings for limits of clearing.
- (9) Method for Controlling Equipment Maneuver to avoid environmental damage.
- (10) Training and Control of Contractor Personnel for environment protection.
- (11) Prevention and Control of Damaging Spillages.
- (12) Methods for Layout of Work Areas, Plant Sites, Haul Roads, Borrow and Waste Areas.
- (13) Methods and Location of Disposal of Waste and Debris.
- (14) Erosion and Sediment Control Plan that identifies the type and location of the erosion and sediment controls to be provided. The Plan shall include monitoring and reporting requirements to assure that the control measures are in compliance with the Erosion and Sediment Plan, Federal, State, and local laws and regulations. The controls shall be identified on the Contractor's Storm Water Pollution Prevention Plan.

1.3.2 Certification and Environmental Protection Agency Notices. The Contractor's Environmental Protection Plan, including the Storm Water Pollution Prevention Plan, shall be approved in writing prior to commencement of work. Upon approval the Contracting Officer, Contractor, and subcontractors will sign the Pollution Prevention Plan Certification, (Attachment C). The Contractor shall submit a Notice Of Intent (NOI) (Attachment D-1) to be attached and submitted with the Government's NOI. The Government will be responsible for filing a NOI and Notice of Termination for this contract. Construction shall not commence until at least 48 hours after the Government has filed a NOI with the Environmental Protection Agency (EPA). Approval of the Contractor's plan will not relieve the Contractor of the responsibility for adequate and continuing control of pollutants and other environmental protection measures.

1.3.3 Changing the Plan. When there are changes in design, construction, operation, or maintenance and the change has a significant effect on the potential for discharging pollutants, the Storm Water Pollution Prevention Plan shall be modified by the Contractor and subcontractors and shall be resubmitted for approval. Minor changes made as a result of weekly inspections will not require re-submittal.

1.4 SUBCONTRACTORS. Assurance of compliance with this Section by subcontractors will be the responsibility of the Contractor.

1.5 NOTIFICATION OF NON-COMPLIANCE. The Contracting Officer will notify the Contractor in writing of observed non-compliance with the aforementioned Federal, State, or local laws or regulations, permits and other elements of the Contractor's Environmental Protection Plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for such suspension.

1.6 PAYMENT. No separate payment or direct payment will be made for the cost of the work covered under this Section and the cost in connection therewith shall be included in the contract lump sum price for "Environmental Protection/EPA Storm Water Pollution Prevention Plan."

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 PROTECTION OF ENVIRONMENTAL RESOURCES. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine its activities to areas defined by the drawings and specifications. Environmental protection shall be as stated in the following subparagraphs.

3.1.1 Protection of Land Resources. Prior to the beginning of construction, the Contractor shall identify the land resources to be preserved within the Contractor's work area. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, and land forms without special permission from the Contracting Officer. Ropes, cables, or guys shall not be fastened to or attached to trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources as defined in the following subparagraphs.

3.1.1.1 Work Area Limits. Prior to construction the Contractor shall mark the areas that are not required to accomplish work to be performed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The Contractor shall convey to its personnel the purpose of marking and protection of the necessary objects.

3.1.1.2 Protection of Landscape. Trees, shrubs, vines, grasses, land forms, and other landscape features shall be preserved. Trees located adjacent to the top of cut which are to remain shall be protected from construction equipment compaction by the installation of fencing, wrapping with boards, or the spreading of wood-chip mulch and placement of plywood over the mulch. Areas in which Contractor activities will be permitted shall be delineated on the ground by marking devices, subject to approval by the Contracting Officer, prior to commencement of Contractor operations. No construction activities will commence until such marking and protection has been completed and approved. The Contractor shall take measures to protect trees from the following damages:

- (1) Compaction of root area by equipment or material.
- (2) Trunk damage by moving equipment, material storage, nailing, or bolting.
- (3) Strangling by tying ropes or guy wires to trunks or large branches.
- (4) Poisoning by pouring materials such as solvents, gas, or paint on or around trees or roots.
- (5) Cutting of roots by such activities as excavating or ditching.
- (6) Damage of branches by improper pruning.
- (7) Drought from failure to water or by cutting or changing normal drainage pattern past roots.
- (8) Changes of soil pH factor by disposal of lime base materials such as concrete or plaster.

- (9) Do not cut roots 1-1/2 inches in diameter or over.

If the Contractor feels that tree damage is inevitable, the Contractor shall coordinate with the Contracting Officer to minimize damage before performing work which will damage the tree.

The Contractor shall take positive measures to make sure that its personnel understand the purpose of the markings and do not operate outside the designated areas.

3.1.1.3 Reduction of Exposure of Unprotected Erodible Soils. Earthwork brought to final grade shall be finished as indicated and specified. Unless otherwise approved by the Contracting Officer, the Contractor shall stabilize exposed soil within 14 days after construction activity on a particular portion of the site has temporarily or permanently ceased, except for areas where construction activities will resume within 21 days from the time construction activities ceased. Stabilization may be achieved with temporary seeding, mulching, geotextiles, vegetative buffer strips, or a combination of these methods. Vegetative buffer strips shall be a minimum of 15-feet in width. Bare areas or areas incapable of trapping sediment within the buffer strip shall be temporarily seeded. Earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in instances where the constructed feature obscures borrow areas, quarries and waste material areas, these areas shall not initially be cleared in total.

