



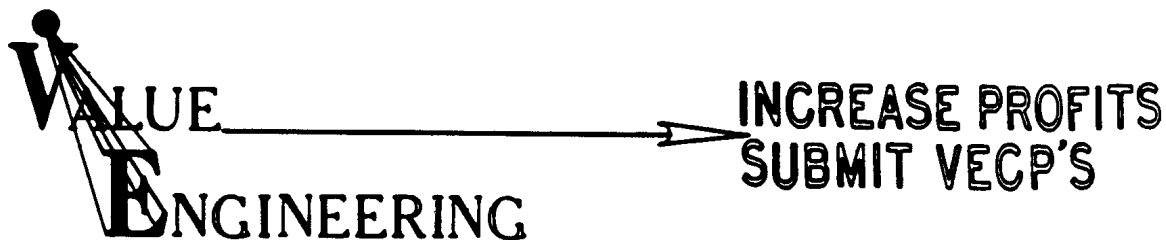
RFP No. DACW17-02-R-0023

US Army Corps
of Engineers
Jacksonville District

SMALL BUSINESS 8(a) PROGRAM

Shoreline Stabilization Project,
Virginia Key, Section 111
Dade County, Florida,

Construction Solicitation
and Specifications



11 SEPTEMBER 2003

DESIGN AUTHENTICATION

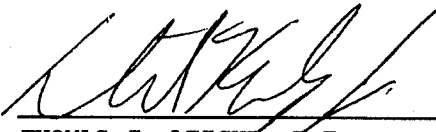
This project was designed by the Jacksonville District, U. S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear on these project documents within the scope of their employment as required by ER 1110-1-8152.



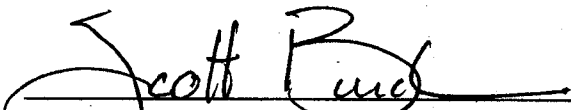
W. B. FARLEY
CHIEF, Levees and Waterways Section
DESIGN BRANCH, ENGINEERING DIVISION



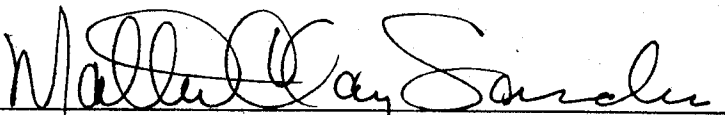
for LUIS A. RUIZ, P.E.
CHIEF, GEOTECHNICAL BRANCH
ENGINEERING DIVISION



for THOMAS J. LEICHT, P.E.
CHIEF, DESIGN BRANCH
ENGINEERING DIVISION



SCOTT B. BURCH
CHIEF, COST ENGINEERING BRANCH
ENGINEERING DIVISION



for STEPHEN C. DUBA, P.E.
CHIEF, ENGINEERING DIVISION

8/8/03

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW17-02-R-0023	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 11-SEP-2003	PAGE OF PAGES

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

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W32CS521271495	6. PROJECT NO.
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7. ISSUED BY CODE DACW17	8. ADDRESS OFFER TO
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USA ENGINEER DISTRICT, JACKSONVILLE
PRUDENTIAL OFFICE BLDG
701 SAN MARCO BLVD
CESAJ-CT
JACKSONVILLE FL 32207

BY HAND: DELIVER TO "ISSUED BY" ADDRESS
BY MAIL: USAED JACKSONVILLE,
PO BOX 4970, ATTN: CESAJ-CT
JACKSONVILLE FL 32232-0019

9. FOR INFORMATION CALL 	A. NAME JOHN G. SZEP	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 904-232-1884
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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):

SHORELINE STABILIZATION PROJECT, VIRGINIA KEY, SECTION 111, DADE COUNTY, FLORIDA

DRAWINGS: D.O. FILE NO. 24-38,277 DATED FEBRUARY 2002 IN 19 SHEETS PLUS THE COVER

MAGNITUDE OF CONSTRUCTION: BETWEEN \$1,000,000.00 AND \$3,000,000.00

DESCRIPTION OF WORK: SEE SECTION 01110 SUMMARY OF WORK, PARAGRAPH - WORK COVERED BY CONTRACT DOCUMENTS

8(A) SOLE SOURCE SET-ASIDE

YOU MUST BE REGISTERED IN THE CENTRAL CONTRACTOR REGISTRATION IN ORDER TO BE ELIGIBLE TO RECEIVE AN AWARD FROM THIS SOLICITATION. CALL 1-888-227-2423 OR VISIT THE FOLLOWING WEB SITE <http://www.ccr.gov/> FOR MORE INFORMATION.

11. The Contractor shall begin performance within <u>30</u> calendar days and complete it within <u>395</u> calendar days after receiving
<input type="checkbox"/> award, <input checked="" type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. (See Section 00700.)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 10
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 2:00 PM (hour) local time 10/14/2003 (date). If this is a sealed bid solicitation, offers will 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 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 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*

15. TELEPHONE NO. *(Include area code)*

16. REMITTANCE ADDRESS *(Include only if different than Item 14)*

See Item 14

CODE

FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS

SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of

AMENDMENT NO.									
DATE									

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

20B. SIGNATURE

20C. OFFER DATE

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

SEE SCHEDULE

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*

ITEM
26

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO
 10 U.S.C. 2304(c) 41 U.S.C. 253(c)

26. ADMINISTERED BY CODE K3M0J00

SOUTH FLORIDA AREA OFFICE
USA CORPS OF ENGINEERS ((CESAJ-CO-W)
4400 PGA BLVD, SUITE 203
PALM BEACH GARDENS, FL 33410
(PHONE: 561-626-5299)

27. PAYMENT WILL BE MADE BY CODE t0b0200

USACE FINANCE CENTER
5722 INTEGRITY DRIVE
ATTN: CEFC-AO-P
MILLINGTON, TN 38054-5005

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

29. AWARD *(Contractor is not required to sign this document.)*
Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*

31A. NAME OF CONTRACTING OFFICER *(Type or print)*

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA
BY

31C. AWARD DATE

SECTION 00010A

SUPPLIES OR SERVICES AND PRICES/COSTS

SHORELINE STABILIZATION PROJECT, VIRGINIA KEY, SECTION 111, DADE COUNTY, FLORIDA

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	ALTERNATE A FILL FROM BORROW MOUNDS AND DISPOSAL OF CONCRETE KING PILES INTO BRICKELL OFFSHORE SITE				
0001AA	PRE- AND FINAL CONDITION SURVEYS	1	LUMP SUM	\$ _____	\$ _____
0001AB	DEBRIS REMOVAL (ESTIMATED QUANTITY)	2.1	ACRE	\$ _____	\$ _____
0001AC	REMOVAL OF CONCRETE KING PILES AND TIMBER PANELS (ESTIMATED QUANTITY)	192	LINEAR FEET	\$ _____	\$ _____
0001AD	REMOVAL OF TIMBER GROINS (ESTIMATED QUANTITY)	1,030	LINEAR FEET	\$ _____	\$ _____
0001AE	CONSTRUCTION OF TIMBER GROINS (ESTIMATED QUANTITY)	1,500	LINEAR FEET	\$ _____	\$ _____
0001AF	BEACH FILL FROM BORROW MOUNDS (ESTIMATED QUANTITY)	2,250	CUBIC YARD	\$ _____	\$ _____
0001AG	SAND DUNE FILL FROM BORROW MOUNDS (ESTIMATED QUANTITY)	710	CUBIC YARD	\$ _____	\$ _____
0001AH	TURBIDITY MONITORING	1	LUMP SUM	\$ _____	\$ _____
0001AJ	BEACH FILL TILLING	1	LUMP SUM	\$ _____	\$ _____
0001AK	SEA TURTLE MONITORING	1	LUMP SUM	\$ _____	\$ _____
0001AL	MIGRATORY BIRD MONITORING	1	LUMP SUM	\$ _____	\$ _____
0001AM	DISPOSAL OF CONCRETE KING PILES INTO BRICKELL OFFSHORE SITE	1	LUMP SUM	\$ _____	\$ _____
TOTAL ALTERNATE A (LINE ITEMS 0001 THROUGH 0001AM):					\$ _____

NOTES: (1) OFFERORS MUST PROVIDE AN OFFER ON ALL LINE ITEMS. SEE PROVISION AT 52.236-28 (SECTION 00100).

(2) ATTACHED TO THE REQUEST FOR PROPOSAL LETTER ARE COPIES OF A SAMPLE ENG FORM 1741c-R, REASONABLE CONTRACT ESTIMATE WORKSHEET, A BLANK ENG FORM 1741c-R, A BLANK ENG FORM 1740-R, REASONABLE CONTRACT ESTIMATE WORKSHEET SUMMARY, AND A TOTAL RECAP SHEET, WHICH SHOULD BE REPRODUCED AND USED FOR EACH LINE ON THE SCHEDULE ABOVE.

(3) SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS."

(4) THE GOVERNMENT INTENDS TO AWARD EITHER ALTERNATE A, B, C, OR D (AS IDENTIFIED IN THE DESCRIPTION OF WORK ON PAGE 00010-3. PRICE AND ENVIRONMENTAL IMPACTS WILL BE DETERMINING FACTORS IN THE SELECTION OF AN ALTERNATIVE.

SECTION 00010A

SUPPLIES OR SERVICES AND PRICES/COSTS

SHORELINE STABILIZATION PROJECT, VIRGINIA KEY, SECTION 111, DADE COUNTY, FLORIDA

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	ALTERNATE B FILL FROM BORROW MOUNDS AND DISPOSAL OF CONCRETE KING PILES (NOT INTO BRICKELL OFFSHORE SITE)				
0002AA	PRE- AND FINAL CONDITION SURVEYS	1	LUMP SUM	\$ _____	\$ _____
0002AB	DEBRIS REMOVAL (ESTIMATED QUANTITY)	2.1	ACRE	\$ _____	\$ _____
0002AC	REMOVAL OF CONCRETE KING PILES AND TIMBER PANELS (ESTIMATED QUANTITY)	192	LINEAR FEET	\$ _____	\$ _____
0002AD	REMOVAL OF TIMBER GROINS (ESTIMATED QUANTITY)	1,030	LINEAR FEET	\$ _____	\$ _____
0002AE	CONSTRUCTION OF TIMBER GROINS (ESTIMATED QUANTITY)	1,500	LINEAR FEET	\$ _____	\$ _____
0002AF	BEACH FILL FROM BORROW MOUNDS (ESTIMATED QUANTITY)	2,250	CUBIC YARD	\$ _____	\$ _____
0002AG	SAND DUNE FILL FROM BORROW MOUNDS (ESTIMATED QUANTITY)	710	CUBIC YARD	\$ _____	\$ _____
0002AH	TURBIDITY MONITORING	1	LUMP SUM	\$ _____	\$ _____
0002AJ	BEACH FILL TILLING	1	LUMP SUM	\$ _____	\$ _____
0002AK	SEA TURTLE MONITORING	1	LUMP SUM	\$ _____	\$ _____
0002AL	MIGRATORY BIRD MONITORING	1	LUMP SUM	\$ _____	\$ _____
0002AM	DISPOSAL OF CONCRETE KING PILES (NOT INTO BRICKELL OFFSHORE SITE)	1	LUMP SUM	\$ _____	\$ _____
TOTAL ALTERNATE B (LINE ITEMS 0002 THROUGH 0002AM):					\$ _____

NOTES: (1) OFFERORS MUST PROVIDE AN OFFER ON ALL LINE ITEMS. SEE PROVISION AT 52.236-28 (SECTION 00100).

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(3) SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS."

(4) THE GOVERNMENT INTENDS TO AWARD EITHER ALTERNATE A, B, C, OR D (AS IDENTIFIED IN THE DESCRIPTION OF WORK ON PAGE 00010-3. PRICE AND ENVIRONMENTAL IMPACTS WILL BE DETERMINING FACTORS IN THE SELECTION OF AN ALTERNATIVE.

SECTION 00010A

SUPPLIES OR SERVICES AND PRICES/COSTS

SHORELINE STABILIZATION PROJECT, VIRGINIA KEY, SECTION 111, DADE COUNTY, FLORIDA

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	ALTERNATE C FILL FROM UPLAND SOURCE AND DISPOSAL OF CONCRETE KING PILES INTO BRICKELL OFFSHORE SITE				
0003AA	PRE- AND FINAL CONDITION SURVEYS	1	LUMP SUM	\$ _____	\$ _____
0003AB	DEBRIS REMOVAL (ESTIMATED QUANTITY)	2.1	ACRE	\$ _____	\$ _____
0003AC	REMOVAL OF CONCRETE KING PILES AND TIMBER PANELS (ESTIMATED QUANTITY)	192	LINEAR FEET	\$ _____	\$ _____
0003AD	REMOVAL OF TIMBER GROINS (ESTIMATED QUANTITY)	1,030	LINEAR FEET	\$ _____	\$ _____
0003AE	CONSTRUCTION OF TIMBER GROINS (ESTIMATED QUANTITY)	1,500	LINEAR FEET	\$ _____	\$ _____
0003AF	BEACH FILL FROM UPLAND SOURCE (ESTIMATED QUANTITY)	2,250	CUBIC YARD	\$ _____	\$ _____
0003AG	SAND DUNE FILL FROM UPLAND SOURCE (ESTIMATED QUANTITY)	710	CUBIC YARD	\$ _____	\$ _____
0003AH	TURBIDITY MONITORING	1	LUMP SUM	\$ _____	\$ _____
0003AJ	BEACH FILL TILLING	1	LUMP SUM	\$ _____	\$ _____
0003AK	SEA TURTLE MONITORING	1	LUMP SUM	\$ _____	\$ _____
0003AL	MIGRATORY BIRD MONITORING	1	LUMP SUM	\$ _____	\$ _____
0003AM	DISPOSAL OF CONCRETE KING PILES INTO BRICKELL OFFSHORE SITE	1	LUMP SUM	\$ _____	\$ _____
TOTAL ALTERNATE C (LINE ITEMS 0003 THROUGH 0003AM):					\$ _____

NOTES: (1) OFFERORS MUST PROVIDE AN OFFER ON ALL LINE ITEMS. SEE PROVISION AT 52.236-28 (SECTION 00100).

(2) ATTACHED TO THE REQUEST FOR PROPOSAL LETTER ARE COPIES OF A SAMPLE ENG FORM 1741c-R, REASONABLE CONTRACT ESTIMATE WORKSHEET, A BLANK ENG FORM 1741c-R, A BLANK ENG FORM 1740-R, REASONABLE CONTRACT ESTIMATE WORKSHEET SUMMARY, AND A TOTAL RECAP SHEET, WHICH SHOULD BE REPRODUCED AND USED FOR EACH LINE ON THE SCHEDULE ABOVE.

(3) SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS."

(4) THE GOVERNMENT INTENDS TO AWARD EITHER ALTERNATE A, B, C, OR D (AS IDENTIFIED IN THE DESCRIPTION OF WORK ON PAGE 00010-3. PRICE AND ENVIRONMENTAL IMPACTS WILL BE DETERMINING FACTORS IN THE SELECTION OF AN ALTERNATIVE.

SECTION 00010A

SUPPLIES OR SERVICES AND PRICES/COSTS

SHORELINE STABILIZATION PROJECT, VIRGINIA KEY, SECTION 111, DADE COUNTY, FLORIDA

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	ALTERNATE D FILL FROM UPLAND SOURCE AND DISPOSAL OF CONCRETE KING PILES (NOT INTO BRICKELL OFFSHORE SITE)				
0004AA	PRE- AND FINAL CONDITION SURVEYS	1	LUMP SUM	\$ _____	\$ _____
0004AB	DEBRIS REMOVAL (ESTIMATED QUANTITY)	2.1	ACRE	\$ _____	\$ _____
0004AC	REMOVAL OF CONCRETE KING PILES AND TIMBER PANELS (ESTIMATED QUANTITY)	192	LINEAR FEET	\$ _____	\$ _____
0004AD	REMOVAL OF TIMBER GROINS (ESTIMATED QUANTITY)	1,030	LINEAR FEET	\$ _____	\$ _____
0004AE	CONSTRUCTION OF TIMBER GROINS (ESTIMATED QUANTITY)	1,500	LINEAR FEET	\$ _____	\$ _____
0004AF	BEACH FILL FROM UPLAND SOURCE (ESTIMATED QUANTITY)	2,250	CUBIC YARD	\$ _____	\$ _____
0004AG	SAND DUNE FILL FROM UPLAND SOURCE (ESTIMATED QUANTITY)	710	CUBIC YARD	\$ _____	\$ _____
0004AH	TURBIDITY MONITORING	1	LUMP SUM	\$ _____	\$ _____
0004AJ	BEACH FILL TILLING	1	LUMP SUM	\$ _____	\$ _____
0004AK	SEA TURTLE MONITORING	1	LUMP SUM	\$ _____	\$ _____
0004AL	MIGRATORY BIRD MONITORING	1	LUMP SUM	\$ _____	\$ _____
0004AM	DISPOSAL OF CONCRETE KING PILES (NOT INTO BRICKELL OFFSHORE SITE)	1	LUMP SUM	\$ _____	\$ _____
	TOTAL ALTERNATE D (LINE ITEMS 0004 THROUGH 0004AM)				\$ _____

NOTES: (1) OFFEROR MUST PROVIDE AN OFFER ON ALL LINE ITEMS. SEE PROVISION AT 52.236-28 (SECTION 00100).

(2) ATTACHED TO THE REQUEST FOR PROPOSAL LETTER ARE COPIES OF A SAMPLE ENG FORM 1741c-R, REASONABLE CONTRACT ESTIMATE WORKSHEET, A BLANK ENG FORM 1741c-R, A BLANK ENG FORM 1740-R, REASONABLE CONTRACT ESTIMATE WORKSHEET SUMMARY, AND A TOTAL RECAP SHEET, WHICH SHOULD BE REPRODUCED AND USED FOR EACH LINE ON THE SCHEDULE ABOVE.

(3) SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS."

(4) THE GOVERNMENT INTENDS TO AWARD EITHER ALTERNATE A, B, C, OR D (AS IDENTIFIED IN THE DESCRIPTION OF WORK ON PAGE 00010-3. PRICE AND ENVIRONMENTAL IMPACTS WILL BE DETERMINING FACTORS IN THE SELECTION OF AN ALTERNATIVE.

SECTION 00100
INSTRUCTIONS TO OFFERORS

52.204-6	DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER
52.211-2	AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L
52.214-34	SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE
52.214-35	SUBMISSION OF OFFERS IN U.S. CURRENCY
52.215-20	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA
52.216-1	TYPE OF CONTRACT
52.222-23	NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION
52.225-10 ALT I	NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS (MAY 2002) ALTERNATE I
52.233-2	SERVICE OF PROTEST (AUG 1996) (CESAJ ADAPTATION)
52.236-27	SITE VISIT (CONSTRUCTION) (FEB 1995) (CESAJ ADAPTATION)
52.236-28	PREPARATION OF PROPOSALS--CONSTRUCTION
52.252-5	AUTHORIZED DEVIATIONS IN PROVISIONS
999.204-1	HAND-DELIVERING OFFERS TO THE PRUDENTIAL OFFICE BUILDING IN JACKSONVILLE
999.215-4000	OBTAINING INFORMATION REGARDING THIS SOLICITATION
999.215-4011	OFFEROR'S CHECKLIST
999.219-4003	SOURCES FOR ASSISTANCE IN LOCATING SMALL BUSINESS SUBCONTRACTORS

SECTION 00100
INSTRUCTIONS TO OFFERORS

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

- (1) Company name.
- (2) Company address.
- (3) Company telephone number.
- (4) Line of business.
- (5) Chief executive officer/key manager.
- (6) Date the company was started.
- (7) Number of people employed by the company.
- (8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at <http://www.customerservice@dnb.com>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

(End of provision)

52.211-2 AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L (DEC 1999)

Copies of specifications, standards, and data item descriptions cited in this solicitation may be obtained--

- (a) From the ASSIST database via the Internet at <http://assist.daps.mil>; or
- (b) By submitting a request to the--Department of Defense Single Stock Point (DoDSSP), Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(End of provision)

52.214-34 SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)

Offers submitted in response to this solicitation shall be in the English language. Offers received in other than English shall be rejected.

(End of provision)

52.214-35 SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991)

Offers submitted in response to this solicitation shall be in terms of U.S. dollars. Offers received in other than U.S. dollars shall be rejected.

(End of provision)

52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities;

(B) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market;

(C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

(End of clause)

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
39.5%	6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Dade County, Florida.

(End of provision)

52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS (MAY 2002) ALTERNATE I (MAY 2002)

(a) Definitions. Construction material, domestic construction material, and foreign construction material, as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act --Construction Materials" (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) Requests for determinations of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act shall submit the request with its offer, including the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers.

(1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

- (i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or
- (ii) May be accepted if revised during negotiations.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996) (CESAJ ADAPTATION)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from the person identified in item 10 of the Standard Form 33 (if this solicitation is for non-commercial supplies or services), in item 9A of the Standard Form 1442 (if this solicitation is for construction or dredging), in item 7 of the Standard Form 1449 (if this solicitation is for commercial items), or in item 7 of the DA Form 4069-R (if this solicitation is for work funded by a non-appropriated funds instrumentality) at the address shown in item 7 of the SF 33, item 7 of the SF 1442, item 9 of the SF 1449, or item 5 of the DA Form 4069-R.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995) (CESAJ ADAPTATION)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:

Name: John G. Cooper
Address: South Florida Area Office
Telephone: 561-626-5299

(c) Core borings are available. (If available, follow the instructions in the Physical Data paragraph in Section 01110 to make arrangements to inspect the borings. Failure to follow the instructions may result in a delay ranging in duration from one hour to 4 days.)

(End of provision)

52.236-28 PREPARATION OF PROPOSALS--CONSTRUCTION (OCT 1997)

(a) Proposals must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a proposal must initial each erasure or change appearing on any proposal form.

(b) The proposal form may require offerors to submit proposed prices for one or more items on various bases, including--

- (1) Lump sum price;
- (2) Alternate prices;
- (3) Units of construction; or

(4) Any combination of paragraphs (b)(1) through (b)(3) of this provision.

(c) If the solicitation requires submission of a proposal on all items, failure to do so may result in the proposal being rejected without further consideration. If a proposal on all items is not required, offerors should insert the words "no proposal" in the space provided for any item on which no price is submitted.

(d) Alternate proposals will not be considered unless this solicitation authorizes their submission.

(End of provision)

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any Defense FAR Supplement (48 CFR Chapter Chapter 2) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

HAND-DELIVERING OFFERS TO THE PRUDENTIAL OFFICE BUILDING IN JACKSONVILLE

The offer must be delivered to the Jacksonville District's new headquarters in the Prudential Office Building, 701 San Marco Blvd, Jacksonville, FL 32207. Access to this building is controlled by security personnel. Security personnel are neither Government employees nor Government contractor employees. They will accept but will not sign for envelopes at the security desk in the 2nd floor lobby. They will not accept packages at the 2nd floor security desk. Hand-delivered packages larger than letter size must be taken to the building's east dock located at the corner of Main St. and Mary St. For purposes of determining whether an offer is late, delivery into the hands of security personnel (either in the lobby or at the east dock) will not constitute delivery to the Government. In order to ensure delivery to the Government, persons hand-delivering offers should call the contract specialist whose name appears in the solicitation and ask the specialist to send someone to take possession of the offer. Persons hand-delivering offers should take care to arrive at the Prudential Building in sufficient time to permit completion of security requirements and delivery of the offer to the designated office prior to the time set for receipt of offers.

(End of paragraph 999.204-1)

OBTAINING INFORMATION REGARDING THIS SOLICITATION

Verbal requests for information must be directed to the person whose name appears in item 9 of the SF 1442. Collect calls cannot be accepted. Written requests for explanations must be sent to the person identified in item 9 of the SF 1442 and may be sent via facsimile to 904-232-2748. Inquiries and requests that are directed to any other person may not be relayed to the proper person and, therefore, may not be answered.

(End of paragraph number 999.215-4000)

OFFEROR'S CHECKLIST

The following list should be used by offerors to avoid irregularities that have been noted in previous offers.

(CAUTION: PROPOSALS THAT ARE QUALIFIED MAY BE CONSIDERED UNACCEPTABLE. BE CAREFUL!)

1. This list is not exhaustive. You must ensure that your proposal complies with all of the terms and conditions of the solicitation.
2. Have amendments to the solicitation been acknowledged in the space provided on the offer form, and on the envelope containing the offer? If not, acknowledgement must be made prior to the time set for receipt of proposals.
3. Have prices been inserted for all items?
4. Have all prices and computations been checked carefully?
5. Have all changes been made to the pricing schedule if required by an amendment?
6. Is the offer submitted on the latest pricing schedule?
7. Are decimal points in prices in proper places?
8. Have you checked for transposition of figures in prices inserted on the pricing schedule?
9. Is the offer signed by a person who is legally authorized to bind the offeror? Is the offeror's address and phone number included?
10. If the offer is signed by an agent, is legal evidence of his authority included with the proposal?
11. Have the appropriate boxes been checked in all paragraphs of the Representations and Certifications? Have they been submitted with the proposal?
12. Have the requirements of the Instructions to Offerors -- Competitive provision, if included in this solicitation, been met?
13. If a bid guarantee is required, does your bid guarantee comply with the Bid Guarantee clause of the solicitation? If the bid guarantee is in the form of a bid bond is it on Standard Form 24 (REV. 10-98)? If your bid guarantee does not firmly bind you (and your sureties, if applicable) to the United States of America, YOUR OFFER MAY BE REJECTED.
14. If the bid guarantee is in the form of a bid bond, is it completely and properly executed, dated not later than the bid opening date, signed by Principal and Surety, corporate certificates executed, and seals affixed, all as contained in "Instructions" on Standard Form 24 (REV. 10-98)? Power of Attorney is also required to accompany the bond. Is the penal sum marked in? If an individual surety (or sureties) is (are) guaranteeing the bid bond, have the requirements of the Pledges Of Assets clause of this solicitation been satisfied and are the supporting documents included with the bond?

(End of paragraph number 999.215-4011)

SOURCES FOR ASSISTANCE IN LOCATING SMALL BUSINESS SUBCONTRACTORS

(a) The Offeror's attention is directed to the Utilization of Small Business Concerns clause of this solicitation. Assistance in identifying small, small disadvantaged and women-owned small business concerns may be obtained as follows:

(1) Internet Web Site Sources for searches throughout the U.S., Puerto Rico and the USVI:

(A) Small Business Administration PRO-Net Database

<http://www.sba.gov>

(B) Procurement Technical Assistance Center (PTAC)

<http://www.dla.mil/ddas>

(C) Veterans Business Outreach Center

800-542-7232

www.vboc.org

(2) Sources of information within Florida:

(A) Florida Atlantic University PTAC, Ft. Lauderdale

954-771-6520

(B) University of South Florida PTAC, Tampa

813-974-4371

(C) Chamber of Commerce PTAC, Jacksonville

904-928-1100

(D) University of West Florida PTAC, Pensacola

850-474-2919

(E) Florida A&M University PTAC, Tallahassee

850-599-3407

(F) Latin Builders Association, Miami-Dade Area

954-704-0345

(G) Broward County Minority Bldrs Coalition

305-792-1121

(3) Sources of information within the U.S. Virgin Islands:

Dept of Public Works, DBE Coordinator, St. Thomas

340-773-1290

(4) Sources of information within Puerto Rico:

- (A) Puerto Rico General Contractors Association, San Juan 787-781-2200
- (B) San Juan PTAC 787-753-6861
- (b) Further information may be obtained from the Jacksonville District's Small Business internet site, located under Business Opportunities at <http://www.saj.usace.army.mil>. The above information is continually updated on the internet site.
- (c) Failure to comply with the requirements of the Utilization of Small Business Concerns clause can be grounds for imposition of sanctions.

(End of paragraph number 999.219-4003)

Geotechnical Data Report

for

Virginia Key (111) Shoreline Stabilization Project,
Dade County, Florida

Prepared by

Geotechnical Branch

Engineering Division

Jacksonville District Corps of Engineers

DACW17-02-R-0023

August 12, 2003

SECTION 00320

GEOTECHNICAL DATA

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SECTION 00320

GEOTECHNICAL DATA

1.1 SCOPE

The information provided in this section encompasses the geotechnical field investigations relevant to this project. The investigations consist of borings with the associated boring logs and laboratory data presented in paragraphs 1.4.5 and 1.4.6, respectively. A character of materials paragraph is included to provide a comprehensive description of the materials utilizing both recent and historical knowledge of the project area. Also included in this section are definitions of terms and boring log notes, which provide additional explanation of the boring logs and drilling techniques. Any questions that pertain to the information provided in this section should be addressed to Chief, Geotechnical Branch at (904) 232-1616.

Items discussed in the character of materials paragraph may not appear explicitly on the core boring logs. Based on historic knowledge of the project area, the character of materials paragraph includes items that supplement the data documented by the core boring logs. When reviewing core boring logs, use all data on the logs, including the materials description, legend, and blow counts. When evaluating the subsurface conditions, use all data, including the character of materials paragraph and core boring logs.

1.2 CHARACTER OF MATERIALS

1.2.1 Regional Geology

The landforms of the coastal area of Dade County include barrier islands, lagoons, estuaries, and coastal ridges. The Atlantic Coastal Ridge ranges from 2 to 4 miles wide and lies between the sandy flatlands of the Everglades to the west and the coastal marshes or ocean to the east. In the Miami area, the Atlantic Coastal Ridge shows the expression of the Silver Bluff shoreline of the Late Wisconsin Interglacial Period.

The nearshore shelf off Dade County consists of Pleistocene rock reefs separated by sandy plateaus. The sand filled swales between the rock reefs is of a thickness and quality that it has

been used as a primary borrow source from Dade to Palm Beach County.

Virginia Key is a barrier island located along eastern Biscayne Bay and north of Key Biscayne on the Atlantic coast of Dade County, Florida. The island likely developed on a shallow, sandy, limestone reef where a mangrove population developed, trapping additional sediments and creating a stable island. Holocene sands that make up the island are underlain by the limestone units of the Miami Oolite Formation.

1.2.2 Materials Encountered

The material encountered along the shore is composed of medium dense, poorly-graded sand, to a depth of 17 to 22 feet, overlying limestone. The easternmost core boring (CB-VK01-1) encountered a 1-foot layer of peat about 3.5 feet deep and a 1-foot layer of clay about 8 feet deep. An exposed scarp in the vicinity of the easternmost core boring shows exposed layers of peat and gray lean clay 1 to 2 feet high along the beach.

The character of the material in the sand mounds is indicated in the test pit laboratory data (designated TP) at the end of this section. Sand mounds 1 and 2 are stockpiles of sand that were excavated from Key Biscayne and stored at the present locations. They contain fine to medium-grained, poorly-graded sand. The sand is composed of quartz and carbonate grains. An average visual estimate of shell content for sand mound 1 is 56 percent and 34 percent for sand mound 2. The silt content is 8 percent for both sand mounds. Vegetation presently covers the sand mounds. The core borings show rock to be just below the tip elevation of the piles. Difficult pile driving should be expected above the rock surface.

1.3 DEFINITIONS

Terms commonly used in the boring logs shall be defined as:

Banded - Rock from 0.02 to 0.1-foot thick.

Carbonate - Soil component that reacts with HCl of an indeterminate origin (shell, rock, etc.).

Cavity - Voids greater than the diameter of the core.

Decomposed - Saprolite; rock is essentially reduced to a soil with a relic rock texture; can be molded or crumbled by hand.

Dense - Equivalent to SPT N-value of 30 to 50.

Fill - Material that has been placed by man, described with all soil characteristics.

Firm - Thumb will indent soil about ¼ inch (6 mm).

Hard - Soil that can be indented with difficulty by thumbnail or rock that is difficult to scratch with knife (cannot be pitted with a geology hammer but can be chipped with moderate blows of the hammer).

Highly Weathered - Entire rock section is discolored; alteration is greater than 50%; some areas of slightly weathered rock are present; some minerals are leached away; retains only a fraction of its original strength (wet strength usually lower than dry strength).

Incompetent - Rock that disintegrates while coring; weak.

Indurated - Rock or soil hardened or consolidated by pressure or cementation. Very difficult to break by hand.

Layer - Rock or soil with thickness of 6 inches or less.

Laminated - Alternating layers of varying material or color with layers less than 6 mm thick.

Lens - A geologic deposit of variable thickness, which disappears laterally in all directions and cannot be correlated to adjacent borings.

Massive Bedded - Rock over 3-foot thick.

Moderately Hard - Rock that can be scratched easily with a knife; cannot be scratched with fingernail (can be pitted with moderate blows of geology hammer).

Moderately Weathered - Discoloration is evident; rock surface is pitted and altered, with alterations penetrating well below rock surfaces; 10% to 50% of the rock is altered; strength is noticeably less than unweathered rock.

Pitted - Rock with voids 0.03 (1 mm) to 0.02-foot (6 mm) diameter.

Poorly-Indurated - See semi-indurated.

Rock - A naturally occurring substance composed of one or more minerals bound together. This geologic term includes a range of engineering properties: strength, hardness, permeability, weathering, and discontinuity. These properties are noted or can be inferred from the boring logs as blow counts, penetration rate, RQD, hardness, etc.

Seam - Rock or soil with average thickness of 2 to 3 inches.

Semi-Indurated - Rock or soil with a lesser degree of hardening or consolidation by pressure or cementation. Crumbles with little effort by hand.

Shell - Material composed of predominantly (>75%) coarse-grained sand to gravel-sized whole or broken shell.

Slightly Weathered - Rock with superficial discoloration, alteration and/or discoloration along discontinuities; less than

10 % of the rock volume is altered; strength is essentially unaffected.

Soft - Thumb will penetrate soil about 1 inch (25 mm).

Thick Bedded - Rock from 1 to 3-foot thick.

Thin Bedded - Rock from 0.1 to 0.3-foot thick.

Unweathered - Rock with no evidence of any mechanical or chemical alteration.

Very Hard - Rock that cannot be scratched with a knife (chips can be broken off only with heavy blows of the geology hammer).

Vuggy - Rock with voids 0.02 foot (6 mm) to the diameter of the core.

1.4 GEOTECHNICAL DATA

1.4.1 Summary of Borings

The coordinates presented in the table below correspond to the project coordinate system and datum utilized throughout these plans and specifications, which may or may not correspond to the original coordinate system and datum indicated on the boring logs.

Boring Designation	State Plane, FL-East, NAD27		Project Location
	X	Y	
CB-VK01-1	779379	511185	Beach Groin Field Foundation
CB-VK01-2	778669	510636	Beach Groin Field Foundation
CB-VK01-3	777740	510105	Beach Groin Field Foundation
CB-VK01-7	779441	511218	Beach Groin Field Foundation
CB-VK01-8	779156	511087	Beach Groin Field Foundation
CB-VK01-9	778925	510910	Beach Groin Field Foundation
CB-VK01-10	777194	509690	Beach Groin Field Foundation

1.4.2 Summary of Laboratory Data

Boring Designation	Sample Designation	USCS	Visual Shell %
CB-VK01-7	3	SP-SM	
CB-VK01-7	7	SP-SM	
CB-VK01-8	1	SM	
CB-VK01-8	4	SM	
CB-VK01-9	5	SP-SM	
TP-VKSM201-1	2	SP	50
TP-VKSM201-1	4	SP	58
TP-VKSM201-1	8	SP	37

Boring Designation	Sample Designation	USCS	Visual Shell %
TP-VKSM201-2	2	SP-SM	27
TP-VKSM201-2	6	SP-SM	46
TP-VKSM201-2	9	SP-SM	27
TP-VKSM201-3	2	SP-SM	30
TP-VKSM201-3	3.5	SP-SM	38
TP-VKSM201-3	5	SP-SM	32
TP-VKSM201-4	2	SP-SM	17
TP-VKSM201-4	5	SP-SM	29
TP-VKSM201-4	7	SM	13

1.4.3 Boring Log Notes

Borings CB-VK01-1, CB-VK01-2, CB-VK01-3, CB-VK01-7, CB-VK01-8, CB-VK01-9, and CB-VK01-10 were driven using the Standard Penetration Test (SPT) procedure with a 140 lb. hammer with a 30-inch drop using a 2.0-foot split spoon (1 3/8-inch I.D. and 2-inch O.D.) until refusal was encountered. Refusal is defined as a total of 50 blows of the hammer within any 6-inch increment, a total of 100 blows of the hammer within any 1-foot increment, or no observed advance of the sampler after 10 successive blows of the hammer. After refusal, the borings were continued with a NX diameter core barrel until the rate of penetration indicated softer material, at which point the SPT procedure was resumed.

