AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0001	26 Oct 2001		

6. ISSUED BY CODE

U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 4970
ATTN: CESAJ-CT-C
JACKSONVILLE, FL 32232-0019
KATHIE DUKE 904-232-3713

7. ADMINISTERED BY *(If other than Item 6)* CODE

U.S. ARMY CORPS OF ENGINEERS
JACKSONVILLE DISTRICT
400 WEST BAY STREET
ATTN: CESAJ-CT-C
JACKSONVILLE, FL 32202-4412

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*

CODE FACILITY CODE

(√) 9A. AMENDMENT OF SOLICITATION NO.
DACW17-01-B-0019

X 9B. DATED *(SEE ITEM 11)*
4 Oct 2001

10A. MODIFICATION OF CONTRACTS/ORDER NO.

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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

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

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

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

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

(√) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER *(Specify type of modification and authority)*

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

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

CONSTRUCTION DREDGING AND MAINTENANCE DREDGING, 33-FOOT PROJECT, PALM BEACH HARBOR, FLORIDA

Any enclosures accompanying this amendment should be inserted in the plans and/or specifications as applicable. All superseded materials should be removed or adequately marked to indicate that they have been superseded.

Bid Opening date remains the same at 6 Nov 2001 at 2:00 p.m.

This amendment is being posted on the Jacksonville District web site only. A new CD ROM will not be issued for this amendment.

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 BY *(Signature of Contracting Officer)*	16C. DATE SIGNED

SF 30 CONTINUATION SHEET

1. **SPECIFICATIONS**:

A. Either asterisks appear before and after the line or lines where revisions have been made to the text on the enclosed revised or added pages or the text changes have been updated with additions noted with underlined text and deletions noted with line/cross-outs, and pertain only to changes made by this amendment.

B. The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not marked with asterisks or underlined text and line/cross-outs.

ADD the Amendment Number 0001 STANDARD FORM 30.

SECTION 00010: DELETE page 00010-1 (page 1 of STANDARD FORM 1442) and REPLACE with the attached revised page 00010-1; DELETE page 00010-3 (DESCRIPTION OF WORK) and REPLACE with the attached revised page 00010-3; DELETE pages 00010-5 and 00010-6 (BIDDING SCHEDULE) and REPLACE with the attached revised pages 00010-5 and 00010-6; DELETE pages 00010-8 through 00010-13 (WAGE RATES, General Decision Numbers FL0100032 and FL010045) and REPLACE with the attached revised pages 00010-8 through 00010-13.

SECTION 00800: SPECIAL CONTRACT REQUIREMENTS; DELETE SECTION 00800 in it’s entirety and REPLACE with the attached revised SECTION 00800 in it’s entirety.

SECTION 01000: GENERAL REQUIREMENTS; DELETE SECTION 01000, excluding the Appendices and REPLACE with the attached revised SECTION 01000, excluding the Appendices. REVISE APPENDIX 01000-B by DELETING Control Monument Description "C.M. ID PB LWI 0026.

SECTION 01270: MEASUREMENT AND PAYMENT; DELETE SECTION 01270 in it's entirety and REPLACE with the attached revised SECTION 01270 in it's entirety.

SECTION 01310: ADMINISTRATIVE PROCEDURES; DELETE SECTION 01310, excluding the Appendices, and REPLACE with the attached revised SECTION 01310.

SECTION 01355: ENVIRONMENTAL PROTECTION; DELETE SECTION 01355, excluding the Appendices and REPLACE with the attached revised SECTION 01355.

SECTION 01411: TURBIDITY AND DISPOSAL MONITORING; DELETE SECTION 01411, excluding the Appendix and REPLACE with the attached revised SECTION 01411.

SECTION 01452: DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL; DELETE SECTION 01452, excluding the Appendices and REPLACE with the attached revised SECTION 01452.

SECTION 02325: DREDGING; DELETE SECTION 02325, excluding the Appendices and REPLACE with the attached revised SECTION 02325.

2. **DRAWINGS**:

D.O. File No. 16-38,215 dated July 2001 in 15 Sheets + Cover:

DELETE Drawing Nos. 1/1, 1/2, 2/1, 2/2, 2/3, 2/4, 2/5, 3/1 and 3/6 and REPLACE with the attached revised Drawing Nos. 1/1, 1/2, 2/1, 2/2, 2/3, 2/4, 2/5, 3/1 and 3/6.

SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. DACW17-01-B-0019	2. TYPE OF SOLICITATION [X] SEALED BID (IFB) [ ] NEGOTIATED *(RFP)*	3. DATE ISSUED 4-Oct-2001	PAGE OF PAGES

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W32CS512365419	6. PROJECT NO.

7. ISSUED BY CODE DACW17	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE DACW17
USA ENGINEER DISTRICT, JACKSONVILLE 400 WEST BAY STREET CESAJ-CT (ROOM 867) JACKSONVILLE FL 32202-4412 TEL: FAX:	BY HAND: DELIVER TO "ISSUED BY" ADDRESS BY MAIL: USAED JACKSONVILLE, PO BOX 4970, ATTN: CESAJ-CT JACKSONVILLE FL 32232-0019 TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME CLAURICE M DINGLE	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALL* 904-232-3736

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

CONSTRUCTION DREDGING AND MAINTENANCE DREDGING, 33-FOOT PROJECT, PALM BEACH HARBOR, FLORIDA

DRAWINGS: D.O. FILE # 16-38, 215, DATED JULY 2001, in 15 sheets plus the cover

DESCRIPTION OF WORK: SEE PAGE 00010-3 FOR DESCRIPTION OF WORK

MAGNITUDE OF CONSTRUCTION IS BETWEEN $1,000,000 AND $5,000,000

THIS IS AN UNRESTRICTED ACQUISITION. ALL BUSINESSES ARE ENCOURAGED TO RESPOND.

YOU MUST BE REGISTERED IN THE CENTRAL CONTRACTING REGISTRATION IN ORDER TO BE ELIGIBLE TO RECEIVE AN AWARD FROM THIS SOLICITATION. CALL 1-888-227-2423 FOR INFORMATION.

* 11. The Contractor shall begin performance within 20 calendar days and complete it within 57 calendar days after receiving *
[ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See* Section 00800 *.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [X] YES [ ] NO	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8 by 14:00:00 *(hour)* local time 11/6/01 *(date)*. If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee [X] is, [ ] is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

DESCRIPTION OF WORK

Project work consists of the following: The Palm Beach Harbor construction dredging will consist of dredging approximately 48,000 cubic yards of material from the extended settling basin. The Palm Beach Harbor maintenance dredging will consist of dredging approximately 55,000 cubic yards of material from the Entrance Channel, Settling Basin, Cut-1 and Cut-2. An optional bid item A for rental of a dredge and labor for dredging scattered shoals which may exist in the North Turning Basin and South Turning Basin is also included in this contract. All dredged material will be placed in the Palm Beach Disposal Area, which is located adjacent to the south jetty and extends southerly approximately 3,130 feet. An optional bid item B to dredge an additional 45,000 cubic yards of maintenance material from the entrance channel is also included in this contract. Option B is included in the event of unanticipated excessive shoaling beyond the quantities of the base bid. All material from optional bid item B shall be deposited in the Midtown Beach Disposal Area. Method of dredging is restricted to hopper or cutter suction dredges. Base bid and option bid work will also include turbidity monitoring and endangered species observer/monitoring. The Contractor is advised that work under this contract will be conducted during the winter season (December through March) and wave conditions of three feet or higher may be expected. The contractor shall furnish plant and equipment that can accomplish work within the time specified under the expected wave conditions. The following is the Project Depth/Allowable Overdepth: (A) Extended Settling Basin - 35 ft./2 ft.; (B) Entrance Channel Sta. 25+00 to 30+00 - 35 ft./1 ft.; (C) * Entrance Channel Sta. 30+00 to 56+00 - 37 ft./1 ft.; (D) Entrance Channel Settling Basin - 35 ft./2 ft.; (E) Cuts 1 and 2 - 33 ft./2 ft.; (F) Optional Bid Item North Turning Basin - 24 ft./1 ft.; (G) Optional Bid Item South Turning Basin - 33 ft./2 ft. * All dredged material is anticipated to be beach quality. Material placed in the Palm Beach Disposal area should begin approximately 250 feet south of the existing sand transfer plant outfall location and proceed south. Material placed in the Midtown Beach Disposal area shall use the ship to shore pipeline corridor required to protect hard bottom habitat.

ITEM	DESCRIPTION	QUANTITY	U/M	U/P	AMOUNT
	CONSTRUCTION DREDGING AND MAINTENANCE DREDGING, 33-FOOT PROJECT, PALM BEACH HARBOR, FLORIDA				
	BASE BID:				
	ENTRANCE CHANNEL-STA. 25+00 TO CUT 2 STA. 87+92 USING PALM BEACH HARBOR BEACH DISPOSAL AREA				
0001	MOBILIZATION AND DEMOBILIZATION	1	JOB		$_____
0002	EXCAVATION, UNCLASSIFIED (MAINTENANCE DREDGING) (ESTIMATED QUANTITY - SEE NOTE 1)	~~103,000~~ 55,000	CY	$_____	$_____
0002A	EXCAVATION, UNCLASSIFIED (CONSTRUCTION DREDGING) (EXTENDED SETTLING BASIN) (ESTIMATED QUANTITY SEE NOTE 1)	48,000	CY	$_____	$_____
0003	TURBIDITY MONITORING	1	JOB		$_____
0004	ENDANGERED SPECIES OBSERVER (HOPPERS ONLY)	1	JOB		$_____
	Total Base Bid				$_____
0005	**OPTION BID ITEM A**				
	CONTINGENCY DREDGING IN THE NORTH AND SOUTH TURNING BASIN				
0005AA	MOBILIZATION AND DEMOBILIZATION ~~NOT APPLICABLE TO HOPPERS~~	1	JOB		$_____
0005AB	CONTINGENCY DREDGING (NORTH AND SOUTH TURNING BASINS)	1	DAY		$_____
0005AC	TURBIDITY MONITORING	1	JOB		$_____
0005AD	ENDANGERED SPECIES OBSERVER (HOPPERS ONLY)	1	JOB		$_____
	Total Option Bid Item A				$_____
	Total Base Bid plus Option Bid Item A				$_____
0006	**OPTION BID ITEM B**				
	ENTRANCE CHANNEL-STA. 25+00 TO CUT 2 STA. 87+92 ~~AND DREDGING IN THE NORTH AND SOUTH TURNING BASIN~~ USING MIDTOWN BEACH DISPOSAL AREA				
0006AA	EXCAVATION, UNCLASSIFIED (ESTIMATED QUANTITY - SEE NOTE 1)	45,000	CY	$_____	$_____

0006AB MOBILIZATION AND DEMOBILIZATION ~~NOT APPLICABLE TO HOPPERS~~	1	JOB	$_____
0006AC TURBIDITY MONITORING	1	JOB	$_____
0006AD ENDANGERED SPECIES OBSERVER (HOPPERS ONLY)	1	JOB	$_____

Total Option Bid Item B $_____

Total Base Bid plus Option Bid Item A plus Option Bid Item B $_____

NOTES:

(1) QUANTITY INCLUDES REQUIRED DEPTH, ALLOWABLE OVERDEPTH, AND SHOALING ESTIMATED TO OCCUR BETWEEN DATES OF SURVEYS AND ACTUAL DREDGING.

(2) BIDDERS MUST BID ON ALL LINE ITEMS. SEE PROVISION AT 52.214-18 (SECTION 00100)

(3) FAILURE TO COMPLETE AND RETURN ALL REQUIRED SUBMISSIONS (SF1442, SECTION 00010 (EXCEPT WAGE RATES) AND SECTION 00600) COULD RENDER YOUR BID NONRESPONSIVE

(4) SEE SECTION 00100, "INSTRUCTIONS, CONDITIONS AND NOTICE TO BIDDERS."

(5) OPTIONAL BID ITEMS: CONTRACTING OFFICER MAY EXERCISE OPTION BID ITEM A AND/OR OPTION BID ITEM B, AT THE OFFERED PRICE, BY WRITTEN NOTICE TO THE CONTRACTOR ANYTIME PRIOR TO DEMOBILIZATION (SEE CLAUSE 52.217-7, SECTION 00700).

U/M = UNIT MEASURE U/P = UNIT PRICE CY = CUBIC YARD

SECTION 00800 Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

*The Contractor shall be required to (a) commence work under this contract within 20 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 57 calendar days. The time stated for completion shall include final cleanup of the premises, as well as time needed for Option Bid Item A. In the event Option Bid Item B is awarded, an additional 14 calendar days shall be added to the contract performance period for the completion of the work, and shall include final cleanup of the premises. *

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $1,275.00 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.

(End of clause)

52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997) (CESAJ ADAPTATION)

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract (see Note 1 below). The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No. (See Note 2 below)
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to

award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.
(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of clause)

Notes:

1. The phrase “to be delivered under this contract” shall be interpreted to include hazardous materials to be consumed in the performance of the work even though such materials may not be delivered to the Government as end items.

2. The use (or consumption) of some kind of hazardous material is required for the performance of almost every construction (including dredging) contract and in many service contracts. Therefore, the offeror should not enter “none” without first evaluating the work and making a positive determination that no such materials will be introduced to the job site. If the offeror is not sure of the identity of hazardous materials that may be used during the performance of the work, the offeror should enter “unknown at this time.” Regardless of the offeror’s entry, the successful offeror (the Contractor) will be required to submit material safety data sheets prior to introducing any hazardous materials to the job site.

(End of notes)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least 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.

52.236-4 PHYSICAL DATA (APR 1984) (CESAJ ADAPTATION)

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

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by (See Section 01000 of this contract).
(b) Weather conditions (See Section 01000 of this contract).
(c) Transportation facilities (See Section 01000 of this contract).

(End of clause)

52.236-16 QUANTITY SURVEYS (APR 1984)

(a) Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

(b) The Government shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

(c) Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer.

252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

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

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

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

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

Title	File	
Construction Dredging and Maintenance Dredging, 33-Foot Project, Palm Beach Harbor, Florida	D.O. File No. 23-38,178	15 Sheets + Cover

(End of clause)

252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION. (DEC 1991)

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

(1) 60 percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining 40 percent upon completion of demobilization.

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

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

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization; and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

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

(a) This clause does not apply to terminations. See 52.249-5000, Basis for Termination Settlement Proposals, and FAR Part 49.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar

serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region III. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

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

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

(End of clause)

(CESAJ paragraph number 998.231-1)

EFARS 52.232-5000 PAYMENT FOR MATERIALS DELIVERED OFF-SITE (MAR 1995)

(a) Pursuant to FAR clause 52.232-5, Payments Under Fixed Priced Construction Contracts, materials delivered to the contractor at locations other than the site of the work may be taken into consideration in making payments if included in payment estimates and if all the conditions of the General Provisions are fulfilled. Payment for items delivered to locations other than the work site will be limited to: (1) materials required by the technical provisions; or (3) materials that have been fabricated to the point where they are identifiable to an item of work required under this contract.

(b) Such payment will be made only after receipt of paid or receipted invoices or invoices with canceled check showing title to the items in the prime contractor and including the value of material and labor incorporated into the item. In addition to petroleum products, payment for materials delivered off-site is limited to the following items: NONE

(End of clause)

(CESAJ paragraph number 998.232-1)

EFARS 52.232-5001 CONTINUING CONTRACTS (MAR 1995)

(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 $1,000.00 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 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 Suspension of Work clause of this contract 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 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 his 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.

(End of clause)

(CESAJ paragraph number 998.232-2)

EFARS 52.236-5000 PLANT AND MATERIAL REMOVAL AFTER CONTRACT TERMINATION (MAR 1995)

Should this contract be terminated as provided in the Continuing Contracts clause of this contract (EFARS 52.232-5001) because of the failure of Congress to provide additional funds for its completion,

the Contractor may be permitted to remove plant and material on which payments for preparatory work have been made, subject to an equitable deduction from the amounts due the contractor to reimburse the United States for the unabsorbed value of such plant and material.

(End of clause)

(CESAJ paragraph number 998.236-1)

EFARS 52.249-5000 BASIS FOR TERMINATION SETTLEMENT PROPOSALS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In evaluating a termination settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

(1) Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.

(2) If equipment costs have been allocated to a contract using predetermined rates, those charges will be adjusted to actual costs.

(3) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.

(4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).

(5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of Clause)

(CESAJ paragraph number 998.249-1)

UNAUTHORIZED INSTRUCTIONS FROM GOVERNMENT OR OTHER PERSONNEL

The Contractor shall not accept any instructions issued by any person, employed by the Government or otherwise, other than the Contracting Officer or the Contracting Officer's Representative (COR) acting within the limits of the COR's authority. See the Contracting Officer's Representative clause of this contract.

(End of paragraph number 999.201-4002)

DFARS 203-70 – CONTRACTOR STANDARDS OF CONDUCT

The following excerpt from DFARS subpart 203.70 is presented as a reminder:
203.7000 Policy. Government contractors must conduct themselves with the highest degree of integrity and honesty. Contractors should have standards of conduct and internal control systems that--

(1) Are suitable to the size of the company and the extent of their involvement in Government contracting;

(2) Promote such standards;

(3) Facilitate timely discovery and disclosure of improper conduct in connection with Government contracts; and

(4) Ensure corrective measures are promptly instituted and carried out.

203.7001 Procedures.

(a) A contractor's system of management controls should provide for--

(1) A written code of business ethics and conduct and an ethics training program for all employees;

(2) Periodic reviews of company business practices, procedures, policies, and internal controls for compliance with standards of conduct and the special requirements of Government contracting;

(3) A mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports;

(4) Internal and/or external audits, as appropriate;

(5) Disciplinary action for improper conduct;

(6) Timely reporting to appropriate Government officials of any suspected or possible violation of law in connection with Government contracts or any other irregularities in connection with such contracts; and

(7) Full cooperation with any Government agencies responsible for either investigation or corrective actions.

(End of paragraph number 999.203-4000)

VARIATION IN ESTIMATED QUANTITY – DREDGING

(a) Read this paragraph in conjunction with the Variation in Estimated Quantity clause of this contract. This paragraph only applies to line items for excavation.

(c) The estimated quantities contained in the excavation line item(s) of this contract include material from both the required dredging prism and an area of allowable overdepth. The Contractor is not required to excavate the material in the area of allowable overdepth. However, as a precondition for requesting an equitable adjustment in the event the actual quantity is less than 85 percent of the estimated quantity, the Contractor shall have excavated 100 percent of the available material in the required prism and at least 75 percent of the available material in the area of allowable overdepth.

(End of paragraph number 999.211-4008)

RETAINAGE FOR FAILURE TO COMPLY WITH SUBCONTRACTING PLAN REPORTING REQUIREMENTS

(a) Read this paragraph in conjunction with Liquidated Damages--Small Business Subcontracting Plan (FAR 52.219-16) clause of this contract.

(b) Should the Contractor fail to submit SF 294 and/or SF 295 reports in a timely manner, the Government will consider this failure as evidence of possible failure to make a good faith effort to achieve goals contained in the Contractor's subcontracting plan. In order to protect the Government's ability to assess liquidated damages in the event the Contractor does fail to meet the goals and such failure results from a lack of good faith effort, the Contracting Officer will retain from progress payments an amount deemed sufficient to satisfy the Contractor's liability. The amount of the retainage will be determined in accordance with the following formula:

Total dollar amount proposed for subcontracting to small business multiplied by the percentage of actual progress on the contract, up to a maximum of 10% of the progress payment, will be withheld from the next progress payment that is due after the Contractor's failure to submit a required report. If one or more

reports have been submitted before a failure to submit a required report, this formula will be adjusted by deducting any amounts reported as subcontracted to small business from the total dollar amount proposed to be subcontracted. See examples below.

Example 1 (No previous reports submitted)			
Total proposed subcontracting	$500,000	Current progress payment	$100,000
Percent of work completed	x .10	Maximum retainage percentage	x .10
Retainage	$50,000	Retainage	$10,000
Maximum that can be retained is $10,000			

Example 2 (Previous reports submitted)			
Total proposed subcontracting	$500,000	Current progress payment	$100,000
Subcontracting previously reported	($100,000)	Maximum retainage percentage	x .10
Percent of work completed	x .10	Retainage	$10,000
Retainage	$40,000		
Maximum that can be retained is $10,000			

(c) Contracting Officer's Representative (COR). In addition to any other COR appointments that may be made under this contract, Debra K. Overstreet, Deputy for Small Business, is appointed COR for matters relating to enforcement of the Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan clause of this contract. In this regard, she is authorized to conduct reviews of the Contractor's records; correspond with the Contractor (both verbally and in writing); and, in accordance with subparagraph (b) above, authorize retainage for failure to achieve goals.