3.1.1.4 Temporary Protection of Disturbed Areas. The Contractor shall install storm water controls before soil disturbing activities occur to effectively prevent erosion and to control sedimentation. These controls include, but are not limited to the following:

- (1) Retardation and Control of Runoff. Runoff from the construction site shall be controlled by construction of diversion ditches, benches, and berms to retard and divert runoff to protected drainage courses, and measures required by area-wide plans approved under paragraph 208 of the Clean Water Act.
- (2) Sediment Basins. Sediment from construction areas shall be trapped in temporary sediment basins. The basins shall accommodate the runoff of a local 2-year, 24-hour storm. After each storm the basins shall be pumped dry and accumulated sediment shall be removed as necessary to maintain basin effectiveness. Overflow shall be controlled by paved weir or by vertical overflow pipe, draining from the surface.

3.1.1.5 Erosion and Sedimentation Control Devices. The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as necessary to control erosion and sedimentation. Temporary erosion and

sediment control measures such as berms, dikes, drains, sedimentation basins, grassing, and mulching shall be maintained until permanent drainage and erosion control facilities are completed and operative.

3.1.1.6 Temporary Excavations and Embankments for plant or work areas shall be controlled to protect adjacent areas from despoilment.

3.1.1.7 Disposal of Solid Wastes. Solid wastes, excluding clearing debris, shall be placed in containers which are emptied on a regular schedule. Handling and disposal shall be conducted to prevent contamination.

3.1.1.81 Disposal of Discarded Materials. Discarded materials, other than those which can be included in the solid waste category, will be handled as directed by the Contracting Officer.

3.1.1.9 Sanitation Facilities. The Contractor shall provide and operate sanitation facilities that will adequately treat or dispose sanitary wastes in conformance with Federal, State, and local health regulations.

3.2 PRESERVATION AND RECOVERY OF HISTORICAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES. Existing historical, archeological, and cultural resources within the Contractor's work area will be so designated by the Contracting Officer and precautions taken to preserve such resources as they existed at the time they were pointed out to the Contractor. If during the excavation and disposal activities the Contractor encounters archeological sites or shipwrecks of historical or archeological value, he shall cease work immediately pursuant to the CONTRACT CLAUSE entitled SUSPENSION OF WORK and so notify the Contracting Officer by the fastest available means. After investigation by the Contracting Officer, the Contractor will be instructed on the procedures to follow and if an unreasonable delay is incurred or the work is changed, the contract will be modified accordingly.

3.3 PROTECTION OF WATER RESOURCES. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. Special management techniques, as set out below, shall be implemented to control water pollution by the listed construction activities which are included in this contract. For project sites greater than 5 acres in size, the Contractor shall develop a detailed Storm Water Pollution Prevention Plan for Storm Water Discharges as required for an National Pollutant Discharge Elimination System General Permit administered by the Environmental Protection Agency. The Contractor's detailed Pollution Prevention Plan shall be developed within the guidelines of the basic Pollution Protection Plan provided as Attachment A to this Section of the specifications.

3.3.1 Monitoring of Water Areas Affected by Construction Activities shall be the responsibility of the Contractor. Water areas affected by construction activities shall be monitored by the Contractor.

3.3.2 Inspection of Pollution Control Activities. For construction sites greater

than 5 acres in size and covered by a General Permit for Storm Water Discharges, the Contractor's quality control organization shall inspect pollution control structures and activities a minimum of once every 7 calendar days and within 24 hours after a storm event of greater than 0.5 inch. Attachment B is a sample inspection report form. An inspection report for each inspection shall be retained on site by the Contractor. In addition, the Contractor shall furnish a copy of each report to the Contracting Officer. When the inspection reveals inadequacies, the pollution prevention measures in the Contractor's Pollution Prevention Plan must be revised and changes implemented within 7 days after the inspection.

3.4 PROTECTION OF FISH AND WILDLIFE RESOURCES. The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection will be listed by the Contractor prior to beginning of construction operations.

3.5 PROTECTION OF AIR RESOURCES. The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. Activities, equipment, processes, and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the State of Texas Clean Air Act implemented in 1967, and the Federal emission and performance laws and standards. Ambient Air Quality Standards set by the Environmental Protection Agency shall be maintained for the construction operations and activities specified in this Section. Special management techniques as set out below shall be implemented to control air pollution by the construction activities included in the contract.

3.5.1 Particulates. Dust particles, aerosols, and gaseous byproducts from construction activities, processing and preparation of materials, such as from asphaltic batch plants, shall be constantly controlled, including weekends, holidays, and hours when work is not in progress.

3.5.1.1 Particulates Control. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, waste areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which may cause the air pollution standards mentioned in Subparagraph: Protection of Air Resources above, to be exceeded or which may cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, light bituminous treatment, baghouse, scrubbers, electrostatic precipitators or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, shall be repeated at such intervals as to keep the disturbed area damp. The Contractor shall have sufficient competent equipment available to accomplish this task. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs.

3.5.2 Hydrocarbons and Carbon Monoxide emissions from equipment shall be controlled to Federal and State allowable limits.

3.5.3 Odors shall be continually controlled for construction activities,

processing, and preparation of materials.