1.4.4 Recovered Materials

The material recovered from borings CB-VK01-1, CB-VK01-2, CB-VK01-3, CB-VK01-7, CB-VK01-8, CB-VK01-9, and CB-VK01-10 is available for inspection by prospective offerors at the Corps of Engineers District Warehouse listed under 1a below:

1. Florida

a) Jacksonville

Address: 3077 Talleyrand Avenue
 Jacksonville, FL
 Hours: 07:00 am to 2:30 pm

b) Clewiston

Address: 525 Ridgelawn Road
 Clewiston, FL

2. Puerto Rico and the US Virgin Islands

a) San Juan

Address: 400 Fernandez Juncos
Parada 7.5
Puerta de Tierra, PR

b) Ponce

Address: PR 139, Km 6.1
Ponce, PR

The recovered materials will be available for inspection during normal business hours as noted above, except Federal holidays, during the entire bid period. Prospective offerors shall notify the Jacksonville District Explorations Manager at 904-232-3295; Chief, Geology Section at 904-232-1620; or Chief, Geotechnical Branch at 904-232-1616 at least four working days before the visit. The following information will be required to schedule the visit: (1) the project title; (2) the specific 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. Offerors shall record their material examination visit in a record book maintained at the inspection site.

It is strongly suggested that all contractors view the samples before submitting their bid. A statement shall be provided with the bid stating that it was prepared after inspection of the samples. If no such statement is submitted, the Government could find the bid non-responsive.

1.4.5 Boring Logs

Applicable boring logs are presented on the following pages.

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. Accordingly, offerors shall form their own conclusions from the examination of the recovered materials prior to submission of their offer.

Hole No. CB-VK01-1

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 2	
1. PROJECT Virginia Key		South Atlantic	Jacksonville District		
2. LOCATION (Coordinates or Station) X=779,379 Y=511,185				10. SIZE AND TYPE OF BIT See Remarks	
3. DRILLING AGENCY Corps of Engineers				11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW; Horizontal Datum: FLE NAD27 US Ft	
4. HOLE NO. (As shown on drawing title and file number) CB-VK01-1				12. MANUFACTURER'S DESIGNATION OF DRILL CME 45	
5. NAME OF DRILLER L. WOOTERS				13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 18 undisturbed: 0	
6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED				14. TOTAL NUMBER OF CORE BOXES 2	
7. THICKNESS OF BURDEN 0 Ft.				15. ELEVATION GROUND WATER 1.3 ft.	
8. DEPTH DRILLED INTO ROCK 0 Ft.				16. DATE HOLE STARTED COMPLETED 01/30/01 01/30/01	
9. TOTAL DEPTH OF HOLE 27.5 Ft.				17. ELEVATION TOP OF HOLE 4.8 Ft.	
				18. TOTAL CORE RECOVERY FOR BORDING 88 %	
				19. SIGNATURE OF GEOLOGIST S. MYERS	

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS Bit & Barrel	BLOCKS/5 ft.
4.8	0.0					4.8	
			SAND, poorly-graded, mostly fine to medium grained quartz and carbonate, trace of wood, dry, tan (SP)	20	1	SPT	1 2 4
			At 2.3', Little shell fragments up to 1/4", moist, gray	40	2	SPT	4 7 4
1.3	3.5		PEAT, trace quartz sand, wet, fibrous, brown (PT)	93	3	SPT	4 5
.3	4.5		SAND, poorly-graded, mostly fine to medium grained carbonate and quartz, some shell fragments <2mm, wet, gray (SP)	80	4	SPT	7 5 8 10
				33	5	SPT	3 2 3
-3.6	8.4		CLAY, fat, medium plasticity, some silt, calcareous, moist, light grey (CH)	87	6	SPT	2 3 1 10
-4.2	9.0		SAND, poorly-graded, fine to medium grained, some shells, calcareous, wet (SP)	40	7	SPT	1 1 WOH
-6.6	11.4		SILT, inorganic-H, calcareous, wet, imbedded silt and very fine sand, light grey (MH)	100	8	SPT	1 2 1
-8.2	13.0		SAND, poorly-graded, mostly fine to coarse grained quartz, some round to subangular shell fragments, weak reaction to HCl, black and white (SP)	67	9	SPT	3 4 6
				100	10	SPT	12 17 50
				100	11	SPT	12 15 34
				100	12	SPT	5 12 23
-14.7	19.5		LIMESTONE, fine grained, massive, vuggy, poorly cemented, few mostly graded oolites and shell fragments	100	13	SPT	7 15 23
				67	14	SPT	13 17 13
				93	15	SPT	12 15 28
						(continued)	

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT Virginia Key HOLE NUMBER CB-VK01-1

Hole No. CB-VK01-1

DRILLING LOG (Cont. Sheet)		ELEVATION TOP OF HOLE		SHEET 2			
PROJECT Virginia Key		INSTALLATION Jacksonville District		4.8 Ft. OF 2			
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC x	SAMPLE NUMBER	REMARKS Bit & Barrel	BLOWS/ 5'
-17.7	22.5						
				36	16	NX Diamond Bit D.T. = 7 min	
-22.7	27.5						
			<p>Note:</p> <ol style="list-style-type: none"> Soils are visually classified in accordance with the Unified Soils Classification System. Elevation determined from temporary tide staffs set to high tide on 1/29/01 at 2.24 ft above MLLW at Virginia Key tide gauge. Tide gauge located on Miami University School of Marine Science, 1/4 mile south of the project site. Sand Pile Sample #1: Location: 303' N83W of CB-VK01-1 on vertical open face of pile. Photo taken. Dug into face 12". No sample collected. <100% passing 3/4". Description: SAND, poorly-graded, mostly fine grained carbonate, few shells and shell fragments up to 1 3/8", trace quartz, trace silt, strong reaction with HCl, moist, tan (SP) Sand Pile Sample #2: Location: 510' S69W of CB-VK01-1 on open face of pile 45' from beach. Photo taken. Dug into face 12" for sample. No sample collected because shells exceeded 3/4" in diameter. Description: SAND, poorly-graded, mostly fine to medium grained angular to subrounded carbonate and quartz, few shells 1/4" to 1 1/2", trace silt, moist, tan (SP) 			140# hammer w/30" drop used with 2.0' split spoon (1 3/8" I.D. X 2" O.D.).	

ENG FORM 1830 PREVIOUS EDITIONS ARE OBSOLETE.
MAR 71

PROJECT
Virginia Key

HOLE NUMBER
CB-VK01-1

Hole No. CB-VK01-2

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 2	
1. PROJECT Virginia Key		South Atlantic	Jacksonville District		
2. LOCATION (Coordinates or Station) X=778,669 Y=510,636			10. SIZE AND TYPE OF BIT See Remarks		
3. DRILLING AGENCY Corps of Engineers			11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW; Horizontal Datum: FLE NAD27 US Ft		
4. HOLE NO. (As shown on drawing title and file number) CB-VK01-2			12. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
5. NAME OF DRILLER L. WOOTERS			13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 17 undisturbed: 0		
6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			14. TOTAL NUMBER OF CORE BOXES 2		
7. THICKNESS OF BURDEN 0 Ft.			15. ELEVATION GROUND WATER		
8. DEPTH DRILLED INTO ROCK 0 Ft.			16. DATE HOLE STARTED COMPLETED 01/31/01 01/31/01		
9. TOTAL DEPTH OF HOLE 25.0 Ft.			17. ELEVATION TOP OF HOLE 5.1 Ft.		
			18. TOTAL CORE RECOVERY FOR BORING 64 %		
			19. SIGNATURE OF GEOLOGIST S. MYERS		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS Bit & Barrel	BLOYS/.5
5.1	0.0					5.1	
			SAND, poorly-graded, mostly fine to medium grained quartz and carbonate, trace angular to subrounded shell fragments, strong reaction to HCl, moist, tan (SP)	67	1	SPT	1
						3.6	4
			At 2.1', trace silt, wet, grading to gray	67	2	SPT	3
			At 1.6', gray			2.1	6
				80	3	SPT	7
						.6	4
				87	4	SPT	7
						-.9	8
				67	5	SPT	5
						-2.4	8
			At -3.9', little silt	47	6	SPT	10
						-3.9	13
				80	7	SPT	6
						-5.4	7
				87	8	SPT	9
						-6.9	4
			At -7.2, 1/2" shell layer	60	9	SPT	8
						-8.4	5
				60	10	SPT	12.5
						-9.9	8
			SAND, mostly fine grained angular to rounded carbonate and quartz, few silt, strong reaction to HCl, wet, grey (SP)				35
				53	11	SPT	34
						-11.4	36
				67	12	SPT	22
						-12.9	13
				47	13	SPT	15
			At -14.4', cementation increasing and less clay pore filling			-14.4	22
				27	14	SPT	50
						-15.9	17
				80	15	SPT	17
						-17.4	35
						(continued)	53
							15
							23
							78
							12
							19
							23
							12
							16
							15

ENG FORM 1630 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT Virginia Key HOLE NUMBER CB-VK01-2

Hole No. CB-VK01-2

DRILLING LOG (Cont. Sheet)	ELEVATION TOP OF HOLE 5.1 Ft.	SHEET 2 OF 2
PROJECT Virginia Key	INSTALLATION Jacksonville District	

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC #	SAMPLE NUMBER	REMARKS BIT & Barrel	BLOWS/ 5'
-17.4	22.5					-17.4	
			47	16	SPT	10 18 22	22.5
			47	17	SPT	14 12	25
-19.9	25.0						25
			<p>Note: 1. Soils are visually classified in accordance with the Unified Soils Classification System.</p>			<p>140# hammer w/30" drop used with 2.0' split spoon (1 3/8" I.D. X 2" O.D.).</p>	27.5 30 32.5 35 37.5 40 42.5 45 47.5 50

ENR FORM 1838 PREVIOUS EDITIONS ARE OBSOLETE.
MAR 71

PROJECT Virginia Key	HOLE NUMBER CB-VK01-2
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Hole No. CB-VK01-3

DRILLING LOG		DIVISION South Atlantic	INSTALLATION Jacksonville District	SHEET 1 OF 2
1. PROJECT Virginia Key		10. SIZE AND TYPE OF BIT See Remarks		
2. LOCATION (Coordinates or Station) X=777,740 Y=510,105		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW; Horizontal Datum: FLE NAD27 US Ft		
3. DRILLING AGENCY Corps of Engineers		12. MANUFACTURER'S DESIGNATION OF DRILL CME 45		
4. HOLE NO. (As shown on drawing title and file number) CB-VK01-3		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 17 undisturbed: 0		
5. NAME OF DRILLER L. WOOTERS		14. TOTAL NUMBER OF CORE BOXES 2		
6. DIRECTION OF HOLE <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		15. ELEVATION GROUND WATER -0.8 ft.		
7. THICKNESS OF BURDEN 0 Ft.		16. DATE HOLE STARTED COMPLETED 01/31/01 01/31/01		
8. DEPTH DRILLED INTO ROCK 0 Ft.		17. ELEVATION TOP OF HOLE 3.8 Ft.		
9. TOTAL DEPTH OF HOLE 25.0 Ft.		18. TOTAL CORE RECOVERY FOR BORING 72 %		
		19. SIGNATURE OF GEOLOGIST S. MYERS		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS Bit & Barrel	BLOWS/ft
3.8	0.0						
			SAND, poorly-graded, fine to medium grained subangular quartz and carbonate, strong reaction to HCl, moist, tan (SP)	67	1	3.8 SPT	1
			At -3.8', fine to coarse grained, some shell fragments	53	2	2.3 SPT	4
			At 5.4', gray and wet	87	3	.8 SPT	3
			At 6.3', trace silt	100	4	-.7 SPT	6
							7
							4
							7
							8
							5
							8
							13
							6
							10
							13
							6
							7
							9
							4
							6
							9
							10
							5
							9
							7
							5
							8
							35
							24
							36
							22
							19
							22
							50
							17
							35
							53
							15
							23
							78
							12
							19
							23
							12
							16
							15

ENG FORM 1030 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT Virginia Key	HOLE NUMBER CB-VK01-3
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ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC X	SAMPLE NUMBER	REMARKS Bit & Barrel	BLOWS/5'
-18.7	22.5	HHHHH	grained, vuggy, fossiliferous, oolitic, weakly cemented, tan	67	16	-18.7	10
						SPT	18
							22
-21.2	25.0			100	17	-21.2 SPT	14
							12
Notes:			140# hammer w/30" drop used with 2.0' split spoon (1 3/8" I.D. X 2" O.D.).				
1. Soils are visually classified in accordance with the Unified Soils Classification System.							
2. Location approximately 5 ft west of high tide mark.							

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

DRILLING LOG		DIVISION South Atlantic	INSTALLATION Jacksonville District		SHEET 1 OF 2 SHEETS
1. PROJECT Virginia Key FL Beach Groin Field Foundation			9. SIZE AND TYPE OF BIT See Remarks		
2. BORING DESIGNATION CB-VK01-7		LOCATION COORDINATES X = 779,441 Y = 511,218		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)	
3. DRILLING AGENCY Corps Of Engineers			CONTRACTOR FILE NO.		11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER <input checked="" type="checkbox"/> MANUAL HAMMER
4. NAME OF DRILLER Larry Wooters			12. TOTAL SAMPLES		DISTURBED 17 UNDISTURBED (UD) 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL	BEARING		13. TOTAL NUMBER CORE BOXES 2
6. THICKNESS OF OVERBURDEN 0.0 Ft.			14. ELEVATION GROUND WATER 0.5 Ft.		
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			15. DATE BORING		STARTED 10-16-01 COMPLETED 10-16-01
8. TOTAL DEPTH OF BORING 25.5 Ft.			16. ELEVATION TOP OF BORING 2.0 Ft.		
			17. TOTAL RECOVERY FOR BORING 72 %		
			18. SIGNATURE AND TITLE OF INSPECTOR Steve Myers, Geologist		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/0.5 FT.	N-VALUE
2.0	0.0		SAND, silty, mostly fine to coarse-grained carbonate, some angular to subrounded quartz, little silt, tan (SM)				2.0		
		At El. 0.5 Ft., wet		3	1		SPT Sampler	WOH	0
				40	2		SPT Sampler	WOH	0
				100	3		SPT Sampler	WOH	2
-2.5	4.5		From El. -2.0 to -2.2 Ft., peat bed					1	
		From El. -2.0 to -2.2 Ft., peat bed						3	9
								6	
-4.0	6.0	▨	SAND, clayey, mostly angular to subrounded fine to medium-grained carbonate, some silt, few clay, wet, gray (SC)	40	4		SPT Sampler	2	5
								2	4
								2	
			SAND, poorly-graded, mostly fine to coarse-grained quartz, some subangular to rounded carbonate, trace silt, wet, gray (SP)	100	5		SPT Sampler	3	8
								5	
				73	6		SPT Sampler	7	20
								9	
				100	7		SPT Sampler	11	20
								12	
								21	53
								32	
				100	8		SPT Sampler	18	56
								23	
								33	
				87	9		SPT Sampler	4	24
								9	
								15	
								4	
				93	10		SPT Sampler	18	40
								4	
								18	
								22	40
									15

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 2 OF 2 SHEETS												
PROJECT Virginia Key FL			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27	VERTICAL NGVD29												
LOCATION COORDINATES X = 779,441 Y = 511,218			ELEVATION TOP OF BORING 2.0 Ft.															
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE									
-17.5	19.5	[Pattern]		73	11		SPT Sampler	8 18 27	45									
				53	12		SPT Sampler	9 14 20	34									
				80	13		SPT Sampler	5 18 25	43									
			SAND, silty, mostly fine to medium-grained quartz, some angular to rounded carbonate, little silt, strong reaction with HCl, wet, gray (SM)	60	14		SPT Sampler	4 13 28	41									
				100	15		SPT Sampler	17 40 45	85									
				53	16		SPT Sampler	10 27 34	61									
				67	17		SPT Sampler	5 16 31	47									
-23.5	25.5	[Pattern]																
NOTES:			<p>1. Soils are field visually classified in accordance with the Unified Soils Classification System.</p> <p>2. Laboratory Testing Results</p> <table border="1"> <thead> <tr> <th>SAMPLE ID</th> <th>SAMPLE DEPTH</th> <th>LABORATORY CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3.0/4.5</td> <td>SP-SM*</td> </tr> <tr> <td>7</td> <td>9.0/10.5</td> <td>SP-SM*</td> </tr> </tbody> </table> <p>*Lab visual classification based on gradation curve. No Atterberg limits.</p>							SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION	3	3.0/4.5	SP-SM*	7	9.0/10.5	SP-SM*
SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION																
3	3.0/4.5	SP-SM*																
7	9.0/10.5	SP-SM*																
			<p>140# hammer w/30" drop used with 2.0' split spoon (1-3/8" I.D. x 2" O.D.).</p> <p>Abbreviations: WOH = Weight of Hammer.</p>															

DRILLING LOG		DIVISION South Atlantic		INSTALLATION Jacksonville District		SHEET 1 OF 2 SHEETS	
1. PROJECT Virginia Key FL Beach Groin Field Foundation				9. SIZE AND TYPE OF BIT See Remarks			
2. BORING DESIGNATION CB-VK01-8		LOCATION COORDINATES X = 779,156 Y = 511,087		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27	
3. DRILLING AGENCY Corps Of Engineers		CONTRACTOR FILE NO.		11. MANUFACTURER'S DESIGNATION OF DRILL CME-45 (land-based)		<input type="checkbox"/> AUTO HAMMER <input checked="" type="checkbox"/> MANUAL HAMMER	
4. NAME OF DRILLER Larry Wooters				12. TOTAL SAMPLES		DISTURBED 17	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED				DEG. FROM VERTICAL		BEARING	
6. THICKNESS OF OVERBURDEN 0.0 Ft.				13. TOTAL NUMBER CORE BOXES 1			
7. DEPTH DRILLED INTO ROCK 0.0 Ft.				14. ELEVATION GROUND WATER 0.8 Ft.			
8. TOTAL DEPTH OF BORING 25.5 Ft.				15. DATE BORING		STARTED 10-17-01	
				16. ELEVATION TOP OF BORING 5.5 Ft.		COMPLETED 10-17-01	
				17. TOTAL RECOVERY FOR BORING 69 %			
				18. SIGNATURE AND TITLE OF INSPECTOR Steve Myers, Geologist			

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/0.5 FT.	N-VALUE
5.5	0.0						5.5		
			SAND, silty, mostly subangular fine to medium-grained carbonate, little silt, trace angular to subrounded quartz, trace fine gravel-sized limestone, dry, tan (SM)	40	1		SPT Sampler	2 4	11
				47	2		SPT Sampler	3 5	11
				67	3		SPT Sampler	4 7	16
			At El. 0.8 Ft., little quartz, wet, gray	60	4		SPT Sampler	3 5	12
				100	5		SPT Sampler	5 10 15	25
				40	6		SPT Sampler	3 5	13
			At El. -3.5 Ft., trace wood debris	73	7		SPT Sampler	8 7	19
				73	8		SPT Sampler	3 7	17
			At El. -6.5 Ft., trace wood debris	67	9		SPT Sampler	12 8	29
			At El. -7.5 Ft., trace wood debris	80	10		SPT Sampler	7 18	30
							SPT Sampler	11 5	
							SPT Sampler	14 16	
							-9.5		

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 2 OF 2 SHEETS												
PROJECT Virginia Key FL			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27	VERTICAL NGVD29												
LOCATION COORDINATES X = 779,156 Y = 511,087			ELEVATION TOP OF BORING 5.5 Ft.															
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE									
				53	11		SPT Sampler	5 19	60									
							-11.0	41										
			At El. -12.3 Ft., trace fine gravel-sized limestone, brown	100	12		SPT Sampler	13 19	55									
							-12.5	36										
				100	13		SPT Sampler	18 39	124									
			At El. -14.1 Ft., trace wood debris				-14.0	85										
				87	14		SPT Sampler	11 38	84									
							-15.5	46										
				93	15		SPT Sampler	12 31	73									
			At El. -17.0 Ft., mostly fine to coarse-grained carbonate				-17.0	42										
				33	16		SPT Sampler	19 27	48									
							-18.5	21										
				67	17		SPT Sampler	16 28	48									
-20.0	25.5						-20.0	20	25									
NOTES:			140# hammer w/30" drop used with 2.0' split spoon (1-3/8" I.D. x 2" O.D.).															
1. Soils are field visually classified in accordance with the Unified Soils Classification System.																		
2. Laboratory Testing Results																		
<table border="1"> <thead> <tr> <th>SAMPLE ID</th> <th>SAMPLE DEPTH</th> <th>LABORATORY CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.0/1.5</td> <td>SM*</td> </tr> <tr> <td>4</td> <td>4.5/6.0</td> <td>SM*</td> </tr> </tbody> </table>			SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION	1	0.0/1.5	SM*	4	4.5/6.0	SM*							
SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION																
1	0.0/1.5	SM*																
4	4.5/6.0	SM*																
*Lab visual classification based on gradation curve. No Atterberg limits.																		

DRILLING LOG		DIVISION South Atlantic		INSTALLATION Jacksonville District			SHEET 1 OF 2 SHEETS	
1. PROJECT Virginia Key FL Beach Groin Field Foundation				9. SIZE AND TYPE OF BIT See Remarks				
2. BORING DESIGNATION CB-VK01-9		LOCATION COORDINATES X = 778,925 Y = 510,910		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27	VERTICAL NGVD29	
3. DRILLING AGENCY Corps Of Engineers			CONTRACTOR FILE NO.		11. MANUFACTURER'S DESIGNATION OF DRILL CME-45 (land-based)			<input type="checkbox"/> AUTO HAMMER <input checked="" type="checkbox"/> MANUAL HAMMER
4. NAME OF DRILLER Larry Wooters				12. TOTAL SAMPLES		DISTURBED 17	UNDISTURBED (UD) 0	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		DEG. FROM VERTICAL	BEARING		13. TOTAL NUMBER CORE BOXES 2			
6. THICKNESS OF OVERBURDEN 0.0 Ft.				14. ELEVATION GROUND WATER 2.0 Ft.				
7. DEPTH DRILLED INTO ROCK 0.0 Ft.				15. DATE BORING		STARTED 10-17-01	COMPLETED 10-18-01	
8. TOTAL DEPTH OF BORING 25.5 Ft.				16. ELEVATION TOP OF BORING 5.5 Ft.				
				17. TOTAL RECOVERY FOR BORING 71 %				
				18. SIGNATURE AND TITLE OF INSPECTOR Steve Myers, Geologist				

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/0.5 FT.	N-VALUE
5.5	0.0						5.5		
			SAND, silty, mostly angular to subrounded fine to coarse-grained carbonate, little quartz, little fine gravel-sized limestone, little silt, strong reaction with HCl, moist, tan (SM)	93	1		SPT Sampler	3	14
				40	2		SPT Sampler	7	
				47	3		SPT Sampler	4	18
				27	4		SPT Sampler	7	
				73	5		SPT Sampler	11	5
				60	6		SPT Sampler	3	
				73	7		SPT Sampler	2	3
				100	8		SPT Sampler	1	
				93	9		SPT Sampler	3	11
				67	10		SPT Sampler	4	
							7	39	
							9		
							30	10	
							5		
							4	9	
							5		
							13	40	
							27		
							6	38	
							15		
							23	15	

DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 2 OF 2 SHEETS								
PROJECT Virginia Key FL			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27	VERTICAL NGVD29								
LOCATION COORDINATES X = 778,925 Y = 510,910			ELEVATION TOP OF BORING 5.5 Ft.											
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE					
				80	11		SPT Sampler	4 9 26	35					
				67	12		SPT Sampler	5 15 28	43					
				73	13		SPT Sampler	5 11 24	35					
				93	14		SPT Sampler	4 5 13	18					
				73	15		SPT Sampler	4 11 26	37					
				67	16		SPT Sampler	6 12 28	40					
				73	17		SPT Sampler	4 12 27	39					
-20.0	25.5													
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System. 2. Laboratory Testing Results <table border="1"> <thead> <tr> <th>SAMPLE ID</th> <th>SAMPLE DEPTH</th> <th>LABORATORY CLASSIFICATION</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>6.0/7.5</td> <td>SP-SM*</td> </tr> </tbody> </table> *Lab visual classification based on gradation curve. No Atterberg limits.	SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION	5	6.0/7.5	SP-SM*			140# hammer w/30" drop used with 2.0' split spoon (1-3/8" I.D. x 2" O.D.).		
SAMPLE ID	SAMPLE DEPTH	LABORATORY CLASSIFICATION												
5	6.0/7.5	SP-SM*												

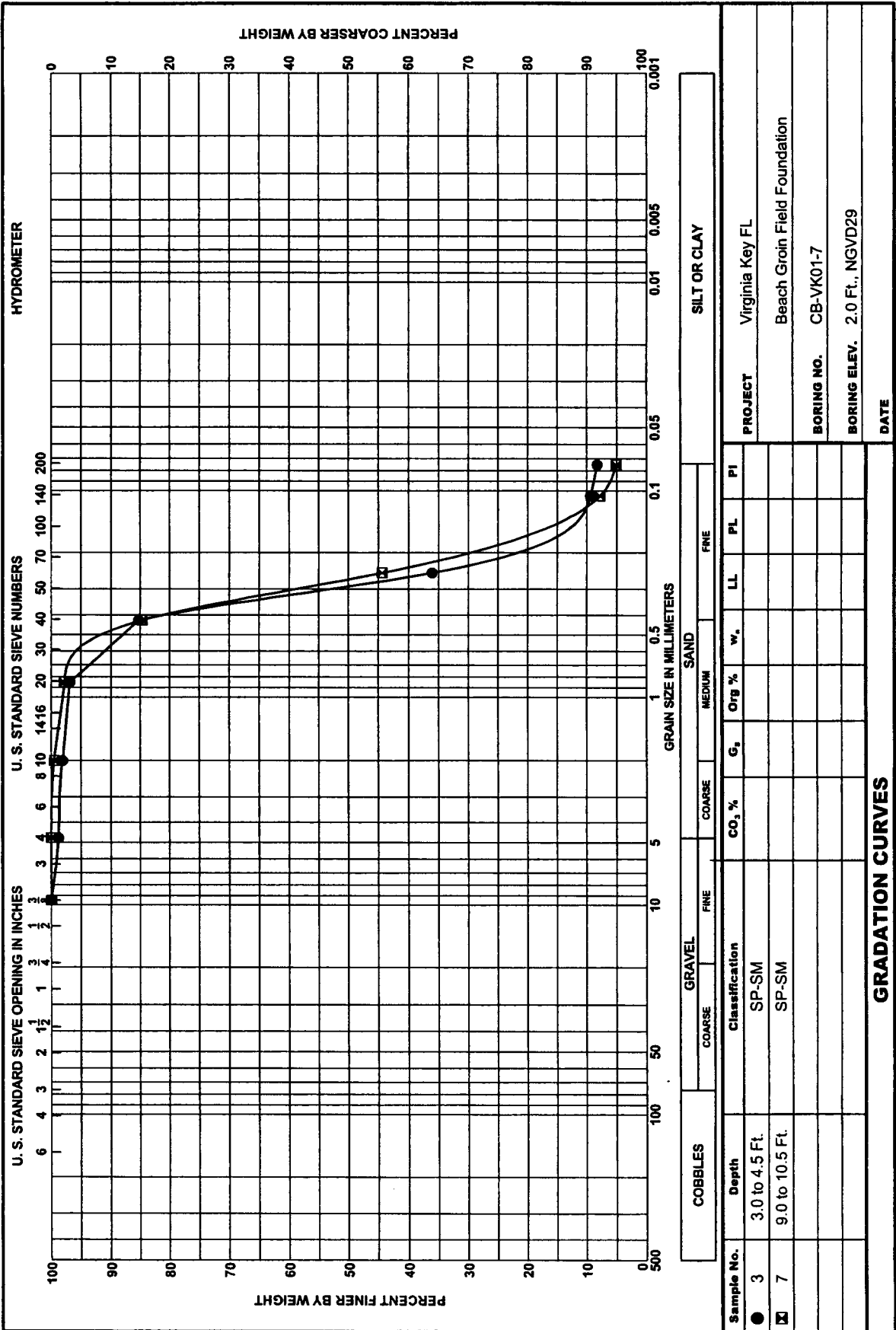
DRILLING LOG		DIVISION South Atlantic		INSTALLATION Jacksonville District			SHEET 1 OF 2 SHEETS	
1. PROJECT Virginia Key FL Beach Groin Field Foundation				9. SIZE AND TYPE OF BIT See Remarks				
2. BORING DESIGNATION CB-VK01-10		LOCATION COORDINATES X = 777,194 Y = 509,690		10. COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27		VERTICAL NGVD29
3. DRILLING AGENCY Corps Of Engineers			CONTRACTOR FILE NO.		11. MANUFACTURER'S DESIGNATION OF DRILL CME-45 (land-based)			<input type="checkbox"/> AUTO HAMMER <input checked="" type="checkbox"/> MANUAL HAMMER
4. NAME OF DRILLER Larry Wooters				12. TOTAL SAMPLES		DISTURBED 17		UNDISTURBED (UD) 0
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED				DEG. FROM VERTICAL		BEARING		13. TOTAL NUMBER CORE BOXES 1
6. THICKNESS OF OVERBURDEN 0.0 Ft.				14. ELEVATION GROUND WATER 2.5 Ft.				
7. DEPTH DRILLED INTO ROCK 0.0 Ft.				15. DATE BORING		STARTED 10-18-01		COMPLETED 10-18-01
8. TOTAL DEPTH OF BORING 25.5 Ft.				16. ELEVATION TOP OF BORING 6.0 Ft.				
				17. TOTAL RECOVERY FOR BORING 66 %				
				18. SIGNATURE AND TITLE OF INSPECTOR Steve Myers, Geologist				

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
6.0	0.0		SAND, poorly-graded, mostly subangular to rounded fine to medium-grained carbonate, some fine-grained quartz, trace silt, strong reaction with HCl, dry, tan (SP)	40	1		SPT Sampler	2 4	9
			At El. 3.0 Ft., mostly fine to coarse-grained carbonate, trace angular coarse-grained shell	60	2		SPT Sampler	3 4	10
			At El. 2.0 Ft., trace clay	80	3		SPT Sampler	6 10	16
1.5	4.5		SAND, silty, mostly fine to medium-grained carbonate, little angular to rounded fine-grained quartz, little silt, strong reaction with HCl, wet, gray (SM)	40	4		SPT Sampler	5 5	9
			From El. -1.0 to -1.5 Ft., mostly fine to coarse-grained carbonate, tan	53	5		SPT Sampler	5 7	12
				73	6		SPT Sampler	4 7 10	17
				73	7		SPT Sampler	6 12	21
				67	8		SPT Sampler	9 16	44
				27	9		SPT Sampler	7 15	42
			At El. -7.5 Ft., gray	73	10		SPT Sampler	27 7 16	43
								27	

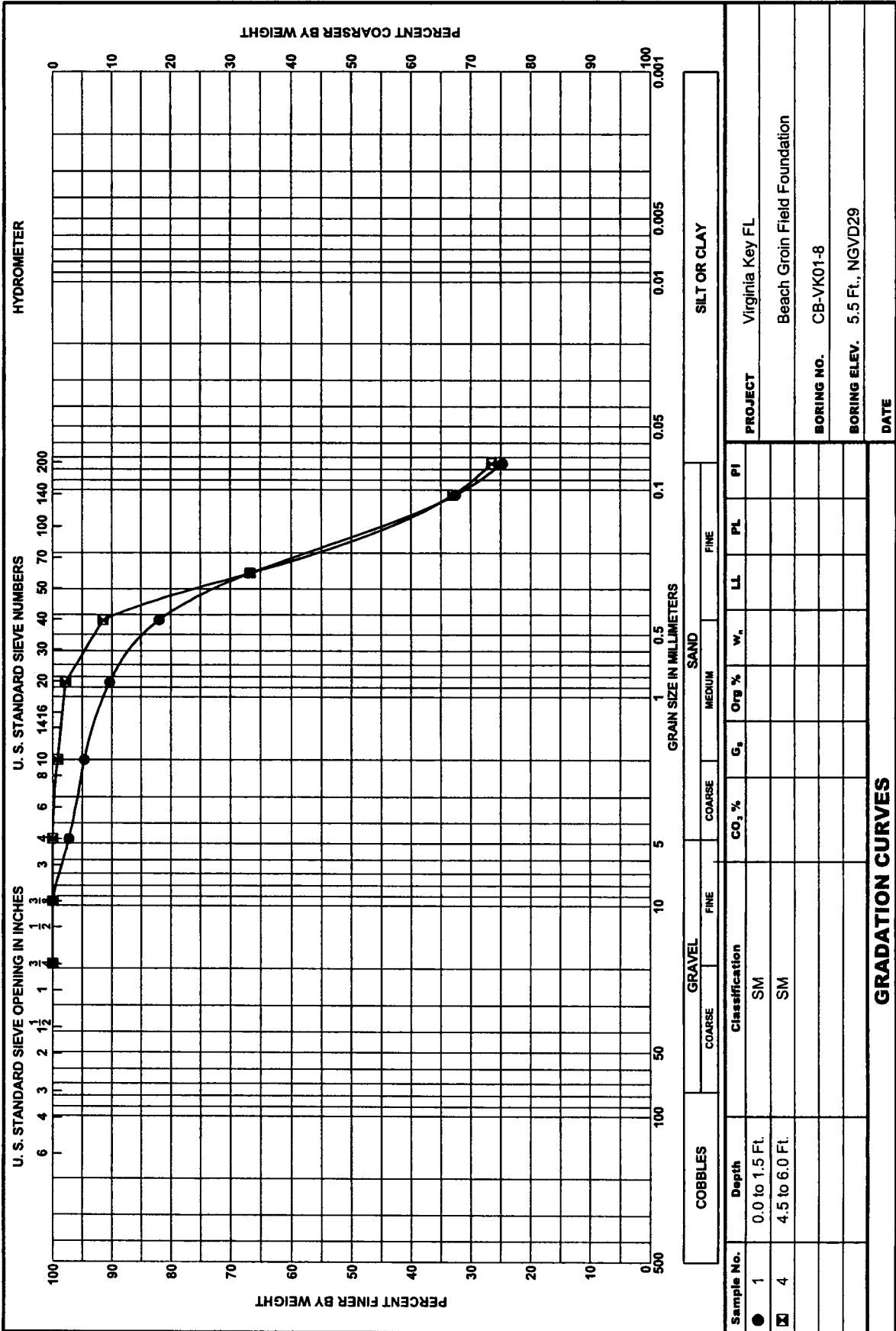
DRILLING LOG (Cont. Sheet)			INSTALLATION Jacksonville District			SHEET 2 OF 2 SHEETS			
PROJECT Virginia Key FL			COORDINATE SYSTEM/DATUM State Plane, FLE (U.S. Ft.)		HORIZONTAL NAD27	VERTICAL NGVD29			
LOCATION COORDINATES X = 777,194 Y = 509,690			ELEVATION TOP OF BORING 6.0 Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 0.5 FT.	N-VALUE
			At El. -9.0 Ft., some fine-grained quartz	93	11		SPT Sampler	9 24	71
							-10.5	47	
				80	12		SPT Sampler	16 29	72
							-12.0	43	
				67	13		SPT Sampler	16 33	94
							-13.5	61	
				60	14		SPT Sampler	10 34	73
							-15.0	39	
				80	15		SPT Sampler	4 14	49
							-16.5	35	
				73	16		SPT Sampler	14 28	51
			At El. -17.9 Ft., trace fine to coarse gravel-sized limestone, tan				-18.0	23	
				80	17		SPT Sampler	6 21	43
			At El. -19.0 Ft., discontinue limestone, gray				-19.5	22	
-19.5	25.5								
NOTES:			140# hammer w/30" drop used with 2.0' split spoon (1-3/8" I.D. x 2" O.D.).						
1. Soils are field visually classified in accordance with the Unified Soils Classification System.									