(End of paragraph number 999.219-4001)

WORK IN QUARANTINED AREA

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

(End of paragraph number 999.223-4001)

SAFETY REQUIREMENTS -- CONSTRUCTION CONTRACTS

(a) The Contractor's attention is directed to the Accident Prevention clause of this contract, the U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, dated 3 September 1996, and all changes and amendments thereto (copies available upon request), the Jacksonville District Safety and Occupational Health Program, CESAJR 385-1-1, dated 1 September 1998 (copies available upon request), and the latest OSHA standards, and applicable Coast Guard safety regulations, to assure himself that he has full knowledge of the personal protective equipment that must be provided workmen and that he is familiar with the safety standards applicable to the prevention of accidents during the construction of this project and shall comply with all applicable provisions.

(b) The Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, is consistent with OSHA Construction Safety and Health Regulations 29 CFR 1926, and will be complied with for all construction activities. When an operation is identified as not being covered under EM 385-1-1, applicable

OSHA standards will be complied with. Those operations not covered by EM 385-1-1, CESAJR 385-1-1, or OSHA standards, will comply with appropriate DA, DOD, or National Concensus Standards.

(c) Contractor's operations shall not commence until all plant and equipment for the work are in compliance with the safety requirements referenced in the specifications.

(End of paragraph number 999.223-4002)

SAFETY SCOREBOARD

Within 15 calendar days after commencement of work, the Contractor shall erect and maintain a safety scoreboard at job sites, including dredges. The safety scoreboard shall contain current data and shall be placed in an area at the jobsite conspicuous to all workers. The safety scoreboard shall be of the format and style indicated on the sketch appended to Section 01000. The poster "Safety and Health Protection On The Job" required by OSHA, Department of Labor, for all private industrial operations shall be posted with safety posters, and literature as provided by the Contractor's insurance company and the Contracting Officer's representative. Such posting shall be in a weatherproof bulletin case, easily legible, adequately protected against the elements, and protected against removal by unauthorized persons.

(End of paragraph number 999.223-4004)

FUEL OIL TRANSFER OPERATIONS

In accordance with U.S. Coast Guard regulations (33 CFR 156.120), couplings used in fuel oil transfer operations on any vessel with a capacity of 250 or more barrels of oil shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker operator shall be submitted to the Contracting Officer for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling. A sample copy of this form is appended to the end of Section 01000: General Requirements.

(End of paragraph number 999.223-4007)

CONTRACTOR SAFETY PERSONNEL REQUIREMENT -- DREDGING CONTRACTS

(a) The Contractor shall employ at the project site at least one full-time (40 hours per week) Safety and Occupational Health person (Safety Officer) to manage the Contractor's accident prevention program. The Safety Officer shall be on duty during any work of a complex nature such as relocation of utilities; work on or around revetments; work on or around existing disposal area dikes; or when blasting will be performed. Duties which are not germane to the safety program shall not be assigned to the Safety Officer. The principal Safety Officer shall report to and work directly for the Contractor's on-site top manager (or a higher level official), or the corporate safety office. The Safety Officer shall have the authority to take immediate steps to correct unsafe or unhealthful conditions. The presence of the Safety Officer will not abrogate safety responsibilities of other personnel.

(b) Qualifications for Safety Officer:

(1) Shall have a degree in engineering or safety in a four-year, or longer, program from an accredited school; or

(2) Shall have legal registration as a Professional Engineer or a Certified Safety Professional and, in addition, shall have at least one year of experience in safety and occupational health work (see note below); or

(3) Shall have at least 3 years of experience in safety and occupational health work (see note below). (Note: In order to be creditable toward satisfying the experience requirements specified in (2) and (3) above, at least 50 percent of the time during each year must have been devoted to safety and occupational health work. First aid work is not creditable.)

(c) Prior to the pre-work conference, the Contractor shall submit to the Contracting Officer, for approval, the name and qualifications of the proposed Safety Officer and a functional description of duties.

(End of paragraph number 999.223-4011 (Alt I))

HAZARD COMMUNICATION

(a) The Contractor shall comply with the requirements of OSHA 1910.1200, the Hazard Communication Standard.

(b) General requirements are as follows:

(1) Provide a written program describing implementation method of the above referenced standard.

(2) Ensure that Contractor's personnel are informed about health and physical hazards associated with materials to be used.

(3) Ensure that a hazardous material inventory is available to the Government upon request.

(4) Ensure proper labeling of hazardous material containers.

(5) Ensure availability of a Material Safety Data Sheet on site.

(End of paragraph number 999.223-4020)

CONFINED SPACE ENTRY

(a) The Contractor shall submit a confined space entry plan as part of his written proposal for accident prevention, as specified in the Accident Prevention clause of this contract. This plan shall satisfy the requirements specified in EM 385-1-1.

(b) Confined space is any space having limited openings for entry and exit, not intended for continuous occupancy, and unfavorable natural ventilation which could contain or have produced dangerous concentrations of airborne contaminants or asphyxiants. Confined spaces may include but are not limited to storage tanks, holds of vessels, manholes, process vessels, vaults, tunnels, pipelines, trenches, vats, and open top spaces more than 4 feet in depth such as pits, tubs, vaults, and vessels, or any place with limited ventilation.

(c) A confined space entry permit system shall be established. A permit shall be developed for each confined space and renewed at the beginning of each shift. Permits (initial and renewal) shall be posted at all openings of every confined space.

(1) Permits shall include but not be limited to location of work, description of work, employees assigned, entry date and time, isolation checklists, hazardous work, hazards expected, fire safety precautions, personnel safety, results of atmospheric tests performed, and person performing them, authorization and permit expiration time.

(2) Permits shall be forwarded to the Contracting Officer's Representative prior to commencement of work.

(End of paragraph number 999.223-4021)

OIL AND HAZARDOUS MATERIAL SPILLS AND CONTAINMENT

(a) The Contractor shall ensure that all hazardous material spills are immediately reported to the Government.

(b) All hazardous material spills shall be immediately cleaned up in accordance with EM 385-1-1.

(c) In accordance with EM 385-1-1, the Contractor shall use suitable methods such as dikes or curbs to prevent the spread of hazardous materials from above ground storage tanks and piping in case of leakage.

(End of paragraph number 999.223-4022)

DIVING PLAN

The Contractor shall submit as part of his written plan for accident prevention, as required by the Accident Prevention clause of this contract, a diving plan, whether or not diving is planned as a part of the operations. The intent of this requirement is to assure safe diving and particularly when emergencies, marine maintenance, or underwater problems occur which require diving. The diving plan shall cover all requirements as stated in the Safety and Health Requirements Manual, EM 385-1-1, latest edition; and in the latest edition of the Appendix entitled "Contract Diving Operations" to Jacksonville District Safety and Occupational Health Program, CESAJR 385-1-1. In addition to the requirements of these regulations, the diving plan must contain specific statements, with copies of supporting documents, certificates, affidavits, etc., to document annual inspection and hydrostatic testing of diving air compressors, receivers, etc., for surface-supplied air operations; semi-annual testing of the breathing air for both surface-supplied and SCUBA operations; and 5-year hydrostatic testing of SCUBA air tanks. Furthermore, the Activity Hazard Analysis for the diving operation shall specifically include discussions of all work of any kind under the contract that interfaces with or could affect the diving operations, including but not limited to: communications procedures between the other work and the dive team, tag out/lock out/safe clearance procedures for any equipment or machinery at the job site that could adversely affect the divers if energized, and specific methods and procedures for equipment protection, grounding, operation, etc., for any power tools, cutting and burning equipment, etc., utilized by the divers. Any special deep or hazardous diving operations planned and equipment to be utilized should be reported in detail. All routine dives whether for construction, maintenance, or inspection shall be discussed, indicating the schedule of diving events. If no operational diving is planned, then so state but continue the plan on the basis that a diving situation may develop. The diving plan shall be approved by the District Diving Coordinator prior to commencement of any diving operations.

(End of paragraph number 999.223-4024)

SIGNAL LIGHTS

The Contractor shall display signal lights and conduct operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (COMDTINST M16672.2), or 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland) as applicable.

(End of paragraph number 999.223-4025)

U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1

This paragraph applies to contracts and purchase orders that require the contractor to comply with EM 385-1-1 (e.g., contracts that include the Accident Prevention clause at FAR 52.236-13 and/or other safety provisions). EM 385-1-1 and its changes are available at http://www.hq.usace.army.mil. (At the HQ homepage, select Safety and Occupational Health.) The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the date the solicitation for this contract/purchase order was issued.

(End of paragraph number 999.223-4026)

AREAS TO BE DREDGED

Based on information currently available to the Government, areas known to require dredging are depicted on the drawings as crosshatched areas. The Contractor is hereby notified that the actual areas to be dredged may vary from the crosshatched areas shown in the drawings. In order to provide the required project dimensions within and throughout the project limits shown on the drawings, the Contractor shall remove all material located within the project limits, regardless of whether the material is located in a crosshatched area or not. Payment for all dredged material, regardless of whether it is dredged from a crosshatched area or a non-crosshatched area, will be made at the applicable contract unit price.

(End of paragraph number 999.236-4000)

DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in the Permits And Responsibilities clause of this contract. However, if, in the judgement 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 CHANGES clause of this 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.

(End of paragraph number 999.236-4012)

CONTINUITY OF WORK

No payment will be made for work done in any area designated by the Contracting Officer until the full depth required under the contract is secured in the whole of such area, unless prevented by ledge rock, nor will payment be made for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured, except by decision of the Contracting Officer. Should any such nonadjacent area be excavated to full depth during the operations carried on under the contract, payment for all work therein may be deferred until the required depth has been made in the area intervening. The Contractor may be required to suspend dredging at any time when, for any reason, the gauges or ranges cannot be seen or properly followed.

(End of paragraph number 999.236-4013)

PRESERVATION AND RECOVERY OF HISTORIC, ARCHEOLOGICAL AND CULTURAL RESOURCES

(a) Known historic, archeological and cultural resources within the Contractor's work area are designated on the contract drawings. The Contractor shall install protection for these resources as shown on the drawings and shall be responsible for their preservation during the contract.

(b) If, during construction activities, the Contractor finds undesignated items that might have historic or archeological value, the Contractor shall immediately cease all activities that may result in the destruction of these items and shall prevent employees from trespassing on, removing, or otherwise damaging the items. Further, the Contractor shall immediately notify the Contracting Officer of the find so that the appropriate authorities may be notified and a determination can be made as to the significance of the find and what, if any, special disposition of the items should be made.

(c) Contract adjustments resulting from compliance with this paragraph shall be determined in accordance with FAR 52.236-2, Differing Site Conditions.

(End of paragraph number 999.236-4022)

BRIDGE-TO-BRIDGE COMMUNICATION

In order that radio communication may be made with passing vessels, all dredges engaged in work under this contract shall be equipped with bridge-to-bridge radio telephone equipment. The radio equipment shall operate on a single channel very high frequency (VHF), FM, on a frequency of 156.55 MC per second with low power output having a communication range of approximately ten miles. The frequency has been approved by the Federal Communications Commission. Channels #13 and #16 must be monitored at all times.

(End of paragraph number 999.236-4026)

NOTICE TO MARINERS -- DREDGING CONTRACTS

Should the Contractor, during dredging operations, encounter any objects on the channel bottom which could be a hazard to navigation, the Contractor shall immediately notify the Contracting Officer as to the location of said object and shall provide any other pertinent information necessary for the Contracting Officer to prepare and issue a Notice to Mariners.

(End of paragraph number 999.236-4030)

PROGRESS CHARTS

(a) In consonance with the Schedules For Construction Contracts clause of this contract, the Contractor shall be guided by the following requirements and procedures as pertain to submission of an initial and subsequent periodic construction progress charts. These charts, as approved and updated, shall provide the basis for determination of the amounts of partial payments.

(b) Blank ENG Form 2454 will be furnished the Contractor as soon after award as practicable for use in submitting contract progress schedules for approval. Three copies of full-size and legible monthly updated progress schedules are to be furnished by the Contractor and submitted with all progress payments.

(c) The Contractor shall indicate on the progress chart the bid items contained in the contract, showing the amount of the item and its relative weighted percentage of the total contract. The Contractor may separate features of work under each item to show salient work elements such as procurement of materials, plant, and equipment, and supplemental work elements such as excavation, reinforcing steel, backfill, etc. These salient features shall total to the cost and weighted percentages shown for the major

bid item. When quantity variations impact the weighted percentage of a separate item by five percent or more, the Contractor shall revise the contract progress charts to accurately reflect the impact of such variations.

(d) Modifications to the contract which are minor in nature shall be listed and scheduled separately in order of their issuance and as reported on the associated request for partial payment. Completion of work on minor modifications shall be noted as work progresses. When major modifications are issued in which one or more of the bid items are significantly changed monetarily or in time of completion, the progress schedule shall be revised to incorporate such changes showing revised item completion dates and overall new completion date, as applicable.

(End of paragraph number 999.236-4049)

ACCOMMODATIONS AND MEALS FOR INSPECTORS

(a) The Contractor shall furnish regularly to inspectors, for office purposes, a suitable separate room on board the dredge or other craft upon which they are employed or, if not available thereon, shall furnish suitable alternate accommodations ashore at a location approved by the Contracting Officer, and furnish suitable transportation between the alternate accommodations and the dredge or other craft upon which they are employed.

(b) If the Contractor maintains on this work an establishment for the subsistence of the Contractor's own employees, the Contractor shall, when required, furnish to inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The meals furnished will be paid for by the Government employees at a rate of $1.75 per person for each meal.

(End of paragraph number 999.236.4051)

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SECTION 01000

GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Hurricane and Severe Storm Plan ; G|COR.

Refer to paragraph HURRICANE AND SEVERE STORM PLAN below.

1.2 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

a. Read this paragraph in conjunction with the Clause COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (FAR 52.211-10) of Section 00800 SPECIAL CONTRACT REQUIREMENTS.

b. In addition to the above, the following shall apply: The words "commence work" means "commence dredging." The commencement time of ~~30~~ 20 days applies unless precluded by inclement weather as determined by the Contracting Officer.

1.3 LIQUIDATED DAMAGES-CONSTRUCTION

Refer to the Clause LIQUIDATED DAMAGES-CONSTRUCTION (SEP 2000) (FAR 52.211-12) of Section 00800 SPECIAL CONTRACT REQUIREMENTS.

1.4 PHYSICAL DATA

Read this paragraph in conjunction with the Clause PHYSICAL DATA (FAR 52.236-4) of Section 00800 SPECIAL CONTRACT REQUIREMENTS.

1.4.1 Physical Conditions

The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys and/or by core borings. When the indicated physical conditions are the result of site investigations by core borings, the core boring logs and laboratory data are appended to the end of this Section and the core boring locations are shown on the drawings. While the Government's borings are representative of subsurface conditions at their respective locations and vertical reaches, local variations characteristic of the rocks and subsurface materials of this region are to be expected. The material recovered from the core borings is available for inspection by prospective bidders at the Corps of Engineers District Warehouse, Talleyrand Avenue at 20th Street, Jacksonville, Florida during the entire bid period, and prospective bidders are strongly urged to examine the material and assure themselves that they have made the best possible evaluation of the subsurface conditions. Prospective bidders shall notify the Jacksonville District Explorations Manager at (904) 232-3295 at least four (4) working days before the visit with the following information: (1) the project title; (2) the specific core borings or entire set which are to be viewed; (3) the date, time, and duration of the visit; (4) the name of the person(s) and company to view the borings; and, (5) a point of contact and phone number regarding the visit. Bidders shall form their own conclusions from this examination prior to submission of their bids. Bidders shall record their core examination visit in a record book maintained at the inspection site.

1.4.2 Location

The Palm Beach Harbor site is located on the east coast of Florida at the northern edge of the town of Palm Beach, Florida .

1.4.3 Weather Conditions

The project area is subject to tropical storms and hurricanes from June through November, and to windy and/or rainy weather, including severe electrical storms and other sudden and locally severe meteorological occurrences that approach hurricane conditions, during any time of the year. The climate of the area is essentially subtropical and temperatures below freezing are rare. The wet season in the project area is from May through October. In general, the winter months constitute the dry season and rainfall is usually associated with mid-latitude systems (fronts and low pressure systems) and is distributed in a spatially uniform pattern. The summer months comprise the wet season and rainfall is closely associated with convective activity. These rainfall events are normally of short duration and amounts are quite variable spatially. Occasionally, daily rainfall in the dry season can be quite heavy as mid-latitude systems penetrate into Florida. The Contractor shall maintain full-time monitoring of the NOAA marine weather broadcasts, and avail themselves of such other local commercial weather forecasting services as may be available.

It shall be the Contractor's responsibility to obtain information concerning rain, wind, and wave conditions that could influence his dredging and disposal operations. Reference is made to the following publications which contain climatological and meteorological observations

and data. The publication "Local Climatological Data - Monthly Summary" published by NOAA, Asheville, North Carolina, contains climatological and meteorological observations and data. The Annual Summary gives a summary of the observations for the period of record. This publication gives hourly wind speed and direction observations for Palm Beach International Airport, West Palm Beach, Florida and is available for review in the office of the U.S. Army Corps of Engineers, Jacksonville District Office, 400 West Bay Street, Jacksonville, Florida. Subscription price and ordering information are available from the National Climatic Data Center, Federal Building, Asheville, N.C. 28801.

1.4.3.1 Publications

The following publications include wave, wind and tide information and are available for review in the Jacksonville District Office or can be purchased from the agencies indicated:

a. East Coast of North and South America Tide Tables, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service

Provides daily tidal predictions at locations along the coastline of North and South America, including locations in the vicinity of the project. It also provides mean and spring tide ranges and mean tide levels. Some astronomical data is also included, such as time of sunrise, sunset, moon rise, and moon set. This publication is available through NOAA.

b. U.S. Coast Pilot, Atlantic Coast: Cape Henry to Key West, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service

This publication supplements the navigational information shown on the nautical charts. It also provides miscellaneous meteorological data. This publication is available through NOAA.

c. Hindcast Wave Information for the U.S. Atlantic Coast, Wave Information Studies of U.S. Coastlines, WIS Report 30, Waterways Experiment Station, March 1993

This report presents 20-year wave hindcast summaries at various stations located along the U.S. Atlantic Ocean shoreline, including a location offshore of the project area. Available data includes wave height, period, and direction tables for two 20-year periods: 1956-1975 (excludes tropical disturbances/hurricanes), and 1976-1995 (includes tropical disturbances/hurricanes), summary wind speed and wind direction tables, summary tables of mean wave heights by month and year, largest wave heights by month and year, and a table of extreme wave events. The project site is protected from direct impact from ocean waves, but other meteorological data contained in this publication may be useful. This publication is available from National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Time series listings of wave data for both 20-year periods and some summary information are available at the Waterways Experiment Station website at:

http://bigfoot.wes.army.mil/u003.html.

1.4.4 Transportation Facilities

1.4.4.1 Palm Beach Harbor

The project site is accessible by water from the intracoastal Waterway and the Atlantic Ocean. The project site is also accessible by land by traveling north on I-95 or SR 1 from Miami then east on either Southern Boulevard or SR 704. The town of West Palm Beach (just to the west of Palm Beach) is serviced by AMTRAK railroad system.

1.4.4.2 Contractor Investigation

In addition to the information given in the contract drawings, the Contractor shall make his own investigation of available roads for transportation, load limits for bridges and roads, and other road conditions affecting the transportation of materials and equipment to the site. The Contractor shall investigate the availability of railroad sidings, and shall make all arrangements for use of any sidings for the delivery of any materials and equipment to be used on the work.

1.4.5 Maritime Traffic

Channel Traffic in the project area consists of commercial, pleasure, and small recreational vessels of all types and sizes which can be accommodated by existing depths.

1.4.6 Local Conditions - Water Stages and Tides

1.4.6.1 Water Fluctuations

The below stated water fluctuations are for information only and are not to be utilized in conjunction with any contract related hydrographic surveying. Reference should be made to the water level datum for surveying purposes as noted on the control drawings(s) of the contract plans.