3.5.4 Monitoring of Air Quality shall be the responsibility of the Contractor. Air areas affected by the construction activities shall be monitored by the Contractor.

3.6 PROTECTION FROM SOUND INTRUSIONS. The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise.

3.7 POST CONSTRUCTION CLEAN-UP. The Contractor shall clean areas used for construction.

3.8 RESTORATION OF LANDSCAPE DAMAGE. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be in accordance with the Plan submitted for approval by the Contracting Officer. This work will be accomplished at the Contractor's expense.

3.9 MAINTENANCE OF POLLUTION CONTROL FACILITIES. During the life of this contract, the Contractor shall maintain permanent and temporary facilities constructed for pollution control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. The Contractor's Quality Control organization shall inspect pollution control structures and activities a minimum of once every 7 calendar days and within 24 hours after a storm event greater than 0.5 inches.

3.10 POLLUTION PREVENTION PLAN. Attachment A to this Section of the specifications outlines basic requirements for the development of a detailed Pollution Prevention Plan. After the project has been awarded the Contractor shall develop a detailed Pollution Prevention Plan.

3.11 INSPECTION REPORT FORM. Attachment B to this Section of the specifications is a sample Inspection Report Form. An inspection report for each inspection shall be retained on-site by the Contractor. In addition, the Contractor shall furnish a copy of each report to the Contracting Officer. When the inspection reveals inadequacies, the pollution prevention measures in the Contractor's Pollution Prevention Plan shall be revised and changes implemented within 7 calendar days after the inspection.

3.12 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL.

The Contractor shall train its personnel in the phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities such as vegetative covers, and instruments required for monitoring purposes, to ensure adequate and continuous environmental pollution control.

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ATTACHMENT A

STORM WATER POLLUTION PREVENTION PLAN

1. SUMMARY

1.1 PROJECT DESCRIPTION. This project consists of widening and raising levees. Soil disturbing activities include clearing, grubbing, stripping, excavation, and backfill. Approximately 48 acres will be disturbed

1.2 STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES. The Standard Industrial Classification Code for the project is 1629.

1.3 PROJECT NAME AND LOCATION. House Tract, Houston Ship Channel, Texas, Placement Area Rehabilitation. The project is within the jurisdictional boundary of the City of Houston, Texas.

Latitude	Longitude
29° 42' 30"	95° 15' 00"

1.4 RECEIVING WATERS. The site drains into the Houston Ship Channel which flows into Galveston Bay.

2. SITE DESCRIPTION.

2.1 EXISTING CONDITIONS. The existing Placement Area is not currently maintained. The existing runoff co-efficient for the site is $c = 0.19$. No records of runoff water quality exist near the site. Land use of this area consists of industrial uses. Environmental investigations indicate there are no known potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the construction site.

2.2 FUTURE CONDITIONS. The existing Placement Area levees will be widened and raised to accommodate a greater volume. The levee side slopes will be 1 Vertical on 3 Horizontal. The finished slopes shall be turded on the exterior side of the basin.

2.3 CONSTRUCTION PHASING. As a minimum the following list of construction activities, which shall not be construed as an order of work, shall be reflected by the Contractor when developing a construction phasing plan for preparation of a Pollution Prevention Plan:

- (1) Installation of stabilized construction entrances at the construction site and placement area.
- (2) Clearing, grubbing, and stripping of channel excavation areas.
- (3) Removal of fencing.

- (4) Temporary, permanent, and structural measures to control erosion and sediment.
- (5) Placement of compacted fill.
- (6) Turfing.

2.4 SOIL DATA. The geology of the area and general soils over which placement Area exists are of the Pleistocene Age and are of the Houston Group. The Houston Group is divided into two (2) formations, the Lissie, at the base, and the Beaumont, at the top. The formations outcrop in Harris County.

2.5 SITE MAPS. The storm water controls are a minimum required for the development of a detailed Pollution Prevention Plan.

3. EROSION AND SEDIMENT CONTROLS.

3.1 TEMPORARY STABILIZATION. Temporary stabilization practices shall include:

- (1) Temporary sediment basins or traps.
- (2) Temporary seeding.
- (3) Temporary mulching.

3.2 PERMANENT STABILIZATION. Permanent stabilization practices shall include:

- (1) Placement of topsoil, seed, mulch, and fertilizer along levee slopes.
- (2) Placement of sod around drainage structures.

3.3 STRUCTURAL CONTROLS. Structural controls shall include:

- (1) Silt fences.
- (2) Surface roughening.
- (3) Drainage swales.

4. STORM WATER MANAGEMENT CONTROLS. Upon completion of the project the exterior levees will be permanently stabilized with turf.

5. BEST MANAGEMENT PRACTICES DURING CONSTRUCTION.

5.1 WASTE MATERIALS. Solid wastes, excluding clearing debris, shall be placed in containers which are emptied on a regular schedule. Handling and disposal shall be conducted to prevent contamination.

5.2 SANITARY WASTE. The Contractor shall provide and operate sanitation facilities that will adequately treat or dispose sanitary wastes to conform with Federal, State, and local health regulations.

5.3 OFF-SITE VEHICLE TRACKING. Stabilized construction entrances shall be provided by the Contractor at the construction site and disposal area to control tracking of soil. Paved streets adjacent to the construction site shall be swept daily, or more often as directed, to remove excess mud, dirt or rock from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.

6. COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. The Contractor's Storm Water Pollution Prevention Plan shall be in accordance with Section 402(p) of the Clean Water Act and follow the guidance established for Pollution Prevention Plan preparation in EPA-832-R-005, "Storm Water Management Handbook for Construction Activities," latest Edition. The Pollution Prevention Plan shall also follow guidance established in the "Storm Water Management Handbook for Construction Activities," Final Draft, dated September 17, 1992, as prepared by Harris County, Harris County Flood Control District, and City of Houston, Storm Water Management Joint Task Force. A copy of both documents shall be maintained at the job site at all times.

7. MAINTENANCE AND INSPECTION PROCEDURES. Pollution prevention measures will be inspected by the Contractor's Quality Control organization at least once every 7 days and within 24-hours following a storm event of 0.50 inches or more. The inspector will thoroughly understand the requirements of the detailed Contractor Pollution Prevention Plan and have a basic knowledge of engineering aspects on controlling storm water and reducing runoff pollution. Temporary grading will be inspected for erosion and soil loss from the site. Discharge points will be inspected for signs of erosion or sediment associated with the discharge. Locations where vehicles enter and leave the site will be checked for signs of off-site sediment tracking. Best Management Practices and pollution control maintenance procedures will be inspected for adequacy. Deficiencies will be noted in the Inspection Report and corrections implemented within 7 calendar days. The Pollution Prevention Plan will be revised as necessary.

8. MATERIAL INVENTORY. The Contractor shall list materials or substances that will be present on-site during construction.

9. NON-STORM WATER DISCHARGES. Non-storm water discharges will not be allowed during construction of the project, except for emergency fire-fighting flows and other flows permitted in 57 CFR 175, 9 Sept. 92, referenced in paragraph 7.0. In

addition, spill of hazardous substances or oil in excess of reporting quantities shall be reported as required under 40 CFR 110.

10. CONTRACTOR COMPLIANCE. After this project has been awarded, the Contractor shall develop a detailed Pollution Prevention Plan within the guidelines of this basic Pollution Prevention Plan. As the party in control of day-to-day operations at the construction site, the Contractor shall comply with the requirements of the EPA National Pollutant Discharge Elimination System (NPDES).

**U.S. ARMY CORPS OF ENGINEERS
GALVESTON DISTRICT**

**STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT**

STRUCTURAL CONTROLS - EARTH DIKE(S)

FROM	TO	IS DIKE STABILIZED?	IS THERE EVIDENCE OF WASH-OUT OR OVERTOPPING?
------	----	---------------------	---

MAINTENANCE REQUIRED FOR THE EARTH DIKE(S):

TO BE PERFORMED BY: _____ ON OR BEFORE _____

STRUCTURAL CONTROLS - SEDIMENT BASIN(S)

DEPTH OF SEDIMENT IN BASIN	CONDITION OF BASIN SIDE SLOPES	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT?	CONDITION OF OUTFALL FROM THE SEDIMENT BASIN?
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**U.S. ARMY CORPS OF ENGINEERS
GALVESTON DISTRICT**

**STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT**

MAINTENANCE REQUIRED FOR SEDIMENT BASIN(S):

TO BE PERFORMED BY: _____ ON OR BEFORE _____

STRUCTURAL CONTROLS - SILT FENCE(S)

FROM SEDIMENT?	TO	IS THE BOTTOM OF THE FABRIC STILL BURIED?	IS THE FABRIC IN GOOD CONDITION?	HOW DEEP IS THE
-------------------	----	---	--	--------------------

MAINTENANCE REQUIRED FOR THE SILT FENCE(S):

TO BE PERFORMED BY: _____ ON OR BEFORE _____

**U.S. ARMY CORPS OF ENGINEERS
GALVESTON DISTRICT**

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT

OTHER CONTROLS - STABILIZED CONSTRUCTION ENTRANCE

IS MUCH SEDIMENT TRACKED ONTO THE ROAD?	ARE DUST AND SEDIMENT CONTROL MEASURES WORKING?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO THE SITE?	ARE ASSOCIATED DRAINAGE STRUCTURES WORKING?
---	--	--	--

MAINTENANCE REQUIRED FOR CONSTRUCTION ENTRANCE:

TO BE PERFORMED BY: _____ ON OR BEFORE _____

OTHER CONTROLS - DEVELOP SITE SPECIFIC TABLES AS NEEDED

FOR ALL STABILIZATION MEASURES, STRUCTURAL AND NON-STRUCTURAL CONTROLS

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

**U.S. ARMY CORPS OF ENGINEERS
GALVESTON DISTRICT**

**STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT**

REASONS FOR CHANGES:

INSPECTOR'S SIGNATURE: _____ DATE _____

**U.S. ARMY CORPS OF ENGINEERS
GALVESTON DISTRICT**

ATTACHMENT C

POLLUTION PREVENTION PLAN CERTIFICATION

I certify that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

Signed: _____
Name _____
Title _____
Organization _____
Date _____

CONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature Company Name and Address Project Responsibility

Title _____
Organization: _____
Date _____

Title _____
Organization: _____
Date _____

Title _____
Organization: _____
Date _____

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SECTION 01451 - CONTRACTOR QUALITY CONTROL

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) Publications.