1.4.6 Laboratory Data

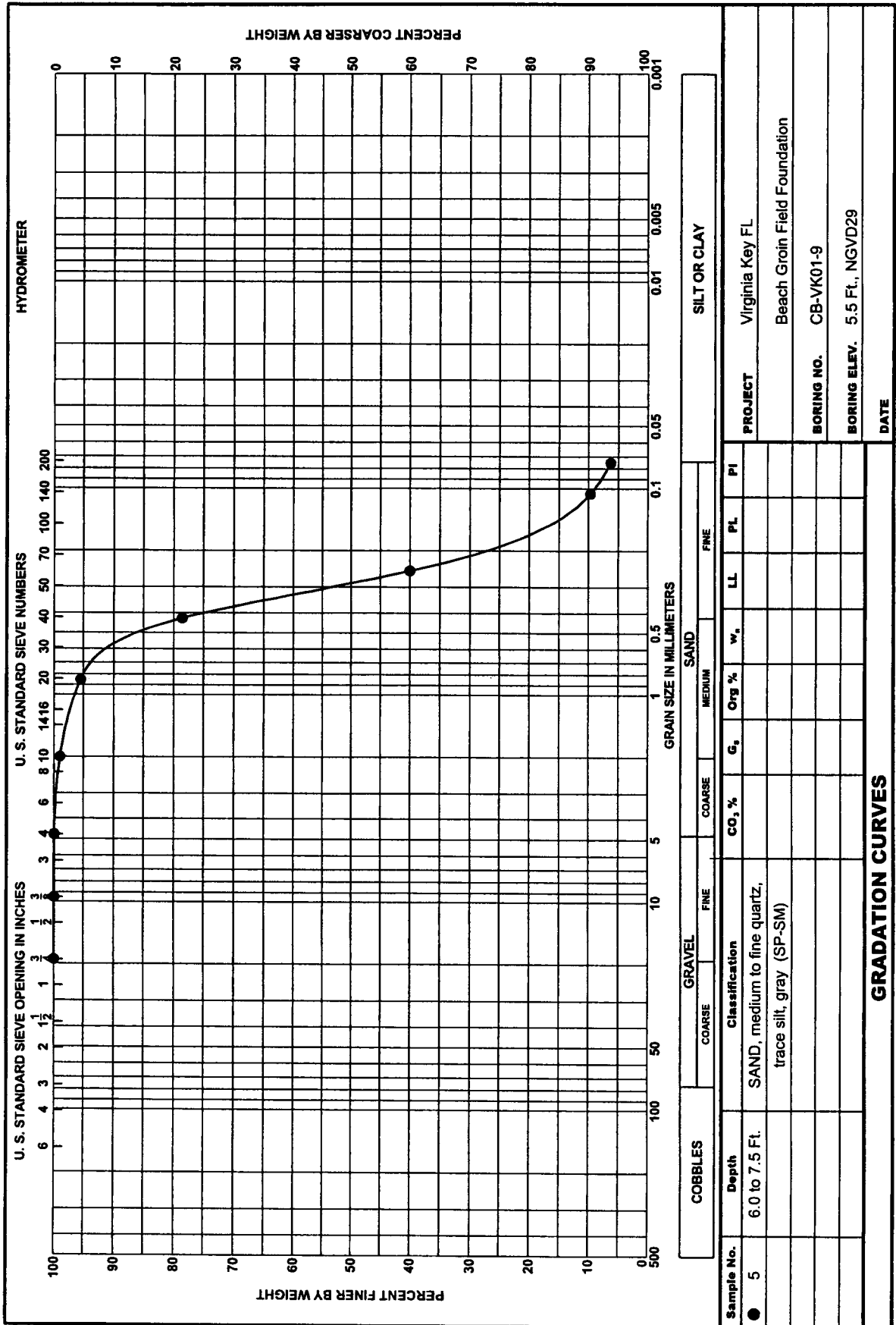
Applicable laboratory data are presented on the following pages.



SAJ FORM 2087
JUN 02



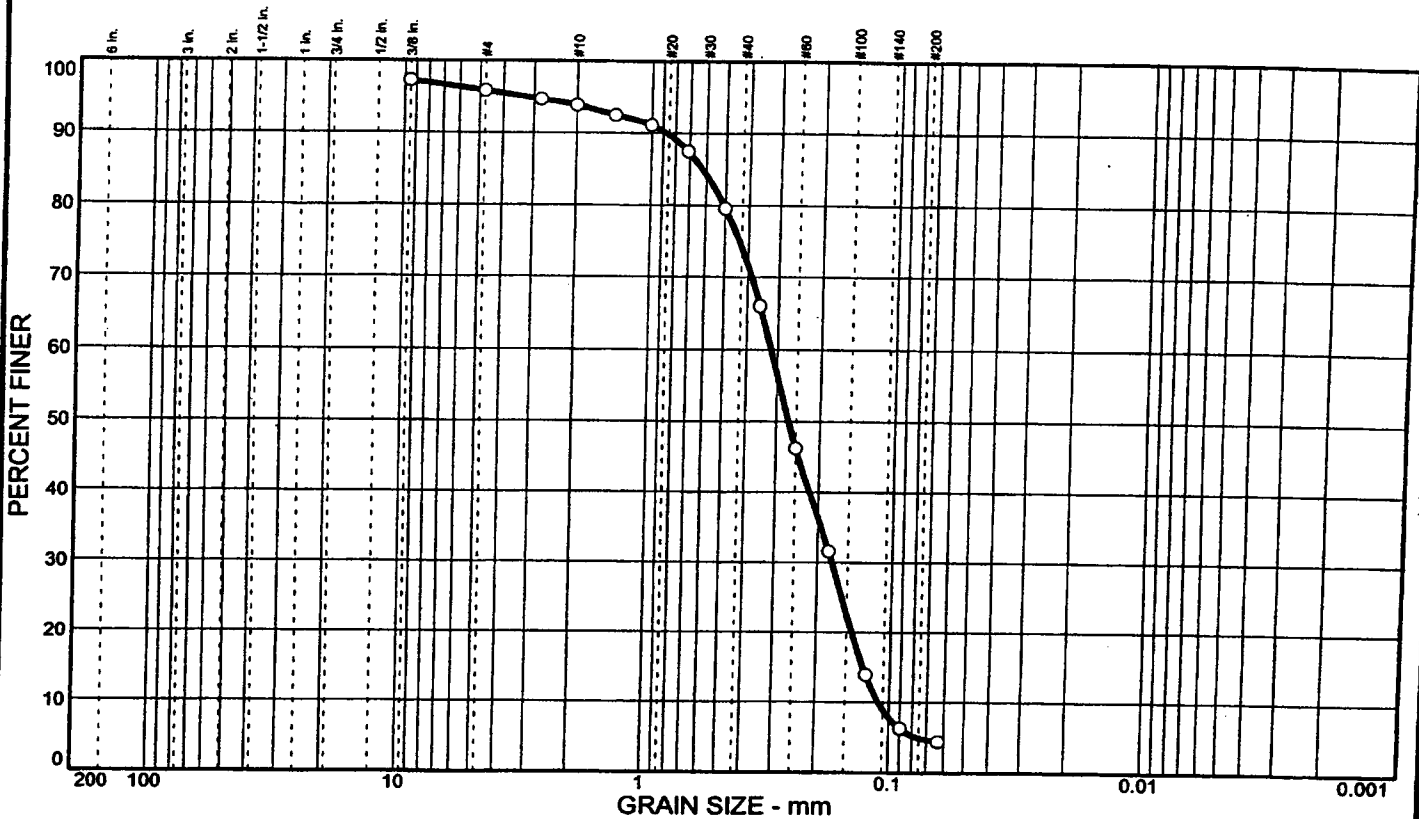
SAJ FORM 2087
JUN 02



GRADATION CURVES

SAJ FORM 2087
JUN 02

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
		91.0	4.9		SP	A-3		

SIEVE inches size	PERCENT FINER			SIEVE number size	PERCENT FINER			SOIL DESCRIPTION ○ SAND, medium to fine quartz, some medium to fine sand sized shell fragments, brown
	○				○			
3/8	97.3			#4	95.9			REMARKS: ○ North Sand Mound Test Pits Visual Percent Shell: 50%
GRAIN SIZE				#7	94.7			
D60	0.319			#10	93.9			
D30	0.174			#14	92.5			
D10	0.111			#18	91.1			
COEFFICIENTS				#25	87.5			
C _c	0.86			#35	79.6			
C _u	2.88			#45	66.0			
				#60	46.2			
				#80	31.6			
				#120	13.9			
				#170	6.3			
				#230	4.4			

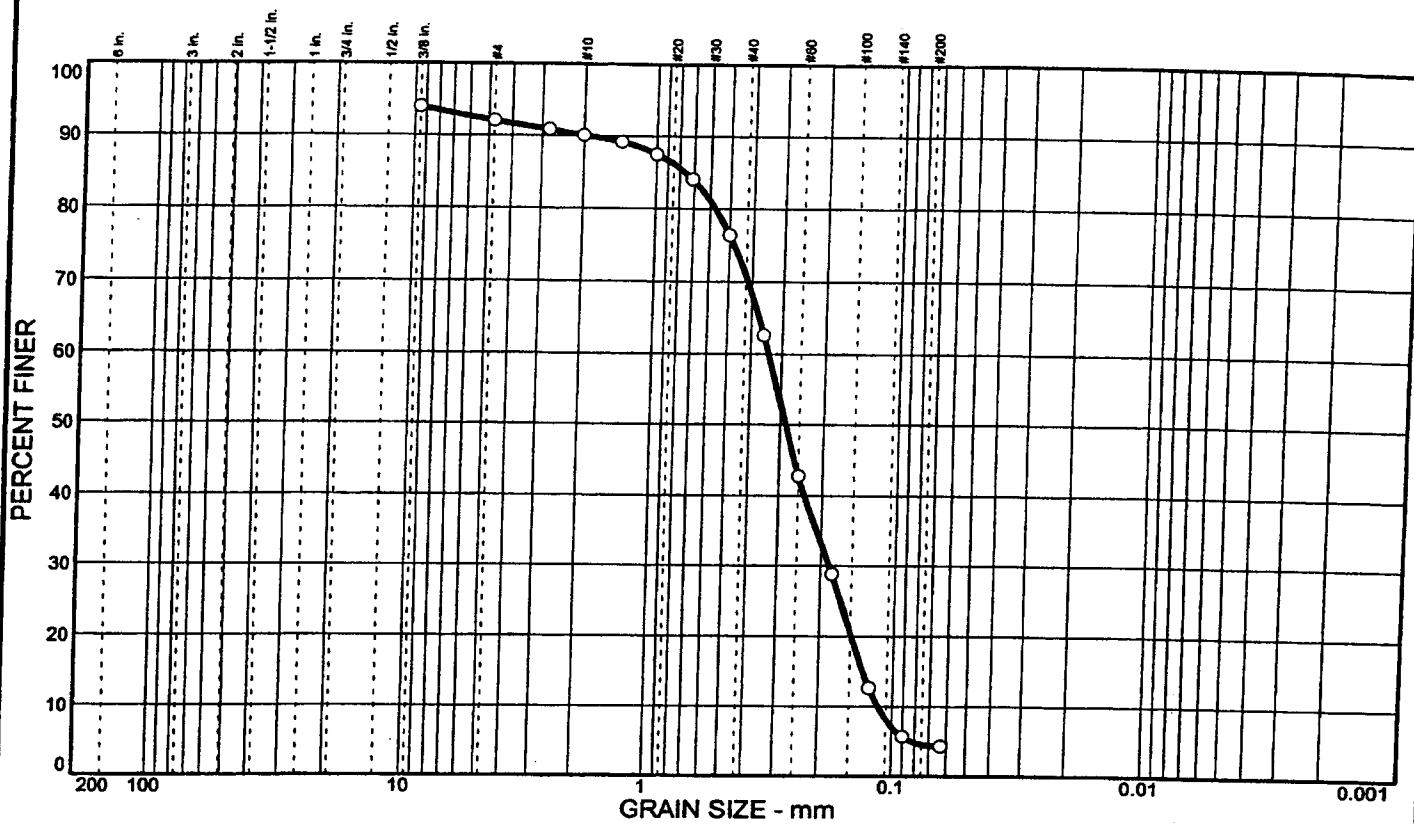
○ Source: TP-VKSM201-1

Sample No.: 2'

Elev./Depth: +11.2'

Law Engineering and Environmental Services, Inc.	Client: USACE, Jacksonville District Project: Virginia Key Project No.: 40521-1-8482-07
	Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0		87.5		4.6	SP	A-3		

SIEVE inches size	PERCENT FINER	
	○	
3/8	94.0	
GRAIN SIZE		
D60	0.338	
D30	0.185	
D10	0.115	
COEFFICIENTS		
C _c	0.88	
C _u	2.95	

SIEVE number size	PERCENT FINER	
	○	
#4	92.1	
#7	90.9	
#10	90.1	
#14	89.2	
#18	87.5	
#25	84.1	
#35	76.4	
#45	62.6	
#60	42.8	
#80	28.8	
#120	12.7	
#170	5.7	
#230	4.3	

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, some coarse to fine sand sized shell fragments, brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 58%

○ Source: TP-VKSM201-1

Sample No.: 4'

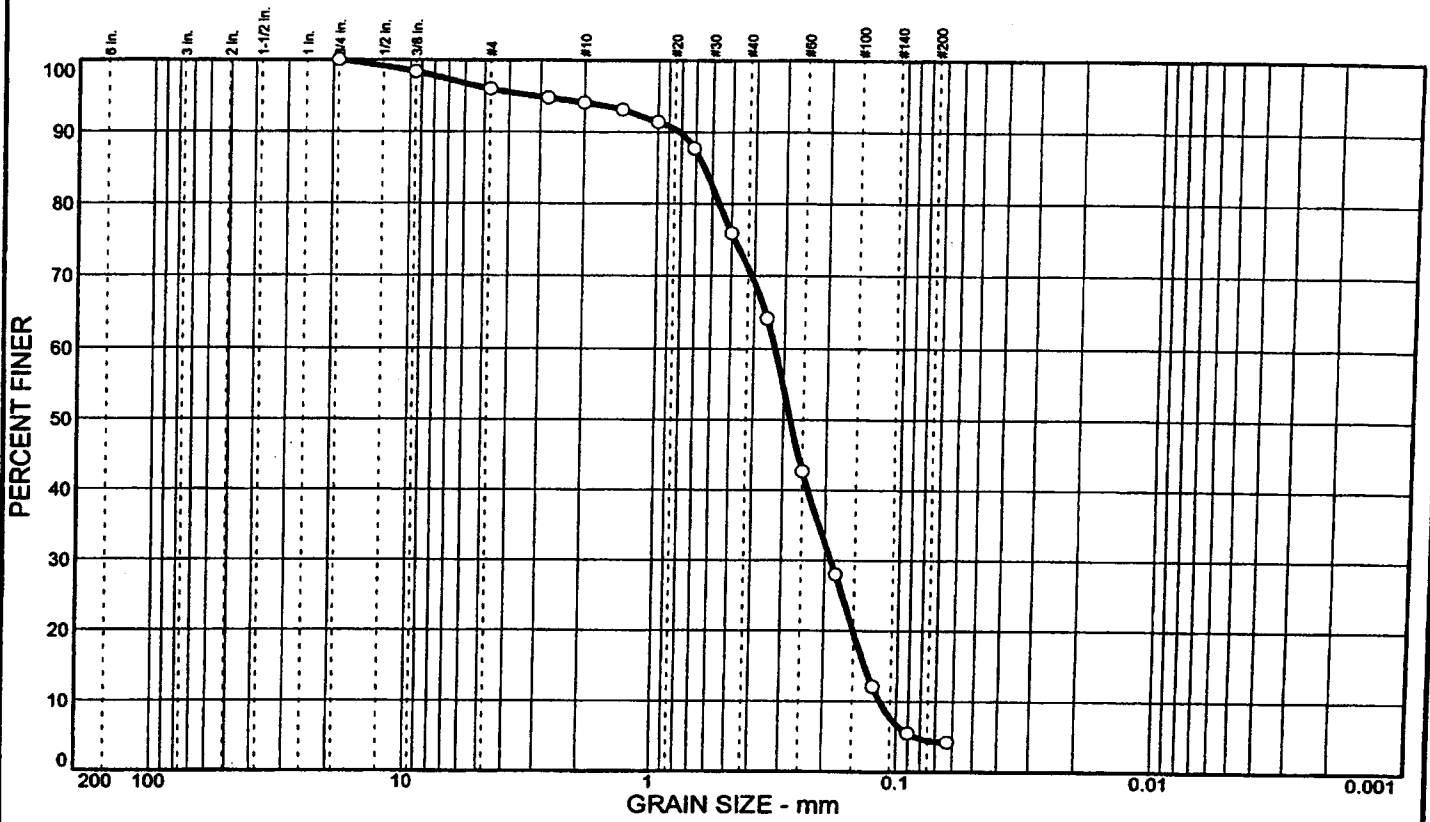
Elev./Depth: +13.2'

**Law Engineering and
Environmental Services, Inc.**

Client: USACE, Jacksonville District
 Project: Virginia Key
 Project No.: 40521-1-8482-07

Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	4.0	91.5	4.5	4.5	SP	A-3		

SIEVE	PERCENT FINER			SIEVE	PERCENT FINER			SOIL DESCRIPTION
inches size	○			number size	○			○ SAND, medium to fine quartz, some coarse to fine sand sized shell fragments, brown
3/4	100.0			#4	96.0			
3/8	98.4			#7	94.8			
GRAIN SIZE				#10	94.1			
D60				#14	93.1			
D30				#18	91.4			
D10				#25	87.7			
COEFFICIENTS				#35	75.9			
C _c				#45	64.2			
C _u				#60	42.7			
				#80	28.0			
				#120	12.1			
				#170	5.5			
				#230	4.2			

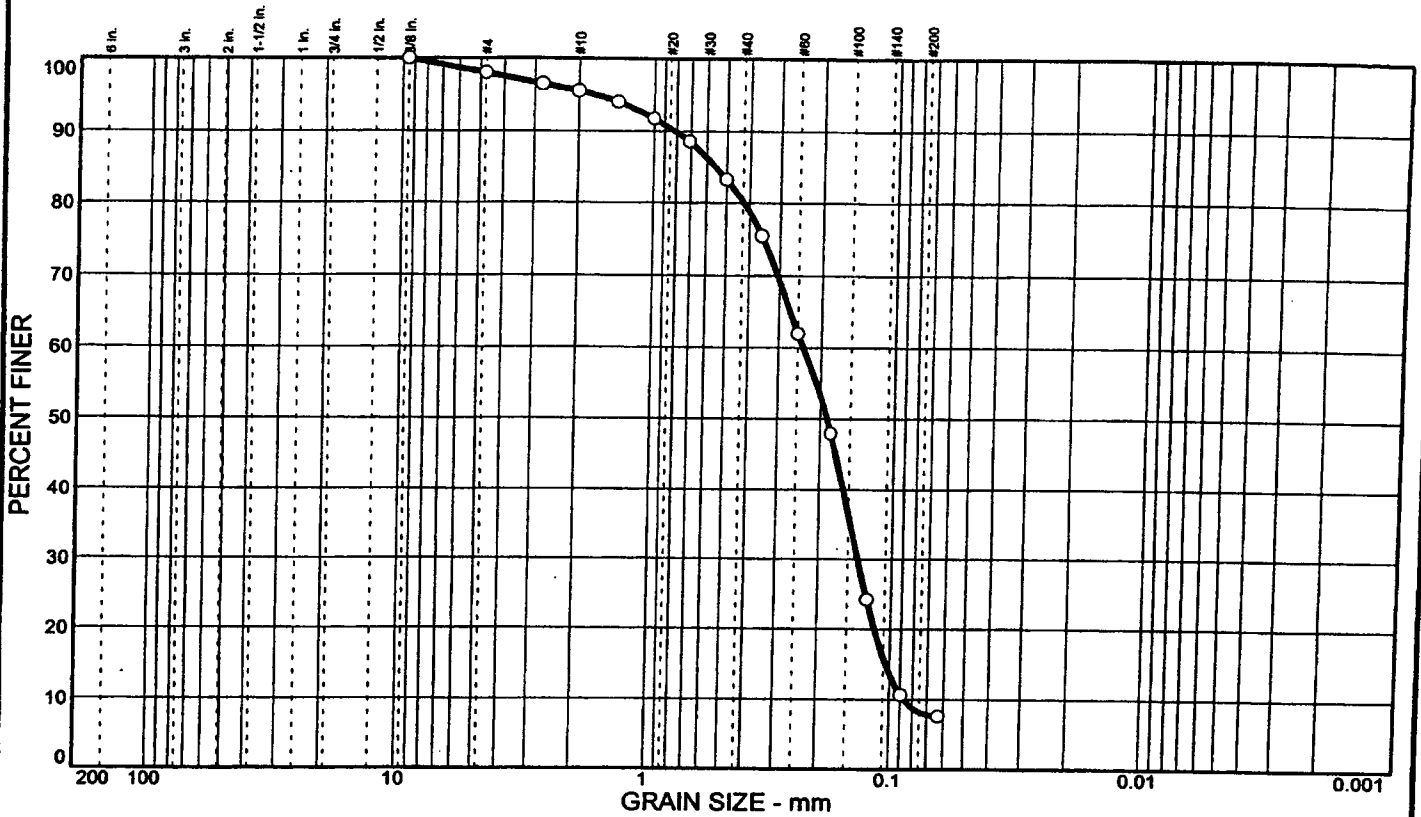
REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 37%

○ Source: TP-VKSM201-1 Sample No.: 8' Elev./Depth: +17.2'

Law Engineering and Environmental Services, Inc.

Client: USACE, Jacksonville District
 Project: Virginia Key
 Project No.: 40521-1-8482-07
 Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	2.0	89.8	8.2		SP-SM	A-3		

SIEVE inches size	PERCENT FINER	
	○	
3/8	100.0	
GRAIN SIZE		
D ₆₀	0.237	
D ₃₀	0.137	
D ₁₀	0.0870	
COEFFICIENTS		
C _c	0.91	
C _u	2.73	

SIEVE number size	PERCENT FINER	
	○	
#4	98.0	
#7	96.5	
#10	95.6	
#14	94.1	
#18	91.8	
#25	88.6	
#35	83.3	
#45	75.5	
#60	62.0	
#80	48.0	
#120	24.2	
#170	10.7	
#230	7.6	

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, some sand sized shell fragments, trace silt, light brown-brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 27%

○ Source: TP-VKSM201-2

Sample No.: 2'

Elev./Depth: +6.9'

**Law Engineering and
Environmental Services, Inc.**

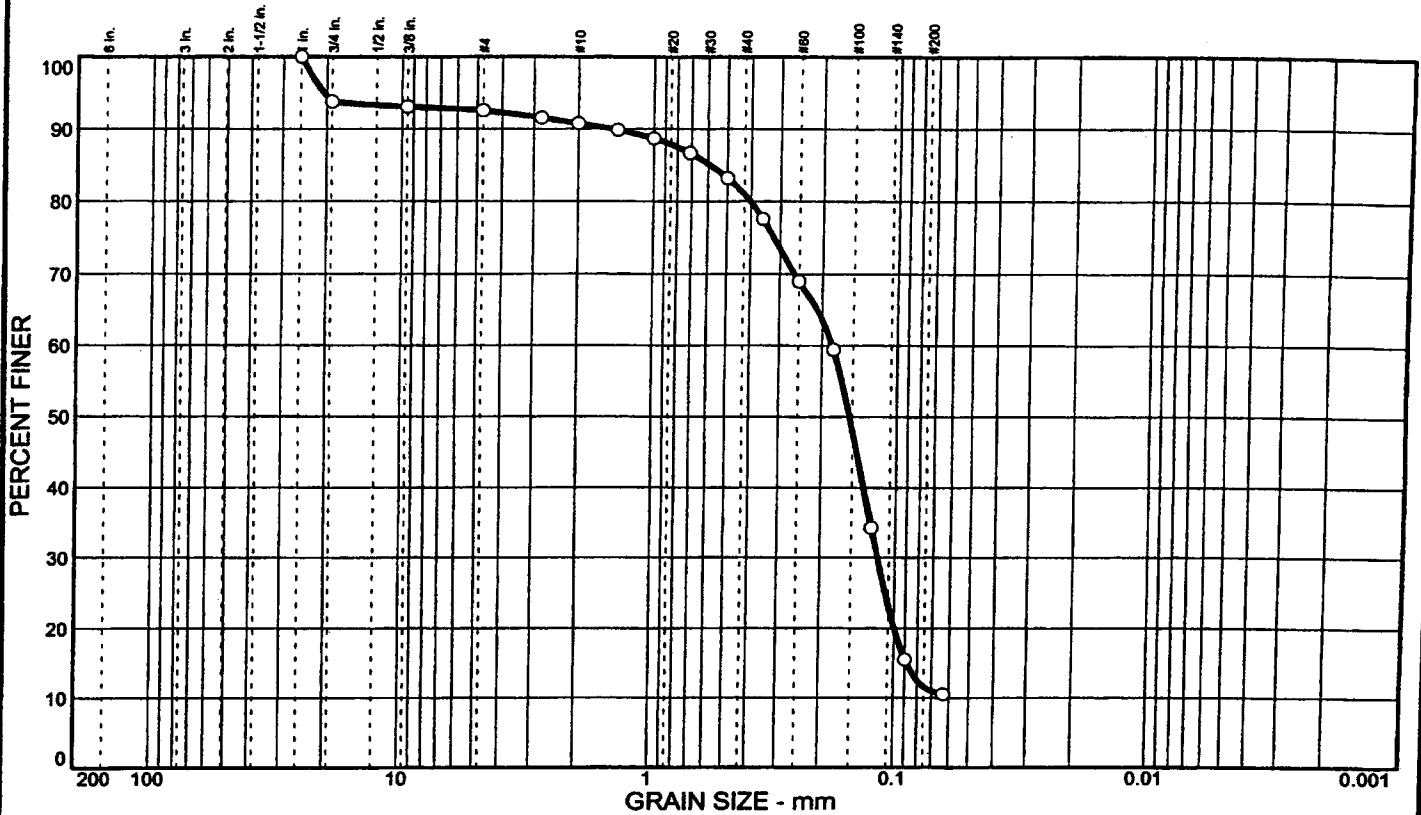
Client: USACE, Jacksonville District

Project: Virginia Key

Project No.: 40521-1-8482-07

Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	7.4	81.0	11.6		SP-SM	A-2-4(0)		

SIEVE Inches size	PERCENT FINER	
	○	
1	100.0	
3/4	93.8	
3/8	93.1	
GRAIN SIZE		
D60	0.182	
D30	0.118	
D10		
COEFFICIENTS		
C _c		
C _u		

SIEVE number size	PERCENT FINER	
	○	
#4	92.6	
#7	91.6	
#10	90.8	
#14	89.9	
#18	88.7	
#25	86.7	
#35	83.2	
#45	77.6	
#60	69.0	
#80	59.4	
#120	34.2	
#170	15.5	
#230	10.5	

SOIL DESCRIPTION
 ○ SAND, fine quartz, some coarse to fine sand sized shell fragments, trace limestone fragments, little silt, light brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 46%

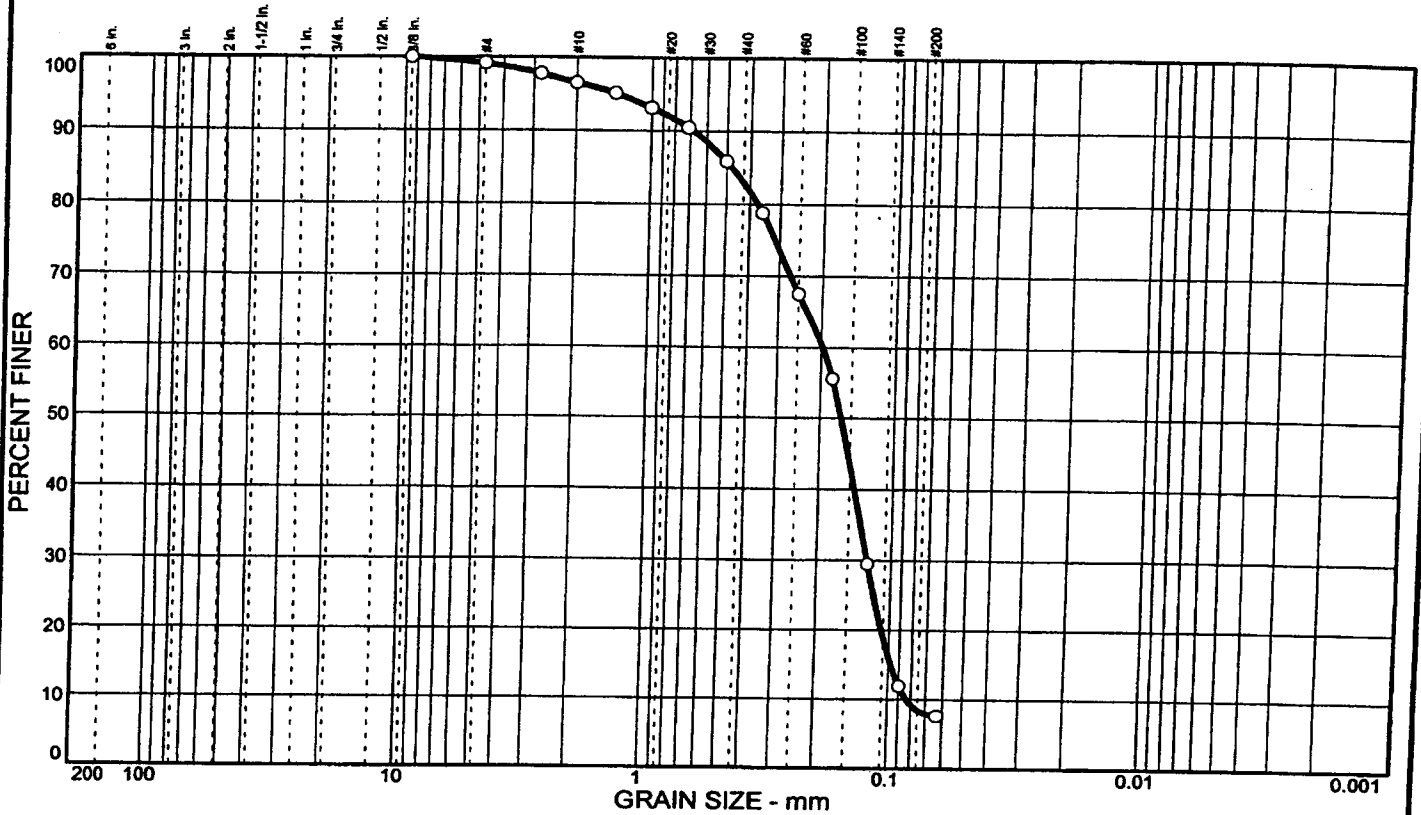
○ Source: TP-VKSM201-2

Sample No.: 6'

Elev./Depth: +10.9'

Law Engineering and Environmental Services, Inc.	Client: USACE, Jacksonville District Project: Virginia Key Project No.: 40521-1-8482-07
	Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	0.9	90.7	8.4		SP-SM	A-3		

SIEVE inches size	PERCENT FINER		
	○		
3/8	100.0		
GRAIN SIZE			
D60	0.198		
D30	0.126		
D10	0.0836		
COEFFICIENTS			
C _c	0.96		
C _u	2.37		

SIEVE number size	PERCENT FINER		
	○		
#4	99.1		
#7	97.7		
#10	96.5		
#14	95.1		
#18	93.1		
#25	90.5		
#35	85.9		
#45	78.8		
#60	67.5		
#80	55.6		
#120	29.5		
#170	11.9		
#230	7.6		

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, little sand sized shell fragments, trace silt, light brown-brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 27%

○ Source: TP-VKSM201-2

Sample No.: 9'

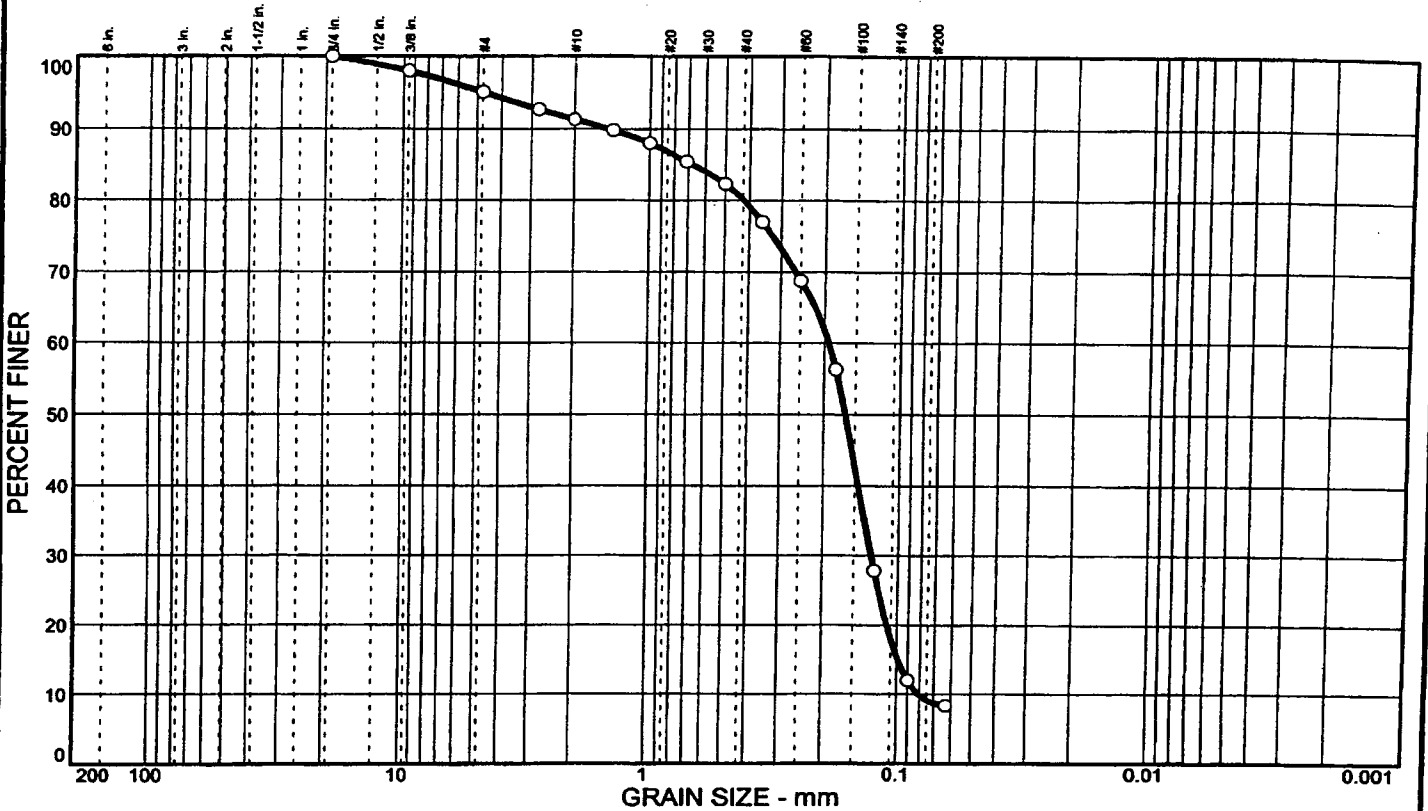
Elev./Depth: +13.9'

Law Engineering and Environmental Services, Inc.