1.4.6.2 Water Stages

Water levels in the project area are affected primarily by tidal fluctuations in the Atlantic Ocean. The project area is also subject to storm surges from hurricanes and tropical storms from June through November. Surges from extratropical storms may affect the area during any time of the year. The National Ocean Service (NOS) tidal data are provided in the following table:

Table I

FLORIDA 872 2607

U.S. DEPARTMENT OF COMMERCENATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONNATIONAL OCEAN SERVICE

TIDAL BENCH MARKSPALM BEACH, LAKE WORTH

LATITUDE: 26 degrees 44.0 minutes N
LONGITUDE: 80 degrees 2.5 minutes W
NOAA CHART: 11466 USGS QUAD: PALM BEACH

Tidal datums at PALM BEACH, LAKE WORTH are based on the following:

LENGTH OF SERIES	=	12 MONTHS
TIME PERIOD	=	MAY 1979 - APRIL 1971
TIDAL EPOCH	=	1960-1978
CONTROL TIDE STATION	=	MIAMI BEACH (872 3170)

Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL	=	4.39 FEET
MEAN HIGHER HIGH WATER (MHHW)	=	3.14 FEET
MEAN HIGH WATER (MHW)	=	2.93 FEET
MEAN TIDE LEVEL (MTL)	=	1.56 FEET
*NATIONAL GEODETIC VERTICAL DATUM-1929 (NGVD)	=	1.31 FEET
MEAN LOW WATER (MLW)	=	0.19 FOOT
MEAN LOWER LOW WATER (MLLW)	=	0.00 FOOT
LOWEST OBSERVED WATER LEVEL (04/24/1970)	=	-0.89 FEET

*NGVD reference based on elevations published in Quad 260801, 2/72 and NOS leveling 1981.

Table II

FLORIDA 872 2670

U.S. DEPARTMENT OF COMMERCENATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONNATIONAL OCEAN SERVICE

TIDAL BENCH MARKSLAKE WORTH PIER, ATLANTIC OCEAN
LATITUDE: 26 degrees 36.7 minutes N
LONGITUDE: 80 degrees 2.0 minutes W
NOAA CHART: 11466 USGS QUAD: LAKE WORTH

Tidal datums at PALM BEACH, LAKE WORTH are based on the following:

LENGTH OF SERIES	=	4 YEARS
TIME PERIOD	=	1974-1977
TIDAL EPOCH	=	1960-1978
CONTROL TIDE STATION	=	MIAMI BEACH (872 3170)

U.S. DEPARTMENT OF COMMERCENATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONNATIONAL OCEAN SERVICE
Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL	= 5.15 FEET
MEAN HIGHER HIGH WATER (MHHW)	= 3.13 FEET
MEAN HIGH WATER (MHW)	= 2.98 FEET
MEAN TIDE LEVEL (MTL)	= 1.57 FEET
*NATIONAL GEODETIC VERTICAL DATUM-1929 (NGVD)	= 1.14 FEET
MEAN LOW WATER (MLW)	= 0.16 FOOT
MEAN LOWER LOW WATER (MLLW)	= 0.00 FOOT
LOWEST OBSERVED WATER LEVEL (03/28/1971	= -1.47 FEET

*NGVD reference based on elevations published in Quad 260801, 2/72 and NOS leveling 1987.

1.4.7 Subsurface Investigations

Refer to core boring logs and laboratory data appended to the end of this Section.

1.4.8 Obstruction of Channel

The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of any vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon completion of the work the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under the contract in navigable waters or on shore.

1.5 LAYOUT OF WORK

1.5.1 Established Monuments

The Government has established monuments, control data and elevations for the work site(s) as indicated on the contract drawings. Control monument descriptions are appended to the end of this Section.

1.5.2 Layout

From the monuments, control data and elevations established by the Government, the Contractor shall complete the layout of the work and shall be responsible for all measurements that may be required for the execution

of the work to the location and limit marks prescribed in the specifications or on the contract drawings, subject to such modifications as the Contracting Officer may require to meet changed conditions or as a result of necessary modifications to the contract work.

1.5.3 Survey

The Contractor shall furnish, at his own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out any part of the work from the monuments, control data and elevations established by the Government. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them, and if such marks are destroyed by the Contractor or through his negligence, prior to their authorized removal, they may be replaced by the Contracting Officer, at his discretion, and the expense of replacement will be deducted from any amounts due or to become due the Contractor. The Contracting Officer may require that work be suspended at any time when location and limit marks established by the Contractor are not reasonably adequate to permit checking of the work.

1.6 HURRICANE AND SEVERE STORM PLAN

1.6.1 Plan Contents

Within ~~20~~ 10 calendar days after the Notice of Award, the Contractor shall submit as an attachment to his Accident Prevention Plan, a Hurricane and Severe Storm Plan for review and acceptance. This plan shall include but not be limited to the following:

a. Types of storms anticipated (Winter storm, Hurricane, Tornado).

b. Time intervals before storms when action will be taken and details of the actions taken.

c. List of the equipment to be used on the job and its ability to handle adverse weather.

d. List of safe harbors and the distance from the work area to these harbors and the time required to move the equipment to these harbors. Copies of letters of approval for the use of these safe harbors (local authorities, U.S. Coast Guard, etc.) where applicable.

e. Method of securing equipment in these safe harbors.

f. List of equipment to be utilized to make this move to safe harbors (tug boats, work boats, etc.), to include the name and horsepower of this equipment.

g. Methods of securing equipment not moved; i.e., pipelines (floating or submerged), pumpout stations, etc.

h. Plan of evacuation to include interim measures, i.e., immediate

reaction plans to be taken for all storm occurrences, particularly sudden/flash storms.

i. Operating procedures to be undertaken when critical dredge equipment fails during sudden and severe adverse weather conditions, to include breaking of spuds, swing wires, anchor wires, or other mooring equipment or facilities.

1.6.2 Sample Plan

Appended to the end of this Section is a sample Hurricane and Severe Storm Plan to be used for illustrative purposes only.

1.6.3 Monitoring of Weather

The Contractor shall maintain full-time monitoring of the NOAA marine weather broadcasts, and avail themselves of such other local commercial weather forecasting services as may be available. These information broadcasts shall be the Contractor's primary source in the decision process to implement action under the approved storm plan.

1.7 SAMPLE - HURRICANE AND SEVERE STORM PLAN

See APPENDIX A at the end of this Section (4 pages).

1.8 CONTROL MONUMENT DESCRIPTIONS

See APPENDIX B at the end of this Section.

1.9 CORE BORING LOGS AND LABORATORY DATA

See APPENDIX C at the end of this Section.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01270

MEASUREMENT AND PAYMENT

-- End of Section Table of Contents --

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

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

1.1.1 Mobilization and Demobilization (Bid Items 0001, 0005AA, and 0006AB)

Payment will be made for costs associated with or incidental to mobilization and demobilization and establishment of initial project management and coordination. See Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION of Section 00800 SPECIAL CONTRACT REQUIREMENTS and Section 01310 ADMINISTRATIVE PROCEDURES.

1.1.2 Endangered Species Observers (For Hopper Dredges Only) (Bid Items ~~0002~~ 0004, 0005AD, and 0006AD)

Payment will be made for costs associated with or incidental to endangered species observers. See Section 01355 ENVIRONMENTAL PROTECTION.

1.1.3 Turbidity Monitoring (Bid Items 0003, 0005AC, and 0006AC)

Payment will be made for costs associated with or incidental to obtaining, analyzing, and reporting the results of monitoring for turbidity. See Section 01411 TURBIDITY AND DISPOSAL MONITORING.

1.1.4 Contingency Dredging (Bid Item 0005AB)

Payment will be made for costs associated with or incidental to providing contingency dredging.

1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.2.1 Excavation, Unclassified (Bid Items 0002, 0002A, and 0006AA)

1.2.1.1 Payment

a. Payment will be made for costs associated with or incidental to excavation, transportation, and disposal of materials; providing and maintaining access to the work site(s) and disposal area(s); noise control; installation,and operation or maintenance of the electronic tracking system for surveillance of all dredging and disposal activities. See Sections 02325 DREDGING and 01355 ENVIRONMENTAL PROTECTION.

b. Insofar as consistent with the paragraph CONTINUITY OF WORK of Section 00800 SPECIAL CONTRACT REQUIREMENTS, monthly partial payments will be based on approximate quantities determined by soundings or sweepings performed by the Contractor behind the dredge. The term "area designated by the Contracting Officer" as used in the CONTINUITY OF WORK paragraph, is defined as "acceptance section".

1.2.1.2 Measurement

a. The maps and/or drawings already prepared (paragraph CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS of Section 00800 SPECIAL CONTRACT REQUIREMENTS) are believed to represent accurately average existing conditions, but the depths shown thereon may be verified and corrected by soundings taken before dredging. Determination of quantities removed and the deductions made therefrom to determine quantities by place measurement to be paid for in the area specified, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

b. The total amount of material removed, and to be paid for under the contract, will be measured by the cubic yard in place and quantities determined by the average end area method. The volume computed shall be between the bottom surface shown by soundings taken within 3 weeks before dredging and the bottom surface shown by the soundings taken within 3 weeks after the work specified in each acceptance section indicated on the drawings has been completed. The Contractor shall give 10 days advance notice, in writing, to the Contracting Officer's Representative of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section. The quantity shall include the volume within the limits of the side slopes described in subparagraph "Side Slopes" of paragraph REQUIRED DEPTH, ALLOWABLE

OVERDEPTH, AND SIDE SLOPES of Section 02325 DREDGING, less any deductions that may be required for misplaced material described in subparagraph "Misplaced Materials" of paragraph DISPOSAL OF EXCAVATED MATERIAL of Section 02325 DREDGING.

1.2.1.3 Unit of Measure

Cubic yard.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01310

ADMINISTRATIVE PROCEDURES

-- End of Section Table of Contents --

SECTION 01310

ADMINISTRATIVE PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

Manage project and coordinate activities of own employees, subcontractors, suppliers and offsite fabricators. Contractor will be required to use computers, E-mail, and internet resources for work described in this Section. Notify Contracting Officer of important meetings, schedule events and critical construction activities. Furnish experienced and trained persons, sufficient labor and materials and equipment required for planning and execution of project management functions and coordination activities. Coordinate construction activities and manage project resources to construct the project conforming to contract requirements, on time and within budget. Related Sections are 01321 CONSTRUCTION PROGRESS DOCUMENTATION; and, 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL.

1.2 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.

ENGINEERING MANUALS (EM)

EM 385-1-1	(1996) Safety and Health Requirements Manual

Corps of Engineers publications internet location is:
http://www.usace.army.mil/inet/usace-docs/

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submittals shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES. Bring following administrative submittal items to Preconstruction Conference:

SD-01 Preconstruction Submittals

Standard Form 100 ; FIO.

Equal Employment Opportunity Commission - Employer Information Report EEO-1, OMB - Standard Form 100. Submit for Contractor and applicable subcontractors. See Clause EQUAL OPPORTUNITY of Section 00700 CONTRACT CLAUSES. A sample copy of SF 100 is appended to the end of this Section.

Affirmative Action Plan ; FIO.

Documentation of compliance with Clause AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION of Section 00700 CONTRACT CLAUSES. (See subparagraph (g) items 1 through 16 for Affirmative Action Plan format.)

List of Subcontractors ; FIO.

Submit a list of proposed subcontractors. Include company name, person to contact, street address, mail address, phone number, type of specialty and estimated subcontract quote. See Clauses SUBCONTRACTS (LABOR STANDARDS) and LIMITATIONS ON SUBCONTRACTING of Section 00700 CONTRACT CLAUSES, and if included, paragraph LIMITATIONS ON SUBSTITUTIONS FOR CERTAIN POSITIONS AND/OR SUBCONTRACTORS of Sectoon 00800 SPECIAL CONTRACT REQUIREMENTS.

Signature Authority ; FIO.

A power of attorney or a notarized letter of authority from Contractor identifying local representatives authorized to sign contract documents.

Drug-Free Work Place Record ; FIO.

A record to demonstrate compliance with Clause DRUG-FREE WORKPLACE of Section 00700 CONTRACT CLAUSES (see subparagraphs (b)(1) through (b)(7)).

Refer to Clause INSURANCE--WORK ON A GOVERNMENT INSTALLATION of Section 00700 CONTRACT CLAUSES.

Accident Prevention Plan ; G|COR.

Within 20 calendar days after the date of Notice of Award, the Contractor shall submit Accident Prevention Plan with additional plans required by EM 385-1-1. Additional plans may include, but are not limited to, Activity Hazards Analysis; Hazard Communication Program (refer to Clause HAZARD COMMUNICATION of Section 00800 SPECIAL CONTRACT REQUIREMENTS); Confined Space Entry Plan (refer to Clause CONFINED SPACE ENTRY of Section 00800 SPECIAL CONTRACT REQUIREMENTS); and, Employee Safety and Health Indoctrination (ESHI) (sample ESHI appended to the end of this Section).

Diving Plan (including Activity Hazards Analysis) ; G|COR.

Diving Plan is required on all projects with work on or over water and

comply with EM 385-1-1. Refer to Clause DIVING PLAN of Section 00800 SPECIAL CONTRACT REQUIREMENTS.

1.4 PROJECT COORDINATION

1.4.1 Resident Management System (RMS)

Contractor shall use Contracting Officer furnished Resident Management System (RMS) software for construction information management (CIM). RMS will be latest version of "RMS-QC" which is personal computer based. See Section 01312 RESIDENT MANAGEMENT SYSTEM (RMS).

1.4.2 Coordination with Other Contracts

See Clause OTHER CONTRACTS of Section 00700 CONTRACT CLAUSES.

1.5 PROJECT MEETINGS

Contracting Officer requires following types of project meetings:

-- Preconstruction Conference-- Partnering Meeting-- Partnering Regroup Meetings-- Coordination Meeting-- Preparatory and Initial Phase meeting for each feature of work-- Project Progress Meetings-- Alternate Dispute Resolution

Project meetings are described in detail in subparts below.

1.6 PRECONSTRUCTION CONFERENCE

Contracting Officer will conduct a Preconstruction Conference for this project in accordance with Clause PRECONSTRUCTION CONFERENCE of Section 00700 CONTRACT CLAUSES. Preconstruction Conference will be after Notice of Award (NOA) but prior to Notice to Proceed (NTP). Refer to subparagraph "Preconstruction Conference Submitals" below. Contracting Officer will notify Contractor of time, place, and agenda. Contractor shall notify key subcontractors and suppliers to attend. Contracting Officer will discuss contract "ground rules" and general issues including:

-- Lines of Contracting Officer authority-- Lines of Contractor authority-- 00700 Contract Clauses-- 00800 Special Contract Requirements -- Contract Administration-- Progress Payment-- Correspondence Procedures-- Project Schedule-- Submittal Register-- Labor requirements-- General Site Safety

1.6.1 Preconstruction Conference Minutes

Contracting Officer will take detailed minutes of Preconstruction Conference discussions and may use an audio or video tape. Copies of typed minutes will be provided to the Contractor to review for accuracy, sign and return. Signed minutes become part of the contract file. Audio or video tapes if used will be made available for Contractor to review or copy at Area Office.

1.6.2 Preconstruction Conference Submittals

The timing of submission of submittals and completion of the Preconstruction Conference is intended to allow the Contractor and the Government adequate time to prepare for commencement of work. However, should the Contractor fail to submit required items within the times stated, the Contracting Officer may ~~issur~~ issue Notice to Proceed (NTP) prior to receipt of submittals and prior to the Preconstuction Conference. If NTP is issued prior to the Contractor's compliance with submittal requirements and prior to the Preconstructin Conference, the Contractor will not be permitted to commence work until these requirements have been satisfied. Any delays attributable to the Contractor's failure to comply with these pre-work requirements shall be at the Contractor's expense and may be cause for remedial action by the Contracting Officer. Submittals required by this Section are described in paragraph SUBMITTALS above.

1.6.2.1 Other Division 01 Submittals

In addition to the above, bring listed Division 01 submittals in draft form to Preconstruction Conference:

Construction Schedule - See Section 01321 CONSTRUCTION PROGRESS DOCUMENTATION-- Submittal Register - See Section 01330 SUBMITTAL PROCEDURES-- Environmental Protection Plan - See Section 01355 ENVIRONMENTAL PROTECTION-- Quality Control Plan - See Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL.

Contracting Officer reviews submitted draft plans to prepare Coordination Meeting agenda and understand Contractor procedures.

1.6.2.2 Divisions 02 through 16 Submittals

In addition to the above, bring submittal items for materials, workmanship, plans or events required early in project schedule which are ready for transmittal to Contracting Officer. Prepare transmittal of submittal items in accordance with Section 01330 SUBMITTAL PROCEDURES.

1.7 PARTNERING

Contracting Officer wants to have a bilateral project partnership with Contractor that draws on strengths of both organizations to identify and achieve common goals. Typical partnering goals include:

-- Effective and efficient contract performance-- Project completion on time and within budget-- Construction completed according to plans and specifications-- Development of cooperative management teams-- Project success with customer (stakeholders) satisfaction-- Improved Project communication

1.7.1 Initial Partnering Meeting

Contractor, key subcontractors and suppliers shall attend a one-day project

"Partnering Meeting". The Partnering Meeting is a project team building workshop facilitated by trained persons. Contracting Officer attendees and invited persons may include:

Administrative Contracting Officer Representative (Area Engineer)
Construction Quality Assurance Representatives
Jacksonville District - Construction Branch persons
Jacksonville District - Design Branch Designers

Goal of initial Partnering Meeting is to build trust, identify common goals, and understand individual project members expectations and organizational values. Usual results include better communication between contract parties, shortened project learning curve and a cohesive two party contract partnership. Participants usually sign a voluntary partnering agreement generally describing mutual obligation to cooperate to achieve project goals and maintain effective communication. Contracting Officer will pay costs for workshop site rental and facilitator fees.

1.7.2 Partnering Regroups

After initial Partnering Meeting participation will be voluntary in accordance with a signed Partnering Agreement. After initial Partnering Workshop, costs will be agreed to by both partners and split shared equally, without changing contract price. Partnering Agreements include provisions for Contracting Officer and Contractor to request "Partnering Regroups" when needed. A "Partnering Regroup" is usually a short (4 hours - 1 day) informal partnering session where senior level Contractor and Contracting Officer project members and other interested parties review project issues of concern. Issues of conflict are reviewed, attempt to affirm common project goals and understand concerns of other partner.

1.8 COORDINATION MEETING

Coordination Meeting is scheduled, convened and conducted by Contracting Officer after a Preconstruction Conference and prior to starting physical construction. Draft plans submitted after NOA (i.e., Quality Control Plan, Environmental Protection Plan and Accident Prevention Program) will have been reviewed. Coordination Meeting is primarily for on-site Contractor Quality Control staff, including subcontractor and supplier employees performing quality control, to meet and discuss the project in detail with Contracting Officer's Quality Assurance Representatives. Purposes of Coordination Meeting are:

-- Achieve mutual understanding with Contractor of required Quality Control-- Jointly review submitted draft plans; resolve issues of concern-- Discuss project plans and specifications, schedule, documentation-- Establish a good working relationship between the Contractors Quality Control Staff and Quality Assurance Representatives

1.9 PROGRESS MEETINGS

Schedule, convene and preside over progress meetings as required. As project activities increase ("ramp up"), a minimum of one progress meeting

per week is typical of a project of this scope. Convene additional meetings as required, or when requested by Contracting Officer. Notify persons needed to be present to discuss agenda issues. Contracting Officer may direct attendance by key Contractor suppliers, or fabricators as needed. A sample meeting agenda is provided in paragraph GENERAL MEETING REQUIREMENTS below.