D 3740-00B	Minimum Requirements for Agencies Engaged in The Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
E 329-01	Agencies Engaged in The Testing and/or Inspection of Materials Used in Construction.

1.2 SUBMITTALS shall be as specified herein. The Contractor Quality Control organization shall be responsible for certifying that submittals are in compliance with the contract requirements.

1.3 PAYMENT. No separate payment will be made for providing and maintaining an effective Quality Control program, and the costs associated therewith will be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL. The Contractor is responsible for Quality Control and shall establish and maintain an effective Quality Control system in compliance with the CONTRACT CLAUSE entitled INSPECTION OF CONSTRUCTION. The Quality Control system shall consist of plans, procedures, and organization necessary to produce a product which complies with the contract requirements. The system shall cover construction operations, both on-site and off-site, and shall be keyed to the proposed construction sequence.

3.2 QUALITY CONTROL PLAN.

3.2.1 General. The Contractor shall furnish for review by the Government, not later than 10 days after receipt of Notice to Proceed, the Contractor Quality Control Plan proposed to implement the requirements of the CONTRACT CLAUSE entitled

INSPECTION OF CONSTRUCTION. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 10 days of operation. Construction will be permitted to begin only after acceptance of the Contractor Quality Control Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a Contractor Quality Control Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of The Contractor Quality Control Plan. The Contractor Quality Control Plan shall include, as a minimum, the following to cover construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers, and purchasing agents.

3.2.2.1 A description of the Quality Control organization, including a chart showing lines of authority and acknowledgment that the Contractor Quality Control staff shall implement the three phase control system for the work specified. The staff shall include a Contractor Quality Control System Manager who shall report to the Project Manager or someone higher in the Contractor's organization. Project Manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.

3.2.2.2 The name, qualifications in resume format, duties, responsibilities and authorities of each person assigned a Quality Control function.

3.2.2.3 A copy of the letter to the Contractor Quality Control System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the Contractor Quality Control System Manager including authority to stop work which is not in compliance with the contract. The Contractor Quality Control System Manager shall issue letters of direction to other various Quality Control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

3.2.2.4 Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with THE SECTION entitled SUBMITTAL PROCEDURES.

3.2.2.5 Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. Laboratory facilities will be approved by the Contracting Officer.

3.2.2.6 Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

3.2.2.7 Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

3.2.2.8 Reporting procedures, including proposed reporting formats.

3.2.2.9 A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks and has separate control requirements. Definable features can be identified by different trades or disciplines, or can be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the Coordination Meeting.

3.2.3 Acceptance of Plan. Acceptance of the Contractor's Plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in its Contractor Quality Control Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes. After acceptance of the Quality Control Plan, the Contractor shall notify the Contracting Officer in writing a minimum of 7 calendar days prior to a proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING. After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer and discuss the Contractor's Quality Control system. The Contractor's Quality Control Plan shall be submitted for review a minimum of 10 days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the Contractor Quality Control operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings or address deficiencies in the Contractor Quality Control system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION.

3.4.1 General. The requirements for the Contractor Quality Control organization are a Contractor Quality Control System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide the Contractor Quality Control organization which shall be at the site at all times during progress of the work and with complete authority to take any action

necessary to ensure compliance with the contract. Contractor Quality Control staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 Contractor Quality Control System Manager. The Contractor shall identify as Contractor Quality Control System Manager an individual within the on-site organization at the work site, who shall be responsible for overall management of Contractor Quality Control and have the authority to act in all Contractor Quality Control matters for the Contractor. The Contractor Quality Control System Manager shall be a construction person with a minimum of 5 years in related work. In addition, the Contractor Quality Control System Manager shall have completed the course entitled "Construction Quality Management for Contractors." This course is periodically offered at the Galveston District Office or Fort Worth District. The Contractor Quality Control System Manager shall be on the site at all times during construction and shall be employed by the Prime Contractor. The Contractor Quality Control System Manager shall be assigned no other duties. An alternate for the Contractor Quality Control System Manager shall be identified in the Plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated Contractor Quality Control Manager.

3.4.3 Contractor Quality Control Personnel. In addition to Contractor Quality Control personnel specified elsewhere in the contract, the Contractor shall provide as part of the Contractor Quality Control organization specialized personnel to assist the Contractor Quality Control System Manager for the following area: Materials Technician. These individuals may be employees of the Prime or subcontractor; be responsible to the Contractor Quality Control System Manager; be physically present at the construction site during work on their areas of responsibility; and have the necessary education and experience in accordance with the Experience Matrix listed below. These individuals shall have no duties other than Quality Control.

EXPERIENCE MATRIX

<u>AREA</u>	<u>QUALIFICATIONS</u>
Civil	Registered Professional Civil Engineer with 5 years experience in the type of work being performed on this project.
Concrete, Pavements, and Soils	Materials Technician with 2 years experience in the appropriate field.

3.4.4 Organizational Changes. The Contractor shall maintain the Contractor Quality Control staff at full strength at all times. When it is necessary to make changes to the Contractor Quality Control staff, the Contractor shall revise the Contractor Quality Control Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 CONTROL. Contractor Quality Control is the means by which the Contractor assures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three (3) phases of control shall be conducted by the Contractor Quality Control System Manager for each definable feature of work as follows.