Client: USACE, Jacksonville District
 Project: Virginia Key
 Project No.: 40521-1-8482-07

Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	4.9	86.0	9.1		SP-SM	A-3		

SIEVE inches size	PERCENT FINER		
3/4	100.0		
3/8	98.0		
GRAIN SIZE			
D60	0.193		
D30	0.129		
D10	0.0813		
COEFFICIENTS			
C _c	1.06		
C _u	2.37		

SIEVE number size	PERCENT FINER		
#4	95.1		
#7	92.7		
#10	91.3		
#14	89.8		
#18	88.0		
#25	85.4		
#35	82.3		
#45	77.0		
#60	68.8		
#80	56.3		
#120	27.8		
#170	12.0		
#230	8.3		

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, some sand sized shell fragments, trace silt, brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 30%

○ Source: TP-VKSM201-3

Sample No.: 2'

Elev./Depth: +6.8'

**Law Engineering and
Environmental Services, Inc.**

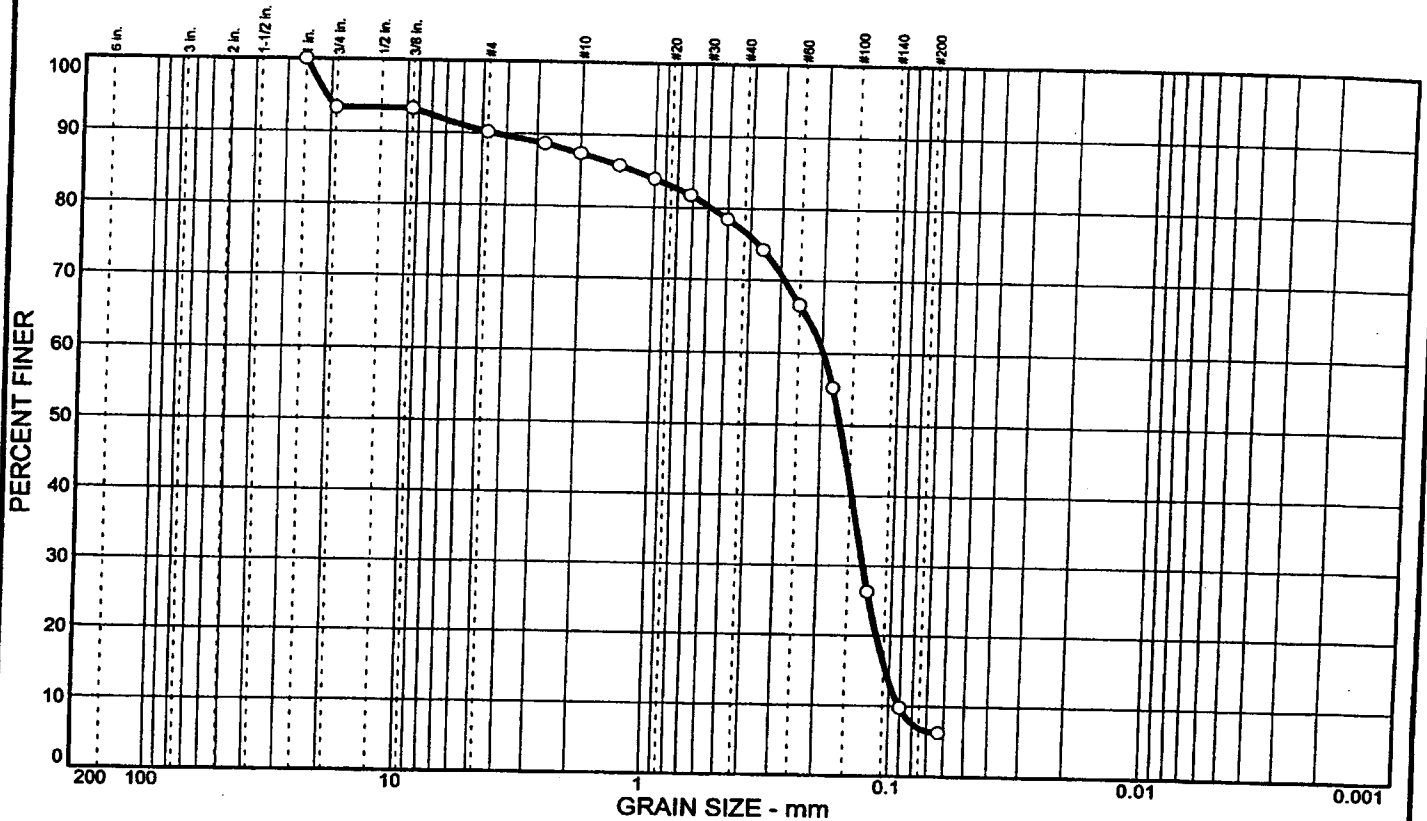
Client: USACE, Jacksonville District

Project: Virginia Key

Project No.: 40521-1-8482-07

Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	9.8	83.3	6.9	6.9	SP-SM	A-3		

SIEVE inches size	PERCENT FINER		
	○		
1	100.0		
3/4	93.3		
3/8	93.3		
X	GRAIN SIZE		
D60	0.198		
D30	0.131		
D10	0.0907		
X	COEFFICIENTS		
Cc	0.96		
Cu	2.19		

SIEVE number size	PERCENT FINER		
	○		
#4	90.2		
#7	88.7		
#10	87.4		
#14	85.8		
#18	84.0		
#25	81.8		
#35	78.5		
#45	74.2		
#60	66.6		
#80	55.2		
#120	26.3		
#170	9.8		
#230	6.3		

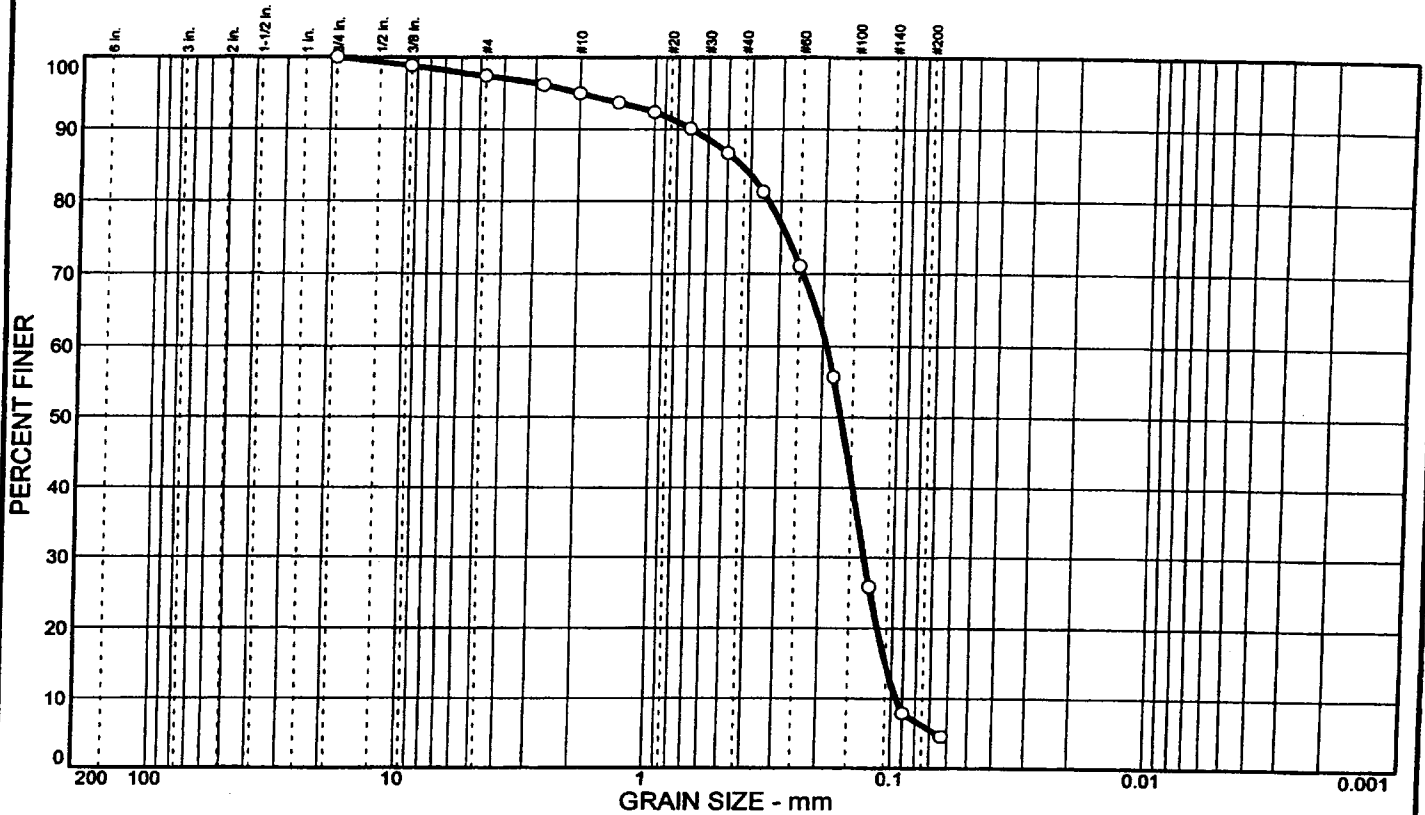
SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, some coarse to fine sand sized shell fragments, trace limestone fragments, trace silt, brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 38%

○ Source: TP-VKSM201-3 Sample No.: 3.5' Elev./Depth: +8.3'

Law Engineering and Environmental Services, Inc.	Client: USACE, Jacksonville District Project: Virginia Key Project No.: 40521-1-8482-07
	Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	2.6	91.2	6.2		SP-SM	A-3		

SIEVE inches size	PERCENT FINER			SIEVE number size	PERCENT FINER			SOIL DESCRIPTION
	○				○			
3/4	100.0			#4	97.4			○ SAND, medium to fine quartz, little sand sized shell fragments, trace silt, light brown and tan REMARKS: ○ North Sand Mound Test Pits Visual Percent Shell: 32%
3/8	98.8			#7	96.2			
GRAIN SIZE				#10	95.0			
D60	0.193			#14	93.7			
D30	0.132			#18	92.4			
D10	0.0957			#25	90.1			
COEFFICIENTS				#35	86.7			
C _c	0.94			#45	81.3			
C _u	2.02			#60	71.1			
				#80	55.7			
				#120	25.8			
				#170	7.9			
				#230	4.5			

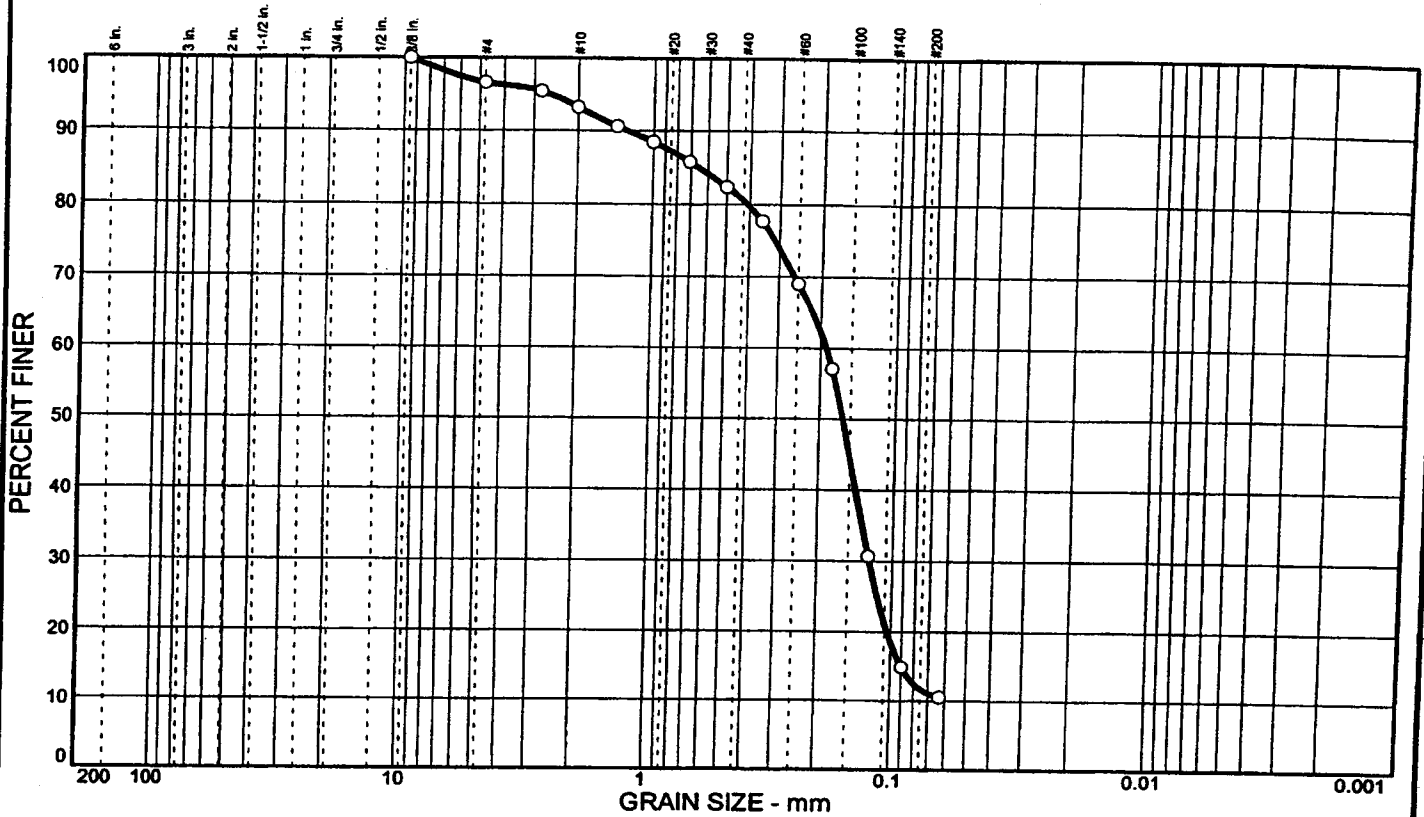
○ Source: TP-VKSM201-3

Sample No.: 5'

Elev./Depth: +9.8'

Law Engineering and Environmental Services, Inc.	Client: USACE, Jacksonville District Project: Virginia Key Project No.: 40521-1-8482-07
	Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	3.4	85.0	11.6		SP-SM	A-2-4(0)		

SIEVE inches size	PERCENT FINER		
	○		
3/8	100.0		
X	GRAIN SIZE		
D60	0.190		
D30	0.124		
D10			
X	COEFFICIENTS		
C _c			
C _u			

SIEVE number size	PERCENT FINER		
	○		
#4	96.6		
#7	95.4		
#10	93.2		
#14	90.6		
#18	88.5		
#25	85.8		
#35	82.4		
#45	77.7		
#60	69.0		
#80	57.1		
#120	30.7		
#170	14.9		
#230	10.5		

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, little sand sized shell fragments, little silt, light brown and dark brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 17%

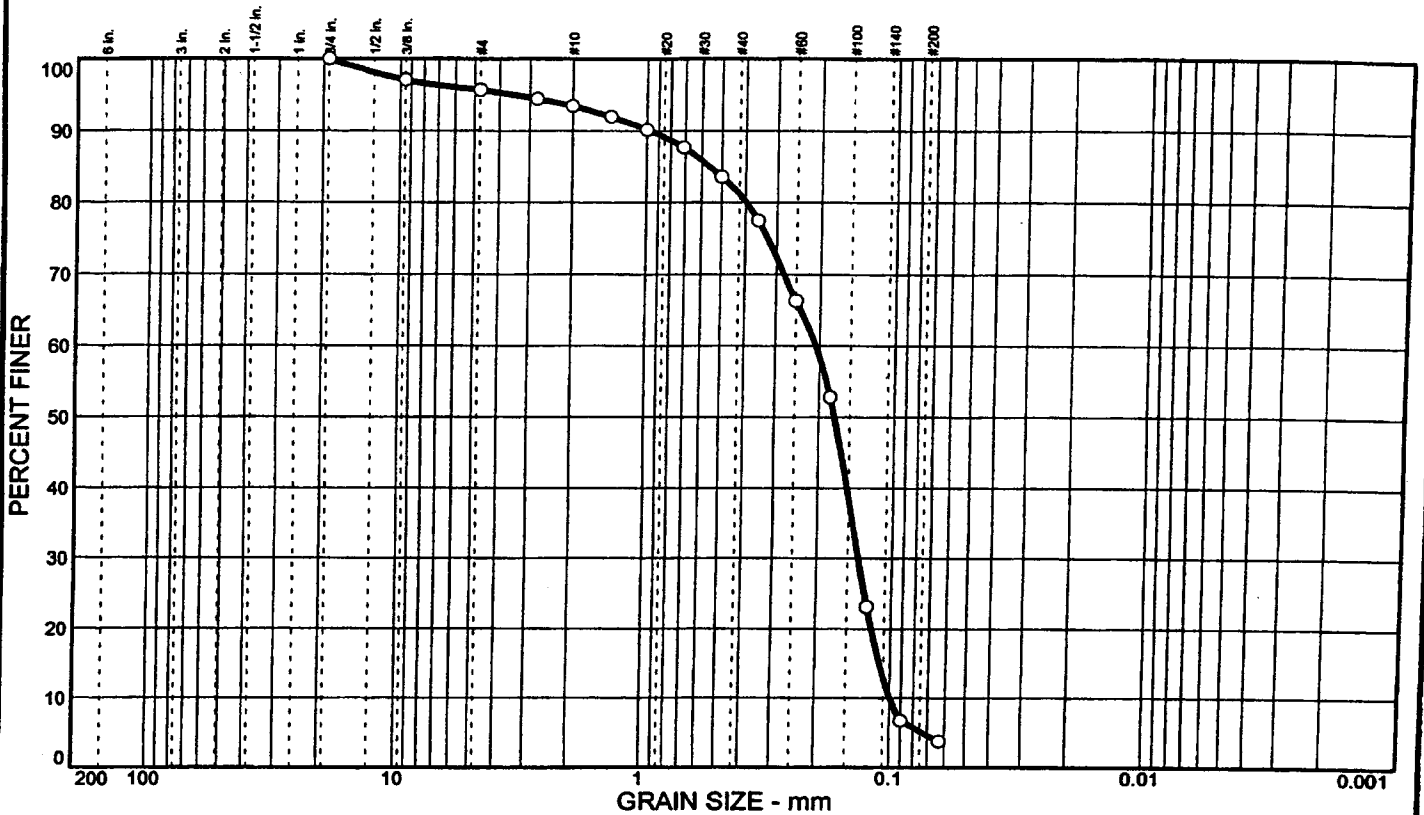
○ Source: TP-VKSM201-4

Sample No.: 2'

Elev./Depth: +8.8'

Law Engineering and Environmental Services, Inc.	Client: USACE, Jacksonville District Project: Virginia Key Project No.: 40521-1-8482-07
	Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	4.3	90.5	5.2		SP-SM	A-3		

SIEVE inches size	PERCENT FINER		
	○		
3/4	100.0		
3/8	97.1		
GRAIN SIZE			
D ₆₀	0.208		
D ₃₀	0.136		
D ₁₀	0.0996		
COEFFICIENTS			
C _c	0.90		
C _u	2.08		

SIEVE number size	PERCENT FINER		
	○		
#4	95.7		
#7	94.5		
#10	93.5		
#14	92.0		
#18	90.2		
#25	87.7		
#35	83.6		
#45	77.5		
#60	66.3		
#80	52.8		
#120	23.1		
#170	6.7		
#230	3.7		

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, some sand size shell fragments, trace silt, light brown

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 29%

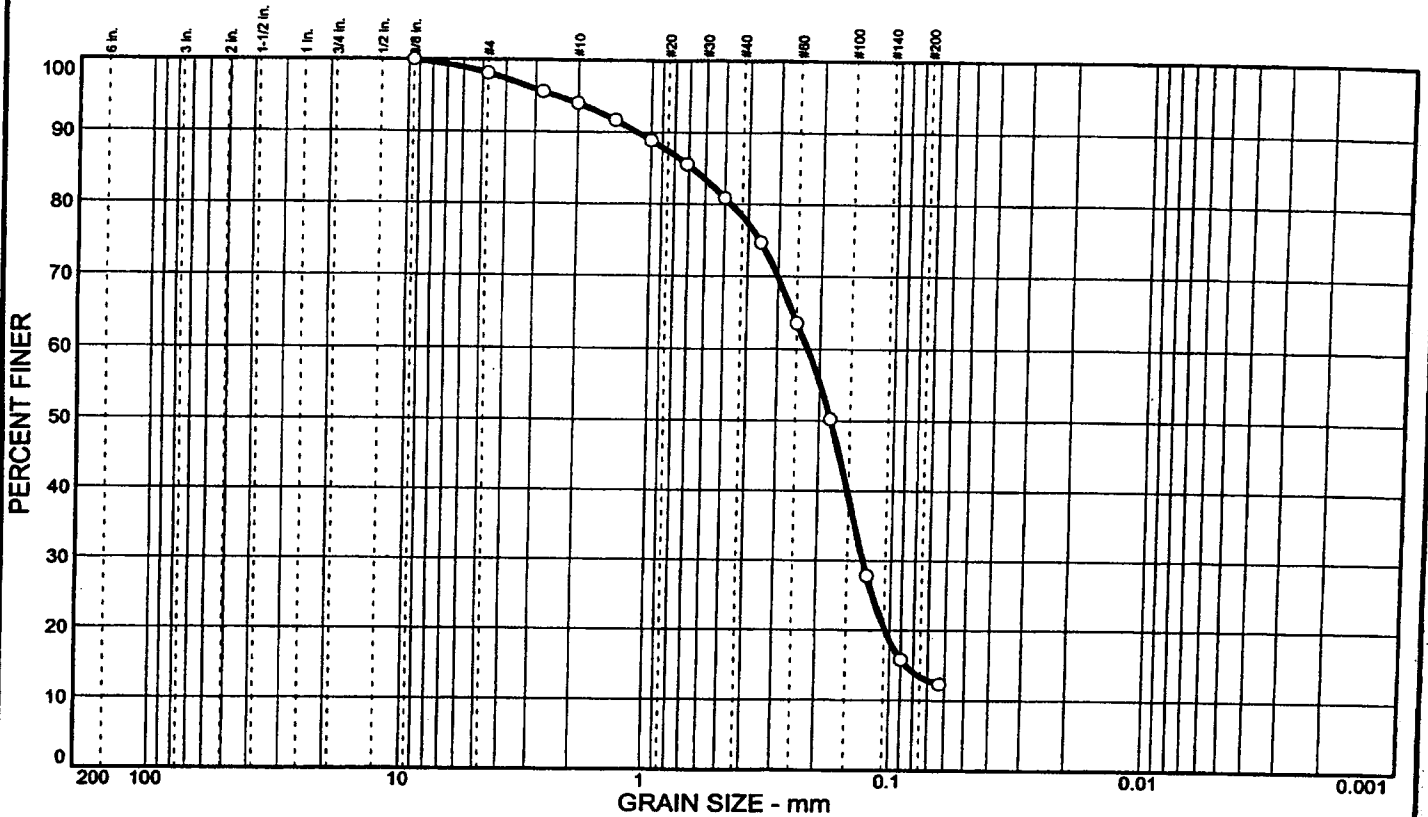
○ Source: TP-VKSM201-4

Sample No.: 5'

Elev./Depth: +11.8'

Law Engineering and Environmental Services, Inc.	Client: USACE, Jacksonville District Project: Virginia Key Project No.: 40521-1-8482-07
	Plate

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY	USCS	AASHTO	PL	LL
0	1.9	84.8	13.3		SM	A-2-4(0)		

SIEVE inches size	PERCENT FINER		
	○		
3/8	100.0		
GRAIN SIZE			
D60	0.226		
D30	0.130		
D10			
COEFFICIENTS			
C _c			
C _u			

SIEVE number size	PERCENT FINER		
	○		
#4	98.1		
#7	95.6		
#10	94.0		
#14	91.7		
#18	88.9		
#25	85.6		
#35	80.9		
#45	74.7		
#60	63.6		
#80	50.2		
#120	27.8		
#170	15.8		
#230	12.3		

SOIL DESCRIPTION
 ○ SAND, medium to fine quartz, little sand sized shell fragments, little silt, trace sand sized limestone fragments, dark brown-gray

REMARKS:
 ○ North Sand Mound Test Pits
 Visual Percent Shell: 13%

○ Source: TP-VKSM201-4

Sample No.: 7'

Elev./Depth: +13.8'

**Law Engineering and
Environmental Services, Inc.**

Client: USACE, Jacksonville District

Project: Virginia Key

Project No.: 40521-1-8482-07

Plate

SECTION 00600
REPRESENTATIONS & CERTIFICATIONS

52.203-2	CERTIFICATE OF INDEPENDENT PRICE DETERMINATION
52.203-11	CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-3	TAXPAYER IDENTIFICATION
52.209-5	CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS
52.219-1 Alt I	SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) ALTERNATE I
52.219-19	SMALL BUSINESS CONCERNS REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM
52.222-22	PREVIOUS CONTRACTS AND COMPLIANCE REPORTS
252.209-7001	DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY
252.247-7022	REPRESENTATION OF EXTENT OF TRANSPORTATION OF SUPPLIES BY SEA
999.209-4002	CERTIFICATE OF AUTHORITY TO BIND CORPORATION
999.209-4003	CERTIFICATE OF AUTHORITY TO BIND PARTNERSHIP

SECTION 00600
REPRESENTATIONS & CERTIFICATIONS

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision

_____ (insert full name of person(s)
in the offeror's organization responsible for determining the prices offered in this bid or proposal,
and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby

incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(1) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of provision)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

"Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

___ TIN: _____

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

___ Government entity (Federal, State, or local);

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other _____

(f) Common parent.

___ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

___ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990.

(2) The small business size standard is \$28.5 million.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it () is, () is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:_____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

___ Black American.

___ Hispanic American.

___ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

___ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

___ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

____ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.
(End of provision)

52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000)

(a) Definition.

"Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror [] is, [] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees Avg. Annual Gross Revenues

- | | |
|-----------------|---------------------------------|
| ___ 50 or fewer | ___ \$1 million or less |
| ___ 51 - 100 | ___ \$1,000,001 - \$2 million |
| ___ 101 - 250 | ___ \$2,000,001 - \$3.5 million |
| ___ 251 - 500 | ___ \$3,500,001 - \$5 million |
| ___ 501 - 750 | ___ \$5,000,001 - \$10 million |
| ___ 751 - 1,000 | ___ \$10,000,001 - \$17 million |
| ___ Over 1,000 | ___ Over \$17 million |

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) () It has, () has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) () It has, () has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

CERTIFICATE OF AUTHORITY TO BIND CORPORATION

The Offeror, if a corporation, shall cause the following certificate to be executed under its corporate seal. The same officer shall not sign both the offer and this certificate.

CERTIFICATE

I, _____,
(Name)

_____ of the corporation named as Offeror
(Title)

herein, certify that _____, who
(Name of person who signed offer)

signed this offer on behalf of the corporation (Offeror), was then

_____ of said corporation, and that said offer was duly
signed for and on behalf of said corporation by authority of its governing body, and is within the
scope of its corporate powers.

(Signature)
(CORPORATE
SEAL)

(Typed Name)

(End of paragraph number 999.209-4002)

CERTIFICATE OF AUTHORITY TO BIND PARTNERSHIP

The Offeror, if a partnership, shall cause the following certificate to be executed. Offeror shall provide a listing of all partners and a copy of the documentation from the partnership agreement authorizing the partner who has signed this offer to act on behalf of the partnership.

CERTIFICATE

We, the undersigned, comprising the total membership of _____
_____, as partnership doing business at _____
_____, do hereby certify that _____ is
_____ of said partnership and is empowered to
represent, bind, and execute contracts on behalf of said partnership.
Witness our signatures, this _____ day of _____ 19____.

WITNESSES:

(Address)

(Address)

(End of paragraph number 999.209-4003)

SECTION 00700
CONTRACT CLAUSES

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SECTION 00700
CONTRACT CLAUSES

52.202-1 DEFINITIONS (MAY 2001) --ALTERNATE I (MAR 2001)

(a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.

(b) Commercial component means any component that is a commercial item.

(c) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

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

(e) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

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

(g) Except as otherwise provided in this contract, the term "subcontracts" includes, but is not limited to, purchase orders and changes and modifications to purchase orders under this contract.

(End of clause)

52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful

jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any

kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$100,000.

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2003)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

State, as used in this clause, means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of clause)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

(a) Definitions. As used in this clause--

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item.

Postconsumer material is a part of the broader category of "recovered material." For paper and paper products, postconsumer material means "postconsumer fiber" defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

"Printed or copied double-sided" means printing or reproducing a document so that information is on both sides of a sheet of paper.

"Recovered material," for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as "recovered fiber" and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)

(a) The Government suspends or debar Contractors to protect the Government's interests. The

Contractor shall not enter into any subcontract in excess of the \$25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed \$25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of clause)

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

The Contractor shall be required to (a) commence work under this contract within 30 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 395 calendar days after receipt of Notice to Proceed (NTP). The time stated for completion 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 \$345.00 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)

52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation

is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.

(End of clause)

52.215-2 AUDIT AND RECORDS--NEGOTIATION (JUN 1999)

(a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Examination of costs. If this is a cost-reimbursement, incentive, time-and-materials, labor-hour, or price redeterminable contract, or any combination of these, the Contractor shall maintain and the Contracting Officer, or an authorized representative of the Contracting Officer, shall have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination shall include inspection at all reasonable times of the Contractor's plants, or parts of them, engaged in performing the contract.

(c) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with any pricing action relating to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

(1) The proposal for the contract, subcontract, or modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the contract, subcontract, or modification; or

(4) Performance of the contract, subcontract or modification.

(d) Comptroller General--(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Contractor's directly pertinent records involving transactions related to this contract or a subcontract hereunder.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Reports. If the Contractor is required to furnish cost, funding, or performance reports, the Contracting Officer or an authorized representative of the Contracting Officer shall have the right to examine and audit the supporting records and materials, for the purpose of evaluating (1) the effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports and (2) the data reported.

(f) Availability. The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs (a), (b), (c), (d), and (e) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in Subpart 4.7, Contractor Records Retention, of the Federal Acquisition Regulation (FAR), or for any longer period required by statute or by other

clauses of this contract. In addition--

(1) If this contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement; and

(2) The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

(g) The Contractor shall insert a clause containing all the terms of this clause, including this paragraph (g), in all subcontracts under this contract that exceed the simplified acquisition threshold, and--

(1) That are cost-reimbursement, incentive, time-and-materials, labor-hour, or price-redeterminable type or any combination of these;

(2) For which cost or pricing data are required; or

(3) That require the subcontractor to furnish reports as discussed in paragraph (e) of this clause.

The clause may be altered only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime contract.

(End of clause)

52.215-10 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (OCT 1997)

(a) If any price, including profit or fee, negotiated in connection with this contract, or any cost reimbursable under this contract, was increased by any significant amount because--

(1) The Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data;

(2) A subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data; or

(3) Any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction.

(b) Any reduction in the contract price under paragraph (a) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which--

(1) The actual subcontract; or

(2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(c)(1) If the Contracting Officer determines under paragraph (a) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2)(i) Except as prohibited by subdivision (c)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the "as of" date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data were known by the Contractor to be understated before the "as of" date specified on its Certificate of Current Cost or Pricing Data; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the "as of" date specified on its Certificate of Current Cost or Pricing Data.

(d) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

(End of clause)

52.215-12 SUBCONTRACTOR COST OR PRICING DATA (OCT 1997)

(a) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(b) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (a) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(c) In each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4, when entered into, the Contractor shall insert either--

(1) The substance of this clause, including this paragraph (c), if paragraph (a) of this clause requires submission of cost or pricing data for the subcontract; or

(2) The substance of the clause at FAR 52.215-13, Subcontractor Cost or Pricing Data-- Modifications.

(End of clause)

52.215-15 PENSION ADJUSTMENTS AND ASSET REVERSIONS (DEC 1998)

(a) The Contractor shall promptly notify the Contracting Officer in writing when it determines that it will terminate a defined-benefit pension plan or otherwise recapture such pension fund assets.

(b) For segment closings, pension plan terminations, or curtailment of benefits, the adjustment amount shall be the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12) for contracts and subcontracts that are subject to Cost Accounting Standards (CAS) Board rules and regulations (48 CFR Chapter 99). For contracts and subcontracts that are not subject to CAS, the adjustment amount shall be the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12), except the numerator of the fraction at 48 CFR 9904.413-50(c)(12)(vi) shall be the sum of the pension plan costs allocated to all non-CAS-covered contracts and subcontracts that are subject to Federal Acquisition Regulation (FAR) Subpart 31.2 or for which cost or pricing data were submitted.

(c) For all other situations where assets revert to the Contractor, or such assets are constructively received by it for any reason, the Contractor shall, at the Government's option, make a refund or give a credit to the Government for its equitable share of the gross amount withdrawn. The Government's equitable share shall reflect the Government's participation in pension costs through those contracts for which cost or pricing data were submitted or that are subject to FAR Subpart 31.2.

(d) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(g).

(End of clause)

52.215-17 WAIVER OF FACILITIES CAPITAL COST OF MONEY (OCT 1997)

The Contractor did not include facilities capital cost of money as a proposed cost of this contract. Therefore, it is an unallowable cost under this contract.

(End of clause)

52.215-18 REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS (OCT 1997)

The Contractor shall promptly notify the Contracting Officer in writing when it determines that it will terminate or reduce a PRB plan. If PRB fund assets revert, or inure, to the Contractor or are constructively received by it under a plan termination or otherwise, the Contractor shall make a

refund or give a credit to the Government for its equitable share as required by FAR 31.205-6(o)(6). The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirements of FAR 15.408(j).

(End of clause)

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall--

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

52.215-21 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable--

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Information on modifications of contracts or subcontracts for commercial items. (A) If--

(1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition or prices set by law or regulation, or was a contract or subcontract for the acquisition of a commercial item; and

(2) The modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the reasonableness of the price of the modification. Such information may include--

(1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.

(2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of clause)

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small

business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

Definitions. As used in this contract--

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern means a small business concern that represents, as part of its offer that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--

(1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(2) Supplies (other than procurement from a nonmanufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

(End of clause)

52.222-3 CONVICT LABOR (JUN 2003)

(a) Except as provided in paragraph (b) of this clause, the Contractor shall not employ in the performance of this contract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.

(b) The Contractor is not prohibited from employing persons--

(1) On parole or probation to work at paid employment during the term of their sentence;

(2) Who have been pardoned or who have served their terms; or

(3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(i) The worker is paid or is in an approved work training program on a voluntary basis;

(ii) Representatives of local union central bodies or similar labor union organizations have been consulted;

(iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;

(iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(v) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of clause)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION. (SEP 2000)

(a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding \$100,000 and require subcontractors to include these

provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

52.222-6 DAVIS-BACON ACT (FEB 1995)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(1) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon

Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

52.222-11 SUBCONTRACTS (LABOR STANDARDS (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act-Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination-Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.

(b)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(ii) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(End of clause)

52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(2) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

(a) Segregated facilities, as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

52.222-26 EQUAL OPPORTUNITY (APR 2002)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with paragraphs

(b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION
(FEB 1999)

(a) Definitions. "Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

"Employer's identification number," as used in this clause, means the Federal Social Security number used on the employer's quarterly federal tax return, U.S. Treasury Department Form 941.

"Minority," as used in this clause, means--

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under

the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area

that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(End of clause)

52.222-35 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Definitions. As used in this clause--

All employment openings means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

Executive and top management means any employee--

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

Other eligible veteran means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

Positions that will be filled from within the Contractor's organization means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Qualified special disabled veteran means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

Special disabled veteran means--

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability--

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (i.e., a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) General. (1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;

- (iii) Rate of pay or any other form of compensation and changes in compensation;
- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
- (vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the Contractor including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.

(2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) Listing openings. (1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it need not advise the State agency of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) Postings. (1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall--

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheelchair).

(4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) Subcontracts. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

(End of clause)

52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;

(iii) Rates of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor, including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings. (1) The Contractor agrees to post employment notices stating--

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of disabled veterans and the number of veterans of the Vietnam era in the workforce of the contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of that total, the number of disabled veterans, and the number of veterans of the Vietnam era.

(b) The above items shall be reported by completing the form entitled "Federal Contractor Veterans' Employment Report VETS-100."

(c) Reports shall be submitted no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date: (1) As of the end of any pay period during the period January through March 1st of the year the report is due, or (2) as of December 31, if the contractor has previous written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The count of veterans reported according to paragraph (a) of this clause shall be based on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all disabled veterans and veterans of the Vietnam era who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that the information is voluntarily provided; that the information will be kept confidential; that disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and that the information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary.

(End of clause)

52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

(a) Definitions. As used in this clause --

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to deter- mine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon

as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination;
or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (MAY 2002)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: None

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....			
Domestic construction material...			
Item 2			
Foreign construction material....			
Domestic construction material...			

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUN 2003)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States and its outlying areas under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

(End of clause)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(3) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101. to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause)

52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

52.228-1 BID GUARANTEE (SEP 1996) (CESAJ ADAPTATION)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. If the bid guarantee is in the form of a bid bond, in accordance with FAR 28.106-1 the bidder shall use Standard Form 24, Bid Bond. Use of any other form may not firmly bind the bidder and sureties to the United States of America and may, therefore, be cause for rejection of the bid. If the bid guarantee is secured by assets owned by individual sureties, the bidder and sureties shall comply with the Pledges Of Assets clause (FAR 52.228-11) of this solicitation. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to

the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be 20 percent of the bid price or \$3,000,000 whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(f) Bid bonds on their face must unequivocally bind the bonding company or the bid will be nonresponsive. The Contracting Officer has authority to decide whether there is adequate evidence of authority to unequivocally bind the bonding company. Evidence of intent to be bound may not be submitted after bid opening. Therefore, in order for a power of attorney accompanying a bid bond to be acceptable, it must be (i) an original (not facsimile) power of attorney, (ii) a copy of a power of attorney (or power of attorney with facsimile signatures) accompanied by an original (not facsimile) signature by the secretary of the company certifying that the power of attorney remains in full force and effect and has not been revoked, or (iii) a copy of a power of attorney with facsimile signatures which indicates on its face that the surety intends to be bound by facsimile signatures AND has a RAISED corporate seal.

(g) In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

(End of clause)

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (OCT 1995)

In accordance with Section 806(a)(3) of Pub. L. 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requester.

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated

to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than \$25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$_____. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _____, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

[Confirming Financial Institution's Letterhead or Name and Address]

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____ /U.S. \$ _____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) _____

[Name and address of financial institution]

Pay to the order of _____ [Beneficiary Agency] _____ the sum of United States \$ _____. This draft is drawn under Irrevocable Letter of Credit No.

_____.

[Beneficiary Agency]

By: _____

(End of clause)

52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUL 2000)-

(a) Definitions. As used in this clause--

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is \$100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 270b(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (APR 2003)

(a) As used in this clause--

"Contract date" means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties" means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or

property covered by this contract.

"After-imposed Federal tax" means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

"After-relieved Federal tax" means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

Local taxes includes taxes imposed by a possession or territory of the United States, Puerto Rico, or the Northern Mariana Islands, if the contract is performed wholly or partly in any of those areas.