1.9.1 Progress Meeting Participants

Typical participants include:

-- Contracting Officer or Contracting Officer's Representative-- Contractor's Site Superintendent-- Contractor's Quality Control Manager-- Contractor's Safety Coordinator-- Subcontractors, as appropriate to the agenda-- Suppliers, as appropriate to the agenda-- Others as appropriate to the agenda

1.10 ALTERNATE DISPUTE RESOLUTION (ADR)

Contracting Officer wants disputes resolved in a timely, professional, and non-adversarial manner. ADR is a voluntary, non-binding procedure available for use in this contract. ADR combines business administration methods of issue clarification and problem solving techniques. ADR is used in place of formal dispute resolution procedures to promote and maintain amicable working relationships.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL MEETING REQUIREMENTS

See Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL for Preparatory and Initial Phase meeting checklists. Contractor is responsible for phase and progress meetings to include:

Meeting notification to participants
Prepare agenda for meetings
Use phase checklists for Preparatory and Initial Phase meetings
Physical arrangements for meetings
Preside at meetings
Record minutes recording proceedings and decisions
Copy and send minutes to: Meeting participants, project parties affected by decisions, and Contracting Officer (No later than 3 working days)

3.2 PROGRESS MEETING AGENDA

Modify agenda as needed for on-going work.

Review minutes from previous progress meetings
Review work progress since previous meeting
Review current definable features of work:-- Identify phases of

current features of work-- Identify pending phase changes-- Identify features for discussion in next scheduled meeting-- Discuss problem prevention:-- Field observations-- Deficiencies and tracking-- Procedures working well-- Problems, conflicts-- Methods to improve-- Review construction schedule:-- Identify delays-- Discuss proposed corrective actions to regain schedule-- Submittals and RFIs:-- Review submittal register-- Identify submittals to expedite as required-- Review off-site activities:-- Fabrications-- Material and equipment delivery schedule-- Review testing:-- Type, Schedule-- Received results-- Review changes to construction schedule:-- Planned progress during succeeding work period-- Coordination of various schedules-- Effect of changes on construction and completion dateReview site safety

Discuss maintaining contract quality for materials and workmanship
Discuss pending modifications, changes and substitutions
Discuss other business, as appropriate

3.3 SAMPLE - EMPLOYER INFORMATION REPORT EEO-1 (STANDARD FORM 100)

See APPENDIX A at the end of this Section (2 pages).

3.4 SAMPLE - GUIDE FOR EMPLOYEE SAFETY AND OCCUPATIONAL HEALTH INDOCTRINATION (ESHI)

See APPENDIX B at the end of this Section (2 pages).

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01355

ENVIRONMENTAL PROTECTION

-- End of Section Table of Contents --

SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

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

1.2 REFERENCES

1.2.1 Miscellaneous Environmental Laws And Regulations

There are numerous environmental laws and regulations. At the Federal level, the applicable laws and regulations include compliance with the Clean Water Act (CWA); Clean Air Act (CAA); Coastal Zone Management Act (CZMA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Endangered Species Act (ESA); Fish and Wildlife Coordination Act (FWCA); Marine Protection, Research, and Sanctuaries Act (MPRSA); National Environmental Policy Act (NEPA); National Historic Preservation Act (NHPA); National Pollution Discharge Elimination System (NPDES); Research and Sanctuaries Act; Native American Graves Protection and Repatriation Act (NAGPRA); Resource Conservation and Recovery Act (RCRA); Rivers and Harbors Act (R&H); Safe Drinking Water Act (SDWA); Toxic Substance Control Act (TSCA); Wild and Scenic Rivers Act (WSRA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Code of Federal Regulations (CFRs); Executive Orders; and, Environmental Protection Agency (EPA) requirements. NEPA compliance measures specified in an Environmental Assessment (EA) or Environmental Impact Statements (EIS) are also applicable with regard to compliance.

1.2.2 Publication Reference(s)

The publication(s)listed below form(s) a part of this specification to the extent referenced. The publication(s) is are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 1110-1-1003	(1996) NAVSTAR Global Positioning System Surveying

1.3 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

1.4 PERMITS

The Contractor shall obtain all needed permits or licenses. The Government will not obtain any permits for this project; see Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES. The Contractor shall be responsible for implementing the terms and requirements of the appropriate permits as needed and for payment of all fees.

In addition to the above, the Contractor shall comply with all requirements under the terms and conditions set out in the following permit(s) and authorization(s) obtained by the Corps of Engineers listed below. These permit(s) and authorization(s) are available for review by contacting the Jacksonville District, Operations and Technical Support Section at 904-232-2539.

a. Florida Department of Environmental Protection Permit No. 502141369; Effective Date: 24 May 1993; Expiration Date: 24 May 2003.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environmental Protection Plan ; G|PD.

Within ~~20~~ 10 calendar days after the date of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and

acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan no later than 30 calendar days after receipt of Notice to Proceed. Acceptance of the Contractor's plan shall not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. Acceptance of the plan is conditional and predicated on satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes to the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The Environmental Protection Plan shall include but not be limited to the following:

a. 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.

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

c. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall provide written assurance that immediate corrective action will be taken 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.

d. A permit or license for and the location of the solid waste disposal area.

e. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossing, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

f. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.

g. Traffic control plan.

h. Methods of protecting surface and ground water during construction activities.

i. Spill prevention. The Contractor shall specify all potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into

the air, ground, water, wetlands, or drainage areas. The plan shall specify the Contractor's provisions to be taken to meet Federal, State, and local laws and regulations regarding labeling, storage, removal, transport, and disposal of potentially hazardous substances.

j. Spill contingency plan for hazardous, toxic, or petroleum material.

k. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas.

~~l. Plan of borrow area(s).~~

m. A statement as to the person who shall be responsible for implementation of the Environmental Protection Plan. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.

n. Recycling and Waste Management Plan. Executive Order 12873 of 20 October 1993 requires a number of considerations in planning a project. Fallen trees should not be burned or buried. Mulching, composting, and other uses for trees should be considered. Also, recovery of metals at the job site, including aluminum cans, should be considered with proceeds to be retained by the Contractor. Non-Federal recycling and waste minimization efforts shall also be incorporated into this plan.

~~o. Appendices (Permits and Ocean Dredged Material Disposal Site Monitoring and Management Plan if applicable). A copy of all permits (and Ocean Dredged Material Disposal Site Monitoring and Management Plans) applicable to the project shall be attached as appendices to the Environmental Protection Plan.~~

p. Operational plan to achieve protection of sea turtles during hopper dredge(s) operation.

SD-02 Shop Drawings

Turtle Deflector Device ; G|COR.

If the Contractor proposes to use a hopper dredge for this work, detail drawings shall be submitted showing the proposed device and its attachment to the Contractor's equipment. Contractor's drawings to be submitted shall include the approach angle for any and all depths to be dredged during this contract. A copy of the approved drawings and calculations shall be available on the vessel during the life of this contract. No dredging work shall be allowed to commence until approval of the turtle deflector device.

~~SD-07 Certificates~~

~~Qualifications ; FIO.~~

~~Sea Turtle Trawling and Relocation (For Hopper Dredges Only) Permit ; FIO.~~

~~The Contractor shall submit a certified copy of National Marine Fishery Service (NMFS) permit for sea turtle trawling and relocation as well as a statement as to the person responsible for implementation of the NMFS permit.~~

SD-11 Closeout Submittals

Logs/Final Summary Report ; FIO.

Contractor shall submit as specified, logs and final summary report of sightings and incidents with endangered species.

Project Environmental Summary Sheet ; FIO.

Contractor shall submit within 30 days following completion of the project, a written report of the absence or occurrence of environmental incidents. In addition, for construction activities whose anticipated duration is more than one calendar year, the Contractor shall complete a sheet each May 31st (plus/minus 14 days).

Hopper Dredge(s) Recording Chart(s) ; FIO.

Contractor shall submit as specified, a copy of the hopper dredge(s) output recording chart(s) for each day's operation on a daily basis.

1.6 SUBCONTRACTORS

Assurance of compliance with this section by subcontractors shall be the responsibility of the Contractor.

1.7 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance 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 any such suspension.

Additionally, the Contractor shall notify the Contracting Officer, in writing, of the absence or occurrence of environmental incidents, as required on the Project Environmental Summary Sheet, copy appended to the end of this Section. (Refer to paragraph SUBMITTALS above.)

1.8 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL

The Contractor shall train his personnel in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and careful installation and monitoring of the project to ensure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment, and shall be thoroughly knowledgeable of Federal, State, and local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

For contract work, the Contractor shall comply with all applicable Federal, State, or local laws and regulations. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected at least during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications. Deviations from drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, and alternate access routes) could result in the need for the Government to reanalyze and re-approve the project from an environmental standpoint. Environmental protection shall be as stated in the following subparagraphs.

3.1.1 General Project Environmental Design and Installation Criteria

Some project sites have features that shall not be impacted in any way, including cultural, historic, or archeological features. At all sites, project plans should minimize disturbance to existing features at the site to the extent possible, including vegetative, topographic, and drainage pattern features. Wetland impacts (temporary access, detours, staging areas, and other work area impacts) to project sites should be avoided and may require separate permitting action. Any wetlands temporarily impacted shall have its soil restored upon project completion. Expansion of previously permitted project footprints may likewise require separate permitting action.

In all cases, the design and/or installation of project system shall provide for protection of the environment during handling, installing, storing, utilizing, transporting, servicing, testing, refilling, transferring, pumping, processing, removing waste products, repairing and maintaining systems and their components. Necessary design protection

shall also be considered that would prevent contamination of the environment from impacts to the system caused by storm water runoff and flooding. Retrofit of connected systems on project sites to modern environmental protection design standards shall also be considered.

In the event environmental protection measures fail, the Contractor shall implement procedures to control and correct environmental damage.

3.1.1.1 Petroleum-Based Systems Environmental Design and Installation Criteria

For petroleum-based systems, a statement of site suitability shall be provided and shall include what would be necessary to prevent adverse impact to water quality; natural resources; habitat; historic, cultural, and archeological sites; and fragile local resources in the event of a fuel spill. Human error and mechanical/electrical failure of components without human intervention shall also be considered in the design with regard to spills. Additionally, appropriate noise and emissions controls shall be incorporated into the design, including vapor and exhaust controls.

At a minimum, environmental protection design requirements shall also include the following: (1) stationary tanks and piping shall have secondary containment features; (2) approved materials and corrosion protection systems shall be utilized; (3) system leaks shall be readily detected and contained without human intervention; and, (4) overfill containment systems shall be provided.

Applicable Federal, State, and local codes and requirements shall be strictly adhered to in the design, including those of the U.S. Environmental Protection Agency (EPA), the State of Florida, the South Florida Water Management District (SFWMD), and other local governing agencies such as those of counties and municipalities. In the case of the State, requirements include Chapter of the Florida Administrative Code (FAC) such as 62-17 (Approved Materials), 62-252 (Vapor Emissions), 62-296 (Emissions), 62-761 (Underground Storage Tanks), and 62-762 (Aboveground Tanks). Note that Chapters 62-761 and 62-762 of the FAC may be combined into one Chapter. Best Management Practices from the applicable agencies shall also be adhered to in the design.

3.1.1.2 Sewage-Based Systems Environmental Design and Installation Criteria

In general, there shall be no waste or debris discharges of any kind for a project unless authorized by the Contracting Officer. This shall include the Contractor's providing sufficient temporary sanitary equipment and facilities for the project. The design and/or installation of temporary or permanent sewage systems shall ensure that waters will be free of effects of sewage discharges. Applicable Federal, State, or local codes and requirements regarding sewage shall be strictly adhered to in the design, such as those of the EPA and, in the case of the State, Chapter 62-620 (Wastewater Facilities) of the FAC. Best Management Practices from the applicable agencies shall also be adhered to in the design.

3.1.2 Protection of Land Resources

Prior to the beginning of any construction, the Contractor shall identify all land resources to be preserved or avoided within the Contractor's work area. Materials displaced into uncleared areas shall be removed. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without special permission from the Contracting Officer. The Contractor shall engage a qualified tree surgeon to perform all tree surgery. The Contractor shall be responsible to repair injuries to bark, trunk, branches, and roots of protected trees by dressing, cutting, and painting as specified for Class I Fine Pruning, of the National Arborist Association Pruning Standards for Shade Tree or as per State's Agricultural Extension Agency Guidelines, immediately as occurrences arise. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

3.1.2.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas that are not required to accomplish all 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. The Contractor shall protect from damage all existing trees designated to remain. Protection of tree roots shall be provided against noxious materials in solution caused by run-off or spillage. Fires shall be located outside the canopy of protected trees. No materials, trailers, or equipment shall be stored within the drip line of any protected tree. 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 his personnel the purpose of marking and/or protection of all necessary objects.

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the U.S. Department of Agriculture (USDA) regarding additional cleaning requirements that may be necessary.

3.1.2.2 Protection of Landscape

Trees and their roots, shrubs, vines, grasses, land forms, and other landscape features shall be clearly identified and protected by fencing or any other approved techniques. Protection of trees shall be as illustrated in the Tree Protection Plan Detail appended to the end of this Section. Tree protection fencing shall be placed before excavation or grading is begun and maintained in place until construction is complete. Branches of protected trees, if required, shall be removed to clear for construction and pruning shall subsequently be performed to restore the natural shape of the entire tree. Branches or roots, if required, shall be cut with sharp pruning instruments and not broken or chopped. Protected trees shall be

fertilized to compensate for root loss with 6-6-6 as per manufacturer's application direction. Any damage to tree crowns or roots shall be repaired promptly after damage occurs.

a. Trench or Bore Under Trees

Where trenching for utilities is required within tree driplines, the Contractor shall hand dig under and around roots or bore under them. The Contractor shall protect roots from drying and cover exposed roots within an hour as specified in subparagraph "Excavation for Structures" below. No lateral roots which interfere with new construction shall be cut. Boring is permitted.

b. Excavation for Structures

Where excavating for new construction is required within tree drip lines, the Contractor shall hand excavate to minimize damage to root systems. The Contractor shall use narrow tine pitchforks and comb soil to expose roots. The Contractor shall relocate roots in backfill areas. If large, main lateral roots are encountered that are exposed beyond the excavation limits, the Contractor shall bend and relocate these roots without breaking or girdling. If roots are encountered immediately adjacent to new construction such that relocation is not practical, the Contractor shall saw roots approximately 3" back from the new construction, seal with tree wound dressing, and protect any exposed embankment of roots from drying by covering with straw and black plastic. The Contractor shall irrigate affected areas daily until final grade conditions are established and the exposed roots are backfilled properly for continued plant growth.

c. Replacement

The Contractor shall remove dead or damaged protected trees determined, by the Government, to be incapable of restoration to normal health growth. The Contractor shall replace each removed tree up to 4" caliper with tree of equal specie and size. For each tree removed larger than a 4" caliper, the Contractor shall replace the tree with one 4" caliper tree per 4" caliper increment or fraction thereof.

3.1.2.3 Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All 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 totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the areas developed as approved by the Contracting Officer.

3.1.2.4 Contractor Facilities and Other Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or

as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made when approved by the Contracting Officer. Borrow areas shall be managed to minimize erosion and to prevent sediment from entering nearby watercourses, wetlands, or lakes. Spoil areas shall be managed and controlled to limit spoil intrusion into areas designated on the drawings and to prevent erosion of soil or sediment from entering nearby watercourses, wetlands, or lakes. Spoil areas shall be developed in accordance with the grading plan indicated on the drawings. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from despoilment. If there is suspicion that sediment may be unsuitable for disposal at a specified location, the Contractor shall immediately take measures to contain the suspect sediment and notify the Contracting Officer.

3.1.2.5 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. Solid waste materials shall be hauled to an approved solid waste disposal site designated by the Contracting Officer. The Contractor shall comply with Federal, State, and local regulations pertaining to the use of the solid waste disposal site.

3.1.2.6 Fuel, Oil, and Lubricants

Fuel, oil, and lubricants shall be managed so as to prevent spills and evaporation. To prevent spills, fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately recover the contaminated ground and dispose of it offsite in an approved area. Petroleum waste generated shall be stored in marked corrosion-resistant containers and recycled or disposed of in accordance with 40 CFR 279, State, and local regulations.

3.1.2.7 Hazardous Waste

Hazardous wastes are defined in 40 CFR 261. The Contractor shall ensure that hazardous wastes are stored and disposed of in accordance with 40 CFR 261 and State and local regulations. The Contractor shall ensure that hazardous wastes are packed, labeled, and transported in accordance with 49 CFR 173 and State and local regulations.

3.1.2.8 Hazardous Materials

The Contractor shall ensure that hazardous materials are labeled, stored, and transported in accordance with 49 CFR 173, State, and local regulations.

3.1.2.9 Disposal of Other Materials

Other materials than previously discussed (Construction and Demolition, vegetative waste, etc.) shall be handled as directed.

3.1.3 Preservation and Recovery of Historic, Archeological, and Cultural Resources

3.1.3.1 Applicable Law

A number of Federal laws require protection of cultural resources. Two laws, in particular, can be potentially involved with dredging activities: (1) the National Historic Preservation Act, as amended; and, (2) the Abandoned Shipwreck Act.

3.1.3.2 Inadvertent Discoveries

If, during or other construction activities, the Contractor observes items that may have historic or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate Corps staff may be notified and a determination for what, if any, additional action is needed. Examples of historic, archeological and cultural resources are bones, remains, artifacts, shell, midden, charcoal or other deposits, rocks or coral, evidences of agricultural or other human activity, alignments, and constructed features. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from further removing, or otherwise damaging, such resources.

The possibility of encountering submerged cultural resources is inherent in dredging and snagging operations. Such findings could include shipwrecks, shipwreck debris fields (such as streamed engine parts), prehistoric watercraft (such as log "dugouts"), and other structural features intact or displaced. The materials may be deeply buried in sediment, resting in shallow sediments or above them, or protruding into water. Suspected cultural materials inadvertently gathered from a water-saturated context should be kept moist by re-immersion, spraying, or some other expedient means of wetting until the appropriate Corps staff provide further directives. No interviews or other contact with media shall occur without clear authorization from the Contracting Officer or the appropriate Corps representative.

3.1.3.3 Claims for Downtime due to Inadvertent Discoveries

Upon discovery and subsequent reporting of a possible inadvertent discovery of cultural resources, the Contractor shall seek to continue work well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the contract. Should an inadvertent discovery be of the nature that substantial impact(s) to the work schedule are evident, such delays shall be coordinated with the Contracting Officer.

3.1.4 Protection of Water Resources

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface, ground waters, and wetlands. The Contractor shall plan his operation and perform all work necessary to minimize adverse impact or violation of the water quality standard. 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. The Contractor's construction methods shall protect wetland and surface water areas from damage due to mechanical grading, erosion, sedimentation and turbid discharges. There shall be no storage or stockpiling of equipment, tools, or materials within wetlands or along the shoreline within the littoral zone unless specifically authorized.

3.1.4.1 Washing and Curing Water

Waste waters directly derived from construction activities shall not be allowed to enter water areas. These waste waters shall be collected and placed in retention ponds where suspended materials can be settled out or the water evaporates so that pollutants are separated from the water. Analysis shall be performed and results reviewed and approved by Corps staff before water in retention ponds is discharged.

3.1.4.2 Cofferdam and Diversion Operations

Construction for dewatering, removal of cofferdams, tailrace excavation, and tunnel closure shall be controlled at all times to limit the impact of water turbidity on the habitat for wildlife and impacts on water quality for downstream use.

3.1.4.3 Stream Crossings

Stream crossings shall be controlled during construction. Crossings shall provide movement of materials or equipment without violating water pollution control standards of the Federal, State, or local government.

3.1.4.4 Monitoring of Water Areas

Monitoring of water areas affected by construction activities shall be the responsibility of the Contractor. All water areas affected by construction activities shall be monitored by the Contractor.

3.1.4.5 Turbidity

The Contractor shall conduct his dredging and disposal operations in a manner to minimize turbidity and shall conform to all water quality standards as prescribed by Chapter 62-302, State of Florida, Department of Environmental Protection (FDEP). FDEP surface water quality standards can be obtained from the following websites:
http://www.dep.state.fl.us/ogc/documents/rules/shared/62-302.pdf and
http://www.dep.state.fl.us/ogc/documents/rules/shared/62.302t.pdf

At the beach disposal areas dikes shall be constructed parallel to the shore landward of the mean high water line and discharging the fill material landward of these dikes. The dikes shall be constructed and maintained in a manner that minimizes the discharge of turbid waters into receiving waters. If a hoppeer dredge is used, no overflow from the dredge shall occur while dredging in Cut 2 or the Turning Basin.