3.5.1 Preparatory Phase. This phase shall be performed prior to beginning work on each definable feature of work, after all required plans, documents, and materials are approved or accepted, and after copies are at the work site. This phase shall include:

- (1) A review of each paragraph of applicable specifications.
- (2) A review of the contract drawings.
- (3) A check to assure that materials and equipment have been tested, submitted, and approved.
- (4) Review of provisions that have been made to provide required control inspection and testing.
- (5) Examination of the work area to assure that the required preliminary work has been completed and is in compliance with the contract.
- (6) A physical examination of materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- (7) A review of the appropriate activity hazard analysis to assure safety requirements are met.
- (8) Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that phase of work.
- (9) A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- (10) Discussion of the initial control phase.
- (11) The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the Contractor Quality Control System Manager and attended by the superintendent, other Contractor Quality Control personnel as applicable, and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate

minutes prepared by the Contractor Quality Control System Manager and attached to the daily Quality Control Report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required to meet contract specifications.

3.5.2 Initial Phase. This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- (1) A check of work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.
- (2) Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- (3) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- (4) Resolve differences.
- (5) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- (6) The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the Contractor Quality Control System Manager and attached to the daily Quality Control Report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- (7) The initial phase shall be repeated for each new crew to work on-site, or anytime acceptable specified quality standards are not being met.

3.5.3 Follow-Up Phase. Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the Contractor Quality Control documentation. Final follow-up checks shall be conducted and deficiencies corrected prior to the start of additional features of work that may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.5.4 Additional Preparatory and Initial Phases shall be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable Quality Control staff, on-site production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.6 TESTS.

3.6.1 Laboratory Validation Requirements. The Contractor shall propose the minimum number of laboratories that can attain or have attained U.S. Army Corps of Engineers (USACE) validation in accordance with ER 1110-1-261 and consistent with the testing requirements in this contract. The Contractor may propose laboratories that shall be subsequently validated by the USACE, or select currently validated USACE laboratories. Website for the Engineering Regulation, ER-1110-1-261 is as follows <http://www.hnd.usace.army.mil/techinfo.htm>.

3.6.2 Laboratory Validation Procedures. If not currently validated, the laboratory shall be validated by the Engineering Research and Development Center, Materials Testing Center (MTC). The MTC may be contacted at (601) 634-3278. The laboratory validation fee shall be paid directly to the MTC by the Contractor. The validation process requires 45 days to complete for laboratories without significant deficiencies. Validation shall be accomplished by one (1) of the following processes:

- (1) Inspection shall be performed by the MTC in accordance with ASTM E 329.
- (2) A laboratory may be validated by auditing if it has been inspected by the Concrete and Cement Reference Laboratory (CERL) or AASHTO Materials Reference Laboratory (AMRL) within the past 2 years in accordance with ASTM E 329. The Audit shall be performed by the MTC. Inspection by the MTC may be required after auditing if one (1) or more of the critical testing procedures required in this project specification were not included in the CCRL or AMRL inspection report or if there is any concern that the laboratory may not be able to provide the required services.

3.6.3 Testing Procedure. The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall submit duplicate samples of test specimens for possible testing by the Government. Testing includes operation and acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

- (1) Verify that testing procedures comply with contract requirements.
- (2) Verify that facilities and testing equipment are available and comply with testing standards.
- (3) Check test instrument calibration data against certified standards.

- (4) Verify that recording forms and test identification control number system, including the test documentation requirements, have been prepared.
- (5) Results of tests taken, both passing and failing tests, shall be recorded on the Quality Control Report for the data taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.6.4 Testing Laboratories.

3.6.4.1 Capability Check. The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.6.4.2 Capability Recheck. If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$500 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. These costs will be deducted from the contract amount due the Contractor.

3.6.2.3 On-site Laboratory. The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.6.4.4 Transportation of Samples for Testing. Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered f.o.b., to a designated commercial laboratory in the Houston area. Certain testing of concrete materials and the testing of stone riprap will require delivery to the U.S. Army Corps of Engineers Division Laboratory, f.o.b., at the following address:

U.S. Army Waterways Experiment Station
3909 Halls Ferry Road
Vicksburg, Mississippi 39180-6199

Coordination for each specific test, exact delivery location and dates will be made through the appropriate Area Office.

3.7 COMPLETION INSPECTION.

3.7.1 Punch-out Inspection. Near the completion of the work or an increment thereof established by a completion time stated in the NON-REGULATED SPECIAL CONTRACT REQUIREMENTS CLAUSE entitled COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK, or stated elsewhere in the specifications, the Contractor Quality Control System Manager shall conduct an inspection of the work and develop a punch list of items which do not conform to the approved plans and specifications. The list of deficiencies shall be included in the Contractor Quality Control documentation, as required by the Paragraph: DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The Contractor Quality Control System Manager or staff shall make a second completion inspection to ascertain that deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-final inspection.

3.7.2 Pre-final Inspection. The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government Pre-final Punch List may be developed as a result of this inspection. The Contractor's Contractor Quality Control System Manager shall ensure that all items on this list have been corrected before notifying the Government so that a Final inspection with customer can be scheduled. Items noted on the Pre-final inspection shall be corrected in a timely manner. These inspections and deficiency corrections required by this Paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.7.3 Final Acceptance Inspection. The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer shall be in attendance at this inspection. Additional Government personnel may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the Final Acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with the remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the CONTRACT CLAUSE entitled INSPECTION OF CONSTRUCTION.