(b) The contract price includes all applicable Federal, State, and local taxes and duties.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEP 2002)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

- (i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.
- (ii) A listing of the amount included for work performed by each subcontractor under the contract.
- (iii) A listing of the total amount of each subcontract under the contract.
- (iv) A listing of the amounts previously paid to each such subcontractor under the contract.
- (v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

- (i) Consideration is specifically authorized by this contract; and
- (ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

- (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;
- (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and
- (4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Name)

(Title)

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance

by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract,

progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986) - ALTERNATE I (APR 1984)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of

financing institution described in the preceding sentence. Unless otherwise stated in this contract, payments to an assignee of any amounts due or to become due under this contract shall not, to the extent specified in the Act, be subject to reduction or setoff.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (FEB 2002)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions

(e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated

Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Contractor EFT arrangements. If the Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(j) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

(End of clause)

52.233-1 DISPUTES. (JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding \$100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

As prescribed in 36.502, insert the following clause in solicitations and contracts when a fixed-price construction contract or a fixed-price dismantling, demolition, or removal of improvements contract is contemplated and the contract amount is expected to exceed the small purchase limitation. The Contracting Officer may insert the clause in solicitations and contracts when a fixed-price construction or a fixed-price contract for dismantling, demolition, or removal of improvements is contemplated and the contract amount is expected to be within the small purchase limitation.

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

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 01110 of this contract).

(b) Weather conditions (See Section 00335 of this contract).

(c) Transportation facilities (See Section 01110 of this contract).

(End of clause)

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its

option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor

of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

52.236-13 ACCIDENT PREVENTION (NOV 1991) – ALTERNATE I (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

- (1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;
- (2) avoid interruptions of Government operations and delays in project completion dates; and
- (3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

- (1) Provide appropriate safety barricades, signs, and signal lights;
- (2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and
- (3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.
- (4) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(c) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to

promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(f) Before commencing the work, the Contractor shall-

(1) Submit a written proposed plan for implementing this clause. The plan shall include an analysis of the significant hazards to life, limb, and property inherent in contract work performance and a plan for controlling these hazards; and

(2) Meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

(End of clause)

52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms 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.

(End of clause)

52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(End of clause)

52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams,

layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer

determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the Government-furnished facilities, equipment, materials, services, or site; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

- (1) the date, circumstances, and source of the order and
- (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

52.244-2 SUBCONTRACTS (AUG 1998)

(a) Definitions. As used in this clause--

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d) or (e) of this clause.

(d) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that--

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds--

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

None

(f)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting--

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination--

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(h) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

None

(End of clause)

52.244-5 COMPETITION IN SUBCONTRACTING (DEC 1996)

(a) The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

(b) If the Contractor is an approved mentor under the Department of Defense Pilot Mentor-Protege Program (Pub. L. 101-510, section 831 as amended), the Contractor may award subcontracts under this contract on a noncompetitive basis to its proteges.

(End of clause)

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (APR 2003)

(a) Definitions.

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) (1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1)

by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of clause)

52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)
(SEP 1996) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government

to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if--

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

(i) acts of God or of the public enemy,

(ii) acts of the Government in either its sovereign or contractual capacity,

(iii) acts of another Contractor in the performance of a contract with the Government,

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998) (CESAJ ADAPTATION)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

For FAR: <http://www.arnet.gov/far/>

For DFARS: <http://www.acq.osd.mil/dp/dars/dfars.html>

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Defense FAR Supplement (48 CFR Chapter 2) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(5) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

(1) “Arising out of a contract with the DoD” means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) “Conviction of fraud or any other felony” means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of *nolo contendere*, for which sentence has been imposed.

(3) “Date of conviction” means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly—

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

- (1) The person involved;
- (2) The nature of the conviction and resultant sentence or punishment imposed;
- (3) The reasons for the requested waiver; and
- (4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) Definitions.

As used in this clause--

- (1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.
- (2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.
- (3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.
- (4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at <http://www.ccr.gov>.

(End of clause)

252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS
(DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-268; 25 U.S.C. 450 (c))); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE
INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV
1995)

(a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of \$25,000 with a firm, or subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(End of clause)

252.215-7000 PRICING ADJUSTMENTS (DEC 1991)

The term "pricing adjustment," as used in paragraph (a) of the clauses entitled "Price Reduction for Defective Cost or Pricing Data - Modifications," "Subcontractor Cost or Pricing Data," and "Subcontractor Cost or Pricing Data - Modifications," means the aggregate increases and/or decreases in cost plus applicable profits.

(End of clause)

252.215-7002 COST ESTIMATING SYSTEM REQUIREMENTS (OCT 1998)

(a) "Definition."

"Estimating system" means the Contractor's policies, procedures, and practices for generating estimates of costs and other data included in proposals submitted to customers in the expectation of receiving contract awards. Estimating system includes the Contractor's --

- (1) Organizational structure;
- (2) Established lines of authority, duties, and responsibilities;
- (3) Internal controls and managerial reviews;
- (4) Flow of work, coordination, and communication; and
- (5) Estimating methods, techniques, accumulation of historical costs, and other analyses used to generate cost estimates.1997

(b) "General."

(1) The Contractor shall establish, maintain, and comply with an estimating system that is consistently applied and produces reliable, verifiable, supportable, and documented cost estimates that are an acceptable basis for negotiation of fair and reasonable prices.

(2) The system should be --

(i) Consistent and integrated with the Contractor's related management systems; and

(ii) Subject to applicable financial control systems.

(c) "Applicability". Paragraphs (d) and (e) of this clause apply if the Contractor is a large business and either --

(1) In its fiscal year preceding award of this contract, received Department of Defense (DoD) prime contracts or subcontracts, totaling \$50 million or more for which certified cost or pricing data were required; or

(2) In its fiscal year preceding award of this contract --

(i) Received DoD prime contracts or subcontracts totaling \$10 million or more (but less than \$50 million) for which certified cost or pricing data were required; and

(ii) Was notified in writing by the Contracting Officer that paragraphs (d) and (e) of this clause apply.

(d) "System requirements."

(1) The Contractor shall disclose its estimating system to the Administrative Contracting Officer (ACO) in writing. If the Contractor wishes the Government to protect the information as privileged or confidential, the Contractor must mark the documents with the appropriate legends before submission.

(2) An estimating system disclosure is adequate when the Contractor has provided the ACO with documentation that--

(i) Accurately describes those policies, procedures, and practices that the Contractor currently uses in preparing cost proposals; and

(ii) Provides sufficient detail for the Government to reasonably make an informed judgment regarding the acceptability of the Contractor's estimating practices.

(3) The Contractor shall --

(i) Comply with its disclosed estimating system; and

(ii) Disclose significant changes to the cost estimating system to the ACO on a timely basis.

(e) "Estimating system deficiencies."

(1) The Contractor shall respond to a written report from the Government that identifies deficiencies in the Contractor's estimating system as follows:

(i) If the Contractor agrees with the report findings and recommendations, the Contractor shall --

(A) Within 30 days, state its agreement in writing; and

(B) Within 60 days, correct the deficiencies or submit a corrective action plan showing proposed milestones and actions leading to elimination of the deficiencies.

(ii) If the Contractor disagrees with the report, the Contractor shall, within 30 days, state its rationale for disagreeing.

(2) The ACO will evaluate the Contractor's response and notify the Contractor of the determination concerning remaining deficiencies and/or the adequacy of any proposed or completed corrective action.

(End of clause)

252.219-7009 SECTION 8(A) DIRECT AWARD (MAR 2002)

(a) This contract is issued as a direct award between the contracting office and the 8(a) Contractor pursuant to the Partnership Agreement dated February 1, 2002, between the Small Business Administration (SBA) and the Department of Defense. Accordingly, the SBA, even if not identified in Section A of this contract, is the prime contractor and retains responsibility for 8(a) certification, for 8(a) eligibility determinations and related issues, and for providing counseling and assistance to the 8(a) Contractor under the 8(a) Program. The cognizant SBA district office is:

US Small Business Administration
Section 8(a) Business Development Program
100 S. Biscayne Blvd. 7th Floor
Miami, FL 33131

(b) The contracting office is responsible for administering the contract and for taking any action on behalf of the Government under the terms and conditions of the contract; provided that the contracting office shall give advance notice to the SBA before it issues a final notice terminating performance, either in whole or in part, under the contract. The contracting office also shall coordinate with the SBA prior to processing any novation agreement. The contracting office may assign contract administration functions to a contract administration office.

(c) The Contractor agrees that--

(1) It will notify the Contracting Officer, simultaneous with its notification to the SBA (as required by SBA's 8(a) regulations at 13 CFR 124.308), when the owner or owners upon whom 8(a) eligibility is based plan to relinquish ownership or control of the concern. Consistent with Section 407 of Pub. L. 100-656, transfer of ownership or control shall result in termination of the contract for convenience, unless the SBA waives the requirement for termination prior to the actual relinquishing of ownership and control; and

(2) It will not subcontract the performance of any of the requirements of this contract without the prior written approval of the SBA and the Contracting Officer.

(End of clause)

252.223-7001 HAZARD WARNING LABELS (DEC 1991)

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

- (1) Federal Insecticide, Fungicide and Rodenticide Act;
- (2) Federal Food, Drug and Cosmetics Act;
- (3) Consumer Product Safety Act;
- (4) Federal Hazardous Substances Act; or
- (5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert "None.")	ACT

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employee has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2.1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988)), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (FEB 2003)

(a) Definitions. As used in this clause--

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To foods that have been manufactured or processed in the United States, its possessions, or Puerto Rico, regardless of where the foods (and any component if applicable) were grown or produced, except that this clause does apply to fish, shellfish, or seafood manufactured or processed in the United States and fish, shellfish, or seafood contained in foods manufactured or processed in the United States;

(4) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(5) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(End of clause)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (APR 2003)

(a) Definitions. As used in this provision--

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

252.226-7001 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES-DOD CONTRACTS (SEP 2001)

(a) Definitions. As used in this clause--

“Indian” means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any “Native” as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

“Indian organization” means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C. Chapter 17.

“Indian-owned economic enterprise” means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452 (c).

“Interested party” means a contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contract shall use its best efforts to give Indian organizations and Indian-owned economic enterprises the maximum practicable opportunity to participate in the subcontracts it awards, to the fullest extent consistent with efficient performance of the contract.

(c) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless and interested party challenges its status or the Contracting Officer has independent reason to question that status.

(d) In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs, Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street NW, MS-2626-MIB, Washington, DC 20240-4000. The BIA will determine the eligibility and will notify the Contracting Officer. No incentive payment will be made--

(1) Within 59 working days of subcontract award;

(2) While a challenge is pending; or

(3) If a subcontractor is determined to be an ineligible participant.

(e)(1) The Contractor, on its own behalf or on behalf of a subcontractor at any tier, may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee contract.

(iii) The target cost and ceiling price of a fixed-price incentive contract.

(iv) The price of a firm-fixed-price contract.

(2) The amount of the adjustment that may be made to the contract is 5 percent of the estimated cost, target cost, or firm-fixed price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(3) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(4) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor.

(5) If the Contractor requests and receives an adjustment on behalf of a subcontractor, the Contractor is obligated to pay the subcontractor the adjustment.

(f) The Contractor shall insert the substance of this clause, including this paragraph (f), in all subcontracts that--

(1) Are for other than commercial items; and

(2) Are expected to exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

(End of clause)

252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

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	Drawing No.
Virginia Key Dade County, Florida Plans for Shoreline Rehabilitation Project	D.O. File No.24-38,277 Dated February 2002	Cover Plus 19 Drawings

(End of clause)

252.236-7002 OBSTRUCTION OF NAVIGABLE WATERWAYS. (DEC 1991)

(a) The Contractor shall --

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may --

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et. seq.).

252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAY 2002)

(a) Definitions. As used in this clause --

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) "Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if--

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

(1) Type, weight, and cube of cargo;

(2) Required shipping date;

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

- (1) Prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;
- (6) Port of final discharge;
- (7) Description of commodity;
- (8) Gross weight in pounds and cubic feet if available;
- (9) Total ocean freight in U.S. dollars; and
- (10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

- (1) No ocean transportation was used in the performance of this contract;
- (2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;
- (3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or
- (4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

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

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

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

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

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

(End of clause)

252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause)

SECTION 00800
SPECIAL REQUIREMENTS

52.223-3	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997) (CESAJ ADAPTATION)
998.231-1	EFARS 52.231-5000 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)
998.232-3	EFARS 52.232-5002 CONTINUING CONTRACTS (ALTERNATE) (MAR 1995)
998.249-1	EFARS 52.249-5000 BASIS FOR TERMINATION SETTLEMENT PROPOSALS
999.201-4002	UNAUTHORIZED INSTRUCTIONS FROM GOVERNMENT OR OTHER PERSONNEL
999.203-4000	DFARS 203-70 - CONTRACTOR STANDARDS OF CONDUCT
999.236-4030	NOTICE TO MARINERS -- CONSTRUCTION CONTRACTS
999.239-1	AUTOMATED INFORMATION SYSTEM SECURITY
52.200-1	WAGE DETERMINATION

SECTION 00800
SPECIAL REQUIREMENTS

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	Identification No.
(If none, insert "None") (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)

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 52.232-5002 CONTINUING CONTRACTS (ALTERNATE) (MAR 1995)

(a) Funds are not available at the inception of this contract to cover the entire contract price. The sum of \$1,000.00 has been reserved for this contract and is available for payment 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. The liability of the United States for payments beyond the funds reserved for this contract is contingent on the reservation of additional funds.

(b) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not be considered a breach of this contract, and shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (e) and (h) below.

(c) 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.

(d) 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 this 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.

(e) No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. If and when sufficient additional funds are reserved, the contractor shall be entitled to simple interest on any payment that the contracting officer determines was actually earned under the terms of this 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.

(f) 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 a Suspension of Work or similar clause or in any other manner under this contract.

(g) 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.

(h) 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 at no cost to the Government, except that, to the extent that additional funds to make payment therefore are allocated to this contract, it may be treated as a termination for the convenience of the Government.

(i) 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 this 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.

(j) The term "Reservation" means monies that have been set aside and made available for payments under this contract.

(End of clause)
(CESAJ paragraph number 998.232-3)

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:

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.

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)

NOTICE TO MARINERS -- CONSTRUCTION CONTRACTS

Should the Contractor, during 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)

AUTOMATED INFORMATION SYSTEM SECURITY

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

In accordance with Engineering Regulation, ER 380-1-18, Section 4, foreign nationals who work on Corps of Engineers' contracts or task orders shall be approved by the HQUSACE Foreign Disclosure Officer or higher before beginning work on the contract/task order. This regulation includes subcontractor employees. (NOTE: exceptions to the above requirement include foreign nationals who perform janitorial and/or ground maintenance services.) The contractor shall submit to the U.S. Army Corps of Engineers, Jacksonville District Contract Office, the names of all foreign nationals proposed for performance under this contract/task order, along with documentation to verify that he/she was legally admitted into the United States and has authority to work and/or go to school in the US. Such documentation may include a US passport, Certificate of US citizenship (INS Form N-560 or N-561), Certificate of Naturalization (INS Form N-550 or N-570), foreign passport with I-551 stamp or attached INS Form I-94 indicating employment authorization, Alien Registration Receipt Card with photograph (INS Form I-151 or I-551), Temporary Resident Card (INS Form I-688), Employment Authorization Card (INS Form I-688A), Reentry Permit (INS Form I-327), Refugee Travel Document (INS Form I-571), Employment Authorization Document issued by the INS which contains a photograph (INS Form I-688B).

Classified contracts require the issuance of a DD Form 254 (Department of Defense Contract Security Classification Specification).

(End of Paragraph 999.239-1)

SECTION 00800A
WAGE DETERMINATIONS & OTHER ATTACHMENTS

LIST OF CONSTRUCTION CONTRACT ATTACHMENTS

NO.	TITLE	DATE	NO. OF PAGES
1	GENERAL DECISION NUMBER FL030032	06/13/2003	3

52.200-1

General Decision Number FL030032

General Decision Number **FL030032**

Superseded General Decision No. FL020032

State: Florida

Construction Type:

HEAVY

County(ies):

BROWARD LEE ST LUCIE

COLLIER MARTIN

DADE PALM BEACH

HEAVY CONSTRUCTION PROJECTS (Excluding Sewer & Water Lines)

Modification Number Publication Date

0 06/13/2003

COUNTY(ies):

BROWARD LEE ST LUCIE

COLLIER MARTIN

DADE PALM BEACH

CARP1026D 08/01/2002

	Rates	Fringes
PILEDRIVERMEN	20.25	4.70

ELEC0323C 09/05/1993

	Rates	Fringes
MARTIN, PALM BEACH, AND ST LUCIE COUNTIES ELECTRICIANS	15.88	21.5%

ELEC0349B 06/01/2002

	Rates	Fringes
DADE COUNTY ELECTRICIANS: Electrical contracts including materials that are less than \$2,000,000	20.50	4.30+8%
Electrical contracts including materials that are \$2,000,000 and over	22.96	4.30+8%

ELEC0728A 09/01/2001

	Rates	Fringes
BROWARD AND COLLIER COUNTIES ELECTRICIANS	22.96	3%+6.18

ELEC0915B 12/01/2000

	Rates	Fringes
LEE COUNTY ELECTRICIANS	20.09	27%+.25

ENGI0487B 10/01/2001

	Rates	Fringes
DADE COUNTY POWER EQUIPMENT OPERATORS: Backhoes, Bulldozers	18.30	3.40
Cranes	21.88	3.40
Oilers	16.15	3.40

ENGI0487C 07/01/2001

	Rates	Fringes
BROWARD, COLLIER, LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES POWER EQUIPMENT OPERATORS: All Tower Cranes and all Cranes with boom length 150 ft and over	21.64	5.50
Cranes with boom length less than 150 ft, Backhoes, and Bulldozers	20.92	5.50
Oilers	17.69	5.50

PLUM0630A 01/01/2003

	Rates	Fringes
LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES PIPEFITTERS	26.61	5.91

PLUM0725B 01/16/2001

	Rates	Fringes
BROWARD AND DADE COUNTIES PIPEFITTERS	23.10	5.90

SUFL2016A 01/26/1990

	Rates	Fringes
CARPENTERS	12.71	2.71
CEMENT MASONS	10.50	
LABORERS	5.72	
POWER EQUIPMENT OPERATORS: Loaders	11.25	2.55

WELDERS - Receive rate prescribed for craft performing operation
to which welding is incidental.
=====

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates
listed under that identifier do not reflect collectively
bargained wage and fringe benefit rates. Other designations
indicate unions whose rates have been determined to be
prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can
be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a
position on a wage determination matter
- * a conformance (additional classification and rate)
ruling

On survey related matters, initial contact, including requests
for summaries of surveys, should be with the Wage and Hour
Regional Office for the area in which the survey was conducted
because those Regional Offices have responsibility for the
Davis-Bacon survey program. If the response from this initial
contact is not satisfactory, then the process described in 2.)
and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.
END OF GENERAL DECISION

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01780 CLOSEOUT SUBMITTALS

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02391 BEACH FILL
02398N GROIN TIMBERWORK
02461N WOOD MARINE PILES

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DIVISION 05 - Not Used

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PART 2 PRODUCTS (NOT APPLICABLE)

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-- End of Section Table of Contents --

SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

COE EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 WORK COVERED BY CONTRACT DOCUMENTS

1.2.1 Project Description

Description of Work: Virginia Key is located between the city of Miami and Key Biscayne. The Virginia Key beach area to be rehabilitated is located along 3,500 feet of the Bear Cut/Atlantic Ocean shoreline. Access to the site is from the Rickenbacker Causeway. The project consists of demolishing and building 25 timber groins ranging in length from 30 to 70 feet long. This accounts for 1,030 linear feet of timber groins. The groins are to be constructed in 10-foot sections and anchored with 20' long tapered (12") timber piles. Rough-cut timber 3"x 8" (S2E) is to be bolted to 6"x 8" (full dimension) timbers and the timber piles. The central portion of the existing groin field includes 26 concrete king piles with horizontal timber panels (192 LF of structure). After removal, the salvageable timber groins and timber panels shall be stockpiled on-site. Unsalvageable timber piles and planks shall be disposed in a manner acceptable to the Contracting Officer. The concrete king piles shall be placed in the Brickell Offshore Disposal Site or disposed in a manner acceptable to the Contracting Officer. A site located at the southeast side of the Marine Stadium on Virginia Key may be used to deploy the concrete king piles to the Brickell site.

Three new timber-pile groins will be constructed along a 1,300-foot reach of eroded shoreline. Approximately 1,500 linear feet (LF) of new timber groins will be constructed within this area. Beach fill and a dune feature will be added to this reach of shoreline after completion of the new timber groins. Approximately 2,960 cubic yards of sand will be required for the beach fill and dune feature. The source of the material will come from either of two stockpiles of dredged material located adjacent to the project area or from an upland source. The material from the two borrow mounds will have to be processed to remove particles coarser than $\frac{3}{4}$ -inch

and reduce the percentage of silt to below 2 percent. Various debris along the existing shoreline will have to be removed prior to placement of beach fill.

Four alternatives are presented to complete this project. In Alternate A, the Contractor will obtain processed sand from the borrow mounds at the project site and dispose of the concrete king piles into the Brickell Offshore Disposal Site. In Alternate B, the Contractor will obtain processed sand from the borrow mounds at the project site and dispose of concrete king piles in a manner acceptable to the Contracting Officer but not at the Brickell site. In Alternate C, the Contractor will obtain sand from an upland source that meets the requirements of the specifications and dispose of the concrete king piles into the Brickell site. In Alternate D, the Contractor will obtain sand from an upland source that meets the requirements of the specifications and dispose of the concrete king piles in a manner acceptable to the Contracting Officer but not at the Brickell site. The Contractor is required to bid all the alternatives.

1.2.2 Location

The work shall be located at Virginia Key between Miami and Key Biscayne, approximately as indicated. The exact location will be shown by the Contracting Officer.

1.2.3 Safety Requirements

See Section 01525 GENERAL SAFETY REQUIREMENTS and COE EM 385-1-1.

1.3 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 00700 CONTRACT CLAUSES.

1.4 LIQUIDATED DAMAGES - CONSTRUCTION

Refer to the Clause LIQUIDATED DAMAGES - CONSTRUCTION (FAR 52.211-12 of Section 00700 CONTRACT CLAUSES.

1.5 PHYSICAL DATA

Read this paragraph in conjunction with the Clause PHYSICAL DATA (FAR 52.236-4) of Section 00700 CONTRACT CLAUSES.

1.5.1 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 in Section 00320 GEOTECHNICAL DATA and the core boring locations are shown on the drawings. Also, see section 00320 Geotechnical Data for instruction concerning availability of core borings for inspection.

1.5.2 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.

1.5.3 Maritime Traffic

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

1.5.4 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.

1.6 LAYOUT OF WORK

Read this paragraph in conjunction with the Clause LAYOUT OF WORK (FAR 52.236-17) of Section 00700 CONTRACT CLAUSES.

1.6.1 Layout

From 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.

1.6.2 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 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.

1.7 DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES. 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 Clause CHANGES of Section 00700 CONTRACT CLAUSES 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.

1.8 EXISTING WORK

In addition to "FAR 52.236-9, Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements":

- a. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work which remain.
- b. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as approved by the Contracting Officer. At the completion of operations, existing work shall be in a condition equal to or better than that which existed before new work started.

1.9 LOCATION OF UNDERGROUND FACILITIES

Verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed but indicated in locations to be traversed by piping, ducts, and other work to be installed.

1.10 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (31 OCT 1989)

This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES. In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

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

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

1.10.1 Contractor Responsibility

Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph (b) above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the Clause DEFAULT (FIXED PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES.

1.11 UNITS OF MEASURE

The standard U.S. system of measure may be utilized by the Contractor in the performance of his work. All survey records, official documentation, engineering data, and all correspondence, including any submittals and shop drawings, shall clearly denote which system of measure is being utilized, referenced or discussed. Any omission, unprofessional or inaccurate use of a unit of measure on the part of the Contractor shall not relieve him of his responsibilities under the contract terms. The unit of measure used in this specification is the standard U.S. system. The contract drawings denote both standard U.S. system and metric system where appropriate. If no unit of measure is indicated on the drawing such as on ranges, stations, slope elevations, and distance numbers, then they are to be considered the standard U.S. system.

1.12 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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SECTION 01270

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- 1.1.3 Beach Fill Tilling (0001AJ, 0002AJ, 0003AJ, and 0004AJ).
- 1.1.4 Sea Turtle Monitoring (0001AK, 0002AK, 0003AK, and 0004AK).
- 1.1.5 Migratory Bird Monitoring (0001AL, 0002AL, 0003AL, and 0004AL)
- 1.1.6 Disposal of Concrete King Piles (0001AM, 0002AM, 0003AM, and 0004AM)

1.2 UNIT PRICE PAYMENT ITEMS

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 - 1.2.1.2 Measurement
 - 1.2.1.3 Unit of Measure
- 1.2.2 Debris Removal (0001AB, 0002AB, 0003AB, and 0004AB)
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- 1.2.3 Construction Of Timber Groins (0001AE, 0002AE, 0003AE and 0004AE).
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 - 1.2.6.1 Unit of Measure

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

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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 Pre- and Final Condition Surveys (Line Items 0001AA, 0002AA, 0003AA and 0004AA).

In accordance with paragraph QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES, Contractor shall perform pre- and post-construction topographic survey at profile monument stations shown from base line to point slope intercepts pre-construction surveyed condition shore surface. In order to achieve final grade in slough zone, Contractor shall place material to final grade within tolerance for entire slope or may stockpile beach fill up-slope of slough zone. After stockpiled beach fill is measured for payment, Contractor shall shape slope to within 0.5 foot of final grade from top of slope to waterline producing a smooth uniform slope. Once post-construction survey is performed, no measurements will be revised except on suspicion of fraud or obvious error.

1.1.2 Turbidity Monitoring (Line Items 0001AH, 0002AH, 0003AH, and 0004AH).

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.

1.1.3 Beach Fill Tilling (0001AJ, 0002AJ, 0003AJ, and 0004AJ).

Payment will be made for costs associated with or incidental to barricades and signs, debris removal, vegetation removal/disposal, and final dressing;

1.1.4 Sea Turtle Monitoring (0001AK, 0002AK, 0003AK, and 0004AK).

Payment will be made for costs associated with or incidental to endangered

species observers. See Section 01355 ENVIRONMENTAL PROTECTION.

1.1.5 Migratory Bird Monitoring (0001AL, 0002AL, 0003AL, and 0004AL)

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

1.1.6 Disposal of Concrete King Piles (0001AM, 0002AM, 0003AM, and 0004AM)

Payment will be made for costs associated with or incidental to excavation, transportation, and disposal of Concrete King Piles; providing and maintaining access to the work site(s) and disposal area(s);

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 Beach Fill (0001AF, 0002AF, 0003AF and 0004AF).

1.2.1.1 Payment

Payment will be made for costs associated with or incidental to barricades and signs, debris removal, pipeline crossing, excavation and transportation of beach fill, constructing the beach profile and final dressing; noise control; turbidity curtains; monitoring sea turtles; and, monitoring and reporting turbidity. See Sections 02391 BEACH FILL, 01355 ENVIRONMENTAL PROTECTION, 02398 Timber Work, 02461 Wood Marine Piles, 02220 Demolition and 01411 TURBIDITY AND DISPOSAL MONITORING.

1.2.1.2 Measurement

a. The maps and/or drawings already prepared (paragraph CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS of Section 00700 SPECIAL CONTRACT REQUIREMENTS) are believed to represent accurately the existing conditions at the time the surveys were performed, but the depths and elevations shown thereon may be verified and corrected by elevations and soundings taken before commencing the work. Determination of quantities placed and the deductions made therefrom to determine quantities by place measurement to be paid for within a specified reach or section, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

b. Beach fill satisfactorily placed will be measured for payment by use of the average end area method. The quantities shall be computed by the Government in accordance with paragraph QUANTITY SURVEYS Measurement of quantity placed for pay purposes will be based on original and final cross sections made on the section or reach

indicated on the drawings. The Contractor shall give 3 calendar days advance notice, in writing, to the Contracting Officer's Representative of the need to perform the original and final surveys. Quality Control Surveys shall be the responsibility of the Contractor. Monthly partial payments will be based on approximate quantities determined by measurement of the in-place beach fill and in accordance with paragraph QUANTITY SURVEYS of Section 00700 SPECIAL CONTRACT REQUIREMENTS.

1.2.1.3 Unit of Measure

Cubic yard.

1.2.2 Debris Removal (0001AB, 0002AB, 0003AB, and 0004AB)

1.2.2.1 Payment

Payment will be made for costs associated with or incidental to barricades and signs for debris removal.

1.2.2.2 Unit of Measure

Acre

1.2.3 Construction Of Timber Groins (0001AE, 0002AE, 0003AE and 0004AE).

Payment will be made for costs associated with Construction Of Timber Groins.

1.2.3.1 Unit of Measure

Linear Feet

1.2.4 Removal of Timber Groins (0001AD, 0002AD, 0003AD, 0004AD).

Payment will be made for costs associated with removal and Disposal of Timber Groins.

1.2.4.1 Unit of Measure

Linear Feet

1.2.5 Sand Dune Fill (0001AG, 0002AG, 0003AG, 0004AG)

Sand Dune fill satisfactorily placed will be measured for payment by use of the average end area method. The quantities shall be computed by the Government in accordance with paragraph QUANTITY SURVEYS Measurement of quantity placed for pay purposes will be based on original and final cross sections made on the section or reach indicated on the drawings. The Contractor shall give 3 calendar days advance notice, in writing, to the Contracting Officer's Representative of the need to perform the original and final surveys. Quality Control Surveys shall be the responsibility of the Contractor. Monthly partial payments will be based on approximate quantities determined by measurement of the in-place beach fill and in accordance with paragraph QUANTITY SURVEYS of Section 00700 SPECIAL

CONTRACT REQUIREMENTS.

1.2.5.1 Unit of Measure

Cubic Yard

1.2.6 Removal of Concrete king Piles and Timber panels (0001AC, 0002AC, 0003AC and 0004AC).

Payment will be made for costs associated with removal and Disposal of Concrete king Piles and Timber panels.

1.2.6.1 Unit of Measure

Linear Feet

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01310

ADMINISTRATIVE PROCEDURES

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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.

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.

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.

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.

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.

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). 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

Submittals required by this Section are described in paragraph SUBMITTALS above.

1.6.2.1 Other Division 01 Submittals

Bring listed Division 01 submittals in draft form to Preconstruction Conference:

-- Submittal Register - See Section 01330 SUBMITTAL PROCEDURES--
Environmental Protection Plan - See Section 01355 ENVIRONMENTAL PROTECTION--
Quality Control Plan - See Section 01451A -
CONTRACTOR QUALITY CONTROL --
Temporary Facilities Plan - See Section 01500

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

1.6.2.2 Divisions 02 through 16 Submittals

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
- Local Sponsor (Owner)

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
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 date
Review site safety

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

3.3 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm.

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SECTION 01312

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SECTION 01312

RESIDENT MANAGEMENT SYSTEM (RMS)

PART 1 GENERAL

1.1 REFERENCES

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

ENGINEERING REGULATIONS (ER)

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

1.2 GENERAL REQUIREMENTS

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

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

1.2.1 Correspondence and Electronic Communications

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

1.2.2 Other Factors

Particular attention is directed to Clauses SCHEDULES FOR CONSTRUCTION CONTRACTS and PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section

00700 CONTRACT CLAUSES; and, Sections 01321 CONSTRUCTION PROGRESS DOCUMENTATION, 01330 SUBMITTAL PROCEDURES, and 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through RMS-QC. Also, there is no separate payment for establishing and maintaining the RMS-QC database; all costs associated therewith shall be included in the contract pricing for the work.

PART 2 PRODUCTS

2.1 RMS-QC SOFTWARE

RMS-QC is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the RMS-QC software to the Contractor after award of the construction contract. Prior to the Preconstruction Conference, the Contractor shall be responsible to download, install and use the latest version of the RMS-QC software from the Government's RMS Internet website: <http://winrms.usace.army.mil>. Upon specific justification and request by the Contractor, the Government can provide RMS-QC on 3-1/2" high-density diskettes or CD-ROM. Any program updates of RMS-QC will be made available to the Contractor via the Government RMS Website as they become available.

2.2 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run RMS-QC:

2.2.1 Hardware

- a. IBM-compatible PC with 200 MHz Pentium or higher processor
- b. 32+ MB RAM
- c. 4 GB hard drive disk space for sole use by the RMS-QC system
- d. 3-1/2 inch high-density floppy drive
- e. Compact disk (CD) Reader
- f. Color monitor
- g. Laser printer compatible with HP LaserJet III or better, with minimum 4 MB installed memory
- h. Connection to the Internet, minimum 28 BPS

2.2.2 Software

- a. Microsoft (MS) Access 97 or newer version database software
- b. MS Windows 95 or newer version operating system (MS Windows NT 4.0 or newer is recommended)
- c. Word Processing software compatible with MS Word 97 or newer
- d. Internet browser
- e. The Contractor's computer system shall be protected by virus protection software that is regularly upgraded with all issued manufacturer's updates throughout the life of the contract
- f. Electronic mail (E-mail) compatible with MS Outlook

PART 3 EXECUTION

3.1 RELATED INFORMATION

3.1.1 RMS-QC User Guide

After contract award, the Contractor shall download instructions for the installation and use of RMS-QC from the Government RMS Internet website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

3.1.2 Contractor Quality Control (CQC) Training

The use of RMS-QC will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

3.1.3 Video Training for RMS-QC

After contract award, the Contractor will be provided with a CD containing a training video on the use of RMS-QC.

3.2 CONTRACT DATABASE

Prior to the Preconstruction Conference, the Government shall provide the Contractor with basic contract award data to use for RMS-QC. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

3.3 DATABASE MAINTENANCE

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

3.3.1 Administration

3.3.1.1 Contractor Information

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

3.3.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and

other required information for all subcontractors. Subcontractors must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in RMS-QC. Within 14 calendar days of receipt of RMS-QC software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

3.3.1.3 Correspondence

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

3.3.1.4 Requests for Information

RMS-QC includes a means for the Contractor to enter, log, and transmit requests for information (RFI) to the Government. RFIs can be exchanged electronically using the import/export functions of RMS-QC. The Contractor shall also provide the Government with a signed, printed copy of each RFI. All RFIs from the Contractor to the Government shall have the prefix "RFI" and shall be numbered sequentially beginning with RFI-0001.

3.3.1.5 Equipment

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

3.3.1.6 Corps of Engineers Safety Manual and RMS Linkage

Upon request, the Contractor can obtain a copy of the current version of EM 385-1-1 on CD. Refer to paragraph RMS-QC SOFTWARE above for website address. Data on the CD will be accessible through RMS-QC, or in stand-alone mode.

3.3.1.7 Management Reporting

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

3.3.2 Finances

3.3.2.1 Pay Activity Data

The RMS-QC database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount,

including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

3.3.2.2 Payment Requests

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

3.3.3 Quality Control (QC)

RMS-QC provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the RMS-QC generated daily report. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

3.3.3.1 Daily Contractor Quality Control (CQC) Reports

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

3.3.3.2 Deficiency Tracking

The Contractor shall use RMS-QC to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC Comments. The Contractor shall maintain a current log of its QC comments in the RMS-QC database. The Government will log the deficiencies it has identified using its QA comments. The Government's QA comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA comments.

3.3.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS-QC.

3.3.3.4 Accident/Safety Tracking

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

3.3.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the RMS-QC database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" above) will only be linked to a single feature of work.

3.3.3.6 QC Requirements

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

3.3.4 Submittal Management

The Government will provide the initial submittal register, ENG Form 4288, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns as described in Section 01330 SUBMITTAL PROCEDURES. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use RMS-QC to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register, ENG Form 4288, shall be produced using RMS-QC. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

3.3.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Clause SCHEDULES FOR CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES and Section 01321 CONSTRUCTION PROGRESS DOCUMENTATION, as applicable. This schedule shall be input and maintained in the RMS-QC database either manually or by using the Standard Data Exchange Format (SDEF). The updated schedule data shall be included with each pay request submitted by the Contractor. See appendix 'A'.

3.3.6 Import/Export of Data

RMS-QC includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

3.4 IMPLEMENTATION

Contractor use of RMS-QC as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its RMS-QC database, and to provide the Government with regular database updates. RMS-QC shall be an integral part of the Contractor's management of quality control.

3.5 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

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

3.5.1 File Medium

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

3.5.2 Disk or CD-ROM Labels

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

3.5.3 File Names

The Government will provide the file names to be used by the Contractor with the RMS-QC software.

3.6 MONTHLY COORDINATION MEETINGS

The Contractor shall update the RMS-QC database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES, at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment

requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable RMS-QC export file is received.

3.7 NOTIFICATION OF NONCOMPLIANCE

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

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SECTION 01321

CONSTRUCTION PROGRESS DOCUMENTATION

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

Construction Schedule ; G|COR.

Equipment Delivery Schedule ; G|COR.