3.1.4.6 Oil, Fuel, and Hazardous Substance Spill Prevention and Mitigation

The Contractor shall prevent oil, fuel, or other hazardous substances from entering the air, ground, drainage, local bodies of water, or wetlands. This shall be accomplished by design and procedural controls. In the event that a spill occurs despite the design and procedural controls, the following shall occur:

(1) Immediate action shall be taken to contain and cleanup any spill of oil, fuel or other hazardous substance.

(2) Spills shall be immediately reported to the Contracting Officer.

(3) Spill contingency planning shall be strictly in accordance with the criteria of 40 CFR, Part 109.

(4) To control the spread of any potential spill, absorbent materials shall be readily available and capable of absorbing the contents of the single largest tank.

(5) To control the spread of any potential spill, the Contractor shall provide a written certification of commitment of manpower, equipment, and materials required to expeditiously cleanup and dispose of spill materials.

a. Spill Preventive Systems

System design and installation requirements have been discussed at the beginning of this Section. Temporary or portable tanks shall conform to applicable Federal, State, and local codes and requirements and shall not be placed where they may be affected by storm, flooding, or washout. Diversionary structures for spills shall be put in place in advance where practical. Both spill preventive systems and any deviations from associated requirements must be approved by the Contracting Officer prior to implementation.

b. Liabilities

The Contractor shall be liable in the amounts established in 40 CFR, Part 113 when it can be shown that oil was discharged as a result of willful negligence or willful misconduct. The penalty for failure to report the discharge of oil shall be in accordance with the provision of 33 CFR, Part 153.

3.1.4.7 Dredging Restrictions for Palm Beach Harbor (Clamshell Only)

No inner channel and turning basins dredging activities shall be allowed during the duration of the project that coincides with the aggregation of manatees at the power plant (November 15 through March 15). Emergency situations may extend this window to include the end of November and the beginning of March, if the Office of Protected Species Management is notified at least one week in advance and determines that dredging during this time will not adversely affect manatees (weather dependent). If allowed to continue during this time, manatee observers must be used to aid in the protection of manatees during dredging activities. Night operation of dredging and disposal will be terminated during this time. Entrance channel and settling basin dredging activities will be allowed year round with the use of manatee observer(s) during the duration of the project that coincides with the aggregation of manatees at the power plant (November 15 through March 15).

3.1.5 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 shall be listed in the Contractor's Environmental Protection Plan prior to the beginning of construction operation.

3.1.5.1 Endangered Species Protection

The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, and whales in the area, and the need to avoid harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, or whales which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. The Contractor shall be held responsible for any manatee, sea turtle, or whale harmed, harassed, or killed as a result of construction activities.

a. Siltation Barriers

If siltation barriers are used, they shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.

b. Special Operating Conditions

(1) All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom, and vessels shall follow routes of deep water whenever possible. Boats used to transport personnel shall be shallow-draft vessels, preferably of the light-displacement category, where navigational safety permits. Mooring bumpers

shall be placed on all barges, tugs, and similar large vessels wherever and whenever there is a potential for manatees to be crushed between two moored vessels. The bumpers shall provide a minimum stand-off distance of four feet.

(2) If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area.

(3) During the period December through March, hopper dredges moving through the designated critical habitat of the right whale (Eubalaena glacilis) shall take the following precautions. During evening hours or when there is limited visibility due to fog or sea states greater than Beaufort 3, the dredge operator shall slow down to 5 knots or less when traversing between areas if whales have been spotted within 15 nautical miles (nm) of the vessel's path within the previous 24 hours. In addition, the dredge operator shall maintain a 500-yard buffer between the vessel and any whale. The area designated as critical habitat in the southeastern United States encompasses waters between 31 degrees 15 seconds N (approximately located at the mouth of the Altamaha River, GA) and 30 degrees 15 seconds N (approximately Jacksonville, FL) from the shoreline out to 15 nm offshore; and the waters between 30 degrees 15 seconds N and 28 degrees 00 seconds N (approximately Sebastian Inlet, FL) from the shoreline out to 5 nm.

~~c. Manatee Monitoring (Clamshell Only)~~

~~During clamshell dredging operations, a dedicated observer shall monitor for the presence of manatees. If manatees are present, the observer shall document all activities with the use of a video camera with the capabilities of video taping at night. The video tape shall have date/time signature and record all manatee movements in the construction area and note any reactions to turbidity, sound, and light. The Contractor shall forward 3 copies to Dr. Hanley K. Smith, Chief, Environmental Branch, P.O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of completion of the dredging.~~

3.1.5.2 Endangered Species Observers (Hopper Dredge Only)

During dredging operations, an observer approved by the National Marine Fisheries Service (NMFS) for sea turtles, whales, and manatees shall be aboard to monitor for the presence of the species. During transit to and from the disposal area, the observer shall monitor from the bridge during daylight hours for the presence of whales, especially the right whale, during the period December through March. During dredging operations, the

observer shall monitor the inflow screening for turtles and/or turtle parts. A take of 3 turtles will require a risk assessment survey be performed by the Government.

a. Observation Sheets

The results of the monitoring shall be recorded on the appropriate observation sheet. An observation sheet shall be completed for each dredging cycle whether or not sea turtle or sea turtle parts are present. Sample observation sheets are appended to the end of this Section.

b. Endangered Species Observer(s)

NMFS-approved firms shall provide and manage the endangered species observer(s). A list of acceptable firms can be obtained by contacting NMFS (Mr. Eric Hawk) in St. Petersburg, Florida at 727-570-5312. The trained observer(s) shall require quarters on board the dredge.

c. Manatee Signs

Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction. Sample Manatee Caution Signs are appended to the end of this Section.

3.1.5.3 Manatee, Sea Turtle, and Whale Sighting Reports

Any collisions with a manatee, sea turtle, or whale or sighting of any injured or incapacitated manatees, sea turtles, or whales shall be reported immediately to the Corps of Engineers. The order of contact within the Corps of Engineers shall be as follows:

Order of Contact of Corps Personnel for DredgingContractor to Report Endangered Species Death or Injury

Title	Telephone Number Work Hours	After Hours
Corps, Inspector	On site	Lodging Location
Mr. George Cooper, South Florida Area Engineer, South Florida Area Office (CESAJ-CO-W)	561-626-5299	To be Provided
Mr. Kenneth Duger Acting Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-2202	To be Provided

Order of Contact of Corps Personnel for DredgingContractor to Report Endangered Species Death or Injury

Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO-C)	904-232-1122	To be Provided
Mr. Gordon M. Butler, Jr., Chief, Construction-Operations Division (CESAJ-CO)	904-232-3765	To be Provided

The Contractor shall also immediately report any collision with and/or injury to a manatee to the Florida Marine Patrol "Manatee Hotline" 1-800-342-5367 as well as the U.S. Fish and Wildlife Service, Vero Beach Field Office 561-562-3909 for South Florida.

3.1.5.4 Disposition of Turtles or Turtle Parts

Positively identified turtle parts shall be disposed of ~~at the disposal site(s)~~ as solid waste. Turtle parts which cannot be positively identified on board the dredge or barge(s) shall be preserved by the observer(s) for later identification. Observer(s) shall measure, weigh, tag, and release any uninjured turtles incidentally taken by the dredge. Observer(s) (or their authorized representative) shall transport, as soon as possible, any injured turtles to a rehabilitation facility such as Sea World at Orlando, Florida.

3.1.5.5 Report Submission

The Contractor shall maintain a log detailing all incidents, including sightings, collisions with, injuries, or killing of manatees, sea turtles, or whales occurring during the contract period. The data shall be recorded on forms provided by the Contracting Officer (sample forms are appended to the end of this Section). All data in original form shall be forwarded directly to Dr. Hanley K. Smith, Chief, Environmental Branch, P. O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of collection and copies of the data shall be supplied to the Contracting Officer. Following project completion, a report summarizing the above incidents and sightings shall be submitted to the following:

Florida Fish and Wildlife Conservation Commission
Bureau of Protected Species Management
620 South Meridian Street
Tallahassee, Florida 32399-1600

Acting Chief, Environmental Branch
U.S. Army Corps of Engineers (CESAJ-PD-E)
P.O. Box 4970
Jacksonville, Florida 32232-0019

U.S. Fish and Wildlife Service
P. O. Box 2676
Vero Beach, Florida 32961-2676

3.1.5.6 Hopper Dredge Equipment

Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors which are rigidly attached. No dredging shall be performed by a hopper dredge without a turtle deflector device that has been approved by the Contracting Officer. (Sample Turtle Deflector Design Details are appended to the end of this Section.)

a. Deflector Design

(1) The leading vee-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle". (Information Only Note: The design "approach angle" or the angle of lower drag head pipe relative to the average sediment plane is very important to the proper operation of a deflector. If the lower drag head pipe angle in actual dredging conditions varies tremendously from the design angle of approach used in the development of the deflector, the 6" plowing effect does not occur. Therefore, every effort should be made to insure this design "approach angle" is maintained with the lower drag pipe.)

(2) If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

b. In Flow Basket Design

(1) The Contractor shall install baskets or screening over the hopper inflow(s) with no greater than 4" x 4" openings. The method selected shall depend on the construction of the dredge used and shall be approved by the Contracting Officer prior to commencement of dredging. The screening shall provide 100% screening of the hopper inflow(s). The screens and/or baskets shall remain in place throughout the performance of the work.

(2) The Contractor shall install and maintain floodlights suitable for illumination of the baskets or screening to allow the observer to safely monitor the hopper basket(s) during non-daylight hours or other periods of poor visibility. Safe access shall be provided to the inflow baskets or screens to allow the observer to inspect for turtles, turtle parts or damage.

(3) The turtle deflector device and inflow screens shall be maintained in operational condition for the entire dredging operation.

c. Hopper Dredge Operation

(1) The Contractor shall operate the hopper dredge to minimize the possibility of taking sea turtles and to comply with the requirements stated in the Incidental Take Statement provided by the National Marine Fisheries Service in their Biological Opinion.

(2) When initiating dredging, suction through the drag heads shall be allowed just long enough to prime the pumps, then the drag heads must be placed firmly on the bottom. When lifting the drag heads from the bottom, suction through the drag heads shall be allowed just long enough to clear the lines, and then must cease. Pumping water through the drag heads shall cease while maneuvering or during travel to/from the disposal area. (Information Only Note: Optimal suction pipe densities and velocities occur when the deflector is operated properly. If the required dredging section includes compacted fine sands or stiff clays, a properly configured arrangement of teeth may enhance dredge efficiency which reduces total dredging hours and "turtle takes." The operation of a drag head with teeth must be monitored for each dredged section to insure that excessive material is not forced into the suction line. When excess high-density material enters the suction line, suction velocities drop to extremely low levels causing conditions for plugging of the suction pipe. Dredge operators should configure and operate their equipment to eliminate all low level suction velocities. Pipe plugging in the past was easily corrected, when low suction velocities occurred, by raising the drag head off the bottom until the suction velocities increased to an appropriate level. Pipe plugging cannot be corrected by raising the drag head off the bottom. Arrangements of teeth and/or the reconfiguration of teeth should be made during the dredging process to optimize the suction velocities.)

(3) Raising the drag head off the bottom to increase suction velocities is not acceptable. The primary adjustment for providing additional mixing water to the suction line should be through water ports. To insure that suction velocities do not drop below appropriate levels, the Contractor's personnel shall monitor production meters throughout the job and adjust primarily the number and opening sizes of water ports. Water port openings on top of the drag head or on raised stand pipes above the drag head shall be screened before they are utilized on the dredging project. If a dredge section includes sandy shoals on one end of a tract line and mud sediments on the other end of the tract line, the Contractor shall adjust the equipment to eliminate drag head pick-ups to clear the suction line.

(4) Near the completion of each payment section, the Contractor shall perform sufficient surveys to accurately depict those

portions of the acceptance section requiring cleanup. The Contractor shall keep the drag head buried a minimum of 6 inches in the sediment at all times. Although the over depth prism is not the required dredging prism, the Contractor shall achieve the required prism by removing the material from the allowable over depth prism.

(5) During turning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

(6) These operational procedures are intended to stress the importance of balancing the suction pipe densities and velocities in order to keep from taking sea turtles. The Contractor shall develop a written operational plan to minimize turtle takes and submit it as part of the Environmental Protection Plan.

(7) The Contractor must comply with all requirements of this specification and the Contractor's accepted Environmental Protection Plan. The contents of this specification and the Contractor's Environmental Protection Plan shall be shared with all applicable crew members of the hopper dredge.

3.1.5.7 Recording Charts for Hopper Dredge(s)

All hopper dredge(s) shall be equipped with recording devices for each drag head that capture real time, drag head elevation, slurry density, and at least two of the following: Pump(s) slurry velocity measured at the output side, pump(s) vacuum, and/or pump(s) RPM. The Contractor shall record continuous real time positioning of the dredge, by plot or electronic means, during the entire dredging cycle including dredging area and disposal area. Dredge location accuracy shall meet the requirements of the latest version of EM 1110-1-1003. A copy of the EM can be downloaded from the following website: http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm. The recording system shall be capable of capturing data at variable intervals but with a frequency of not less than every 60 seconds. All data shall be time correlated to a 24 hour clock and the recording system shall include a method of daily evaluation of the data collected. Data shall be furnished to the Contracting Officer for each day's operation on a daily basis. A written plan of the method the Contractor intends to use in order to satisfy these requirements shall be included with the Contractor's Quality Control Plan.

3.1.5.8 [Enter Appropriate Subpart Title Here]~~3.1.5.8 Sea Turtle Trawling and Relocation (For Hopper Dredges Only)~~

~~a. Sea Turtle Risk Assessment and Relocation~~

~~A sea turtle risk assessment survey shall be conducted following the take of three sea turtles and continue until directed by the Contracting Officer. The results of each trawl shall be recorded on Sea Turtle Trawling Report appended to the end of this Section. A final report shall~~

~~be prepared and submitted to the Contracting Officer prior to re-commencement of dredging summarizing the results of the survey (with all forms and including total trawling times, number of trawls and number of captures). Any turtles captured during the survey shall be measured and tagged in accordance with standard biological sampling procedures with sampling data recorded on Sea Turtle Tagging and Relocation Report appended to the end of this Section. Any captured sea turtles shall be relocated south of the work area at least 3 miles from the location recorded on the Sea Turtle Tagging and Relocation Report form.~~

~~b. Sea Turtle Trawling Procedures~~

~~An approved sea turtle trawling and relocation supervisor shall provide researchers and nets to capture and relocate sea turtles, shall conduct Sea Turtle Risk Assessment Survey, and shall conduct any initiated sea turtle trawling. Turtles shall be captured with trawl nets to determine their relative abundance in the channel during dredging. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded using Sea Turtle Trawling Report appended to end of this Section. The trawler shall be equipped with two 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 10 to 12 hours per day or night. Trawling shall be conducted with the tidal flow using repetitive 15-30 minute (total time) tows in the channel. Tows shall be made in the center, green and red sides of the channel such that the total width of the channel bottom is sampled. Positions at the beginning and end of each tow shall be determined from GPS Positioning equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Refer to EM 1110-1-1003, paragraph 5.3 and Table 5-1, for acceptable GPS criteria.~~

~~c. Water Quality and Physical Measurements~~

~~Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Sea Turtle Trawling Report appended to the end of this Section. High and low tides shall be recorded.~~

~~d. Initiation of Trawling~~

~~Initiate trawling if three turtles are taken. The Contractor must initiate trawling and relocation activity in the dredging area within 8 hours of the occurrence of the take. Trawling shall continue until suspended by the Contracting Officer.~~

~~e. Approved Trawling Supervisor~~

~~Trawling shall be conducted under the supervision of a biologist approved by the NMFS. A letter of approval from NMFS shall be provided to the Contracting Officer prior to commencement of trawling.~~

~~f. Turtle Excluder Devices~~

~~Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) must be obtained from NMFS. Approval for capture and relocation of sea turtles must be obtained from the Florida Fish and Wildlife Conservation Commission (FF&WCC). Approvals must be submitted to the Contracting Officer prior to trawling.~~

~~g. Report Submission~~

~~Following completion of the project, a copy of the Contractor's log regarding sea turtles shall be forwarded to the Acting Chief, Environmental Branch and the Area Engineer within 10 working days.~~

3.1.5.9 Sea Turtle Monitoring

a. Sea Turtle (Work Stoppage) Window and Monitoring

If dredging and placement of material in the beach fill area along Florida Beaches has commenced on or before March 1st, turtle monitoring and nest location shall commence on March 1st and continue concurrently with the performance of work. If dredging and placement of material on Florida Beaches has not commenced prior to March 1st, the Contractor shall commence turtle monitoring and nest location activities for a period of 65 days prior to performing any work (including movement of equipment) in the beach fill area or on March 1st which ever is later. In such case, after turtle monitoring and nest location activities have been performed for a period of 65 days, the Contractor shall commence work in the beach fill area and continue the monitoring activities concurrently with performance of the work. In any case turtle monitoring and nest location/relocation activities are required through November 30th or until completion of the work on Florida Beaches, whichever is earlier.

b. Daily Visual Inspection/Hopper Dredge Reporting Log

Turtle monitoring activities shall include performance of daily visual inspections of the beach at sunrise by a person permitted by the FF&WCC for handling sea turtle eggs. Any nests discovered shall be excavated and relocated prior to 9:00 a.m. to a nearby self-release beach location where artificial lighting and/or other disturbances shall not interfere with successful incubation, hatching nor hatchling orientation. A log of the results of turtle egg monitoring and recovery activities shall be kept and a copy submitted weekly to the Chief, Environmental Branch, Jacksonville District (sample Marine Turtle Nesting Summary Report form is appended to the end of this Section).

c. Turtle Subcontractor

The Contractor shall have a FF&WCC permitted subcontractor approved by the Contracting Officer to accomplish the sea turtle monitoring of this section unless he demonstrates to the satisfaction of the Contracting Officer the capability to accomplish sea turtle monitoring and recovery by obtaining a permit from the FF&WCC to take turtles.

d. Report Submission

Following completion of the project, a copy of the Contractor's log regarding sea turtles shall be forwarded to the Acting Chief, Environmental Branch and the Area Engineer, South Florida Area Office.

3.1.5.10 Beach Placement Restrictions

a. Equipment Lighting During Sea Turtle Nesting Period (April 1 to November 30).

Direct lighting of the beach and near shore waters shall be limited to the immediate construction area and shall comply with safety requirements. Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the waters surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area. Refer to Beach Lighting Schematic appended to the end of this Section.

b. Pipeline Placement

Any construction pipes placed parallel to the shoreline shall be placed as far landward as possible up to the vegetated dune line.

c. Beach Tilling (Midtown Beach Disposal Area Only)

Till the fill area between the landward edge and the seaward edge of the top of the berm with equipment operated so as to penetrate and loosen beach sand (a) to a depth of 36 inches and (b) laterally without leaving unloosened compact sand between the adjacent paths of tines or penetrating part of the equipment. (Suitable equipment is Caterpillar D9L/No. 9 Adjustable Parallelogram Multishank Ripper, or equal.)

3.1.5.11 Hardground/Reef Protection

Existing hardground/reef areas within the Contractor's work area will be so designated by the Contracting Officer and precaution will be taken to preserve these resources as they existed at the time they were pointed out to the Contractor. The Contractor shall install all protection for these resources so designated on the drawings and shall be responsible for their preservation during this contract. Pipelines will be placed only in approved areas and anchoring will be permitted in sandy areas only. Pipeline will be monitored for leaks. Any leaks that develop shall be repaired immediately, especially over hardgrounds/reefs, and the pumpout operations shall be shutdown until repairs are completed.

3.1.6 Protection of Air Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Florida, Florida Statute, Chapter 403 and others and Chapters 200 series of the FAC and all Federal emission and performance laws and standards, including the U.S. Environmental Protection Agency's Ambient Air Quality Standards. Information regarding Florida Statutes can be obtained from the following websites:
http://www.dep.state.fl.us/ogc/documents/statutes/text/403.doc;
http://www.dep.state.fl.us/ogc/documents/rules/aiur/62-213.doc; and,
http://www.dep.state.fl.us/ogc/documents/rules/mainrule.htm.

3.1.6.1 Particulates

Particulates, such as dust, shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and work areas within or outside the project boundaries free from particulates that would cause air pollution standards to be exceeded or that would cause a hazard or nuisance. The Contractor shall have the necessary equipment and approved methods to control particulates as the work proceeds and before a problem develops.

3.1.6.2 Burning

All burning shall be subject to State and local requirements, including requirements for burn permits and bans during certain conditions such as droughts.