3.8 DOCUMENTATION. The Contractor shall maintain current records providing factual evidence that required Quality Control activities and tests have been performed. The records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- (1) Contractor or subcontractor and their area of responsibility.
- (2) Operating plant and equipment with hours worked, idle, or down for repair.
- (3) Work performed today, giving location, description, and by whom. When Network Analysis System (NAS) is used, identify each phase of work performed each day by NAS activity number.
- (4) Test and control activities performed with results and references to specifications and drawings requirements. The control phase shall be identified as Preparatory, Initial, and Follow-up. List deficiencies noted along with corrective action.
- (5) Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications and drawings requirements.
- (6) Submittals reviewed, with contract reference, by whom, and action taken.
- (7) Off-site surveillance activities, including actions taken.
- (8) Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- (9) Instructions given or received and conflicts in drawings and specifications.
- (10) Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one (1) copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one (1) report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. Calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the Contractor Quality Control System Manager. The Report from the Contractor Quality Control System Manager shall include copies of test reports and copies of reports prepared by the subordinate Quality Control personnel.

3.9 NOTIFICATION OF NON-COMPLIANCE. The Contracting Officer will notify the Contractor of a detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. The notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to a stop order shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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SECTION 02231 - CLEARING, GRUBBING, AND REMOVAL OF DEBRIS

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SECTION 02231 - CLEARING, GRUBBING, AND REMOVAL OF DEBRIS

PART 1 - GENERAL

1.1 SCOPE OF WORK. The work covered in this Section consists of furnishing plant, labor, and equipment necessary to perform clearing, grubbing, and removal of trees, debris, timbers, and trash from the foundation; excavation; borrow areas shown; and areas adjacent to and outside of the levee centerline, which is referred to as exterior clearing and the satisfactory disposal of the cleared and removed materials.

1.2 ACCESS ROAD. Access to the project site shall be as shown.

1.3 ORDER OF WORK. Clearing, grubbing, and removal of debris shall be completed at least 500 feet in advance of the excavation and levee construction operations. Exterior clearing may be accomplished at any time during this contract period.

1.4 MEASUREMENT.

1.4.1 Foundation, Excavation, and Borrow Areas. Clearing, grubbing, and removal of debris from the foundation, excavation, and borrow areas shall be measured by the acre. The Contractor shall determine the area of completed clearing and grubbing based on surveys of area limits and as specified herein. Disposal of cleared material shall not be measured for payment.

1.4.2 Exterior Clearing shall be measured by the acre.

1.5 PAYMENT.

1.5.1 Foundation, Excavation, and Borrow Areas. Payment for clearing, grubbing, and removal of debris from the foundation, excavation, and borrow areas and the costs in connection therewith will be made at the contract unit price per acre for "Clearing, Grubbing, and Removal of Debris." Clearing in excess of 10 acres above the areas that is actually excavated for borrow material will not be included for payment.

1.5.2 Exterior Clearing. Payment for exterior clearing will be made at the contract unit price per acre for "Exterior Clearing," which shall include the costs in connection therewith.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 CLEARING of foundation, borrow areas, and exterior clearing shall consist of felling and cutting up trees and the satisfactory disposal of the trees, together with removal of pipe, downed timber, snags, brush, and rubbish occurring within the limits of foundation areas, as shown and within areas required to be excavated for borrow material. Areas that the Contractor anticipates will be excavated to obtain borrow material shall be cleared and grubbed, as specified, prior to borrow excavation. Additional clearing of areas may be required to determine suitability of areas and surface materials for borrow use. Clearing areas in excess of that required to obtain sufficient material to complete required earthwork will not be allowed without advance approval

3.2 GRUBBING shall consist of the removal of stumps, roots, and other objectionable material from the borrow area. Tap roots or other projections over 1-1/2 inches in diameter shall be removed from the excavation and foundation areas.

3.2.1 Exterior Clearing. Grubbing will not be required for exterior clearing.

3.3 DISPOSAL. Materials obtained from clearing and grubbing the areas specified in the Paragraphs: CLEARING and GRUBBING above, shall be disposed in abandoned portions of the borrow area as approved or removed and disposed in areas off-site. Debris and vegetation placed within the borrow area that floats shall be covered with fill as directed.

3.4 SURVEYS. During surveys for initial site layout, the Contractor shall also perform surveys of the location of the edges of areas that will require clearing, or stripping, as specified. Upon completion, plots of these boundaries on an approved drawing shall be furnished for Government verification. Upon completion of required clearing or stripping, additional surveys shall be taken to identify limits of cleared areas for calculation of quantity of acres cleared. After completion of clearing and grubbing and satisfactory disposal of materials, and after completion of required stripping, the Contractor shall perform surveys of each of these areas to determine the location of the limits of the cleared and stripped areas, as directed. The Contractor shall ensure that after excavation surveys of the portion of borrow area to be used for disposal of cleared materials have been completed prior to commencing with disposal.

3.5 CONTRACTOR QUALITY CONTROL.

3.5.1 Compliance Inspection. The Contractor shall inspect the project for compliance with the contract requirements and record the inspection of the operations, including but not limited to clearing, removal, and disposal of materials specified to be cleared.