1.2 CONSTRUCTION SCHEDULE

Within 20 days after receipt of the Notice of Award, prepare and submit to the Contracting Officer for approval a construction schedule in the form of a progress chart in accordance with the terms in Clause SCHEDULES FOR CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES, except as modified in this contract. 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. Sample Construction Schedule (ENG Form 2454) is appended to the end of this Section.

1.3 EQUIPMENT DELIVERY SCHEDULE

1.3.1 Initial Schedule

Within 30 calendar days after approval of the proposed construction schedule, submit for Contracting Officer approval a schedule showing procurement plans for materials, plant, and equipment. Submit in the format and content as prescribed by the Contracting officer, and include as a minimum, the following information:

- a. Description.
- b. Date of the purchase order.
- c. Promised shipping date.
- d. Name of the manufacturer or supplier.
- e. Date delivery is expected.
- f. Date the material or equipment is required, according to the current construction schedule.

1.4 UPDATED SCHEDULES

Update the construction schedule at monthly intervals or when schedule has been revised. Reflect any changes occurring since the last update.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

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PART 2 PRODUCTS

PART 3 EXECUTION

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SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

1.1.1 Government-Furnished Information

Submittal register will be delivered to the contractor, by contracting officer on 3 1/2 inch disk. Register will have the following fields completed, to the extent that will be required by the Government during subsequent usage.

Column (c): Lists specification section in which submittal is required.

Column (d): Lists each submittal description (SD No. and type, e.g. SD-04 Drawings) required in each specification section.

Column (e): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column (e) as limiting project requirements.

Column (f): Indicate approving authority for each submittal. A "G" indicates approval by contracting officer; a blank indicates approval by QC manager.

The database and submittal management program will be extractable from the disk furnished to contractor, for operation on contractor's IBM compatible personal computer with 640kb RAM, a hard drive, and 3 1/2 inch high density floppy disk drive.

1.2 DEFINITIONS

1.2.1 Submittal

Shop drawings, product data, samples, and administrative submittals presented for review and approval. Contract Clauses "FAR 52.236-5, Material and Workmanship," paragraph (b) and "FAR 52.236-21, Specifications and Drawings for Construction," paragraphs (d), (e), and (f) apply to all "submittals."

1.2.2 Types of Submittals

All submittals are classified as indicated in paragraph "Submittal Descriptions (SD)". Submittals also are grouped as follows:

- a. Shop drawings: As used in this section, drawings, schedules, diagrams, and other data prepared specifically for this contract, by contractor or through contractor by way of subcontractor, manufacturer, supplier, distributor, or other lower tier contractor, to illustrate portion of work.
- b. Product data: Preprinted material such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate portion of work, but not prepared exclusively for this contract.
- c. Samples: Physical examples of products, materials, equipment, assemblies, or workmanship that are physically identical to portion of work, illustrating portion of work or establishing standards for evaluating appearance of finished work or both.
- d. Administrative submittals: Data presented for reviews and approval to ensure that administrative requirements of project are adequately met but not to ensure directly that work is in accordance with design concept and in compliance with contract documents.

1.3 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

Certificates of insurance.
Surety bonds.
List of proposed subcontractors.
List of proposed products.
Construction Progress Schedule.
Submittal schedule.
Schedule of values.
Health and safety plan.
Work plan.
Quality control plan.
Environmental protection plan.

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the contractor for integrating the product or system into the project.

Drawings prepared by or for the contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports

Daily checklists

Final acceptance test and operational test procedure

SD-07 Certificates

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

As-built drawings.

Special warranties.

Posted operating instructions.

Training plan.

1.3.1 Approving Authority

Person authorized to approve submittal.

1.3.2 Work

As used in this section, on- and off-site construction required by contract documents, including labor necessary to produce construction and materials, products, equipment, and systems incorporated or to be incorporated in such construction.

1.4 SUBMITTALS

Submit the following in accordance with the requirements of this section.

SD-01 Preconstruction Submittals

Submittal register; G

1.5 USE OF SUBMITTAL REGISTER [DATABASE]

Prepare and maintain submittal register, as the work progresses. Use electronic submittal register program furnished by the Government or any other format. Do not change data which is output in columns (c), (d), (e), and (f) as delivered by government; retain data which is output in columns (a), (g), (h), and (i) as approved.

1.5.1 Submittal Register

Submit submittal register with quality control plan and project schedule required by Section 01450A, "Quality Control" and Section 01321N, "Network Analysis Schedules." Section 01320N, "Construction Progress Documentation."

Do not change data in columns (c), (d), (e), and (f) as delivered by the government. Verify that all submittals required for project are listed and add missing submittals. Complete the following on the register:

Column (a) Activity Number: Activity number from the project schedule.

Column (g) Contractor Submit Date: Scheduled date for approving authority to receive submittals.

Column (h) Contractor Approval Date: Date contractor needs approval of submittal.

Column (i) Contractor Material: Date that contractor needs material delivered to contractor control.

1.5.2 Contractor Use of Submittal Register

Update the following fields[in the government-furnished submittal register program or equivalent fields in program utilized by contractor].

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (j) Action Code (k): Date of action used to record contractor's review when forwarding submittals to QC.

Column (l) List date of submittal transmission.

Column (q) List date approval received.

1.5.3 Approving Authority Use of Submittal Register

Update the following fields in the government-furnished submittal register program or equivalent fields in program utilized by contractor.

Column (b).

Column (l) List date of submittal receipt.

Column (m) through (p).

Column (q) List date returned to contractor.

1.5.4 Contractor Action Code and Action Code

Entries used will be as follows (others may be prescribed by Transmittal Form):

NR - Not Received

AN - Approved as noted

A - Approved

RR - Disapproved, Revise, and Resubmit

1.5.5 Copies Delivered to the Government

Deliver one copy of submitted register updated by contractor to government with each invoice request. Deliver in electronic format, unless a paper copy is requested by contracting officer.

1.6 PROCEDURES FOR SUBMITTALS

1.6.1 Reviewing, Certifying, Approving Authority

QC organization shall be responsible for reviewing and certifying that submittals are in compliance with contract requirements. Approving authority on submittals is QC manager unless otherwise specified for specific submittal. At each "Submittal" paragraph in individual specification sections, a notation "G," following a submittal item,

indicates contracting officer is approving authority for that submittal item.

1.6.2 Constraints

- a. Submittals listed or specified in this contract shall conform to provisions of this section, unless explicitly stated otherwise.
- b. Submittals shall be complete for each definable feature of work; components of definable feature interrelated as a system shall be submitted at same time.
- c. When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, submittal will be returned without review.
- d. Approval of a separate material, product, or component does not imply approval of assembly in which item functions.

1.6.3 Scheduling

- a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential requirements to resubmit.
- b. Except as specified otherwise, allow review period, beginning with receipt by approving authority, that includes at least 15 working days for submittals for QC manager approval and 20 working days for submittals for contracting officer approval. Period of review for submittals with contracting officer approval begins when Government receives submittal from QC organization. Period of review for each resubmittal is the same as for initial submittal.
- c. For submittals requiring review by fire protection engineer, allow review period, beginning when government receives submittal from QC organization, of 30 working days for return of submittal to the contractor. Period of review for each resubmittal is the same as for initial submittal.

1.6.4 Variations

Variations from contract requirements require Government approval pursuant to contract Clause entitled "FAR 52.236-21, Specifications and Drawings for Construction" and will be considered where advantageous to government.

1.6.4.1 Considering Variations

Discussion with contracting officer prior to submission, will help ensure functional and quality requirements are met and minimize rejections and resubmittals. When contemplating a variation which results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).

1.6.4.2 Proposing Variations

When proposing variation, deliver written request to the contracting officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to government. If lower cost is a benefit, also include an estimate of the cost saving. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

1.6.4.3 Warranting That Variations Are Compatible

When delivering a variation for approval, contractor warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.

1.6.4.4 Review Schedule Is Modified

In addition to normal submittal review period, a period of 10 working days will be allowed for consideration by the Government of submittals with variations.

1.6.5 Contractor's Responsibilities

- a. Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and contract documents.
- b. Transmit submittals to QC organization in accordance with schedule on approved Submittal Register, and to prevent delays in the work, delays to government, or delays to separate contractors.
- c. Advise contracting officer of variation, as required by paragraph entitled "Variations."
- d. Correct and resubmit submittal as directed by approving authority. When resubmitting disapproved transmittals or transmittals noted for resubmittal, the contractor shall provide copy of that previously submitted transmittal including all reviewer comments for use by approving authority. Direct specific attention in writing or on resubmitted submittal, to revisions not requested by approving authority on previous submissions.
- e. Furnish additional copies of submittal when requested by contracting officer, to a limit of 20 copies per submittal.
- f. Complete work which must be accomplished as basis of a submittal in time to allow submittal to occur as scheduled.
- g. Ensure no work has begun until submittals for that work have been returned as "approved," or "approved as noted", except to the extent that a portion of work must be accomplished as basis of submittal.

1.6.6 QC Organization Responsibilities

- a. Note date on which submittal was received from contractor on each submittal.
- b. Review each submittal; and check and coordinate each submittal with requirements of work and contract documents.
- c. Review submittals for conformance with project design concepts and compliance with contract documents.
- d. Act on submittals, determining appropriate action based on QC organization's review of submittal.

(1) When QC manager is approving authority, take appropriate action on submittal from the possible actions defined in paragraph entitled, "Actions Possible."

(2) When contracting officer is approving authority or when variation has been proposed, forward submittal to Government with certifying statement or return submittal marked "not reviewed" or "revise and resubmit" as appropriate. The QC organization's review of submittal determines appropriate action.

- e. Ensure that material is clearly legible.
- f. Stamp each sheet of each submittal with QC certifying statement or approving statement, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.

(1) When approving authority is contracting officer, QC organization will certify submittals forwarded to contracting officer with the following certifying statement:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated with contract Number DACW17-02-R-0023, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Certified by QC manager _____, Date _____"
(Signature)

(2) When approving authority is QC manager, QC manager will use the following approval statement when returning submittals to contractor as "Approved" or "Approved as Noted."

"I hereby certify that the (material) (equipment) (article) shown and marked in this submittal and proposed to be incorporated with

contract Number DACW17-02-R-0023, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is _____ approved for use.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Approved by QC manager _____, Date _____"
(Signature)

- g. Sign certifying statement or approval statement. The person signing certifying statements shall be QC organization member designated in the approved QC plan. The signatures shall be in original ink. Stamped signatures are not acceptable.
- h. Update submittal register [database]as submittal actions occur and maintain the submittal register at project site until final acceptance of all work by contracting officer.
- i. Retain a copy of approved submittals at project site, including contractor's copy of approved samples.

1.6.7 Government's Responsibilities

When approving authority is contracting Officer, the Government will:

- a. Note date on which submittal was received from QC manager, on each submittal for which the contracting officer is approving authority.
- b. Review submittals for approval within scheduling period specified and only for conformance with project design concepts and compliance with contract documents.
- c. Identify returned submittals with one of the actions defined in paragraph entitled "Actions Possible" and with markings appropriate for action indicated.

1.6.8 Actions Possible

Submittals will be returned with one of the following notations:

- a. Submittals marked "not reviewed" will indicate submittal has been previously reviewed and approved, is not required , does not have evidence of being reviewed and approved by contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Resubmit submittals returned for lack of review by contractor or for being incomplete, with appropriate action, coordination, or change.
- b. Submittals marked "approved" "approved as submitted" authorize contractor to proceed with work covered.
- c. Submittals marked "approved as noted" or "approval except as noted; resubmission not required" authorize contractor to proceed

with work as noted provided contractor takes no exception to the notations.

- d. Submittals marked "revise and resubmit" or "disapproved" indicate submittal is incomplete or does not comply with design concept or requirements of the contract documents and shall be resubmitted with appropriate changes. No work shall proceed for this item until resubmittal is approved.

1.7 FORMAT OF SUBMITTALS

1.7.1 Transmittal Form

Transmit each submittal, except sample installations and sample panels, to office of approving authority. Transmit submittals with transmittal form prescribed by contracting officer and standard for project. The transmittal form shall identify contractor, indicate date of submittal, and include information prescribed by transmittal form and required in paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding sample panels and sample installations.

1.7.2 Identifying Submittals

Identify submittals, except sample panel and sample installation, with the following information permanently adhered to or noted on each separate component of each submittal and noted on transmittal form. Mark each copy of each submittal identically, with the following:

- a. Project title and location.
- b. Construction contract number.
- c. Section number of the specification section by which submittal is required.
- d. Submittal description (SD) number of each component of submittal.
- e. When a resubmission, add alphabetic suffix on submittal description, for example, SD-10A, to indicate resubmission.
- f. Name, address, and telephone number of subcontractor, supplier, manufacturer and any other second tier contractor associated with submittal.
- g. Product identification and location in project.

1.7.3 Format for Product Data

- a. Present product data submittals for each section as a complete, bound volume. Include table of contents, listing page and catalog item numbers for product data.
- b. Indicate, by prominent notation, each product which is being submitted; indicate specification section number and paragraph

number to which it pertains.

- c. Supplement product data with material prepared for project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for project.

1.7.4 Format for Shop Drawings

- a. Shop drawings shall not be less than 8 1/2 by 11 inches nor more than 30 by 42 inches.
- b. Present 8 1/2 by 11 inches sized shop drawings as part of the bound volume for submittals required by section. Present larger drawings in sets.
- c. Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to information required in paragraph entitled "Identifying Submittals."
- d. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Shop drawing dimensions shall be the same unit of measure as indicated on the contract drawings. Identify materials and products for work shown.

1.7.5 Format of Samples

- a. Furnish samples in sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately same size as specified:
 - (1) Sample of Equipment or Device: Full size.
 - (2) Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.
 - (3) Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.
 - (4) Sample of Linear Devices or Materials: 10 inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.
 - (5) Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.
 - (6) Color Selection Samples: 2 by 4 inches.
 - (7) Sample Panel: 4 by 4 feet.
 - (8) Sample Installation: 100 square feet.

- b. Samples Showing Range of Variation: Where variations are unavoidable due to nature of the materials, submit sets of samples of not less than three units showing extremes and middle of range.
- c. Reusable Samples: Incorporate returned samples into work only if so specified or indicated. Incorporated samples shall be in undamaged condition at time of use.
- d. Recording of Sample Installation: Note and preserve the notation of area constituting sample installation but remove notation at final clean up of project.
- e. When color, texture or pattern is specified by naming a particular manufacturer and style, include one sample of that manufacturer and style, for comparison.

1.7.6 Format of Administrative Submittals

- a. When submittal includes a document which is to be used in project or become part of project record, other than as a submittal, do not apply contractor's approval stamp to document, but to a separate sheet accompanying document.
- b. Operation and Maintenance Manual Data: Submit in accordance with Section 01781N, "Operation and Maintenance Data." Include components required in that section and the various technical sections.

1.8 QUANTITY OF SUBMITTALS

1.8.1 Number of Copies of Product Data

- a. Submit six copies of submittals of product data requiring review and approval only by QC organization and seven copies of product data requiring review and approval by contracting officer.

1.8.2 Number of Copies of Shop Drawings

Submit shop drawings in compliance with quantity requirements specified for product data.

1.8.3 Number of Samples

- a. Submit two samples, or two sets of samples showing range of variation, of each required item. One approved sample or set of samples will be retained by approving authority and one will be returned to contractor.
- b. Submit one sample panel. Include components listed in technical section or as directed.
- c. Submit one sample installation, where directed.
- d. Submit one sample of non-solid materials.

1.8.4 Number of Copies of Administrative Submittals

- a. Unless otherwise specified, submit administrative submittals compliance with quantity requirements specified for product data.

1.9 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.9.1 Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.9.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.10 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.11 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.12 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.13 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

1.14 SUBMITTAL REGISTER

At the end of this section is a submittal [register] [list] showing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor shall maintain a submittal register for the project in accordance with Section 01312A QUALITY CONTROL SYSTEM (QCS).

1.15 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time a minimum of 5 calendar days exclusive of mailing time shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

1.16 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms [will be furnished to the Contractor][are included in the Quality Control System (QCS) software that the Contractor is required to use for this contract]. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings

pertinent to the data submitted for each item.

1.17 SUBMITTAL PROCEDURES

Submittals shall be made as follows:

1.17.1 Procedures

1.17.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.18 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.19 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. 2 copies of the submittal will be retained by the Contracting Officer and 4 copies of the submittal will be returned to the Contractor.

1.20 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.21 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR
(Firm Name)
_____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION

VIRGIN KEY SHORLINE REHABILITATION

CONTRACTOR

A C T I V I T Y N O	T R A N S M I T T A L N O	S P E C I F I C S E C T	D E S C R I P T I O N	P A R A G R A P H G #	G O V T C L A S S I F I C A T I O N	C O N T R A C T O R : S C H E D U L E D A T E S			C O N T R A C T O R A C T I O N		A P P R O V I N G A U T H O R I T Y				M A I L E D T O C O N T R A C T O R / R E M A R K S		
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	01310		SD-01 Preconstruction Submittals														
			Standard Form 100														
			FIO														
			Affirmative Action Plan														
			List of Subcontractors														
			Signature Authority														
			Drug-Free Work Place Record														
			Accident Prevention Plan		G COR												
	01321		SD-01 Preconstruction Submittals														
			Construction Schedule		G COR												
			Equipment Delivery Schedule		G COR												
	01330		SD-01 Preconstruction Submittals														
			Submittal register	1.5.1	G												
	01355		SD-01 Preconstruction Submittals														
			Environmental Protection Plan		G PD												
			SD-07 Certificates														
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			Bird Nesting Monitoring		G PD												
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	01411		SD-03 Product Data Calibration Standard FIO														
			SD-06 Test Reports Turbidity Monitoring FIO														
	01452		SD-01 Preconstruction Submittals Quality Control Plan Personnel Qualifications Letter of Authority FIO		G COR G COR												
	01500		SD-01 Preconstruction Submittals Mobilization/Demobilization Plan FIO Security Plan														
	01525		SD-01 Preconstruction Submittals Accident Prevention Plan (APP) Activity Hazard Analyses (AHA) Employee Safety and Health Indoctrination (ESHI) and Training Plan Hazard Communication Plan Emergency Response Plan Hurricane and Severe Storm Plan Dive Operations Plan Critical Lift Plan		G COR G COR G COR G COR G COR												

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	01525		Spill Response Plan		G COR													
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	02391		Certification of Processed Material																
			FIO																
			Excavated Material Transportation Plan		G COR														
			SD-04 Samples																
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			Piles	2.1															

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ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				REMARKS			
						SUBMIT	BY	MATERIAL NEEDED BY	ACTION	DATE OF ACTION	DATE FWD TO APPR AUTH/ FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION		DATE OF ACTION	DATE RCD FRM APPR AUTH	
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		02461N	Hammer															
			Driving equipment															
			Driving helmet															
			Pile caps															
			Pile shoes															
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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 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.

1.3 PERMITS AND AUTHORIZATIONS

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, Environmental Branch at 904-232-2117.

Florida Department Of Environmental Protection permit No. 0190737-001-JC

1.4 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 30 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.
- 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 the operation.
- q. Steps to be taken so as not to impact migratory birds or induce their nesting.
- r. Steps to be taken to construct the project in such a manner as not to impact any native species.

SD-07 Certificates

Qualifications ; FIO.

The Contractor shall submit a certified copy of Florida Fish and Wildlife Conservation Commission (FF&WCC) permit for handling of sea turtle eggs.

Bird Nesting Monitoring Qualifications ; G|PD.

Within 20 calendar days after the date of Notice of Award, the Contractor shall furnish to the Contracting Officer for approval, the qualifications of the bird monitor/observer. Appropriate qualifications for bird

monitor/observer shall be a demonstrated ability to find and/or identify bird species, nesting behavior, eggs and nests, and habitat requirements.

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).

Logs/Summary of Monitoring ; FIO.

Contractor shall submit as specified, logs and summary of monitoring detailing nesting and nesting success.

1.5 SUBCONTRACTORS

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

1.6 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.)

1.7 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.

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.

3.1.2 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 [indicated and defined on the drawings to be preserved] 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.

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 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

a. Retardation and Control of Runoff

Runoff from the construction site or from storms shall be controlled, retarded, and diverted to protected drainage courses by means of diversion ditches, benches, and by any measures required by area wide plans approved under paragraph 208 of the Clean Water Act.

b. Erosion and Sedimentation Control Devices

The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as directed by the Contracting Officer. Temporary velocity dissipation devices shall be placed along drainage courses so as to provide for non-erosive flows.

3.1.2.5 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.

3.1.2.6 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 [shown on the drawings] [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.

3.1.2.7 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.

3.1.2.8 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] [Commonwealth] [Territorial] 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.

3.1.2.9 Hazardous Materials

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

3.1.2.10 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 Known Resources

Known historic, archeological and cultural resources within the Contractor's work area(s) are designated as a "sensitive environmental area" on the contract drawings or other documents. If so designated, the Contractor shall install protection for these resources and shall be responsible for their preservation during the contract's duration. The Contractor shall not distribute maps or other information on these resource locations except for distribution among the Contractor's staff with a "need to know" technical responsibility for protecting the resources.

3.1.3.3 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.

3.1.3.4 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 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.

3.1.4.3 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>.

3.1.4.4 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.

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.

In the event that a threatened or endangered species is harmed as a result of construction activities, the Contractor shall cease all work and notify the Contracting Officer.

3.1.5.1 Endangered Species Protection

The Contractor shall instruct all personnel associated with the project of

the potential presence of manatees and the need to avoid collisions with manatees.

a. Civil and Criminal Penalties

All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees 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 may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.

b. 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.

c. Vessel/Boat Operation

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.

d. Manatee Sighting

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. If construction activity shall cease, notify the Contracting Officer.

e. 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" will 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.

f. Manatee Sighting Reports

Any collisions with a manatee or sighting of any injured or incapacitated manatee 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 Dredging Contractor to Report Manatee Death or Injury

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-2202	To be Provided
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 at 561-562-3909 for South Florida.

g. Report Submission

The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. The data shall be recorded on forms provided by the Contracting Officer (sample Daily Manatee Reporting Log is appended to the end of this Section). All data in original form shall be forwarded directly to 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

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

The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, and sea turtles 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 or sea turtles 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.

3.1.5.2 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. 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

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 Chief, Environmental Branch Office.

3.1.5.3 Beach Placement Restrictions

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

(1) During groin construction, no temporary lighting of construction area is authorized at anytime during the sea turtle nesting season from April 1 through November 30 with the following exception. Lighting will be allowed if safety lighting is required at any excavated trenches that must remain on the beach at night. This lighting must be the minimal lighting necessary to comply with safety requirements.

(2) During sand replacement from April 1 through November 30, direct lighting of the beach and near shore waters must be limited to the immediate construction area and must comply with safety requirements. Lighting on offshore or onshore equipment must be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting plants must be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields must 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

All tilling activity must be completed prior to April 1. If the project is completed during the nesting season, tilling will not be performed in areas where nests have been left in place or relocated.

d. Staging areas

From April 1 through November 30 staging areas for construction equipment must be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment not in use must be off the beach to minimized disturbance to the sea turtle nesting and hatching activities. In addition, all groin construction material that are placed on the beach must be located as farlandward as possible without compromising the integrity of the existing or reconstructed dune system. Temporary storage of groin construction material must be off the beach to the maximum extent possible.

e. Excavation of Sea Turtle Nest during construction

In the event a sea turtle nest is excavated during the construction activities, the contracting officer representative must be contacted immediately. The Permitted person responsible for nest marking and/or egg relocation for the project must be notified by the contracting officer representative so the eggs can be moved to a suitable relocation site.

f. Location of Injured or Dead Sea Turtles

Upon locating a sea turtle adult, hatchling, or egg harmed or destroyed as a direct or indirect result of the project, notification must be made to the FWC, Bureau Of Marine Enforcement at 800-342-5367. Care should be taken in handling injured turtles or eggs to ensure effective treatment or disposition, in handling dead specimens to preserve biological material in the best possible state for later analysis. 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, Environmental Branch at 904-232-2117.

Florida Department of Environmental Protection
Permit No. 0190737-001-JC

3.1.5.11 Escarpments

Visual surveys for escarpments along the project area shall be made immediately after completion of the beach nourishment project. Results of the surveys shall be submitted to the Contracting Officer. Escarpments that interfere with sea turtle nesting shall be mechanically leveled by the Contractor to the natural beach contour. If the project is completed during the main part of the nesting season escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. Once a beach section is accepted by the Contracting Officer as complete, Dade County Department of Environmental Resources Management (DERM) will take over the responsibility for visual surveys and escarpment removal.

3.1.5.4 Protection of Migratory Bird Species

The Contractor shall keep construction activities under surveillance, management, and control to prevent impacts to migratory birds and their nests. All construction personnel shall be advised that migratory birds are protected by the Florida Endangered and Threatened Species Act of 1977, Title XXVIII, Chapter 372.072, and the U.S. Fish and Wildlife Service pursuant to the Migratory Bird Treaty Act of 1918 and the Endangered and Threatened Species Act of 1982, as amended. The Contractor may be held responsible for harming or harassing the birds, their eggs or their nests as a result of the construction.

a. Monitoring of Construction Area

In order to meet these responsibilities, the Contractor shall conduct monitoring of the construction area beginning 1 April through 31 August, if construction activities occur during that period. Daily monitoring using the Daily Bird Monitoring Report shall be conducted during the dawn or dusk time frames by a bird monitor approved by the Contracting Officer.

(Caution shall be taken by the monitor to avoid disturbance to the nesting birds.) The Contractor shall maintain a daily log detailing monitoring and nesting activity (not all bird species are listed). Sample monitoring report and qualification sheet are appended to the end of this Section. Within 30 days after completion of construction, a summary of monitoring shall be submitted to the Corps detailing nesting and nesting success/failure including species, number of nests created, location, number of eggs, number of offspring generated during the project and reasons for nesting success or failure, if known.

b. Presence/Absence Survey

At least 3 visits must be made to each site during April-July. A 6-minute point count (variable circular plot) should be conducted between sunrise and 3 hours after sunrise or 1 hour prior to sunset. If breeding birds are encountered, nests shall be located and observed without disturbance to the nesting activity. Nests shall be marked and visited every 3-5 days to determine fate.

c. Nesting Activity Notification

Any nesting activity observed by the Contractor shall be reported immediately to the Contracting Officer who shall have sole authority for any work stoppages, creation of the buffer area, or restart of construction activities. In addition, the following personnel shall be notified:

Order of Contact of Corps Personnel to Report Bird Nesting Activities

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-2202	To be Provided
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

d. Nesting Within Construction Area

(1) Should nesting begin within the construction area, a temporary, 200-foot buffer shall be created around the nests and marked to avoid entry (the Contracting Officer will provide

signs). The area shall be left undisturbed until nesting is completed or terminated, and the chicks fledge. The decision to allow construction in a former nesting site will be determined by the Contracting Officer in consultation with the U.S. Fish and Wildlife Service and the FF&WCC. Access to the nesting sites by humans (except limited access when accompanied by the bird monitor or Contracting Officer), equipment or pets under control of the Contractor is prohibited.

(2) If nesting occurs within the construction area, a bulletin board shall be placed and maintained by the Contractor in the contracting shed with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE FEDERAL MIGRATORY BIRD TREATY ACT".

(3) Birds will find the top of the dike or the flat interior desirable nesting habitat. If construction activity ceases for any period of time, nesting may occur before work can resume. Any stoppage of activity could induce nesting, subsequently, construction could be altered or stopped to avoid impacting the birds unless the State of Florida and the U.S. Fish and Wildlife Service authorizes the interruption of nesting and/or destruction of the eggs. (NOTE: This authorization is highly unlikely.) Areas which are potentially suitable for nesting can be altered to make the area undesirable. One approved method is the placement of stakes at 10- to 15-foot intervals and tie flagging between the stakes in a web fashion. This may dissuade bird nesting until construction can be resumed. In addition, the disposal area basin can be flooded prior to the beginning of nesting season to the elevation required for displacement from the disposal of dredged material in order to make the basin undesirable for bird nesting.

e. Bird Monitoring Qualifications

The Contractor's Environmental Protection Plan shall contain the qualifications of the bird monitor and the steps to be taken to construct the project in such a manner as not to impact migratory birds or induce their nesting. The qualifications of the bird monitor are a demonstrated ability to identify bird species, general and nesting behavior characteristics, nests and eggs, and a knowledge of habitat requirements. In addition, references must be provided to verify non-educational experience.

f. Work Delay

Delays in work due to the fault of 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 Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

3.1.6 Seagrass and Hardbottom Protection Measures

- a. The Contractor shall instruct all personnel associated with the project of the presence of seagrasses and the need to minimize contact with seagrasses.
- b. All construction personnel shall be advised that there are civil and criminal penalties for harming or destroying seagrasses, especially Johnson's Seagrass which is protected under the Endangered Species Act of 1973, as amended. The Contractor may be held responsible for any seagrasses harmed or destroyed due to construction activities.
- c. The Contractor shall not anchor, place pipeline, or stage equipment in a manner that will cause any damage to seagrasses or hardbottoms. Anchoring, placing pipeline, or staging equipment shall avoid these sensitive areas. If such activities cannot be done without affecting these sensitive areas, the activities shall cease and the Contracting Officer and Chief, Environmental Branch (904-232-1685) shall be immediately notified (no later than the morning following the next working day if the incident occurs after normal working hours). Any actual or potential incident involving damage to, or disturbance of, seagrasses or hardbottoms shall be reported.

3.1.7 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>.

3.1.7.1 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.

3.1.7.2 Burning

All burning shall be subject to State and local requirements, including

requirements for burn permits and bans during certain conditions such as droughts.

3.1.7.3 Odors

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

3.1.8 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 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

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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 Disposal Locations

Routine monitoring shall occur at the following locations:

3.1.2.1 Station Descriptions

a. Station 1 (Compliance Turbidity)

At mid-depth, no more than 150 meters downcurrent from the construction activities or at the edge of the nearest downcurrent seagrass bed (whichever is closer), within the densest portion of any visible turbidity plume

b. Station 2 (Background Turbidity)

At mid-depth, at least 300 meters upcurrent from the construction activities and clearly outside the influence of any turbidity generated by the project.

3.1.2.2 Turbidity

Samples to be analyzed for turbidity shall be taken twice daily at least 4 hours apart at surface and mid-depth at the locations listed above. Additional samples shall be taken once daily for a 30 day period which will follow completion of fill activities. Additional sampling shall be performed when the Contracting Officer determines that there may be non-compliance with water quality standards.

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 7 days 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
Martin Seeling	FDEP	Martin.Seeling@dep.state.us.fl
Matt Miller	COE	Mathew.j.miller@susace.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 Dr. Smith 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 described in subparagraph "Dredging and Disposal Locations" above.

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 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

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SECTION 01412

TURBIDITY CONTROL CURTAIN

PART 1 GENERAL

1.1 SCOPE

This Section describes the measures to be taken to control turbidity during construction.

1.2 APPLICABLE PUBLICATIONS

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

American Society for Testing and Materials (ASTM).

ASTM D 3776	Test Methods for Mass per Unit Area (weight) of Woven Fabric
ASTM D 3786	Hydraulic Bursting Strength of Knitted Goods and Non woven Fabrics -Diaphragm Bursting Strength Tester Method
ASTM D 3885	Standard Test Method for Abrasion Resistance of Textile Fabrics
ASTM D 4355	Test Methods For Deterioration of Geotextile From Exposure to Ultraviolet Light and Water
ASTM D 4491	Test Methods For Water Permeability of Geotextiles by permittivity
ASTM D 4533	Test Methods For Trapezoidal Tearing Strength of Geotextiles
ASTM D 4632	Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	Determining the Apparent Opening size of Geotextiles
ASTM D 4833	Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 5035	Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip

Force)

ASTM E 84

Test Method For Surface Burning
Characteristics of Building Materials

1.3 SYSTEM PERFORMANCE.

Turbidity shall be controlled by construction of an area formed by floating and/or staked turbidity curtains around groin demolition, groin construction and beach fill operations to protect nearshore seagrass beds. Turbidity outside the settling area during construction shall not exceed 29 Nephelometric Turbidity Units (NTU's) above background. The contracting Officer may require the Contractor to work with a curtain manufacturer to improve the curtain design if the turbidity standards are not met. A double-curtain barrier may be required to reduce turbidity.

PART 2 PRODUCTS

2.1 MANUFACTURER.

Type PC-2 curtains manufactured by American Boom and Barrier or equivalent are to be used.

2.2 MATERIALS.

2.2.1 Fabrics.

The curtain shall be manufactured with 22oz/sq yd PVC reinforced fabric combined with Mirafi 700x or equivalent woven geotextile fabric. The 22 oz/sq yd fabric shall be certified by the manufacturer as having a minimum specification of:

Base Fabric:	Weight per square yard:	6.0 oz
	Fabric Count:	Warp 26/Fill 12
	Denier:	1000 x 1800
	Scrim:	polyester/Nylon
	Weave I	Oxford
Total weight per square yard (ASTM D 3776):		22 +/- 1oz
Adhesion of coating:		25 lbs/2 in
Type of Coating:		Face: PVC / Back: PVC
Mullen Burst (ASTM D 3786):		600 psi
Distribution:		Face: 60% / Back: 40%
Grab Tensile Strength (ASTM D 4632):		Warp 500/Fill 450 lbs)
Tensile strength (1") (ASTH D 5035):		Warp 400/Fill 300 lbs
Trapezoidal Tear Strength (ASTM D14533):		Warp 110/Fill 110 lb.
Abrasion Resistance (ASTM D 3885):		300 Cycles* Normal 550
Rot Resistant		
Mildew Resistant		
Ultraviolet Resistant		
Flame certification -ASTM E-84, Class A/UL-214		

Woven Geotextile:

Grab Tensile Strength (ASTM D-4632):	Warp 370/Fill 250 lbs
Grab Tensile Elongation (ASTM D-4632):	Warp 16%/Fill 15%
Mullen Burst Strength (ASTH D-3786):	480 psi
Puncture strength (ASTH D-4833):	135 lbs
Trapezoid Tear Strength (ASTM D-4533):	Warp 100/Fill 60 lbs
Apparent Opening Size (ASTM D4751):	70 (U. S. Std.)
permittivity (ASTM D-4491):	4/.ec
Flow Rate (ASTH D-4491):	0.28 gpm/ft. sq.
UV Resistance (ASTM D-4355):	18% strength retained
After 500 hrs	90% strength retained.

2.3 COMPONENTS.

2.3.1 Color AND Lighting.

Barriers shall be a highly visible bright yellow or international orange that will attract the attention of boaters and other navigation vessels. The barrier. must be marked by lights during bad weather and during night time hour.

2.3.2 Seams and Seals.

Metal plates or strips, Plastic stripe, and other forms of inappropriate sealing mechanism of the materials shall not be accepted as they do not attain a continuous watertight seal, they may be the direct cause of damage. to the curtain edges, or cause fatigue resulting in the loss of seal and ultimate failure of the curtain.

2.3.2.1 PVC Reinforced fabrics.

All seams of PVC reinforced fabric in the horizontal directions shall be hot air welded to a minimum of 1 1/2 inches in width forming a continuous unbroken seal and attaining a parting strength equal to or greater than the adhesion specification of the fabric. R welding in the horizontal direction is not permitted. All seams of PVC reinforced fabric in the vertical direction shall be R welded with a minimum width of 1 inch. All R welded seams in the vertical direction shall overlap a minimum of 1 inch. All end seals in the vertical direction of the PVC reinforced fabric of the constructed curtain shall maintain a minimum width of 2 inches.

2.3.2.2 Woven Geotextile fabrics.

All seams of Woven Geotextile fabric. shall be sewn in such a manner (300 series lock stitch recommended), that the seams exceed the strength of all fabrics incorporated in the finished product. As a minimum, no less than two sewn lines shall be acceptable. Geotextiles shall be folded at the sewn edge to attain maximum strength.

2.3.3 Flotation.

Flotation shall be flexible, buoyant units, contained in an

individual flotation sleeve or collar attached to, or an internal part of, the curtain. Buoyancy provided by the flotation units shall be sufficient to support the weight of the curtain and maintain a minimum freeboard of 80% of the flotation height above the water surface level. The flotation shall have minimum specifications of:

- a. 19 lbs per cubic foot buoyancy
- b. Polystyrene block
- c. Maximum length of 8 feet
- d. Minimum diameter of 6 inches
- e. All edges shall be made blunt
- f. All ends shall be tapered and blunted

2.3.4 Load Lines.

Bottom load lines shall be fabricated into the bottom of all floating turbidity curtains. This bottom tension load line shall be a chain incorporated internally into the bottom continuous hem of the curtain and of sufficient weight to serve as ballast to hold the curtain in a vertical position when no load is applied. The ends of each chain shall be securely fastened to the vertical edges of each section of barrier utilizing a galvanized shackle. Quick Links or other means of fastening is not permitted. The upper load line must be fabricated into the top of the fabric. The upper load line shall be a vinyl-sheathed steel cable, or uncoated cable inserted through tubing. The wire rope (cable), shall be 5/16 inch diameter, 7x19 galvanized wire rope with minimum breaking strength of 9,800 lbs. The wire rope shall be HD thimbled and swedged at both ends, the swedge shall completely cover the exposed ends of the cable. The wire rope shall be inserted and completely encapsulated through tubing which shall not impede the vertical movement of the wire rope. Continuous tubing shall be used, separate pieces or sections of tubing shall be unacceptable. The wire rope shall terminate a distance of no less than six inches from the leading vertical edge of the barrier and be attached to a hook (with latch) which meets or exceeds the break strength of the wire rope.