3.1.6.3 Odors

Odors shall be controlled at all times for all construction activities.

3.1.7 Protection of Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise.

3.2 POSTCONSTRUCTION CLEANUP

The Contractor shall clean up any area(s) used for construction.

3.3 PRESERVATION AND RESTORATION OF LANDSCAPE AND MARINE VEGETATION DAMAGES

The Contractor shall restore all landscape features and marine vegetation damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be a part of the

Environmental Protection Plan as defined in subparagraph "Environmental Protection Plan" of paragraph SUBMITTALS above. This work shall be accomplished at the Contractor's expense.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed facilities and pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.5 TREE PROTECTION PLAN DETAIL

See APPENDIX A at the end of this Section (1 page).

3.6 SAMPLE - MANATEE CAUTION SIGNS

See APPENDIX B at the end of this Section (2 pages).

3.7 SAMPLE - DAILY MANATEE REPORTING LOG

See APPENDIX C at the end of this Section (1 page).

3.8 SAMPLE - HOPPER DREDGE REPORTING LOG--TURTLE OBSERVER NOTES

See APPENDIX D at the end of this Section (1 page).

3.9 SAMPLE - INCIDENT REPORT OF SEA TURTLE MORTALITY AND DREDGING ACTIVITIES

See APPENDIX E at the end of this Section (1 page).

3.10 MARINE TURTLE NESTING SUMMARY REPORT

See APPENDIX F at the end of this Section (2 pages).

3.11 BEACH LIGHTING SCHEMATIC

See APPENDIX G at the end of this Section (1 page).

3.12 CONCEPTUAL TURTLE DEFLECTOR DESIGN DETAILS

See APPENDIX H at the end of this Section (2 pages).

3.13 SEA TURTLE TRAWLING REPORT

See APPENDIX I at the end of this Section (1 page).

3.14 SEA TURTLE TAGGING AND RELOCATION REPORT

See APPENDIX J at the end of this Section (1 page).

3.15 TURTLE TRAWEL NETS SPECIFICATIONS

See APPENDIX K at the end of this Section (1 page).

3.16 SAMPLE - WHALE SIGHTING LOG

See APPENDIX L at the end of this Section (1 page).

3.17 PROJECT ENVIRONMENTAL SUMMARY SHEET

See APPENDIX M at the end of this Section (2 pages).

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01411

TURBIDITY AND DISPOSAL MONITORING

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SECTION 01411

TURBIDITY AND DISPOSAL MONITORING

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all work required to obtain, analyze, and report the results of turbidity and disposal monitoring.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Calibration Standard ; FIO.

The Contractor shall furnish to the Contracting Officer a copy of the operating instructions and standards used in calibrating equipment used in collecting samples for turbidity.

SD-06 Test Reports

Turbidity Monitoring ; FIO.

All required turbidity test reports shall be submitted (preferably by electronic mail) to the Contracting Officer, the Environmental Quality Section (CESAJ-PD-ES), and the Florida Department of Environmental Protection (FDEP) within 24 hours after completion of each test.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 MONITORING REQUIREMENTS

3.1.1 General

Nearshore or inland water samples shall be obtained and analyzed for turbidity. Sampling shall be conducted in accordance with techniques described in the latest edition of "Standard Methods" published by the American Public Health Association (APHA), American Waterworks Association (AWWA), and Water Pollution Control Federation (WPCF), and other current techniques recognized by the scientific community and approved by the Jacksonville District, Corps of Engineers. Samples obtained for turbidity analysis shall be analyzed within 30 minutes of collection. Samples shall be taken with a sampler obtaining samples uncontaminated by water from any other depth.

3.1.1.1 Turbidity Monitoring Equipment

Monitoring required for turbidity shall be measured in Nephelometric Turbidity Units (NTU) using a standard Nephelometer.

3.1.2 Dredging and Disposal Locations

Routine monitoring shall occur at the following locations:

3.1.2.1 Station Descriptions

a. Station 1 (Compliance Turbidity)

No more than 150 meters downcurrent of the dredge or point of discharge and in the direction of any visible plume. Note that in the case where there is no visible turbidity plume at the beach disposal site, the sample shall be collected 150 meters downcurrent from the discharge site and 50 meters offshore.

b. Station 2 (Background Turbidity)

At least 300 meters upcurrent from the dredge or point of discharge and outside of any turbidity generated by the project. Note that in the case of the each disposal site, this may also be taken at least 800 meters downcurrent of the discharge point.

3.1.2.2 Turbidity

Samples to be analyzed for turbidity shall be taken twice daily (one between the hours of 12 midnight and 12 noon and the other between 12 noon and 12 midnight) at least 4 hours apart at surface, ~~and~~ mid-depth, and 1-meter above the bottom at the following locations. Additional sampling shall be performed when the Contracting Officer determines that there may be non-compliance with water quality standards.

a. Dredging Site Compliance at Station 1

b. Dredging Site Background at Station 2

3.2 TURBIDITY TESTS

3.2.1 Testing

The Contractor shall provide the Government with a certification, attesting to the accuracy of his testing equipment and procedure. The Contractor shall also provide the Contracting Officer with a duplicate of the standard used to calibrate his testing instrument as well as a complete set of operating instructions for the turbidity testing equipment. The Contractor and the Contracting Officer will use this standard throughout the project to maintain the calibration of the equipment. Whenever there is doubt as to the adequacy of the testing or validity of the results, the Contracting Officer may direct that additional tests be performed at no additional cost to the Government.

3.2.2 Reporting

The monitoring data shall be recorded on forms that contain the pertinent information in the following paragraphs. Example forms are appended to the end of this Section. Other data shall be submitted in the form supplied by the laboratory chosen to do the analysis. All data shall be forwarded (preferably electronically) to the Contracting Officer, Environmental Branch (CESAJ-PD-E), and FDEP within 24 hours of collection. Electronic mail addresses of the Corps and FDEP personnel to receive these reports are provided below. Reports shall be provided in a common format such as Excel Spreadsheet (.xls) files, Word (.doc) files, and Web Graphics (Joint Photographic Group or .jpg) files.

NAME	ORGANIZATION	E-MAIL ADDRESS
John Cooper	USACE COR	john.g.cooper@usace.army.mil
Martin Seeling	FDEP	Martin.Seeing@dep.state.us.fl
Matt Miller	USACE, CESAJ-EA	matthew.j.miller@USACE.army.mil

3.2.2.1 Report Contents

a. Permit application number.
b. Dates of sampling and analysis.
c. A statement describing the methods used in collection, handling, storage, and quality control methods used in the analysis of the samples.
d. A map indicating the sampling location and plume configuration, if any.
e. A map plotting the dredge location during each traverse through the borrow area. This map can be combined with the map indicating the sampling location.
f. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, and accuracy of the data.
g. Results of the analyses.
h. A description of any factors influencing the dredging or disposal operation or the sampling program. Reports shall be furnished daily

even when no sampling is conducted. When sampling is not conducted, a brief statement shall be given in the report explaining the reason for not conducting the sampling, such as "dredge not working due to mechanical problems" or "no sampling taken due to high seas".

3.2.2.2 Monitoring Reports

Monitoring reports shall also include the following information for each day that samples are taken:

a. Time of day and date samples were taken.
b. Depth of water body.
c. Depth of sample.
d. Antecedent weather conditions.
e. Tidal stage and direction of flow.
f. Salinity (provided for heavy metal and ammonia analysis only).
g. pH (provided for heavy metal and ammonia analysis only).
h. Water temperature, C degrees (heavy metal and ammonia analysis only).
i. Dredge or disposal location (station location and map).
j. Water sample location.
k. Wind direction and velocity.

3.2.2.3 Notification

If turbidity exceeds background levels by more than 29 NTU, the Contractor shall immediately notify Acting Chief, Environmental Branch at 904-232-2202 and the Contracting Officer, or on the morning of the following work day if it occurs after normal work hours. In addition, all dredging or disposal activity shall cease immediately and all measures to reduce turbidity shall be taken. Dredging or disposal shall not resume until corrective measures have been taken and turbidity has returned to acceptable levels as determined by proper testing.

3.3 WORK DELAY

Delays in work due to the fault or negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the provisions of the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

3.4 SAMPLE - TURBIDITY MONITORING TEST REPORT

See APPENDIX A at the end of this Section.

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SECTION 01452

DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL

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SECTION 01452

DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL

1.1 DEFINITIONS

Project Manager/Superintendent - highest level manager located onsite and responsible for dredging, disposal, berm construction and related activities, including but not limited to the following, production, quality control, safety, turbidity monitoring, endangered species monitoring and environmental protection.
Quality Control System Manager - a person assigned duties to manage Contractor's Quality Control (CQC) system. CQC System Manager shall have written delegated authority sufficient to stop work not in compliance with contract.
Safety Officer - person assigned responsibility for site safety management.
Endangered Species Monitor - person assigned for identifying regulatory protected wildlife and advising Contractor in modifying operations to protect identified species or damage to their habitat. Required to have acceptable qualifications and demonstrated ability. Refer to Section 01355 ENVIRONMENTAL PROTECTION

1.2 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.

ENGINEERING REGULATIONS (ER)

ER 1180-1-6 (1995) Construction Quality Management

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submittals shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Quality Control Plan ; G|COR.

Refer to paragraph QUALITY CONTROL PLAN below.

Personnel Qualifications ; G|COR.

Submit personnel qualifications for Project Manager/Superintendent, CQC System Manager, Safety Officer, Endangered Species Monitor, Professional Surveyor and Mapper, in resume form.

Letter of Authority ; FIO.

Letter to CQC System Manager signed by an authorized Contractor official which describes responsibilities and delegates sufficient authorities to perform functions of the CQC System Manager, including authority to stop work not in compliance with contract.

1.4 PAYMENT

No separate payment will be made for Contractor Quality Control. Include costs in bid items contained on Bidding Schedule.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible to plan and execute quality control in accordance with ER 1180-1-6 and establish and maintain an effective quality control system in compliance with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. Project Manager/Superintendent is responsible for quality of work and is subject to removal by the Contracting Officer for non-compliance with contract quality requirements. The Project Manager/Superintendent shall be on site at all times, except as otherwise approved by the Contracting Officer.

3.2 QUALITY CONTROL PLAN

3.2.1 General

Within ~~20~~ 10 calendar days of Notice of Award, submit a written CQC Plan for review by Contracting Officer. CQC Plan submittal will be reviewed by Contracting Officer and discussed in detail at a Coordination Meeting (see paragraph COORDINATION MEETING below). CQC Plan shall identify organization chart, personnel, procedures, control methods, instructions, tests, records, and forms to be used. Contracting Officer may accept an "interim CQC Plan" under a "conditional acceptance" for first 30 calendar days of operation. Contractor shall furnish, not later than 30 calendar days after commencement of work, an acceptable overall CQC Plan.

3.2.1.1 CQC Plan Resubmittal

No construction will be allowed to start until an interim CQC Plan is "conditionally accepted". When an interim CQC Plan is "conditionally accepted", revise and resubmit overall project CQC Plan for Contracting Officer's acceptance. When Contractor is working under an interim CQC Plan, until Contractor submits an acceptable final CQC Plan, Contracting Officer may retain funds from progress payments in accordance with Clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES. When no acceptable CQC Plan is resubmitted within a reasonable time, as determined by Contracting Officer, Contracting Officer may order Contractor to stop work until such time as a CQC Plan is accepted. Such a directed stop work order shall not be considered a suspension of work under Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES. No pay or construction period adjustments will be allowed as a result of a directed stop work order based on Contractor inability to plan quality control in a manner acceptable to Contracting Officer.

3.2.1.2 Failure

Failure to comply with above requirements within time prescribed will be considered a condition endangering contract performance and may be considered grounds for termination of contract in accordance with Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES.

3.2.2 Content of the CQC Plan

a. Describe Quality Control Organization

Include an organization chart with lines of authority and reporting. Project Manager/Superintendent may have dual roles as CQC System Manager or Safety Officer. See Section 01355 ENVIRONMENTAL PROTECTION for Endangered Species Monitor qualifications.

b. Definable Features of Work

Provide a list to be agreed upon during the Coordination Meeting.

c. Qualifications

Names, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

d. Letter of Authority

Copy of letter of authority to CQC System Manager. The CQC System Manager shall issue letters of direction to other quality control staff describing duties, authorities, and responsibilities.

e. Submittal Control

Procedures for scheduling, reviewing, certifying, and managing submittals. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

f. Testing

Control, verification, turbidity monitoring, and field testing procedures. Provide a list of specific instruments and tests. Provide information including work being tested, test frequency, and identify who (Contractor, Subcontractor) is responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

g. Three Phase Control

Procedures to implement three phase quality control and inspection system. Procedures to plan and document preparatory, initial, and follow-up control phases.

h. Deficiency Tracking

Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish procedures to verify that deficiencies have been corrected and document correction.

i. Reports and Forms

Reporting procedures, including proposed reporting formats and sample forms.

3.2.3 Acceptance of Plan

"Conditional acceptance" of the Contractor's interim CQC Plan is required prior to starting dredging or other construction activities. Contracting Officer's acceptance is conditional and is contingent on satisfactory performance during construction. The Contracting Officer reserves the right to require the Contractor to make changes in his CQC Plan and construction operations, including removal of personnel.

3.2.4 Notification of Changes

Notify Contracting Officer in writing a minimum of 7 calendar days prior to proposed personnel or CQC Plan procedure changes. Proposed changes are subject to Contracting Officer acceptance.

3.3 COORDINATION MEETING

Refer to Section 01310 ADMINISTRATIVE PROCEDURES. Contracting Officer will schedule a Coordination Meeting where Contractor personnel and Contracting Officer personnel will develop a mutual understanding of how Contractor's Quality Control works with Contracting Officer's Quality Assurance. CQC Plan will be discussed in detail, including forms for recording CQC operations, control activities, testing, and administration of the system for both onsite and offsite work. Contractor quality control for production, measurement and payment, safety, turbidity monitoring, plant and equipment location, monitoring, endangered species monitoring, environmental protection and supervision by Quality Control personnel will be discussed. Meeting minutes will be prepared by Contracting Officer and signed by Contractor and Contracting Officer. The minutes become a part of the contract file. There may be occasions when subsequent conferences will

be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures requiring corrective action.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

CQC organization shall have a CQC System Manager and sufficient number of additional qualified personnel to ensure contract quality control for workmanship and materials, including safety and environmental protection compliance. Designate Safety Officer and qualified Endangered Species Monitor who shall serve as a member of CQC staff. Designate qualified surveyor for quantity measurement. Provide office space, computer hardware and software, filing systems and other resources as necessary to maintain an effective CQC organization. CQC organization shall be responsible to maintain documentation and records onsite, unless approved by the Contracting Officer.

3.4.2 CQC System Manager

Identify an individual, employed by Contractor, within onsite organization who shall be responsible for CQC management. CQC System Manager shall have authority to act in all CQC matters for the Contractor. CQC System Manager shall be an experienced dredging or construction person with a minimum of 5 years in similar work. Identify an alternate person to serve as CQC System Manager during actual CQC System Manager's absences. CQC System Manager or a designated alternate shall be onsite during construction. CQC System Manager may have dual roles as Project Manager/Superintendent or Safety Officer, or if qualified, Surveyor or Endangered Species Monitor.

3.4.3 CQM-C Training Requirement

CQC System Manager shall have completed U.S. Army Corps of Engineers (COE) course "Construction Quality Management For Contractors" within the previous five years. A completion certificate from any Corps District or Naval Facilities Command is acceptable. In event proposed CQC System Manager has not completed CQM-C training, he or she will have 60 days after Notice of Award to do so. This course is periodically offered by Jacksonville District. Information regarding CQM-C course can be obtained from the following website: http://www.saj.usace.army.mil/conops/construction or by contacting Chief, Quality Assurance Section at 904-232-1183.

3.4.4 Surveyor

Survey, topographic survey, and hydrographic survey shall be performed by persons working under direct supervision of a [Professional Surveyor and Mapper registered in State of Florida. Perform pre- and post-construction survey for each acceptance section and provide supporting data to Contracting Officer. ~~[PMS] [or] [RLS]~~ A licensed Professional Surveyor (Florida registered) shall certify field notes, computations, and other

records relating to quantity survey.

3.4.5 Organizational Changes

When CQC staff changes are needed, revise CQC Organization Chart in CQC Plan to reflect changes and submit the changes to Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals shall be prepared and transmitted as specified in Section 01330 SUBMITTAL PROCEDURES. CQC organization shall certify submittals comply with contract requirements. Items delivered to Contracting Officer shall be controlled, packaged, transported and stored in a manner to prevent damage or loss.

3.6 CONTROL

Contractor's Quality Control is the means by which Contractor ensures construction, including that of subcontractors, complies with contract. Conduct Preparatory Phase and Initial Phase meetings for each definable feature of work (refer to Section 01310 ADMINISTRATIVE PROCEDURES). Perform three phases of control for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work. Notify Contracting Officer at least 24 hours in advance of beginning Preparatory Control Phase. Ensure proposed plans, activity hazard analyses, permits and submittals, are approved and copies are onsite. Conduct a Preparatory Phase meeting headed by CQC System Manager and attended by Superintendent, other CQC personnel, and foreman responsible for supervising workmanship for definable feature of work. Document Preparatory Phase actions using "Preparatory Phase Checklist" and meeting minutes prepared by CQC System Manager. Preparatory Phase checklist is appended to the end of this Section. Attach checklist and minutes to Contractor's Quality Control (CQC) report (sample CQC form appended to the end of this Section). Preparatory Phase actions include:

a. Review each paragraph of specifications. Make copies available for use by Contracting Officers personnel and Contractor CQC staff at Preparatory Phase meeting. Maintain copies available until final acceptance of the work.

b. Review of contract drawings.

c. Check to assure that plant and/or equipment have been inspected, tested, submitted, and approved.

d. Review provisions that have been made to provide required quality control inspection and testing.

e. Examine work area to assure required preliminary work is complete

and in compliance with contract.

f. Review of activity hazard analysis to assure safety requirements are met.

g. Discuss procedures for controlling quality of work. Document construction tolerances and workmanship standards for that feature of work.

h. Check to ensure that portion of CQC Plan for new work to be performed has been accepted by Contracting Officer.

i. Check that previous work or acceptance sections required to start new work have been completed.

j. Review requirements under permits, environmental protection and protection of environmental species.

k. Discuss initial control phase (workmanship).

3.6.2 Initial Phase

Notify Contracting Officer at least 24 hours in advance of beginning the Initial Phase. Initial Phase is workmanship oriented and shall be accomplished at beginning physical work on each acceptance section. Following shall be accomplished:

a. Check preliminary work to ensure that complies with contract. Review minutes of preparatory meeting.

b. Verify adequacy of turbidity monitoring, survey control to ensure contract compliance. Verify required inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable contract workmanship standards and review allowable tolerances.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review activity analysis with each worker.

f. Initial phase shall be repeated for new crews working onsite and when contract workmanship quality standards are not being met.

3.6.3 Follow-up Phase

Follow-up Phase consists of daily checks performed to quality control activities, including survey and testing, to provide continuous compliance with contract requirements. Record inspection and checking results in CQC documentation. Record both quality control activities, plant and equipment performance on Report of Operations. Report of Operations forms are

appended to the end of Section ~~[~~02325 DREDGING~~] [02391 BEACH FILL] [ ]~~. Complete follow-up checks and inspections and correct deficiencies prior to starting acceptance sections which may be affected by deficient work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on same definable features of work when: quality of on-going work is unacceptable; there are changes in applicable CQC staff, production supervision, or work crews; work on a definable feature is resumed after a period of inactivity; or, when other problems develop.

3.7 TESTS/TESTING PROCEDURE

Perform specified tests and required monitoring instrumentation or tests to verify control measures are adequate and provide an end product conforming to contract. When requested, Contractor shall furnish Contracting Officer duplicate samples of test specimens for possible testing by Contracting Officer. The Contractor shall perform following activities and record and provide the following data:

a. Verify that testing standard or procedures comply with contract requirements.

b. Verify that facilities, instruments, and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of tests and monitoring instruments, both passing and failing, shall be recorded and reported for date taken. If approved by Contracting Officer, 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 offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports or maintain adequate monitoring testing may result in nonpayment for related work performed.