3.5.2 Records. A copy of the records of inspections and corrective action taken, shall be submitted as directed.

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SECTION 02319 - STRIPPING AND EXCAVATION

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SECTION 02319 - STRIPPING AND EXCAVATION

PART 1 - GENERAL

1.1 SCOPE OF WORK. The work covered in this Section consists of furnishing plant, labor, and equipment necessary to perform the operations in connection with stripping of borrow and foundation areas and borrow excavation.

1.2 RIGHT-OF-WAY AND BORROW AREAS. The right-of-way and borrow areas for obtaining material for constructing the work will be furnished without cost to the Contractor at the locations shown. The logs of borings shown represent information that the Government has obtained at the site. Field notes; soil, field, and laboratory test results; and other data on which this information is based, are available at the Galveston District Office and access thereto may be obtained upon request.

1.3 MEASUREMENT.

1.3.1 Stripping of borrow areas and levee foundation areas shall be measured for payment by the square yard based on surveys of the limits of areas stripped.

1.3.2 Excavation shall be measured for payment by the cubic yard and quantities shall be determined by the average end area method. The basis for measurement will be cross sections of the areas to be excavated taken immediately after completion of clearing and stripping operations and again immediately after excavation of the areas that have been completed. Unsatisfactory materials excavated from the areas will not be included in the measurement for payment. The quantity of material placed more than 0.5-foot above the prescribed levee section and material placed for haul roads or turnouts that are outside the limits of required filling will not be included in the measurement. Material placed above the specified grade tolerance and material placed outside the limits of required filling shall be measured and deducted from the quantity of borrow excavation. Surveys shall be performed by the Contractor as specified herein.

1.4 PAYMENT.

1.4.1 Stripping. Payment for stripping will be made at the contract unit price per square yard for "Stripping," which price includes the cost of labor, equipment, and incidentals necessary for stripping and disposal of material as specified. Stripped areas, in excess of 20,000 square yards above the combined areas of required foundation area stripping and borrow area stripping, as specified, shall be subtracted from the area for payment.

1.4.2 Borrow Area Excavation. Payment for borrow area excavation, used for construction of the levee, will be made at the contract unit price per cubic yard for "Borrow Excavation," which price shall constitute full compensation for labor, equipment, tools, and incidentals necessary to complete construction of the levee embankment.

PART 2 - PRODUCTS

2.1 EQUIPMENT. Excavation shall be accomplished with draglines, backhoes, shovels, or other suitable excavating equipment. Trucks, scrapers, and other types of earth-hauling equipment, if used, shall be of approved types suitable for construction.

PART 3 - EXECUTION

3.1 STRIPPING. The Contractor shall schedule stripping so that completion of stripping of a foundation or borrow area does not precede placement of fill material or excavation of borrow material by more than 60 days. Areas where this requirement is not met and that require additional stripping to remove re-growth shall be stripped as specified herein at no additional cost to the Government.

3.1.1 Borrow Area. Portions of the designated borrow area to be excavated for obtaining required borrow material shall be stripped to remove humus and vegetation.

3.1.2 Foundation Areas. Levee foundation areas shall be stripped to remove humus, grass, weeds, and vegetation before fill is placed thereon. Stripping shall be completed at least 500 feet in advance of filling operations. Stripping shall not be required in areas void of vegetation. Stripping shall be limited to those areas for which excavation is required to obtain sufficient borrow material for construction, and excessive, unapproved stripping shall not be included for payment, as specified.

3.1.3 Disposal of Stripped Materials. Stripped materials from the existing levee, from the foundation area of the new levees, and from borrow areas located within 200 feet of the new levee shall be stockpiled and used for turfing of new levees. Stripping of areas more than 200 feet from the new levees shall be disposed at approved locations within the Placement Area.

3.2 EXCAVATION OF BORROW AREA. Satisfactory borrow material for construction of the levee shall be obtained from the borrow areas shown. Borrow excavation shall consist of excavation sufficient to obtain the required fill material for construction of the levee and shall be excavated as shown, unless otherwise directed. During excavation, the borrow areas shall be kept drained by the use of ditches, sump pits, and sump pumps in order that the material can be excavated in the dry.

3.3 HAUL ROADS. The crown of the existing levee under construction may be used as a haul road. After completion of the new levees, the haul road shall be graded smooth to drain toward the exterior of the area, compacted, and turfed as specified.

Satisfactory materials obtained during required degrading of the existing levee can be used for new levee construction.

3.4 DISPOSITION OF MATERIALS.

3.4.1 Disposition of Satisfactory Materials. Materials excavated from the borrow areas, that are satisfactory as specified in the SECTION entitled EMBANKMENT CONSTRUCTION, shall be used in the construction of the levee and other fills.

3.4.2 Disposition of Unsatisfactory Materials. Excavated materials obtained from the borrow areas that are unsatisfactory shall be disposed in approved areas within the borrow areas, prior to performing after-excavation surveys for measurement.

3.5 CONTRACTOR QUALITY CONTROL.

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

- (1) Stripping. Areas as specified and conformance with removal and disposal of vegetation.
- (2) Borrow Area Excavation. Interior elevation, side slopes, size, location, and dewatering.

3.5.2 Records. A copy of the records of inspections, as well as the records of corrective action taken, shall be submitted as directed.

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