2.3.5 Drain.

Sufficient drains shall be provided to allow complete drainage of the water from the bottom ballast pocket upon recovery of the curtain. Drains also allow the release of trapped air during deployment.

2.3.6 Connecting Device.

The 100 foot sections of the curtain shall be connected with a slotted PVC tube connector. The tubing shall be schedule 40 PVC reinforced with aluminum bands, which are riveted to the tube by aluminum pop rivets. The slot in the tube, used to hold the ends of the curtain, shall not exceed 1/4 inch in width. All corners shall be rounded. The PVC slotted tube connector shall include a lanyard and peg which shall have sufficient length and diameter to fit to and through a grommet located at the top corners of the barrier, preventing the loss of the tube when deploying, recovering, or when stresses force the connector to release from the curtain. The PVC slotted Tube should be allowed to release from the curtain

when the current or water volume exceeds the full strength of the curtain itself, thereby preventing undue damage to the barriers.

PART 3 EXECUTION

3.1 ERECTION

The curtain shall not be in contact with the bottom of the waterway. A minimum 1 foot gap should exist between the weighted lower end of the skirt and the bottom at mean low water. Turbidity curtain shall be placed parallel to groins and along the beach fill area to prevent dispersion of sediments into the seagrass beds. The ends of the curtain shall be secured firmly. Rock anchors with an embedment strength equal to or exceeding the top load lines may also be used. Joint spacing in the curtains shall be approximately 100 feet. If the contractor elects to extend the curtain to the bottom of the water course, a heavy wooven pervious filter fabric may be substituted for the pvc fabric.

3.2 ANCHORING

3.2.1 Manufacturer's Recommendations

Manufacturer's recommendations should be followed for anchoring the curtains.

3.2.2 Anchors

Anchors must be sufficient to hold the curtain in the same position relative to the bottom of the watercourse with the curtain in its designated position. The anchor may dig into the bottom (grappling hook, plow, or fluke-type) or may be weighted (mushroom type, cement block) Anchor line should run from the buoy to the connector of the curtain to the top load line between buoys.

3.2.3 CONTRACTOR'S ELECTION

The Contractor may elect to use anchors that consist of wooden or metal stakes (2x4 inch or 2.5 inch minimum diameter wood or 1.33 pounds per linear foot steel) if the Contractor deems the stakes will be sufficient to hold curtain.

3.2.4 Anchoring

Anchors should be installed on both sides of the curtain.

3.3 INSTALLATION

Set all curtain anchor points prior to curtain deployment. Care must be taken to ensure that anchor points are of sufficient holding power to maintain the curtain under the existing current conditions, prior to putting the furled curtain into the water. The curtain should remain furled until completely anchored in place. Anchor buoys should be employed on all anchors to prevent the current from submerging the flotation at the anchor points and to visibly mark the anchor locations for other waterway traffic.

When the anchors are secure, the furled curtain should be attached to the upstream anchor point, and then sequentially attached to each next downstream anchor point. Any necessary adjustments to the lay of the curtain should be made prior to unfurling the curtain.

3.4 REMOVAL OF THE TURBIDITY BARRIER

Care should be taken to protect the skirt from-damage as the turbidity curtain is removed from the water. The use of a crane is not recommended as a method to pick up and remove non-bundled lengths of turbidity barrier from the water. Neither is the use of a vehicle to drag the turbidity barrier from water recommended. When the curtain is no longer required, as determined by the Contracting Officer, the curtain and related components shall be removed in such a manner as to minimize the release of sediment and creation of turbidity. Remaining sediment shall be sufficiently settled before removing the curtain. The turbidity barrier should be removed in small sections, cleaned, repaired and folded according to manufacturer's recommendations.

3.5 MAINTENANCE

The Contractor shall be responsible for maintenance of the turbidity barrier for the duration of the project. The barrier shall be maintained in a condition which shall ensure the continuous protection of the seagrass beds. Should repairs to the turbidity barrier be necessary, there are repair kits available from the manufacturer; manufacturer's recommendations or instructions must be followed to ensure the adequacy of the repair and continued appropriate use of the barrier. Repair kits shall be kept on site during the work.

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SECTION 01420

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SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number. The designations "AOK" and "LOK" are for administrative purposes and should not be used when ordering publications.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1819 L Street, NW, 6th Floor
Washington, DC 20036
Ph: 202-293-8020
Fax: 202-293-9287
Internet: www.ansi.org/

Acoustical Society of America
Standards and Publications Fulfillment Center
P. O. Box 1020
Sewickley, PA 15143-9998
Ph: 412-741-1979
Fax: 412-741-0609
Internet: <http://asa.aip.org>
General e-mail: asa@aip.org
Publications 3 e-mail: asapubs@abdintl.com
AOK 5/01
LOK 6/00

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Ph: 610-832-9585

Fax: 610-832-9555
Internet: www.astm.org
AOK 5/01
LOK 3/01

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)
P.O. Box 5690
Grandbury, TX 76049-0690
Ph: 817-326-6300
Fax: 817-326-6306
Internet: www.awpa.com
AOK 5/01
LOK 3/01

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
Ph: 617-770-3000
Fax: 617-770-0700
Internet: www.nfpa.org
AOK 5/01
LOK 8/00

U.S. ARMY CORPS OF ENGINEERS (USACE)

Order CRD-C DOCUMENTS from:
U.S. Army Engineer Waterways Experiment Station
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3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2664
Fax: 601-634-2388
Internet: www.wes.army.mil/SL/MTC/handbook/handbook.htm

Order Other Documents from:
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Hyattsville, MD 20781-1102
Ph: 301-394-0081
Fax: 301-394-0084
Internet: www.usace.army.mil/publications
or www.hnd.usace.army.mil/techinfo/index.htm
AOK 5/01
LOK 6/00

U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
500 C Street, SW
Washington, D.C. 20472
Phone: 202-646-4600
website: fema.gov
AOK 8/01

LOK 0/00

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)
Office of Highway Safety (HHS-31)
400 Seventh St., SW
Washington, DC 20590-0001
Ph: 202-366-0411
Fax: 202-366-2249
Internet: www.fhwa.dot.gov
Order from:

Superintendent of Documents
U. S. Government Printing Office
732 North Capitol Street, NW
Mailstop: SDE
Washington, DC 20401
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
AOK 5/01
LOK 6/00

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

Order from:
General Services Administration
Federal Supply Service Bureau
470 E L'Enfant Plaza, S.W., Suite 8100
Washington, DC 20407
Ph: 202-619-8925
Fx: 202-619-8978
Internet: fss.gsa.gov/pub/fed-specs.cfm
AOK 5/01
LOK 6/00

U.S. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)
website: nasa.gov

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
700 Pennsylvania Avenue, N.W.
Washington, D.C. 20408
Phone: 800-234-8861
website: nara.gov

Order documents from:
Superintendent of Documents
U.S. Government Printing Office
732 North Capitol Street, NW
Washington, DC 20401
Mailstop: SDE
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
E-mail: gpoaccess@gpo.gov

AOK 5/01

U.S. NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC)
1510 Gilbert St.
Norfolk, VA 23511-2699
Ph: 757-322-4200
Fax: 757-322-4416
Internet: www.efdlant.navfac.navy.mil/LANTOPS_15
AOK 5/01
LOK 6/00

U.S. NAVAL FACILITIES ENGINEERING SERVICE CENTER (NFESC)
1100 23rd Avenue
Port Hueneme, CA 93043-4370
Ph: 805-982-4980
Internet: www.nfesc.navy.mil
AOK 5/01
LOK 6/00

WATER ENVIRONMENT FEDERATION (WEF)
601 Wythe St.
Alexandria, VA 22314-1994
Ph: 703-684-2452
Fax: 703-684-2492
Internet: www.wef.org
AOK 5/01
LOK 6/00

WATER QUALITY ASSOCIATION (WQA)
4151 Naperville Rd.
Lisle, IL 60532
Ph: 630-505-0160
Fax: 630-505-9637
Internet: www.wqa.org
e-mail: info@mail.wqa.org
AOK 5/01
LOK 6/00

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)
P.O. Box 23145
Portland, OR 97281
Ph: 503-639-0651
Fax: 503-684-8928
internet: www.wclib.org
e-mail: info@wclib.org
AOK 5/01
LOK 6/00

WESTERN WOOD PRESERVERS INSTITUTE (WWPI)
7017 N.E. Highway 99 # 108
Vancouver, WA 98665
Ph: 360-693-9958
Fax: 360-693-9967
Internet: www.wwpinstitute.org

e-mail: wwpi@teleport.com
AOK 5/01
LOK 6/00

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)
Yeon Bldg.
522 SW 5th Ave.
Suite 500
Portland, OR 97204-2122
Ph: 503-224-3930
Fax: 503-224-3934
Internet: www.wwpa.org
e-mail: info@wwpa.org
AOK 5/01
LOK 6/00

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)
1400 East Touhy Ave., Suite 470
Des Plaines, IL 60018
Ph: 847-299-5200 or 800-223-2301
Fax: 708-299-1286
Internet: www.wdma.com
e-mail: admin@wdma.com
AOK 5/01
LOK 6/00

WOOD MOULDING AND MILLWORK PRODUCERS ASSOCIATION (WMMPA)
507 First Street
Woodland, CA 95695
Ph: 916-661-9591
Fax: 916-661-9586
Internet: www.wmmpa.com
AOK 5/01
LOK 6/00

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SECTION 01451A

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SECTION 01451A

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740 (2001) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E 329 (2000b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a

physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 Acceptance of Plan

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

3.2.3 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 5 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the

Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance. The Safety and Health Manager shall receive direction and authority from the CQC System Manager and shall serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, show drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a graduate engineer, or a graduate of construction management, with a minimum of 5 years construction experience on construction similar to this contract. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 Additional Requirement

In addition to the above requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors".

3.4.4 Organizational Changes

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

3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager 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, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

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

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the

deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

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

3.7 TESTS

3.7.1 Testing Procedure

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

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities 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 all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the 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 as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the

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

3.7.2.2 Capability Recheck

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

3.7.3 Onsite Laboratory

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

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory. Coordination for each specific test, exact delivery location, and dates will be made through the Area Office.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the Special Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected.

Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These

inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.9 DOCUMENTATION

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

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.

- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 48 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.11 NOTIFICATION OF NONCOMPLIANCE

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

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SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 SUMMARY

In addition to Construction Facilities this Section covers:

Temporary Utilities Construction Aids Vehicular Access and Parking
Project Identification

See Section 01355 ENVIRONMENTAL PROTECTION for requirements including silt control, trailer placement, fueling restrictions, dust control, solid waste, and clean-up. Upon completion of project, clean-up and restore area in accordance with Clause CLEAN-UP of Section 00700 CONTRACT CLAUSES.

a. Construction Facilities include, but are not limited to, the following:

(1) Contracting Officer's Field Office (2) Contractor Offices (3) Information Bulletin Board (4) Material and Equipment Storage Area (5) Fueling Area (6) Secured Storage Area (7) Employee Parking Area (8) Debris Container (dumpster) (9) Construction Signage to include Project Sign; Safety Sign; and, Construction Warning Signs

b. Temporary Utilities include, but are not limited to, the following:

(1) Water (2) Electric (3) Sewage (4) Communications (5) Lighting

1.2 REFERENCES

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

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C2 (1997) National Electrical Safety Code

CORPS OF ENGINEERS JACKSONVILLE REGULATION (CESAJR)

CESAJR 385-1-1 (1998) Safety and Occupational Health Program

ENGINEERING MANUALS (EM)

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

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)

FDOT (2000) Standard Specifications for Road
and Bridge Construction

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70 (1999) National Electrical Code

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. Within 30 days following date of receipt of Notice to Proceed and prior to mobilization to site submit following in accordance with Section 01330
SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Mobilization/Demobilization Plan ; FIO.

Plan shall include, but not be limited to, the following:

a. Mobilization Requirements:

(1) Methods, equipment and materials (2) Connection of utilities (3) Placement of site facilities and temporary controls (4) Construction of facilities

b. Demobilization Requirements:

Methods, equipment and materials required to clean-up and restore site at project conclusion:

(1) Collection, recycle and disposal of solid waste (2) Contract-generated material (3) Utility disconnection (4) Removal of Contractor facilities (5) Repair and restoration of site (i.e., fences, roads, or permanent facilities)

Security Plan ; FIO.

Prepare a Security Plan for Contracting Officer describing site security as follows:

- a. Day and night security
- b. Weekend and holiday security
- c. General security duties

1.4 RESIDENT MANAGEMENT SYSTEM (RMS)

Contractor shall use Contracting Officer furnished Resident Management

System (RMS) software for construction information management (CIM). RMS will be the latest version of "RMS-QC" which is personal computer based. Additional information will be provided to the Contractor at the Preconstruction Conference. Refer to Section 01312 RESIDENT MANAGEMENT SYSTEM (RMS).

PART 2 PRODUCTS

2.1 CONTRACTING OFFICER'S FIELD OFFICE TRAILER

Trailer in first class condition, not greater than two years old, with a minimum total space of 600 square feet.

2.2 CONSTRUCTION PROJECT SIGNS

Refer to paragraph BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN below and APPENDIX A at the end of this Section.

2.2.1 Haul Road Traffic and Construction Warning Signs

1/2 inch HDO plywood, or aluminum sheet, conforming to FDOT Section 700 Uniform Traffic Manual Standard Signs, non-standard signage high visibility orange with black lettering. Orange fabric mesh acceptable for temporary survey crew use.

2.3 STORAGE CONTAINERS

Welded steel construction, locking, shipping containers or equal.

2.4 RMS-QC HARDWARE AND SOFTWARE REQUIREMENTS

Refer to Section 01312 RESIDENT MANAGEMENT SYSTEM (RMS).

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

3.1.1 Identification of Employees

The Contractor shall be responsible for furnishing to each employee, and for requiring each employee engaged on the work to display, identification as approved and directed by the Contracting officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

3.1.2 Employee Parking

- a. Park employee's vehicles in areas designated by Contractor, away from construction traffic, within reasonable walking distance of site. Maintain area free of ruts, mud holes and puddles. Place gravel where

required by deteriorated conditions.

b. Provide Contracting Officer six gravel parking spaces at Contracting Officer's Field Office. Place parking signs reserved for use of Contracting Officer and visitors. Contractor shall maintain these spaces clear of other vehicles.

c. Contractor should protect unattended equipment as it may be subject to vandalism.

d. Storage trailers and storage area with Government material should be locking type with lighting.

3.1.3 On-Site Information

Keep copy of contract drawings, specifications, and other contract documents at Contractor's Office on site, available for use at all times.

3.1.4 Janitorial Services

- a. Daily -- Sweep; empty wastebaskets; service toilets
- b. Weekly -- Mop floors; sanitize toilet seats
- c. Monthly -- Wash floors, windows (inside and out)
- d. Cut grass as needed to keep below 3 inches high

3.2 AVAILABILITY AND USE OF UTILITY SERVICES

Install temporary facilities and utilities in accordance with ANSI C2, CESAJR 385-1-1, EM 385-1-1, NFPA 70. Obtain necessary construction, building, zoning, or soil erosion and sediment control approvals required by local authorities and utility companies. Equip trailer(s) with wind tie downs in accordance with local wind and building code requirements.

3.2.1 Lighting

Electric light, non-glare type luminaries to provide a minimum illumination, level of 30-foot candles at desk height level. Comply with temporary lighting, wiring and Ground Fault Circuit Interrupter (GFCI) requirements found in EM 385-1-1.

3.2.2 Heating and Cooling

Adequate equipment to maintain internal ambient air temperature of 75 degrees F in 105 degrees F and 70 degrees F in 30 degrees F. Equip trailer(s) with smoke alarms. If bottled gas is used to heat, equip trailer(s) with carbon monoxide alarms.

3.2.3 Water

Non-potable well water may be used to flush toilets, dish and hand washing. Provide bulk potable water storage tanks or provide bottled water for drinking.

3.2.4 Fire Extinguisher

Refer to EM 385-1-1. Non-toxic, dry chemical, fire extinguisher meeting Underwriters Laboratories, Inc., approval for Class A, Class B, and Class C fires with a minimum rating of 2A; 10B; and 10C.

3.2.5 Utility Lines

Install, connect and modify temporary lines as coordinated with owning utility. Conform requirements in accordance with ANSI C2 and NFPA 70 for Temporary Electric Lines. Remove temporary line at completion of project.

3.2.6 Electric Power

Provide Contracting Officer's Field Office sufficient continuous power and electric supply to assure operation of systems, including computer, light and HVAC. Provide electrical service and transformers sufficient to operate heating/air conditioning units. Electrical power shall be purchased directly by Contractor.

3.3 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

3.3.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

3.3.2 Project and Safety Signs

The requirements for the signs, their content, and location shall be as indicated in APPENDIX A appended to the end of this Section. The signs shall be erected within 15 days after receipt of the Notice to Proceed. The data required by the safety sign shall be corrected daily, with light colored metallic or non-metallic numerals. [The sample Safety Scoreboard sign appended to the end of this Section shall be used on board the dredge in lieu of the safety performance sign. This applies only to the dredge.] Upon completion of the project, the signs shall be removed from the site.

3.4 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and

maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

3.4.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

3.4.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

3.5 HAUL ROADS

Whenever practical, one-way haul roads shall be used on this contract. Haul roads built and maintained for this work shall comply with the following:

a. One-way haul roads for off-the-road equipment; e.g., belly dumps, scrapers, and off-the-road trucks shall have a minimum usable width of 25 ft. One-way haul roads for over-the-road haulage equipment only (e.g., dump trucks, etc.) may be reduced to a usable width of 15 feet. When the Contracting Officer determines that it is impractical to obtain the required width for one-way haul roads (e.g., a road on top of a levee), a usable width of not less than 10 feet may be approved by the Contracting Officer, provided a positive means of traffic control is implemented. Such positive means shall be signs, signals, and/or signalman and an effective means of speed control.

b. Two-way haul roads for off-the-road haulage equipment shall have a usable width of 60 feet. Two-way haul roads for over-the-road haulage

equipment only may be reduced to a usable width of 30 feet.

c. Haul roads shall be upgraded and otherwise maintained to keep the surface free from potholes, ruts, and similar conditions that could result in unsafe operation.

d. Grades and curves shall allow a minimum sight distance of 200 feet for one-way roads and 300 feet for two-way roads. Sight distance is defined as the centerline distance an equipment operator (4.5 feet above the road surface) can see an object 4.5 feet above the road surface. When conditions make it impractical to obtain the required sight distance (e.g., ramps over levees), a positive means of traffic control shall be implemented.

e. Dust abatement shall permit observation of objects on the roadway at a minimum distance of 300 feet.

f. Haul roads shall have the edges of the usable portion marked with posts at intervals of 50 feet on curves and 200 feet maximum elsewhere. Such markers shall extend 6 feet above the road surface, and for nighttime haulage, be provided with reflectors in both directions.

3.6 CONTRACTOR'S TEMPORARY FACILITIES

3.6.1 Contractor Field Office

Provide on-site field office of sufficient size and staff capability to manage project activities. Provide communications and computer capabilities to manage the work, including implementing RMS-QC (refer to Section 01312 RESIDENT MANAGEMENT SYSTEM (RMS)), facsimile, electronic mail, reproduction, to schedule and cost tracking. Contractor's field office should include a conference area with table and chairs to accommodate a minimum of 8 people. Provide handicap access with a 1 on 12 ramp and gravel parking spot marked with handicap parking sign.

3.6.2 Appearance of Trailer(s)

Trailer(s), used for both office and material storage purposes, shall be clean, neat exterior appearance and in good repair. Trailer(s) requiring exterior painting or maintenance will not be allowed on site until determined satisfactory by Contracting Officer.

3.6.3 Storage Area

Provide temporary six-foot high chain link fence for storage containers, trailers or sheds containing Government property. Fence posts may be driven. Ground chain link fence against lightning. Store Contracting Officer's property, owned materials and equipment within fenced storage area. Store small size Government property, equipment, tools, materials in locked steel containers. No Government property and materials shall be stockpiled outside fence in preparation for next day's work. Park mobile equipment, tractors, wheeled lifting equipment, cranes, trucks, and like equipment, within fenced areas on weekends.

3.6.3.1 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

3.6.4 Waste Storage

Provide dumpsters or suitable debris containers. Prevent wind blown trash; cover as needed. Dispose of offsite when needed. Refer to Section 01355 ENVIRONMENTAL PROTECTION.

3.6.5 Fuel Storage and Fueling Operations

Refer to Section 01355 ENVIRONMENTAL PROTECTION. Provide light when fueling at night.

3.7 SECURITY PROVISIONS

Provide site security person at all times when there are no on-site activities. Maintain 24-hour security during weekends and holidays. Site security shall include, but not be limited, to:

- a. Limit vehicular access to authorized vehicles and personnel only.
- b. Limit public access to travel along access road only. Access road shall be kept closed at all times except for passage of authorized personnel and vehicles.
- c. Maintain a list of authorized personnel and subcontractors available at site offices.
- d. Maintain a sign-in log documenting visitors, deliveries, and security incidents. Include date, name, address, company, time in and time out for each employee and visitor.
- e. Check fenced areas, equipment, trailers on a daily basis. If damage is observed or vandalism is found report to Contracting Officer.

3.7.1 Visitors

No visitors will be allowed on site without knowledge of Contractor and permission of Contracting Officer. Direct visitors to report upon arrival to Contractor's Field Office for site safety and accident prevention briefing. Provide visitors appropriate protective equipment (i.e., ear plugs, safety glasses, etc.).

3.8 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 42 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

3.9 CONSTRUCTION FENCING AND DANGER SIGNS

a. The Contractor shall furnish, install, and maintain barbed wire fencing along the entire right-of-way lines. The fence shall be installed prior to construction. The fence shall contain a minimum of four strands of barbed wire and be at least 4 feet in height. Access gates (size and quantity determined by the Contractor) shall be provided to permit movement of machinery and equipment. The fence shall be grounded to reduce possibilities of electrical shock. The fence shall be maintained to restrain the public until completion of construction.

b. The Contractor shall furnish 28 danger signs, as indicated on the sketch appended to the end of this Section, and post them on the fence at locations directed by the Contracting Officer. The signs shall be of the format, style, and minimum size indicated, shall be neatly and sturdily constructed, and shall be securely erected in a workmanlike manner to support the sign properly for the life of the contract. [For work in Puerto Rico and the Virgin Islands, Contractor is required to post both the English and Spanish version of the sign. The signs shall be posted together.]

c. Upon completion of construction and when so directed by the Contracting Officer, the fencing and signs shall be removed by the Contractor during the final cleanup process. The fencing and signs shall be disposed of by the Contractor in a manner satisfactory to the Contracting Officer.

3.10 CONTRACTING OFFICER'S FIELD OFFICE

Supply and maintain lockable field office separate from Contractor for use by Contracting Officer.

3.10.1 Office Trailer

a. An all metal exterior, sides and roof; double-insulated walls, floor, and roof; electric baseboard heat; self-contained, built-in air conditioning; and 110 volt wall outlets.

b. Security guard screens, screens, and blinds for all windows.

c. Toilet facility -- A separately enclosed room properly ventilated and complying with applicable sanitary codes including hot and cold running water and flush type toilet.

d. Installed during site mobilization.

3.10.2 Office Equipment

Provide following furnishings:

- 2 - Office desks with five lockable drawers (60 inches by 30 inches, laminated top) and swivel chair for each (desks should be designed for use with PCs)
- 1 - Conference Table with eight chairs
- 1 - First aid kit, wall mounted
- Intercom connection to Contractor's secretarial station
- 1 - Fire resistant, five drawer, legal size lockable filing cabinet
- 2 - Five drawer, letter size lockable filing cabinets
- Telephone answering machine with remote answering capability and voice time/day stamp
- 1 - Table to support FAX and printer
- 2 shelf sets - Four shelves high by 12 inches deep by 3 feet long (attachable to wall)
- 2 - 3' x 6' Cork Bulletin Boards
- 3 - 3' x 6' Dry Erase Boards
- 3 - Waste baskets
- 1 - Plan Table installed in one office (may be built in) with a minimum working surface of 4 feet by 6 feet, and draftsman stool
- 1 - Vertical filing plan rack sufficient for contract drawings
- 1 - Seven cubic foot refrigerator with freezer
- 1 - Microwave oven
- 1 - Water cooler/dispenser with minimum 3 gallon capacity

3.11 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

3.12 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored. Refer to Section 01355 ENVIRONMENTAL PROTECTION for solid waste and post construction clean-up.

3.13 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

3.14 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

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SECTION 01525

GENERAL SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

Section covers general site safety, accident prevention, accident reporting and Jacksonville District specific safety procedures, "Safety Pays" accident prevention incentive and recognition program.

1.1.1 Related Section

Refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES for safety signs and required bulletin board posters.

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.

ASME INTERNATIONAL (ASME)

- ASME B30.5 (1994) Mobile Cranes
- ASME B30.22 (1993) Articulating Boom Cranes

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

- NFPA 10 (1995) Portable Fire Extinguishers
- NFPA 70 (1999) National Electrical Code
- NFPA 241 (1996) Safeguarding Construction, Alteration, and Demolition Operations

U.S. ARMY CORPS OF ENGINEERS (USACE)

- COE CESAJP 385-1-2 (1998) Safety Pays
- COE CESAJR 385-1-1 (1998) Safety and Occupational Health Program
- COE EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)

MUTCD, PART 6

(2000) Manual on Uniform Traffic Control
Devices - Work Zones

1.3 SAFETY MANUALS

COE EM 385-1-1, COE CESAJR 385-1-1, COE CESAJP 385-1-2 are available at <http://www.saj.usace.army.mil/conops/index.html>. One copy of each will be provided to Contractor at a Preconstruction Conference (refer to Section 01310 ADMINISTRATIVE PROCEDURES. COE EM 385-1-1 is also at above web site in a Spanish version. Additional paper copies of COE EM 385-1-1 may be purchased for \$30.00 using a check or money order as follows:

U.S. Government Printing Office (GPO)
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
(GPO Stock Number for the manual is 0008-022-00-310-0)

or

order by credit card by calling 202-512-1800 (Master Card or Visa only)

Additional copies of COE CESAJR 385-1-1 and COE CESAJP 385-1-2 will be provided upon written request.

1.4 DEFINITIONS

Use definitions found in COE EM 385-1-1 and COE CESAJR 385-1-1 in submitted work plans.

Safety Officer - Qualified employee or competent person trained or having required experience in safety, occupational health and who is assigned overall responsibility to oversee on-site safety.

Safety Specialist - A person with specialized training or experience in safety and occupational health for specific items of work.

Qualified Person - One who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems related to the subject matter, the work or the project.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" 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

Accident Prevention Plan (APP); G|COR

Within 20 calendar days after Notice of Award, submit Accident Prevention Plan with applicable specific work plans required by paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of Appendix MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN of COE EM 385-1-1. Refer to paragraphs ACCIDENT PREVENTION PLAN (APP) and ACCIDENT PREVENTION below.

Activity Hazard Analyses (AHA); G|COR

Refer to paragraph ACTIVITY HAZARD ANALYSES (AHA) below.

Employee Safety and Health Indoctrination (ESHI) and Training Plan

Refer to paragraph SAFETY AND HEALTH INDOCTRINATION AND TRAINING below.

Hazard Communication Plan

Refer to paragraph HAZARD COMMUNICATION below.

Emergency Response Plan

Refer to paragraph EMERGENCY RESPONSE PLAN below.

Hurricane and Severe Storm Plan; G|COR

Refer to paragraph HURRICANE AND SEVERE STORM PLAN below.

Dive Operations Plan; G|COR

Refer to paragraphs DIVE PLAN, DIVING OPERATIONS, and DIVE OPERATIONS below.

Critical Lift Plan; G|COR

Submit a critical lift plan for each non-routine crane lift using format described in Section MACHINERY AND MECHANIZED EQUIPMENT of COE EM 385-1-1. Refer to paragraph CRITICAL LIFT PLANNING PROCEDURE AND POLICY below.]

Refer to paragraphs CONFINED SPACE PLAN, CONFINED SPACE ENTRY, and WORKING IN CONFINED SPACES below.

Spill Response Plan; G|COR

Refer to paragraph SPILL RESPONSE PLAN below.

SD-07 Certificates

Qualifications; G|COR

Qualifications, and training certificates of safety personnel

performing as safety specialists or assisting as Quality Control Staff. Includes first aid and CPR certifications. Refer to paragraph SAFETY OFFICER below.

Crane Equipment Records

Equipment inspections and maintenance records for cranes and other equipment used to lift material, equipment or support personnel. See ASME B30.5 and ASME B30.22. Refer to paragraph "Crane Notification" below.

1.6 ACCIDENT PREVENTION PLAN (APP)

Prepare APP using format in Appendix MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN of COE EM 385-1-1. See Appendix ACCIDENT PREVENTION PROVISIONS FOR CONTRACTORS AND IDENTIFIED GOVERNMENT ACTIVITIES of COE CESAJR 385-1-1 for additional detail.

1.6.1 Contents

1. Signature Sheet
2. Background Information
3. Statement of Safety and Health Policies
4. Responsibilities, Lines of Authorities
5. Subcontractors and Suppliers
6. Training
7. Safety and Health Inspections
8. Safety and Health Expectations, Incentive Programs
9. Accident Reporting
10. Medical Support
11. Personal Protective Equipment
12. Supplemental ("Tabbed") Work Specific Plans required by COE EM 385-1-1
13. Supplemental Information on how Contractor will meet major applicable portions of COE EM 385-1-1

1.6.2 Tabbed APP Appendices

Submit tabbed appendices to Accident Prevention Plan including: Activity Hazard Analyses; Jacksonville District work plans and applicable supplementary specific plans; and, procedures listed in Appendix A, paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of COE EM 385-1-1 or COE CESAJR 385-1-1 Appendices.

1.6.2.1 Jacksonville District Required Work Plans

Jacksonville District Required Work Plans include:

- Tab A - Activity Hazard Analysis Worksheets
- Tab B - Employee Safety and Health Indoctrination and Training (See sample ESHI appended to the end of this Section)
- Tab C - Hazard Communication
- Tab D - Hurricane and Severe Storm Plan
- Tab E - Emergency Response Plan

- Tab F - Dive Plan
- Tab G - Critical Lift Planning Procedure and Policy
- Tab H - Spill Response

1.6.2.2 Supplementary Plans in COE EM 385-1-1

Submit additional tabbed supplementary plans listed in Appendix A, paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of COE EM 385-1-1 that are applicable to work as follows:

Access and Haul Road Plan

1.7 ACTIVITY HAZARD ANALYSES (AHA)

Submit AHAs as a tabbed APP Appendix. See Figure ACTIVITY HAZARD ANALYSIS of COE EM 385-1-1 for sample form. Contractor can download activity hazard analysis form (MS Word file) at Jacksonville District's Construction web page, "QC Forms":

http://www.saj.usace.army.mil/conops/construction/construction_forms.htm.

Describe activity being performed; sequence of work; specific hazards anticipated; control measures to eliminate or reduce each hazard to acceptable levels; training requirements for all involved; and, competent person in charge of that work.

1.8 SAFETY AND HEALTH INDOCTRINATION AND TRAINING

Submit Safety and Health Indoctrination and Training Plan as an APP tabbed appendix in accordance with paragraph INDOCTRINATION AND TRAINING of Section PROGRAM MANAGEMENT of COE EM 385-1-1. Provide a sample Employee Health and Safety Indoctrination (EHSI) Sheet.

1.8.1 New Employee Indoctrination

Describe new employee indoctrination and training required to be completed prior to an employee working on site. Document employee orientation. Keep records on file at project site or nearest office. Each employee shall sign an ESHI sheet. Sample form is on the web site indicated in the paragraph CONSTRUCTION FORMS AND DETAILS below.

1.8.2 Visitor Briefing

Describe procedures for safety briefing site visitors. Train them on specific site hazards, site safety controls (i.e., hard-hat areas). Provide needed protective clothing (i.e., hard hats, reflective vest) and equipment (i.e., ear plugs, safety glasses) before they enter construction limits. Document visitor briefing with a file and visitor sign-in log on site. Report visitors in QC daily report.

1.9 HAZARD COMMUNICATION

Comply with OSHA 1910.1200 (the Hazard Communication Standard) and provide a Hazard Communication Plan describing implementation of the standard. Ensure site personnel including subcontractor employees, visitors, Contracting Officer personnel are informed about health and physical

hazards associated with materials being used. Provide a hazardous materials inventory to Contracting Officer upon request. Ensure proper labeling of hazardous material containers. Ensure Material Safety Data Sheets are on site.

1.10 HURRICANE AND SEVERE STORM PLAN

Submit proposed procedures to be taken to prevent: injury; damage to materials, equipment, and completed construction; and, minimize delays due to severe weather. A sample format is provided on the web site indicated in paragraph CONSTRUCTION FORMS AND DETAILS below:

a. Address following conditions:

Hurricanes - Preparations prior to forecasted hurricane at 72 hours, 48 hours and 6 hours prior to predicted storm arrival.

Tornado/Water Spout - Actions to be taken for tornado warning and tornado warnings.

Thunderstorms/Squalls - Actions to be taken for high winds, lightning, heavy rainfall.

b. Include:

1. Provide detailed descriptions for actions to be taken.
2. The time intervals before storms when action will be taken for each type hazard.
3. List of equipment to be used on the project and its ability to handle adverse weather.
4. Method of securing equipment.
5. Methods of securing equipment not moved.
6. Plan of evacuation to include immediate reaction plans to be taken for all storm occurrences, particularly sudden storms.
7. A statement that full time monitoring of NOAA marine weather broadcasts or other local commercial weather forecasting services will be the Contractor's primary source of information in the decision process to implement action under severe weather plan.

1.11 EMERGENCY RESPONSE PLAN

Describe planned response procedures and planned drills as applicable for medical, fire fighting, injury evacuation, wildfire. Submit certificates or wallet cards for designated First Aid and Coronary Pulmonary Resuscitation (CPR) responders. Provide planned communication methods to monitor employees working in remote areas. Provide sample posting sheets for local emergency responder phone numbers, reporting instructions, strip map to nearest medical treatment facility. Provide site sketch of location

of first aid kits and fire extinguishers.

1.12 DIVE PLAN

See paragraph DIVE OPERATIONS below and Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1. Dive planning is required on all projects with work on, adjacent to or over water; see paragraph DIVING OPERATIONS below. The dive plan shall address all requirements of Section CONTRACT DIVING OPERATIONS of COE EM 385-1-1, and Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1.

1.13 CRITICAL LIFT PLANNING PROCEDURE AND POLICY

Critical lift is defined in paragraph "Equipment operation" of Section MACHINERY AND MECHANIZED EQUIPMENT of COE EM 385-1-1. In accordance with paragraph "Critical lift plans" of Section MACHINERY AND MECHANIZED EQUIPMENT of COE EM 385-1-1, each critical lift requires a load and lift specific critical lift plan to be developed during preparatory phase. A critical lift plan is required whenever crane loads meet or exceed 75 percent of crane load capacity in any configuration. Describe who is responsible to identify such lifts, what procedures will be performed to prepare, review and approve critical lift plans, when critical lift plans will be submitted to Contracting Officer. Provide qualifications of persons identifying and overseeing critical lifts.

1.14 SPILL RESPONSE PLAN

Provide information on hazardous chemicals and liquids anticipated to be stored on site and how Contractor proposes to contain spills, safely respond and clean up spills. Describe planning, controls, personal protective equipment and clean-up procedures.

1.15 SAFETY OFFICER

Designate an on-site Safety Officer to manage accident prevention program. Safety Officer or assistant shall be on site during all work. [Safety Officer may not have other duties in addition to Safety Officer.] Safety Officer shall report to and work directly for Contractor's on-site top manager (or higher level official) or corporate safety officer. Safety Officer shall be authorized to take immediate steps to correct unsafe and unhealthful conditions. Submit Safety Officer's resume of qualifications and job description within 20 days after Notice of Award.

1.15.1 Safety Officer Qualifications

Safety Officer shall have a minimum of Three years construction site experience on similar projects with experience as site safety specialist or Safety Officer. Safety Officer shall be qualified and have ability to manage on-site Contractor safety program, identify hazards and identify resources necessary to reduce hazards. Must have worked on similar types of projects and completed an OSHA training qualification class of at least 30 hours of classroom instruction within the last three years and competent person training as needed. To be credited for satisfying experience requirements, a minimum 50 percent of the time shall have been devoted to

safety and occupational health work. First aid work is not creditable.