3.8 COMPLETION INSPECTION

3.8.1 Post-Construction Measurement and Inspection

Near end of work on each acceptance section notify Contracting Officer to conduct post-construction survey and inspection to ensure contract conformance. Submit certified survey data and correct contract drawings to show as-built information. Notify Contracting Officer to schedule a joint inspection of each acceptance section once deficiencies have been corrected.

3.8.2 Pre-Final Inspection

Near completion of project Contracting Officer and Contractor will conduct a Pre-Final Inspection. In addition to completion of quantity survey, Contracting Officer will inspect for demobilization of temporary facilities and clean-up of staging areas used to ensure contract conformance. Contractor and Contracting Officer will inspect for final grading, tilling, and removal of escarpments. Contracting Officer will perform Pre-Final Inspection to verify work is complete and ready for Owner acceptance. Contracting Officer Pre-Final Inspection may result in additional work such as beach tilling to be done. Contractor's CQC System Manager shall ensure items are corrected before notifying Contracting Officer so that a Final Inspection with the Customer can be scheduled. Any items noted on Pre-Final Inspection shall be corrected in a timely manner. Pre-Final Inspection and deficiency corrections shall be accomplished within project completion period.

3.8.3 Final Inspection

Final Inspection will be scheduled by Contracting Officer based upon results of Pre-Final Inspection. Notify Contracting Officer when ready for Final Inspection and Contracting Officer will schedule a Final Inspection with Owner to be performed within 14 working days. Provide assurance that work will be complete and acceptable by scheduled Final Inspection date. Contracting Officer will notify, Owner, local sponsor, to attend a Final Inspection. Contractor, Project Manager/Superintendent, CQC System Manager shall attend the Final Inspection. In addition to Contracting Officer and Owner, persons from local government or other agencies may attend. Contractor's failure to have contract work completed for this inspection will be cause for Contracting Officer to bill the Contractor for Contracting Officer's additional inspection cost in accordance with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES.

3.9 DOCUMENTATION

Maintain current records as required in Sections 01355 ENVIRONMENTAL PROTECTION, 01411 TURBIDITY AND DISPOSAL MONITORING, and 02325 DREDGING. Document quality control activities and tests have been performed using Daily Report of Dredge Operations and Daily Quality Control Reports.

3.10 NOTIFICATION OF COMPLIANCE

Upon Contracting Officer's notification to Contractor of noncompliance with contract requirements, Contractor shall take immediate corrective action. Contractor personnel notified at work site is sufficient purpose of Contractor notification. If Contractor fails to comply within 1 calendar day, Contracting Officer may issue an order stopping all or part of work until satisfactory corrective action has been taken. Such stop orders shall not be made basis of Contractor claim for time extension or other damages to Contractor.

3.11 SAMPLE FORMS

Sample forms are appended at the end of this Section. The Contracting Officer's Representative will instruct the Contractor in the preparation of these forms during the Preconstruction Conference as specified in Section 01310 ADMINISTRATIVE PROCEDURES.

3.12 SAMPLE - PREPARATION AND INITIAL PHASE CHECKLISTS

See APPENDIX A at the end of this Section (3 pages).

3.13 SAMPLE - CONTRACTOR'S QUALITY CONTROL (CQC) REPORT

See APPENDIX B at the end of this Section (5 pages).

-- End of Section --

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DIVISION 02 - SITE WORK

SECTION 02325

DREDGING

-- End of Section Table of Contents --

SECTION 02325

DREDGING

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all excavation and disposal of all material as specified herein or indicated on the drawings. This scope also includes all necessary measures for protection of the environment. Environmental protection requirements under this contract are as important to overall completion of the work as other technical aspects. Failure to meet the requirements of these specifications for environmental protection may result in work stoppages or termination for default. No part of the time lost due to any such work stoppages shall be made the subject of claims for extensions of time or for excess costs or damages by the Contractor. If the Contractor fails or refuses to promptly repair any damage caused by violation of the provisions of these specifications, the Contracting Officer may have the necessary work performed and charge the cost thereof to the Contractor.

1.2 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.

ENGINEERING MANUALS (EM)

EM 1110-1-1000	(1993) Photogrammetric Mapping
EM 1110-1-1002	(1990) Survey Markers and Monumentation
EM 1110-1-1003	(1996) NAVSTAR Global Positioning System Surveying
EM 1110-1-1004	(1994) Deformation Monitoring and Control Surveying
EM 1110-1-2909	(1998; Chg 2) Geospatial Data and Systems
EM 1110-2-1003	(1994) Hydrographic Surveying

FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS (FBPSM)

FBPSM	Minimum Technical Standards, Chapters 177, 472, 61G17

TRI-SERVICE STANDARDS (TSS)

TSS	(1999) A/E/C CADD Standards

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Notice of Intent to Dredge ; FIO.

Prior to commencement of work on this contract, the Contractor shall notify the Commander, Seventh Coast Guard District of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least two weeks prior to the commencement of this dredging operation. A copy of the notification shall be provided to the COR.

Relocation of Navigation Aids ; FIO.

The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Commander, Seventh Coast Guard District, Miami, Florida, in writing, with a copy to the Contracting Officer, 30 days in advance of the time he plans to dredge adjacent to any aids which require relocation to facilitate dredging. The Contractor shall contact the U.S. Coast Guard for information concerning the position to which the aids will be relocated. A copy of the notification shall be provided to the COR.

SD-07 Certificates

Electronic Tracking System Data ; FIO.

The Contractor shall furnish required discs, CD-ROM, and charts to the Contracting Officer.

Equipment and Performance Data ; FIO.

The Contractor shall furnish proof of electronic positioning equipment calibration to the Contracting Officer.

Notification of Discovery of Historical Period Shipwreck Sites ; FIO.

The Contractor shall immediately notify the Contracting Officer if any shipwreck, artifact, or other objects of antiquity that have scientific or historical value, or are of interest to the public, are discovered, located, and/or recovered.

Notice of Need for Dredging Survey ; FIO.

The Contractor shall give 3 weeks advance notice, in writing, to the Contracting Officer of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section.

Daily/Monthly Report of Operations ; FIO.

The Contractor shall prepare and submit two (2) copies of the Daily Report of Operations, using either ENG Form No. 27A or ENG Form No. 4267, for each dredge and/or unloader working. This report shall be submitted on a daily basis and not in groups (groups = multi-days reports packaged together at one time) except as noted in subparagraph a. below. A copy of these forms are appended to the end of this Section. In addition to the daily report, the Contractor shall prepare a Monthly Report of Operations for each month or partial month's work on either ENG Form No. 27A or ENG Form No. 4267. The monthly report shall be submitted on or before the 7th of each month, consolidating the previous month's work. Upon completion of the job, the Contractor shall submit a consolidated job report, combining the monthly reports. The Contractor shall distribute one copy of each report to the District Engineer; ATTN: CESAJ-EN-C; U.S. Army Engineer District, Jacksonville, P.O. Box 4970; Jacksonville, Florida 32232-0019. Reports shall be submitted on a monthly basis with daily reports accompanying the monthly report and job report.

Additionally, one copy of these shall be maintained by the Contractor on the dredge(s) for the Contracting Officer's inspection purpose. Further instructions on the preparation of the reports will be furnished at the Preconstruction Conference.

Notice of Misplaced Material ; FIO.

The Contractor shall notify the U.S. Coast Guard Marine Safety Office of any misplaced material as stated in the Clause OBSTRUCTION OF NAVIGABLE WATERWAYS of Section 00700 CONTRACT CLAUSES.

Log of Near Beach Quality Sand Disposal ; FIO.

Refer to subparagraph "Logs" of subparagraph "Near Beach Quality Sand" of paragraph DISPOSAL OF EXCAVATED MATERIAL below for submittal.

1.4 ORDER OF WORK

The Palm Beach Beach Disposal Area (D/A) shall be filled to capacity before any dredge material is placed in the Midtown Beach D/A. For purposes of this contract, the maximum allowable capacity of the Palm Beach Harbor Beach D/A shall be computed using the predredge survey of the Palm Beach Habor D/A and the beach fill template shown on the plans.
There is no order of work specified relative to performance of the dredging

1.5 Transportation of Material

Water and dredge material shall not be permitted to overflow or spill out of barges or hopper dredges during transport to the disposal site.

1.6 DREDGING RESTRICTIONS

To minimize impacts to the turbidity sensitive resources that surround the channel and settling basin, only hydraulic suction dredges will be allowed under this contract. If a hopper dredge is used and if the sediment is determined to be unsuitable for beach placement, no overflow from the dredge shall occur during dredging of material in the turning basins or in the channel west of the neck of the inlet. The neck is considered to be located at Buoy No. 7. Overflow may only occur when the dredged material is determined to be beach quality or the dredge is within the confines of the inlet itself or in the Atlantic Ocean. No overflow shall occur while material is being transported from the dredging area to the disposal area.

1.7 PUMPING OF BILGES

Contractors are warned that pumping oil or bilge water containing oil into navigable waters, or into areas which would permit the oil to flow into such waters, is prohibited by Section 13 of the River and Harbor Act of 1899, approved 3 March 1899 (30 Stat. 1152; 33 U.S.C. 407). Violation of this prohibition is subject to the penalties under the referenced Acts.

1.8 HISTORICAL PERIOD SHIPWRECK SITES

If any shipwreck, artifact, or other objects of antiquity that have scientific or historical value, or are of interest to the public, are discovered, located, and/or recovered, the Contractor acknowledges that:

a. The site(s), articles, or other materials are the property of the State of Florida, with title vested in the Department of State, Division of Historical Resource; and that,

b. He will immediately notify the Contracting Officer.

1.9 UTILITY CROSSINGS

1.9.1 General

It is the Contractor's responsibility to investigate the location of all utility crossings. The Contractor shall take precautions against damages which might result from his operations in the vicinity of the utility crossings. If any damage occurs as a result of his operations, the Contractor will be required to suspend dredging until the damage is repaired and approved by the Contracting Officer. Costs of such repairs and downtime of the dredge and attendant plant shall be at the Contractor's expense.

1.9.2 Known Utility Crossings

See Drawing No. 2/1.

1.10 PERMITS

The Contractor's attention is directed to the Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES and the paragraph PERMITS AND AUTHORIZATIONS of Section 01355 ENVIRONMENTAL PROTECTION.

1.11 FINAL CLEANUP

Final cleanup, as stated in the paragraph COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK of Section 00800 SPECIAL CONTRACT REQUIREMENTS, shall include the removal of all the Contractor's plant and equipment either for disposal or reuse. Plant and/or equipment and/or materials to be disposed of shall ONLY be disposed in a manner and at locations approved by the Contracting Officer. Unless otherwise approved by the Contracting Officer, the Contractor will not be permitted to abandon any equipment in the disposal area or other areas adjacent to the worksite.

a. Failure to promptly remove all plant, pipeline, equipment, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work. In such case, the Government will exercise its right as stated in Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES to remove any plant and/or equipment and/or materials at the Contractor's expense.

1.12 WORK VIOLATIONS

Work done in violation of these specifications or a verbal or written stop order of the Contracting Officer will be considered as unsatisfactory progress for purposes of progress payments in accordance with Clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES.

PART 2 PRODUCTS

2.1 CHARACTER OF MATERIALS

The maintenance materials to be dredged are shoaling materials that have accumulated since the last dredging event. No maintenance core borings have been drilled for the current dredging event. Representative historic core boring logs and laboratory tests have been selected to represent the materials that are expected to be encountered during this excavation and are included in the specifications. (appended to the end of SECTION 01000: GENERAL REQUIREMENTS).

Core Boring Logs:
CB-PBM88-1
CB-PBH91-5
CB-PBH95-1, 2, 3, 4, 6, 7, 8
CB-WP97-2, 3, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17

Additional historic core boring logs and wash boring logs (rock probes) are available for inspection at the Jacksonville District Office.
As documented in the historic core borings logs, the materials to be dredged will be predominately fine to medium grained quartz (SP) and (SP-SM) sands with variable amounts of sand sized shell.
If any Insitu rock is encountered above grade, it will not be required to be dredged; but, its location shall be reported to the Contracting Officer.

The blow counts shown on a number of the core logs have been affected by sand packing in the drill casing during drilling. Therefore blow counts greater than 30 blows per foot in sand should generally be discounted (not including the 2001 core borings).

Palm Beach harbor can be classified as a rock harbor in that portions of the entrance channel and harbor turning basins were excavated in rock horizons. Rock is commonly present in the side slopes and below the excavation grades. Rock, shell, and gravel to cobble sized pieces of broken rock will be encountered when dredging below the excavation grades in the harbor, entrance channel and side slopes. Loose rock and shell, eroding out from the side slopes, roll/slide into the channel/harbor. Therefore shell, and gravel to cobble sized rock fragments will be encountered along the edges of the side slopes. The shell, gravel and cobble sized rock pieces will typically not be identified on the core boring logs.
Extended Settling Basin. The Extended Settling Basin (Station 32+00 to 37+00, Range -100 to -300) is new work excavation. The ground conditions are documented in core borings CB-LWI-SB01-1, 2, 3, and 4.

PART 3 EXECUTION

3.1 NOTIFICATION OF COAST GUARD

3.1.1 Navigation Aids

Navigation aids located within or near the areas required to be dredged will be removed, if necessary, by the U.S. Coast Guard in advance of dredging operations. The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid of navigation.

3.1.2 Dredging Aids

The Contractor shall obtain approval from the U.S. Coast Guard for all buoys, dredging aid markers to be placed in the water, and dredging aid markers affixed with a light prior to the installation. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids.

3.1.3 Nearshore Disposal Activities

The Contractor shall mark the pipeline corridor of the Midtown Beach Disposal Area with markers that are visible a distance of 500 yards, day or night. All markers shall be of the proper color and shape, and be lighted with lights of the proper color and intensity in accordance with U.S. Coast Guard regulations. The Contractor shall obtain approval from the Coast Guard for the proposed marker plan. After completion of all disposal operations, the Contractor shall remove all markers. The coordinates of the pipeline corridor for the Midtown Beach disposal area are shown on the plans.

3.2 WORK AREA

The Contractor will be permitted to exclude the public from the work areas in the immediate vicinity of his dredging, transporting, and disposal operations including dredging, transporting, and disposal operations. The Contractor shall prevent public access to the discharge end of the pipeline. The Contractor shall erect, maintain, and move as necessary, a restrictive barrier around the discharge of the hydraulic pipeline. The barrier shall be constructed so as to prevent the public from approaching the discharge from any direction closer than 40 feet. The Contractor shall post signs in a conspicuous location with the wording "DANGER - HIGH PRESSURE DISCHARGE FROM DREDGE". Enforcement shall be the Contractor's responsibility at no additional cost to the Government. The enforcement shall be coordinated with local enforcement agencies and will be subject to approval of the Contracting Officer. Additionally, the Contractor shall place a safety person at the discharge end of the disposal pipeline. The safety person shall be present at all times during discharge operations and will maintain radio communication between the dredge and the disposal operation.

3.2.1 Access

The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site, mooring area, and disposal area. The Contractor shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

3.2.2 Protection of Existing Waterways

The Contractor shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The Contractor will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the Contractor's operations, the same must be promptly removed by and at the expense of the Contractor to the satisfaction of the Contracting Officer.

3.2.3 Adjacent Property and Structures

No dredging will be permitted within 25 feet of any structure. Any damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Any damage to structures as a result of Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

3.2.4 Subaqueous Cable Crossings

The Contractor shall be responsible for verifying the locations and depths of all utility crossings and take precautions against damages which might result from his operations, especially the sinking of dredge spuds and/or anchors into the channel bottom, in the vicinity of utility crossings. If any damage occurs as a result of his operations, the Contractor will be required to suspend dredging until the damage is repaired and approved by the Contracting Officer. Costs of such repairs and downtime of the dredge and attendant plant shall be at the Contractor's expense.

3.3 DISPOSAL OF EXCAVATED MATERIAL

3.3.1 General

Material excavated shall be transported to and deposited in the disposal areas designated on the drawings. The approximate maximum and average distances to which the material will have to be transported are as follows:

Disposal Area	Maximum Distance	Average Distance
Palm Beach Harbor Beach D/A	9,000 feet	4,500 feet
Midtown Beach D/A (Measured from the tip of the South Jetty of the Palm Beach Harbor inlet.	27,000 feet	25,000 feet

The material to be excavated shall be placed in beach disposal area according to the "Estimated Excavation Quantities" table on Dwg. No. 1/2

3.3.2 Beach Disposal

a. Prior to any beach disposal activities, the Contractor shall conduct a pre-dredge survey of each disposal area at the same locations and limits shown on the plans. The surveys shall be provided in DGN Format to the Contracting Officer's Representative.

b. All dredged material shall be placed in the Beach Disposal Areas as shown on the contract drawings. The dredged material shall be placed to the sections and limits as shown on the drawings to the extent of the dredged material. Passage of equipment, pipeline, etc., shall be seaward of the apparent MHW within the limits of the disposal areas.

3.3.2.1 Order of Placement

Dredged material shall be placed first in the Palm Beach Harbor Beach Disposal Area commencing approximately at DEP Monument PL-5 and proceeding southerly until all dredged material has been placed to the sections and limits shown on the contract drawings.

a. Prior to placement of fill, the Contractor shall remove from the site of the work all snags, driftwood, and similar debris lying within the foundation limits of the beach fill section. All materials removed shall be disposed of in areas provided by and at the expense of the Contractor and approved by the Contracting Officer. Grading and other construction equipment will not be permitted outside the easement lines shown on the drawings except for ingress and egress to and from the site.

b. The excavated material shall be placed and brought to rest on the beach to the lines, grade, and cross sections indicated on the drawings, unless otherwise provided for herein or directed by the Contracting Officer. The Contractor shall not stockpile pipe or any other equipment or debris on the beach except as approved by the Contracting Officer. The beach is subject to changes and the elevations on the beach at the time the work is done may vary from the elevations shown on the drawings. The Contracting Officer reserves the right to vary the width or grade of the berm from the lines and grade shown on the plans in order to establish a uniform beach for the entire length of the project. The beach disposal section shown on the drawing is for the purpose of estimating the theoretical amount of fill needed and will be used by the Contracting Officer in making any change in the lines and grade. The Contractor may not be able to achieve the exact disposal area shown on the drawings. He will, however, be required to move the pipeline discharge to another part of the disposal area when he has discharged the amount of dredged materials in an area that would produce that cross section. Earthen pedestrian access ramps shall be provided across the dredge discharge pipeline at 200-foot intervals. The Contractor shall monitor the dredge and fill operations and shall notify the Contracting Officer if and when the quantity to be dredged appears to be excessive for the designated beach disposal area. The Contractor will not be required to dress the fill below the water line to the slope shown but will be required to do the dressing specified in

subparagraph "Dressing" below.

3.3.3 Grade Stakes

Grade stakes shall be metal pipes that can be completely removed intact by the Contractor after placement of the fill. Grade stakes shall be of sufficient length to protrude above the final berm elevation and facilitate their extraction.

3.3.4 Temporary Longitudinal Dikes

Temporary longitudinal dikes and spreader and/or pocket pipe shall be used to prevent gullying and erosion of the beach and fill and to retain the fill on the beach and within the limits of the fill cross section. As the work progresses, dikes or mounds shall be constructed along the beach to direct the pipeline discharge longitudinally along the beach to avoid transverse gullying directly from the discharge point to the ocean, and to build the new berm to design grade. Longitudinal dikes shall initially be 300 feet long in advance of filling operations. They may need to be lengthened to meet water quality standards, to build to the required lines and grades, and to keep material within the toe-of-fill. The Contractor will not be held responsible for erosion caused by waves after the beach fill has been satisfactorily placed. No undrained pockets shall be left in any fill during or upon completion of the work. The Contractor shall not permit wastewater to flow landward of the fill section or water to pond between the fill and upland. Groins, bulkheads, revetments, seawater pipe structures, and other structures within the fill section shall be protected by the Contractor to prevent damage thereof by the Contractor's operations. Any damages assessed as a result of any of the above items shall be at the Contractor's expense.

3.3.5 Rehandled Materials

Any material that is rehandled or moved and placed in its final position by methods other than hydraulic shall be placed in horizontal layers not exceed three (3) feet in thickness. Compaction of the layers will not be required. The Contractor shall schedule his operations to take advantage of tides so that filling is done in the dry or as directed.

3.3.6 Dressing

Final dressing shall not take place until all dredging is completed, at which time all evidence of haul road or pipeline shall be removed and the fill shall be graded and dressed so as to eliminate any undrained pockets and abrupt humps and depressions in the beach fill surfaces and as necessary to comply with subparagraph "Tolerances" below. Grade stakes used in the placement of the fill shall be removed intact, without breaking. All dikes shall be completely degraded. The bank caused by wave forces shall be graded down to a slope no steeper than 1 vertical on 20 horizontal for all disposal areas.

3.3.7 Tolerances

A tolerance of 0.5 foot above the prescribed berm grade and slopes above the wave zone will be permitted in the final beach surface.

3.3.8 Debris Removal

The Contractor shall clean and remove from the beach disposal areas all debris that has been placed on the beach as a result of the disposal operation. The debris will be disposed of in a location provided by the Contractor and accepted by the Contracting Officer.

3.3.9 Existing Groins

The location of existing groins are shown on Dwg. No. 3/6. The Contractor shall take all precautions to protect the groins from damage as a result of his operations. Placement of sand around and near the groins shall be to the general lines and grades shown on the drawings unless directed otherwise by the Contracting Officer. If any damage occurs as a result of his operations, the Contractor will be required to suspend dredging until the damage is repaired and approved by the Contracting Officer. Costs of such repairs and downtime of the dredge and attendant plant shall be at the Contractor's expense.

3.3.10 Pipeline Access

An overland pipeline easement is shown on the plans for the Palm Beach Harbor Beach Disposal Area. Access to the Midtown Beach Disposal Area shall be staked out by Government personnel..

3.3.11 Barges

Water and dredged materials shall not be permitted to overflow or spill out of barges while transporting to the disposal site(s). Failure to repair leaks or change the method of operation which is resulting in overflow or spillage will result in suspension of dredging operations and require prompt repair or change of operation to prevent overflow or spillage as a prerequisite to the resumption of dredging.

3.3.12 [Enter Appropriate Subpart Title Here]~~3.3.17 Electronic Tracking System (ETS) for Ocean Disposal Vessels~~

~~The Contractor shall furnish an ETS for surveillance of the movement and disposition of dredged material during excavation and ocean disposal. This ETS shall be established, operated and maintained by the Contractor to continuously track in real-time the horizontal location and draft condition of the disposal vessel for the entire dredging cycle, including dredging~~

~~area and disposal area. The ETS shall be capable of displaying and recording in real-time the disposal vessel's draft and location.~~

~~3.3.17.1 ETS Standards~~

~~The Contractor shall provide automated (computer) system and components to perform in accordance with EM 1110-1-2909. A copy of the EM can be downloaded from the following website: http://www.usace.army.mil/inet/usace-docs'eng-manuals/em.htm. Horizontal location shall have an accuracy equal to or better than a standard DGPS system, equal to or better than plus/minus 10 feet (horizontal repeatability). Vertical (draft) data shall have an accuracy of plus/minus 0.5 foot. Horizontal location and vertical data shall be collected in sets and each data set shall be referenced in real-time to date and local time (to nearest minute), and shall be referenced to the same state plane coordinate system used for the survey(s) shown in the contract plans. The ETS shall be calibrated, as required, in the presence of the Contracting Officer at the work location before disposal operations have started, and at 30-day intervals while work is in progress. The Contracting Officer shall have access to the ETS in order to observe its operation. Disposal operations will not commence until the ETS to be used by the Contractor is certified by the Contracting Officer to be operational and within acceptable accuracy. It is the Contractor's responsibility to select a system that will operate properly at the work location. The complete system shall be subject to the Contracting Officer's approval.~~

3.3.12.1 [Enter Appropriate Subpart Title Here]~~3.3.17.2 ETS Data Requirements and Submissions~~

~~a. The ETS for each disposal vessel shall be in operation for all dredging and disposal activities and shall record the full round trip for each loading and disposal cycle. (NOTE: A dredging and disposal cycle constitutes the time from commencement of dredging to complete discharge of the material.) The Contracting Officer shall be notified immediately in the event of ETS failure and all dredging operations for the vessel shall cease until the ETS is fully operational. Any delays resulting from ETS failure shall be at the Contractor's expense.~~

~~b. All data shall be collected and stored on 3 1/2-inch discs or CD-ROM(s) in ASCII format and shall be readable by MS Windows compatible software. Each dredging and disposal cycle will be a separate and distinct ASCII file, labeled by the trip number. More than one file may be stored on the disc(s) or CD-ROM(s).~~

~~c. Data shall be collected, during the dredging and disposal cycle, every 500 feet (at least) during travel to the disposal area, and every minute or every 200 feet, whichever is smaller, while approaching within 1,000 feet and within the disposal area.~~

~~d. The required digital data to be collected for each dredging and disposal cycle includes the following:~~

~~(1) Trip Number~~
~~(2) Data~~

~~(3) Time~~
~~(4) Vessel ID~~
~~(5) Vessel Captain~~
~~(6) State Plane X Coordinate - in accordance with subparagraph c. above~~
~~(7) State Plane Y Coordinate - in accordance with subparagraph c above~~
~~(8) Vessel Draft~~
~~(9) Type of Disposal Vessel~~
~~(10) Exact State Plane X and Y coordinate at start of dump~~
~~(11) Volume of Material Disposed~~

~~e. Plot Reporting (2 types):~~

~~(1) Tracking Plot - For each disposal event, data collected while the disposal vessel is in the vicinity of the disposal area shall be plotted in chart form, in 200-foot intervals, to show the track and draft of the disposal vessel approaching and traversing the disposal area. Each plot will be attached to the corresponding ASCII data table when submitted. A sample Track and Draft Plot Diagram is appended to the end of this Section.~~

~~(2) Scatter Plot - Following completion of all disposal events, a single and separate plot will be prepared to show the exact disposal locations of all dumps. Every plotted location shall coincide with the beginning of the respective dump. Each dump will be labeled with the corresponding Trip Number and shall be at a small but readable scale. To accompany the Scatter Plot, a single and separate table will be prepared of the corresponding ETS data for every dump location. The volume of material disposed for each trip will be included in this table. A sample Scatter Plot Diagram with Table is appended to the end of this Section.~~

~~f. All digital ETS data shall be furnished to the Contracting Officer within 24 hours of collection. The digital plot files should be in an easily readable format such as Adobe Acrobat PDF file, Microstation DGN file, JPEG, BMP, TIFF, or similar. The hard copy of the ETS data and tracking plots shall be both maintained onboard the vessel and submitted to the Contracting Officer on a weekly basis.~~

3.3.13 Placing of Dredged Material

During placement of dredged material in the disposal areas, the Contractor will be required to provide constant radio contact between the dredge and the disposal areas. This will enable the Contractor's personnel at the disposal areas to immediately notify the dredge in the event of dike or pipeline failure. In the event of dike or pipeline failure, the dredging operations shall be immediately suspended and require prompt repair of the dike or pipeline as a prerequisite to the resumption of dredging.

3.3.14 Dredge Pipelines

3.3.14.1 Dredge Discharge Pipeline

The Contractor shall plainly mark the pipeline access routes with conspicuous stakes, targets and/or buoys to be maintained throughout the contract operations. A tight dredge discharge pipeline shall be maintained to prevent spilling of dredged material or dredge water outside of the disposal area. The Contractor shall provide and maintain radio communication between the dredge and the disposal areas and the dredge and the Contracting Officer. The pipeline shall be inspected at least twice daily for leaks. Failure to immediately repair leaks in the discharge pipeline will result in suspension of dredging operations and require prompt repair of pipeline as a prerequisite to the resumption of dredging. Any damage to private or public property resulting from the Contractor's operations shall be repaired by the Contractor at his expense.

3.3.14.2 Submerged Pipeline

In the event the Contractor elects to submerge his pipeline, the pipeline shall rest on the bottom, and the top of the submerged pipeline and any anchor securing the submerged pipeline shall be no higher than the required project depth for the channel in which the submerged pipeline is placed. Should the Contractor elect to use a pipeline material which is buoyant or semi-buoyant, such as PVC pipe or similar low density materials, the Contractor shall securely anchor the pipeline to prevent the pipeline from lifting off the bottom under any conditions. The Contractor shall make daily underwater inspections of the submerged pipeline to ensure buoyancy has not loosened the anchors. The Contractor shall remove all anchors when the submerged pipeline is removed. The location of the entire length of submerged pipeline shall be marked with signs, buoys, lights, and flags conforming to U.S. Coast Guard regulations.

3.3.14.3 Floating Pipeline

Should the Contractor's pipeline not rest on the bottom, it will be considered a floating pipeline and shall be visible on the surface and clearly marked. In no case will the Contractor's pipeline be allowed to fluctuate between the surface and the bottom, or lie partly submerged. Lights shall be installed on the floating pipeline as required in paragraph SIGNAL LIGHTS of Section 00800 SPECIAL CONTRACT REQUIREMENTS. The lights shall be supported either by buoys or by temporary piling, provided by the Contractor and approved by the Contracting Officer. Where the pipeline does not cross a navigable channel, the flashing yellow all-around lights shall be spaced not over 200 feet apart, unless closer spacing is required by U.S. Coast Guard personnel, in which case the requirements of the U.S. Coast Guard shall govern, at no additional cost to the Government.

3.3.15 Booster Pumps

Any booster pumps installed by the Contractor shall be located at least 300 feet from any residential-type building or house. Booster pumps, their prime movers, and any auxiliary equipment shall be fitted or equipped with mufflers, noise control enclosures, or other engineering noise control methods, measures, and features such that steady noise emanating from this

equipment does not exceed 85 decibels on the A scale at slow response, and impulsive noise does not exceed 140 decibels. Such items shall be maintained throughout the course of the work.

3.3.16 Misplaced Materials

Materials deposited outside of the disposal areas will be classified as misplaced material and will result in a suspension of dredging operations and require the removal of such materials as a prerequisite to the resumption of dredging. Materials deposited above the maximum indicated elevation or outside of the disposal area template shown will require the degrading or removal of such materials at the Contractor's expense. The Contractor will not be held responsible for erosion caused by waves after the material has been satisfactorily placed. In addition, the Contractor must notify the Contracting Officer and the Environmental Protection Agency within 24 hours of any misplaced material or any other violation of the Site Monitoring and Management Plan. Corrective actions must be implemented by the next dump and the Contracting Officer must be informed of actions taken.

3.4 REQUIRED DEPTH, ALLOWABLE OVERDEPTH, AND SIDE SLOPES

3.4.1 Required Depth

The material actually removed from within the specific areas to be dredged to a depth of not more than the required depth shown on the drawings will be estimated and paid for in accordance with the provisions contained in the subparagraphs "Measurement" and "Payment" of Section 01270 MEASUREMENT AND PAYMENT.

3.4.2 Allowable Overdepth

To cover the inaccuracies of the dredging process, material actually removed from the specified areas to be dredged, to a depth below the required depth of not more than the allowable overdepth shown on the drawings, will be measured and paid for in accordance with the provisions contained in the subparagraphs "Measurement" and "Payment" of Section 01270 MEASUREMENT AND PAYMENT.

3.4.3 Side Slopes

Side slope dredging will be required. Side slopes may be formed by box cutting, step cutting or dredging along the side slope. Material actually removed, within the limits approved by the Contracting Officer, to provide for final side slopes not flatter than that shown on the contract drawings, but not in excess of the amount originally lying above this limiting side slope, will be measured and paid for in accordance with the provisions contained in subparagraphs "Measurement" and "Payment" of Section 01270 MEASUREMENT and PAYMENT. Such amount will be estimated and paid for whether dredged in original position or by box cut dredging whereby a space is dredged below the allowable side slope plane on the bottom of the slope for upslope material capable of falling into the cut. End slopes and

transition slopes will not be estimated or paid for under this contract. In such cases, a 0 horizontal on 1 vertical will be used with no upslope allowance provision applied outside the required prism.

3.4.4 Excessive Dredging

Material taken from beyond the limits as described in subparagraphs "Allowable Overdepth" and "Side Slopes" above, will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side slope dredging, for which payment will not be made. Nothing herein shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable provisions of the paragraphs FINAL EXAMINATION AND ACCEPTANCE or SHOALING of this Section.

3.5 SURVEYS

3.5.1 General

The Contracting Officer shall be notified, in writing, 10 days in advance of the need for pre-dredging and after-dredging surveys. Surveys will be performed in accordance with the paragraph QUANTITY SURVEYS of Section 00800 SPECIAL CONTRACT REQUIREMENTS; Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL; EM 1110-1-1000, EM 1110-1-1002, EM 1110-1-1003, EM 1110-1-1004, EM 1110-1-2909, and EM 1110-2-1003; FBPSM; and, TSS. A copy of the EM's can be downloaded from the following website: http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm. A copy of the TSS can be downloaded from the following website: http://tsc.wes.army.mil.

3.5.2 Contractor Representative

All in-place measurement surveys and final acceptance sweep surveys will be performed with a representative of the Contractor on board the Government platform during the full execution of the survey. No in-place measurement or final acceptance sweep survey will be performed without a representative of the Contractor on board the survey vessel. The Contractor's representative shall be fully knowledgeable in offshore construction subsurface surveying procedures, techniques, equipment, and horizontal and vertical calibration methods, and state-of-the-art horizontal and vertical accuracy limitations. The Contractor's representative shall observe and review, in progress, the adequacy and accuracy of the survey for in-place payment purposes, and for the potential existence of collusion, fraud, or obvious error in the data.

3.5.3 Survey Certification

a. Immediately upon completion of any survey, the Contractor's representative shall, based on his on-site review of the survey execution, determine that the survey contains no evidence of collusion, fraud, obvious error, and that subsequent horizontal and vertical corrections are accurately annotated on the subsurface record.

b. The Contractor's authorized representative shall bring aboard the

survey vessel a blank copy of the Certification Statement and shall attest to an acceptable survey by signing the Certification Statement before leaving the vessel. Sample copy of the Certification Statement is appended to the end of this Section.

c. In the event the Contractor's authorized representative observes (and quantifies) specific documentary evidence of either fraud, collusion, or obvious error, the survey will be immediately rerun. Resurveys will totally supersede any previously run survey and will be run over the full reach of any particular Acceptance Section.

d. If acceptability is not acquired after performing one resurvey of an Acceptance Section, a meeting shall be held between the Contractor and the COR to expeditiously resolve the issue causing rejection of the survey. Contractor equipment and personnel standby time to resolve acceptability of the survey shall be at the Contractor's expense.

e. In no case shall a previously unacceptable survey be later judged acceptable by the Contractor; unless such a reassessment/reevaluation is performed within 24 hours after the original survey, and prior to initiating any resurvey action based upon identifiable collusion, fraud, or obvious error.

f. Should the Contractor or his authorized representative refuse to certify to the acceptability of a survey for contract payment without identifiable collusion, fraud, or obvious error, then the following actions will follow:

(1) Preconstruction (pre-dredging) Survey

Excavation shall not commence until representatives of the Contractor and Contracting Officer have met and resolved the basis for refusal of certification. Should the Contractor commence excavation prior to obtaining an acceptable survey, he shall be liable for any excavation performed. If a resurvey is performed, and accepted, prior excavation will not be measured, estimated, or paid for.

(2) Post-construction (after-dredging) Survey

The 3-week survey window allowed under subparagraph "Measurement" of Section 01270 MEASUREMENT AND PAYMENT will be indefinitely extended until a final survey is accepted. Any material accretion which might occur due to such a time extension will neither be measured, estimated, or paid for.

(3) Refusal to Certify

Contractor equipment and personnel standby time to resolve his refusal to certify to the acceptability of a survey when there is no identifiable collusion, fraud, or obvious error shall be at the Contractor's expense and resultant delays shall not be the basis for time extensions of the contract.

g. Intermediate surveys taken between the pre-dredging and post-dredging surveys will not be considered for the purposes of determining quantities for final payment and acceptance of the area dredged.

3.5.4 [Enter Appropriate Subpart Title Here]~~3.5.4 Tide Data~~

~~3.5.4.1 Real Time Kinematic (RTK) GPS~~

~~RTK GPS will be used for determining Real Time water levels (tide corrections). The Contractor is responsible for providing an RTK capable GPS receiver on board the vessel for all surveying and dredging operations. The Contractor is also responsible for providing a radio/modem in order to receive carrier-phase corrections from the Corps-owned RTK GPS reference station located at the bath house at the west end of the Fort Clinch fishing pier. Radio frequencies should be obtained from Mr. Bill Brunjes at 904-232-2081. The Contractor will be instructed as to the proper use of this system by Corps personnel.~~

~~3.5.4.2 Kinematic Tidal Datum~~

~~A file listing the separations between the Reference Ellipsoid and the Chart Datum (Mean Lower Low Water) will be provided to the Contractor for entry into the hydrographic survey software. A Tidal Datum Diagram showing the relationship between NAVD 88 and Mean Lower Low Water is shown in the contract drawings. NAVD 88 will be referenced in all new surveys and new contract documentation as related to this contract.~~

3.5.4.1 [Enter Appropriate Subpart Title Here]~~3.5.4.3 Non-Operational Reference Station~~

~~In the event that the reference station becomes non-operational, the Contractor shall contact Mr. Bill Brunjes at the telephone number shown above. The Government will take measures to ensure correction of any problems with the GPS equipment located at the bath house within 72 hours of notification.~~

3.6 INSPECTION

3.6.1 Quality Assurance Representative (QAR)

The QAR shall be notified prior to the establishment of horizontal control work (baseline layout, ranges, station flags, shore-based control for EPS/RPS, etc.) and vertical control work (tide staff(s), upland cross sections, construction elevations top/invert, maximum/minimum elevations of dredged materials within disposal area(s), etc.), but the presence or absence of the QAR shall not relieve the Contractor of his responsibility for proper execution of the work in accordance with the specifications. The Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any QAR,

the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the work. However, the Contractor will not be required to furnish such facilities for the surveys prescribed in the paragraph FINAL EXAMINATION AND ACCEPTANCE of this Section.

b. To furnish, on the request of the Contracting Officer or any QAR, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the disposal area.

3.6.2 Failure to Comply

In conjunction with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES, should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer and the cost thereof will be deducted from any amounts due or to become due the Contractor.

3.7 FINAL EXAMINATION AND ACCEPTANCE

3.7.1 Final Examination of Work

As soon as practicable and no later than three (3) weeks after the completion of the entire work or any section thereof (if the work is divided into sections) as in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding or by sweeping, or both, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same by dragging the bottom or by dredging at the contract rate of dredging. The Contractor or his authorized representative will be notified when soundings and/or sweepings are to be made and will be permitted to accompany the survey party. When the area is found to be in a satisfactory condition, it will be accepted finally. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sounding or sweeping, the cost of such third and any subsequent soundings or sweeping operations will be charged against the Contractor at the rate of $5,500 per day for each day in which the Government plant is engaged in sounding or sweeping and/or is enroute to or from the site or held at or near the said site for such operation.

3.7.2 Final Acceptance

Final acceptance of the whole or a part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

3.8 SHOALING

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, redredging at contract price, within the limits of available funds may be done if agreeable to both the Contractor and the Contracting Officer.

3.9 NOISE CONTROL

All hauling and excavating equipment and dredge/barges, boats, and tugs used on this work shall be equipped with satisfactory mufflers or other noise abatement devices. The Contractor shall conduct his operations so as to comply with all Federal, State and local laws pertaining to noise. The use of horns and whistle signals shall be held to the minimum necessary in order to ensure as quiet an operation as possible.

3.10 DREDGE SAFETY

During dredging operations the Contractor's dredge shall have a current Certificate of Inspection issued by the U.S. Coast Guard, and a current "Load Line" certificate issued by the American Bureau of Shipping..

3.11 DAILY REPORT OF OPERATIONS

See APPENDIX A at the end of this Section (4 pages).

3.12 CERTIFICATION STATEMENT

See APPENDIX B at the end of this Section (1 page).

3.13 DECLARATION OF INSPECTION FOR REFUELING

See APPENDIX C at the end of this Section (3 pages).

3.14 SAMPLE - TRACK AND DRAFT PLOT DIAGRAM

See APPENDIX D at the end of this Section (1 page).

3.15 SAMPLE - SCATTER PLOT DIAGRAM WITH TABLE

See APPENDIX E at the end of this Section (2 pages).

-- End of Section --