1.16 DISTRICT SAFETY PROGRAM

1.16.1 Site Safety Inspections by District Personnel

District Safety Office personnel perform periodic safety inspections on contract work sites as a staff function on behalf of District Engineer. District Construction Quality Assurance personnel periodically inspect plant, equipment and contract sites and evaluate safety as part of District construction program. Inspectors evaluate how well both District personnel and Contractor are complying with requirements in COE EM 385-1-1, COE CESAJR 385-1-1, approved Accident Prevention Plan and supplements. Inspector reports will be submitted to Contracting Officer's Representative. Contractor will be notified of both accomplishments and deficiencies by Contracting Officer's Representative. Promptly correct deficiencies, document corrections and notify Contracting Officer.

1.16.2 Safety Pays Program

Safety Pays is described in COE CESAJP 385-1-2 located on Jacksonville District web site shown in paragraph SAFETY MANUALS above. Safety Pays is an incentive safety program where both Contractor and Contracting Officer's personnel are recognized for efforts to provide safer working environment.

1.17 MEETINGS

1.17.1 Phase Meetings

Refer to Section 01451 CONTRACTOR QUALITY CONTROL. Activity Hazard Analysis for each definable feature of work shall be reviewed and personnel attendance documented by Contractor. Examination of safety controls equipment is on-going in follow-up phase and progress meetings.

1.17.2 Supervisor Weekly Safety Meetings

Hold weekly meeting with on-site supervisors, foremen and QC Staff, at project site. Supervisor meeting shall address prevention of accidents, lessons learned, items of concern. Attach minutes with Contract number, signatures of attendees, and a list of topics discussed to the Contractor Quality Control Daily Report.

1.17.3 Weekly "Tool Box Meeting"

Hold a brief weekly meeting with all on-site personnel before start of work shift on a safety subject planned to prevent problems. For example, if hot weather is expected, discuss heat stress prevention and treatment. Report subject and number of employees attending on the Contractor Quality Control Daily Report.

1.18 DISPLAY OF SAFETY INFORMATION

Refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES. Provide a bulletin board to display following for viewing by on-site construction

personnel:

- a. Poster "Safety and Health Protection On the Job" required by Department of Labor, OSHA.
- b. Emergency phone numbers.
- c. Strip map with route to nearest emergency care facility.
- d. Accident Reporting and Workman's Compensation information.
- e. Applicable Activity Hazard Analyses (AHA).

1.18.1 Placarding

- a. Safety Scoreboard Sign.
- b. Provide a sign indicating number of days since last lost time injury (refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES).

1.19 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to project including: equipment operating manuals; manufacturer catalogs; Material Safety Data Sheets (MSDSs) on-site. (Refer to Clause HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (CESAJ ADAPTATION) of Section 00800 SPECIAL REQUIREMENTS.) Maintain one copy of APP with AHA and supplemental plans required by the contract.

1.20 REPORTS

1.20.1 Complaints and Accident Investigation

Contracting Officer will investigate complaints of unsafe or unhealthful working conditions received from Contractor employees or others. Contracting Officer will assign personnel to investigate serious accidents. Contractor will be notified of investigation results.

1.20.2 Accident Reports

Designate individual to track exposure data (hours worked); perform accident investigations; prepare reports and logs; and, notify Contracting Officer of accidents (to include subcontractors). Conduct accident investigations to establish causes for accidents and injuries. For an accident or work related illness which results in a lost workday or over \$2,000 in property damage, notify Contracting Officer's Representative within one work day providing information in paragraph "Notification" below. Complete Accident Investigation Report (ENG FORM 3394) and provide completed report to Contracting Officer within 5 work days of accident. For fatal accident, over \$200,000 damage, three or more persons hospitalized, or any accident which may result in adverse publicity to Corps Of Engineers, immediately notify Contracting Officer's Representative and District Safety Office using phone and fax numbers provided at Preconstruction Conference. Submit completed ENG 3394 as soon as possible

after initial phone or fax notification. Accident Investigation Report form (ENG FORM 3394) and instructions for completing form are at <http://www.usace.army.mil/inet/usace-docs/forms/>.

1.20.3 Notification

Notify Contracting Officer with following information:

- Contractor Name
- Contract Number and Title
- Type of contract
- Location where accident occurred
- Date and time of accident
- Names of personnel injured
- Extent of injury and property damage
- A brief description of accident (to include type of construction equipment used, PPE used, etc.).

1.20.4 Monthly Exposure Report

Submit a monthly exposure report to Contracting Officer. Exposure report is a total of employee-hours worked each month for all site workers, both prime and subcontractor.

1.20.5 Crane Notification

Notify Contracting Officer at least 10 working days prior to bringing crane equipment on-site so Contracting Officer may arrange for additional quality assurance checks.

PART 2 PRODUCTS

2.1 FIRST AID KITS

Furnish one 16-unit first aid kit per 25 employees, inspect weekly for supplies and note on inspection form located at kit.

2.2 PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers shall be located and used in accordance with paragraph FIRST RESPONSE FIRE PROTECTION of Section FIRE PREVENTION AND PROTECTION of COE EM 385-1-1, inspected monthly, maintained, and recharged as specified in NFPA 10.

PART 3 EXECUTION

3.1 EMERGENCY MEDICAL TREATMENT

Contractor shall arrange with local authorities for emergency medical response, treatment and evacuation. Provide first aid kits in areas of work and inspect weekly to ensure stockage. Provide 2 personnel trained in first aid and CPR for each shift in accordance with paragraph GENERAL of Section MEDICAL AND FIRST AID REQUIREMENTS of COE EM 385-1-1.

3.2 ACCIDENT PREVENTION

Comply with COE EM 385-1-1, NFPA 241, approved APP, AHA, and other related submittals. Contractor shall become familiar with safety requirements in Clause ACCIDENT PREVENTION of Section 00700 CONTRACT CLAUSES; COE EM 385-1-1 ; COE CESAJR 385-1-1; COE CESAJP 385-1-2, and latest OSHA standards, applicable U.S. Coast Guard safety regulations, and applicable State of Florida laws and regulations and local fire and safety regulations. Contractor shall have full knowledge of personal protective equipment to be provided workmen and applicable safety standards. COE EM 385-1-1 and COE CESAJR 385-1-1 are consistent with OSHA Construction Safety and Health Regulations 29 CFR 1926. For operations not covered under COE EM 385-1-1 or COE CESAJR 385-1-1, OSHA standards shall be complied with. When there is no OSHA standard, comply with Department of the Army, Department of Defense, U.S. Coast Guard or National Consensus Standards (e.g., API - American Petroleum Institute). Contractor shall only use plant and equipment in compliance with contract safety requirements.

3.3 OIL AND HAZARDOUS MATERIAL SPILLS AND CONTAINMENT

Report all spills to Contracting Officer immediately. Clean-up spills in accordance with COE EM 385-1-1 and MSDSs. Use dikes, curbs to prevent spread of oil or hazardous materials from storage tanks and piping leaks. Comply with Section 01355 ENVIRONMENTAL PROTECTION reporting.

3.4 DIVING OPERATIONS

Submit a Dive Operations Plan when work is performed adjacent to, on or over water. No matter if a dive is actually planned or only required as a contingency (i.e., most dredging projects) submit a Diving Operations Plan for Contracting Officer's approval. Dive Operations Plan shall cover all requirements in Section CONTRACT DIVING OPERATIONS of COE EM 385-1-1 and Appendix CONTRACT DIVING OPERATIONS of COE CESAJR 385-1-1. Dive Operations Plan consists of a "Safe Practices Manual" describing Contractor's diving program and a "Dive Plan" describing site specific information of proposed dive or contingency dive. Safe Practices Manual, Dive Plan and revisions shall have cover sheets signed and dated by Contractor. When diving is subcontracted, cover sheets shall also be signed and dated by diving contractor's principal or authorized representative.

3.4.1 Dive Operations Reviewer

Dive Operation Plans shall be submitted by Contractor to Contracting Officer in accordance with Section 01330 SUBMITTAL PROCEDURES. Dive Operations Plans are reviewed by Jacksonville District Diving Coordinator. A copy of the Dive Operation Plan shall be furnished to:

U.S. Army Corps of Engineers, Jacksonville District
ATTN: CESAJ-CO-CQ (Mr. Tappmeyer or Mr. Vecchitto)
P.O. Box 4970
Jacksonville, FL 32232-0019

Diving Coordinator fax is 904-232-3696.

3.4.2 Dive Operations Execution

Execute dives in accordance with approved Dive Operations Plan submittal; Section CONTRACT DIVING OPERATIONS of COE EM 385-1-1; and, Appendix CONTRACT DIVING OPERATIONS of COE CSAJR 385-1-1. Contractor shall submit completed daily dive logs at the end of each dive day. Daily dive logs shall be faxed to District Dive Coordinator 904-232-3696 or his authorized representative. Contractor shall use COE form ENG 4615 and ENG 4616 to record daily diving activities. Dive forms may be downloaded from Jacksonville Construction-Operations web site at:
<http://www.saj.usace.army.mil/conops/diving/DistrictDiving.html>.

3.5 PERSONNEL PROTECTION

Designate and mark safety zones requiring personal protection. Examples include hard hat zone, areas where eye and hearing protection is required.

3.5.1 Hazardous Noise

Provide hazardous noise signs, and hearing protection, wherever equipment and work procedures produce sound-pressure levels greater than 85 dBA steady state or 140 dBA impulse, regardless of duration of exposure.

3.6 ELECTRICAL WORK

Underground electrical spaces shall be certified safe for entry before entering to conduct work. Cable intended to be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with Contracting Officer and utility owner for identification. No outage request will be accepted until Contractor satisfactorily documents circuits have been clearly identified. In walls or concealed areas use non-conductive fish tape to pull wire. Perform all high voltage cutting remotely. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. Insulating blankets, hearing protection, and switching suits may be required, depending on the specific job and as delineated in the Contractor AHA.

3.7 HOUSEKEEPING

3.7.1 Clean-up

All debris in work areas shall be cleaned up daily or more frequently as necessary. Construction debris may be temporarily located in an approved

location; however, garbage accumulation must be removed each day.

3.7.2 Dust Control

In addition to the dust control measures required elsewhere in contract documents, dry cutting of brick or masonry shall be prohibited. Wet cutting must address control of water run off.

3.8 ACCIDENT SCENE PRESERVATION

For serious accidents and accidents involving weight handling equipment, ensure the accident site is secured and evidence is protected remaining undisturbed until released by the Contracting Officer.

3.9 QUALITY CONTROL

Quality Control and Safety are supporting complimentary functions. Include safety activities and documentation of meetings and site safety inspection as a part of Quality Control activities and QC Daily report required in Section 01451 CONTRACTOR QUALITY CONTROL.

3.10 SAFE ACCESS AND FALL PROTECTION

Furnish ladders, nets, guard rails and other required fall protection equipment to provide safe access and fall protection in accordance with Section SAFE ACCESS AND FALL PROTECTION of COE EM 385-1-1. Furnish personal protective equipment of body harnesses, lanyards, lifelines in accordance with subparagraph "Lineman's equipment" of Section PERSONAL PROTECTIVE AND SAFETY EQUIPMENT of COE EM 385-1-1. Furnish safety and debris nets designed and tested in accordance with paragraph SAFETY AND DEBRIS NETS - DESIGN AND TESTING of Section PERSONAL PROTECTIVE AND SAFETY EQUIPMENT of COE EM 385-1-1. Identify features of work and work areas with high falling risk requiring fall protection. Examples include: work above six feet; work on scaffolding; work near edges or penetrations of floors; roofs or decks; steel erection; overhead electrical work; dredging; work with construction lift equipment. In preparatory phase review activity hazard analysis, required equipment, employee supervision and supervisor inspection of equipment. In initial phase provide employee training and perform supervisor inspection of PPE and other fall protection equipment. During follow-up phase perform on going supervision and inspection by supervisors, safety and quality control staff.

3.10.1 Fall Protection Training

Train employees exposed to fall hazards in use of PPE, hazard identification, avoidance, and policy to correct hazards. Train Supervisors to inspect fall protection equipment and supervise work to reduce fall risks.

3.11 ACCESS AND HAUL ROADS ADJACENT TO CANALS

For each project involving canal hazards, submit an APP, access and haul road plan, and AHA that identify and provide control measures for canal hazards. The Contractor shall ensure that access and haul road plan

complies with COE EM 385-1-1, and includes items indicated below.
Construct access and haul roads in accordance with the paragraph HAUL ROADS of Section 01500 TEMPORARY CONSTRUCTION FACILITIES and COE EM 385-1-1.

3.11.1 Inspection

Inspect access and haul roads, submitting the safety checklist developed by the SOH office, and revise the access and haul road plan when additional haul and access road hazards are identified at the project site.

3.11.2 Signs and Barriers

Indicate proposed placement of signs, barriers and speed limits in APP. Place sufficient signs and barriers to indicate the drop-off hazard posed by an adjacent canal. See MUTCD, PART 6 for guidance on signs. Place stop signs at all intersections. Place speed limit signs approaching and after intersections, before curves, and otherwise every half mile. Place U-channel steel posts with highly visible flagging or reusable polypropylene fabric fencing along the edge of each access or haul road adjacent to a canal. The distance between posts shall be sufficient to support the fabric (if used) or no greater than indicated in the paragraph HAUL ROADS of Section 01500 TEMPORARY CONSTRUCTION FACILITIES.

3.11.3 Equipment and Vehicles

Ensure safety and escape features on all equipment and vehicles are operational.

3.11.4 Briefings and Enforcement

Brief every employee during orientation and toolbox meetings about recognizing and controlling canal hazards, using the APP, access and haul road plan, and AHA for work on roads adjacent to canals. Inform all employees that while operating equipment and vehicles, they shall not engage in any activity (eating, drinking, smoking, use of cell phone, etc.) that would interfere with safe operation. Inform all employees operating equipment and vehicles that they will be subject to disciplinary action, including termination, if cited for speeding and other reckless driving. Include a plan in the APP for monitoring construction traffic for speeding and other reckless driving.

3.12 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm.

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SECTION 01780

CLOSEOUT SUBMITTALS

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-02 Shop Drawings

As-Built Drawings ; G|COR.

Drawings showing final as-built conditions of the project. The final CADD as-built drawings shall consist of two sets of electronic CADD drawing files in the specified format, one set of mylar drawings, 2 sets of blue-line prints of the mylars, and one set of the approved working as-built drawings.

SD-03 Product Data

As-Built Record of Equipment and Materials ; G.

Two copies of the record listing the as-built materials and equipment as approved during shop drawing submittal, review and approval process, incorporated into the construction of the project.

Warranty Management Plan ; G.

One set of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Tags ; G.

Two record copies of the warranty tags showing the layout and design.

Final Cleaning ; G.

Two copies of the listing of completed final clean-up items.

1.2 PROJECT RECORD DOCUMENTS

1.2.1 As-Built Drawings

This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings.

1.2.1.1 Government Furnished Materials

One set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the Preconstruction Conference for projects requiring CADD file as-built drawings.

1.2.1.2 Working As-Built and Final As-Built Drawings

The Contractor shall revise 1 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times.

Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes.

Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan.

The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be limited to, the following information:

- a. Correct grade, elevations, cross section, or alignment, earthwork, structures or utilities if any changes were made from contract plans.
- b. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, dimensions, etc.
- c. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
- d. Changes or modifications which result from the final inspection.

e. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

f. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

g. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures.

(1) Directions in the modification for posting descriptive changes shall be followed.

(2) A Modification Circle shall be placed at the location of each deletion.

(3) For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

(4) For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

(5) For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.

(6) For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

(7) The Modification Circle size shall be 1/2 inch diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.1.3 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.1.4 Computer Aided Design and Drafting (CADD) Drawings

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new

drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The electronic files will be supplied on 3-1/2 inch high density floppy disks (for projects with electronic digital files or sets of files less than or equal to 4 diskettes. The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

a. CADD colors shall be the "base" colors of red, green, and blue. Color code for changes shall be as follows:

(1) Deletions (red) - Deleted graphic items (lines) shall be colored red with red lettering in notes and leaders.

(2) Additions (Green) - Added items shall be drawn in green with green lettering in notes and leaders.

(3) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes shall be in blue.

b. The Contract Drawing files shall be renamed in a manner related to the contract number (i.e., 98-C-10.DGN) as instructed in the Coordination Meeting. Marked-up changes shall be made only to those renamed files. All changes shall be made on the layer/level as the original item. There shall be no deletions of existing lines; existing lines shall be over struck in red. Additions shall be in green with line weights the same as the drawing. Special notes shall be in blue on layer #63.

c. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. All other contract drawings shall be marked either "AS-BUILT" drawing denoting no revisions on the sheet or "REVISED AS-BUILT" denoting one or more revisions. Original contract drawings shall be dated in the revision block. The Contractor shall sign the cover sheet of the marked-up drawings in the following manner: "I CERTIFY THAT THESE CORRECTED DRAWINGS INDICATE CONSTRUCTION AS ACTUALLY PERFORMED AND ARE AN ACCURATE REPRESENTATION OF THE SPECIFIED WORK. THESE CORRECTED DRAWINGS ARE APPROVED FOR PREPARATION OF AS-BUILT CONSTRUCTION DRAWINGS."

d. Within 30 days for contracts less than \$5 million and after

Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 21 days for contracts less than \$5 million and the Contractor shall revise the CADD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. The submittal shall consist of one set of electronic files on 3-1/2 inch high density floppy disks, one set of mylars, two sets of blue-line prints and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final as-built drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.2.2 As-Built Record of Equipment and Materials

The Contractor shall furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 7 days after final inspection with Government comments. Two sets of final record of equipment and materials shall be submitted 10 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used
-------------	--------------------------	-------------------------------------------------------------	-------------------------	---------------

1.2.3 Final Approved Shop Drawings

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed project.

1.2.4 Construction Contract Specifications

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.2.5 Real Property Equipment

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished 30 days after transfer of the completed facility.

1.3 WARRANTY MANAGEMENT

1.3.1 Warranty Management Plan

The Contractor shall develop a Warranty Management Plan which shall contain information relevant to the Clause WARRANTY OF CONSTRUCTION of Section 00700 SPECIAL CONTRACT REQUIREMENTS. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the Warranty Management Plan for Government approval. The Warranty Management Plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The Plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the Warranty Management Plan shall include, but shall not be limited to, the following:

- a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.
- b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, and systems, etc.
- c. A list for each warranted item, feature of construction or system indicating:
 1. Name of item.
 2. Model and serial numbers.
 3. Location where installed.
 4. Name and phone numbers of manufacturers or suppliers.

5. Names, addresses and telephone numbers of sources of spare parts.
 6. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
 7. Cross-reference to warranty certificates as applicable.
 8. Starting point and duration of warranty period.
 9. Summary of maintenance procedures required to continue the warranty in force.
 10. Cross-reference to specific pertinent Operation and Maintenance Manuals.
 11. Organization, names and phone numbers of persons to call for warranty service.
 12. Typical response time and repair time expected for various warranted equipment.
- d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.
- e. Procedure and status of tagging of all equipment covered by extended warranties.
- f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.3.2 Performance Bond

The Contractor's Performance Bond shall remain effective throughout the construction period.

- a. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.
- b. In the event sufficient funds are not available to cover the construction warranty work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to recoup expenses from the bonding company.
- c. Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.3.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop

a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.3.4 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the time frames specified, the Government will perform the work and back charge the construction warranty payment item established.

- a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.
- b. Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.
- c. Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.

1.3.5 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

- a. Type of product/material _____.
- b. Model number _____.

- c. Serial number_____.
 - d. Contract number_____.
 - e. Warranty period_____ from_____ to_____.
 - f. Inspector's signature_____.
 - g. Construction Contractor_____.
 - Address_____.
 - Telephone number_____.
 - h. Warranty contact_____.
 - Address_____.
 - Telephone number_____.
 - i. Warranty response time priority code_____.
 - j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE
- 1.4 FINAL CLEANING

The project site shall be clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

1.5 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

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SECTION 02220A

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SECTION 02220A

DEMOLITION

PART 1 GENERAL

1.1 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 GENERAL REQUIREMENTS

The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from Government property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections. In the interest of conservation, salvage shall be pursued to the maximum extent possible and salvaged items and materials shall be disposed of as specified. The Contractor shall include an order of work on this project due to the seagrass mitigation portion of this project - where work should be begin at the western side and proceed to the east in order to accommodate the seagrass mitigation portion of the project. It is anticipated that seagrass will be transplanted from the project area and replanted at the mitigation area. This will require removal of the seagrasses prior to any placement of material. It is anticipated that several thousand yards of material may be needed to fill the mitigation areas prior to planting and we anticipate using the same source of material that will be used for the beach placement. The mitigation may also require the same separation techniques that will be used for the beach placement.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" 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 Statements

Work Plan; G,AE

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations in accordance with EM 385-1-1.

1.4 PROTECTION

1.4.1 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

1.4.2 Protection of Existing Property

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Government; any damaged items shall be repaired or replaced as approved by the Contracting Officer. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

1.4.3 Protection of Trees

Trees within the project site which might be damaged during demolition, and which are indicated to be left in place, shall be protected by a 6 foot high fence. The fence shall be securely erected a minimum of 5 feet from the trunk of individual trees or follow the outer perimeter of branches or clumps of trees. Any tree designated to remain that is damaged during the work under this contract shall be replaced in kind or as approved by the Contracting Officer.

1.4.4 Environmental Protection

The work shall comply with the requirements of Section 01355 ENVIRONMENTAL

PROTECTION.

1.5 BURNING

The use of burning at the project site for the disposal of refuse and debris shall not be permitted.

1.6 USE OF EXPLOSIVES

Use of explosives shall not be permitted.

1.7 AVAILABILITY OF WORK AREAS

Areas in which the work is to be accomplished are shown on the drawings.

1.8 Order Of Work

Demolition of any existing groin shall not begin until the the pre-condition survey noted in Section 02391, Beach Fill, is completed and accepted by the Contracting Officer and the corresponding new replacement groin has been installed. Turbidity curtains shall also be installed around the groins prior to the state of operations to minimize the impact on the seagrass beds.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 Turbidity Control

The Contractor shall install and maintain turbidity curtains around groins before demolition may begin.

3.2 EXISTING STRUCTURES

Existing timber groin with piles and concrete king piles shall be removed intact or to at least 4 feet below grade. If breakage of pile occurs and cannot be removed without extensive excavation, the remaining pile cap or plank shall be cut off smooth below grade as noted above.

3.3 EXCAVATION AND BACKFILLING

The Contractor shall excavate where necessary to remove the designated groins structures except where environmental resources are concerned. The contractor shall minimize impacts to seagrass areas and in areas of excavation the Contractor shall backfill to the existing grade.

3.4 DISPOSITION OF MATERIAL

Title to material and equipment to be demolished, except Government salvage and historical items, is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition, loss or

damage to such property after notice to proceed. The Contractor shall dispose of the concrete king piles removed from the existing groins in a manner acceptable to Contracting Officer. As an alternative the Government may elect to have the Contractor dump the concrete piles in the offshore Brickell site shown on the drawings. The Contractor may use the southeast corner of the Marine stadium on Virginia Key to deploy the concrete king piles. The concrete must be clean and exposed rebar must be cut flush to the surface prior to dumping in the Brickell site.

3.4.1 Items Salvaged for the Government

The existing timber groin to be removed will remain the property of the Government. The groins shall be removed in a manner to prevent damage, and stored/stockpiled within a staging areas in accordance with the Contractor Officer requirements.

3.4.2 Unsalvageable Material

Splintered piles and broken planks shall be disposed of in a manner acceptable to the Contracting Officer.

3.5 CLEAN UP

Debris and rubbish shall be removed from the beach site in a manner acceptable to the Contracting Officer. Local regulations regarding hauling and disposal shall apply.

3.6 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm

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SECTION 02391

BEACH FILL

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists in furnishing all plant, labor, equipment, supplies and material, and in performing all operations in connection with excavating, transporting, and placing beach fill on the beaches as indicated on the drawings and specified herein.

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 422	(1963; R 1998) Test Method for Particle-Size Analysis of Soils
ASTM D 4373	(1996) Standard Test Method for Calcium Carbonate Content of Soils
ASTM E 329	(2000; Rev. B) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
ASTM E 1527	(2000) Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

DEP-SOP-001/01	Florida Department of Environmental Protection Standard Operating Procedures, on web site www.dep.state.fl.us/labs/qa/sops.htm
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1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" 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 Sampling Plan for Contractor Supplied Upland Sand Source; G|PD

Within 14 days after the Notice of Award, the Contractor shall submit an Environmental Sampling Plan for any proposed beach fill source. Approval of the Plan will not relieve the Contractor of his responsibility to document pre-existing conditions and to avoid contaminating any portion of the beach placement area with substandard material. The Government will direct the Contractor to conduct environmental sampling at any point for the duration of the project, based on site conditions. A portion of the sampling will be required at the sand source and project beach prior to the Notice to Proceed. All sampling and laboratory results shall be provided within 14 days of notification to obtain samples. The Environmental Sampling Plan shall be in accordance subparagraph "General Requirements for Borrow Sources" of paragraph ENVIRONMENTAL QUALIFICATIONS below and shall include, but not be limited to, the following:

- a. Project drawings of the borrow site with proposed sampling locations shown on the drawings.
- b. Information on the certified laboratory or laboratories (names, addresses, and phone numbers) that will be utilized to conduct the testing.
- c. Methodologies and procedures for sampling and laboratory analysis.

Requirements for Radioactive Isotopes Reports; G|CO

The Contractor shall provide reports to the Contracting Officer demonstrating their evaluation of the radioactive testing requirements shown under paragraph Requirements for Radioactive Isotopes, Specification Section 02391, Part 2, PRODUCTS.

Construction and Grade Stakes Recovery Plan; G|AE

After the Notice to Proceed, the Contractor shall submit a Construction and Grade Stakes Recovery Plan. The Plan will outline the steps that the Contractor will implement to recover all the stakes used on the project. This Plan will include the use of an inventory log that will be made available for review by the appropriate Government personnel. A sample Plan is on the web site indicated in paragraph Construction Forms and Details below.

Plan of Processing Sand Mound Material and Laboratory Testing; G|AE

After the Notice to Proceed, the Contractor shall submit a Plan in accordance with the requirements listed in the paragraph below.

Processing and Placement of Sand Mound Material; G|CO

Fifteen days after the Notice of Award, the Contractor shall submit a Processing And Placement Of Sand Mound Material Plan to the Government for approval. The Plan shall include, but not be limited to, the following:

- a. The method of processing the sand to remove material greater than 3/4- inch diameter and reducing percentage of silt to below 2%.
- b. The method of placement to include the equipment used.
- c. Sampling plan with at least one sample taken daily off the beach of the most recently placed processed material.
- d. Storage and removal of refuse material from the processing operation site.
- e. Drawings clearly showing the layout of the processing and transport plan including stockpile areas.

Certification of Processed Material; FIO

Prior to placement of processed material on the beach, the Contractor shall provide the results of testing five random samples of his processed material for compliance with gradation requirements. An approved laboratory shall be used for analyzing samples.

Excavated Material Transportation Plan; G|COR

Within 14 days after the notice to proceed, the Contractor shall submit an Excavated Material Transportation Plan for any proposed beach fill source. Approval of the plan will not relieve the Contractor of his responsibility to meet Federal, State and local laws and regulations.

SD-04 Samples

Contractor Supplied Upland Sand Source Samples; G|ED

Within 10 days after Notice of Award, the Contractor shall furnish a 5-pound sample of the proposed beach fill material to Mr. Doug Rosen, CESAJ-EN-GG, of Jacksonville District USACE, telephone (904) 232-1617. Sample(s) shall be provided in sealed plastic containers, either jars or bags, and clearly marked with the name of the Contractor, the name of the source, and any other identifying information. The submitted sample shall be representative of the typical nature of the entirety of the proposed sand fill. The Government will retain the submitted samples.

SD-07 Certificates

Quality Control Sampling Program; G|ED

The Contractor shall furnish copies of the reports required by paragraph QUALITY CONTROL SAMPLING PROGRAM below to Mr. Doug Rosen, CESAJ-EN-GG, of Jacksonville District USACE (submittal), and Robin Trindell at the following address: Florida Fish and Wildlife Conservation Commission, Bureau of Protected Species Management, 620 S. Meridian Street OES-BPS, Tallahassee, Florida 32399-1600, or e-mail robin.trindell@fwc.state.fl.us.

Grade Stake Recovery; G|COR

After completion of the project, the Contractor shall provide a letter to the Contracting Officer certifying that all grade stakes have been recovered in accordance with the Contractor's approved Construction and Grade Stake Recovery Plan.

Notification of Discovery of Historical Period Shipwreck Sites

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 Mislplaced Material

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

Construction and Grade Staking Log

The Contractor shall prepare and maintain a log to inventory all the stakes used in the construction of the project. The log shall include information concerning the location, installation, and recovery of all stakes. The Contractor shall make this log available for review by the appropriate Government personnel upon request. Upon completion of the project, the Contractor shall furnish the log to the Contracting Officer.

SD-08 Field Report

Condition Surveys; G|ED

The Contractor shall conduct pre- and final condition surveys of the project area and provide all data to the contracting officer. See paragraph CONDITION SURVEYS below.

1.4 ORDER OF WORK

Prior to any construction on the beach, the Contractor shall conduct a pre-condition survey as noted in the paragraph CONDITION SURVEYS below. The Contractor shall begin his filling operations at any point along the project beach upon completion and acceptance of the three new timber groins. Turbidity curtains shall be installed and maintained along the shore prior to commencement of any work. Once the Contractor's filling operations have begun, the Contractor shall maintain a continuous filling operation without any intervening gaps.

1.5 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 shall immediately notify the Contracting Officer.

Refer to subparagraph "Preservation and Recovery of Historic, Archeological, and Cultural Resources" of Section 01355 ENVIRONMENTAL PROTECTION.

1.6 FINAL CLEANUP

Final cleanup, as stated in the paragraph COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK of Section 00700 CONTRACT CLAUSES, shall include the removal of all of the Contractor's plant and equipment either for disposal or reuse. Plant and/or equipment to be disposed of shall ONLY be disposed of in a manner and at locations approved by the Contracting Officer. The Contractor shall be responsible for the removal of all debris associated with the Contractor's operations and work area activities. This includes the pipeline corridor, pumpout site, and borrow area. Unless otherwise approved in writing by the Contracting Officer, the Contractor will not be permitted to abandon pipelines, pipeline supports, pontoons, or other equipment in the disposal area, pipeline access areas, water areas, or other areas adjacent to the work site. Pilings and any other debris removed or created as a result of the execution of this contract shall be disposed of in a manner and at locations approved by the Contracting Officer.

1.7 WORK AND ACCESS AREA

1.7.1 Staging and Access Areas

Staging and access areas are shown on the contract drawings that have been identified for the Contractor's use. The final limits of the staging and access areas indicated on the drawings shall be field-determined by the Contracting Officer in coordination with the Local Sponsor and the Contractor. It shall be the responsibility of the Contractor to investigate and obtain any additional areas which may be necessary for his/her construction operations. The additional areas will be subject to

the approval of the Contracting Officer. The Contractor shall not use water access across the seagrass beds during this contract.

1.7.2 Contractor Responsibilities

The Contractor shall exclude the public from the work area in the immediate vicinity of his operations. The Contractor shall install warning signs to warn the public and all commercial recreational boats of all construction activities. The Contractor shall be responsible for providing and maintaining all water and land access routes necessary for his equipment and plant to and from the work sites. The Contractor shall ascertain the environmental conditions which can affect water and land access, such as climate, terrain, winds, current, waves, swells, depths, shoaling, and scouring tendencies.

1.8 ADJACENT PROPERTY AND STRUCTURES

Any damage to private or public property within the project boundaries, including staging site(s) and work and access areas/roads, shall be repaired promptly by the Contractor. Any damage as a result of the Contractor's operations shall be repaired at no cost to the Contracting Officer.

1.9 PERMITS AND RESPONSIBILITIES

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

1.10 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 CLAUSES.

PART 2 PRODUCTS

2.1 SAND MOUND SAND SOURCE

2.1.1 General

The character of the material in the Sand Mounds is indicated on the test pit laboratory data (designated TP) of Section 00320 GEOTECHNICAL DATA. Vegetation presently covers the sand mounds that will need to be removed from the area of excavation prior to using the sand. Excavation of the sand mounds shall only be to the existing ground elevation surrounding the excavation area, encouraging drainage away from the sand mound.

2.1.2 Processing of Sand Mound Material

The sand used for beach fill shall be processed to remove all material coarser than 3/4 inch and to reduce the percentage of silt (0.063 mm or 230 sieve) below 2 percent. These requirements are stated in the State Permit.

The method of processing the sand shall be of the Contractor's design. The plan for accomplishing the above shall be submitted to the Government for approval. Before placing the sand on the beach, laboratory testing of representative samples shall be provided to the Government showing that 100 percent of material passes the 3/4 inch screen and not more than 2 percent passes the 230 sieve. If any sand placed on the beach does not meet this criteria, that sand shall be removed and replaced with sand that does.

2.2 CONTRACTOR-SUPPLIED UPLAND SAND SOURCE

This project allows use of a Contractor-supplied upland source of sand. No offshore sand sources shall be considered as an acceptable source. Any sand placed not conforming to these specifications shall be removed from the project site by the Contractor at no additional expense to the Government. A 5 pound sample of the Contractor supplied upland sand source shall be provided to the Government within 14 days of the Notice to Proceed. Laboratory test results confirming all characteristics of the sample, shown in paragraph CHARACTER OF MATERIAL shall accompany the submitted sample. The submitted sand sample will be used for verification laboratory testing of proposal submittals and for visual comparisons by Government inspectors during construction.

2.2.1 Sand Fill Material

The Contractor is responsible for providing a source, delivery and spreading of beach compatible sand that meets the following specifications.

The sand supplied shall be naturally created. The sand may be processed, but manufactured sand is not allowed. Sand produced from crushed rock is considered manufactured sand and is not allowed. Contractor's offering blended sand shall submit a Blending Plan, showing the method the sand components will be thoroughly mixed before final placement on the beach. The existing beach sand shall not be mixed with sand delivered under this contract. The project requires the Contractor to propose sand with an average mean grain size of 0.30 millimeters (mm) to 0.55 mm. The sand will be placed and shaped on the beach to fill the construction template shown in the plans.

2.2.2 Character Of Material

The character of the sand to be supplied by the Contractor shall meet the following physical specifications:

a. Composed of quartz and/or calcium carbonate with no more than 5 percent sand of other mineralogical composition.

b. The calcium carbonate sand grains allowable under this specification are naturally occurring, durable and solid calcium carbonate grains. Many calcium carbonate grains have excessive internal pore space dramatically reducing the grains density and durability. Calcium carbonate grains delivered under this specification shall be 90 percent durable and solid calcium carbonate grains. Internal pore space shall not exceed 10 percent.

(1) Whole and broken mollusk shells from the beach

environment are durable and solid calcium carbonate grains. Due to the platy nature of shells and shell fragments, no more than 60 percent of the sand (quartz or calcium carbonate) shall be whole or broken shell. Unacceptable calcium carbonate grains include sand derived from benthic foraminifera, sponge spicules and halimeda.

- c. Silt content (passing No. 230 sieve (0.063 mm)) of less than 2 percent.
- d. The coarse grains must meet the following gradation limits:
 - (1) No more than 5 percent of the material retained on the #4 sieve (4.76 mm).
 - (2) Zero percent of the material retained on the 3/4 inch sieve (19.0 mm).

The gravel sized material must be distributed throughout the beach fill, and not be concentrated in isolated areas.

- e. Average Mean Grain Size greater than or equal to 0.30 mm (1.74 phi) and less than 0.55 mm (0.86 phi).
- f. Phi Standard Deviation values from 0.50 phi to 1.75 phi.
- g. Free of debris, sharp rocks and pebbles, concrete rubble, clay, and organic material.
- h. Sand color shall be similar to the existing beach. Based on the Munsell Soil Color Chart, color must be within the range:

HUE of: 2.5 YR, 5 YR, 7.5 YR, 10 YR, 2.5 Y, 5 Y
CHROMA of: 1, 2, or 3
VALUE of: 6, 7, or 8.

This color specification eliminates strongly colored or dark sand.

2.2.3 Calculation Of Average Mean Grain Size

The Mean Grain Size and Phi Standard Deviation shall be determined by Method of Moments Statistics calculated from sieve analysis of the proposed sand source. A Certified Testing Laboratory shall perform laboratory testing in accordance with ASTM D 422. The Method of Moments Statistics shall be calculated according to the instructions contained within this Section.

Mean Grain Size and Phi Standard Deviation are statistical measures of the textural character of a sample of sand, corresponding to the mean and standard deviation of a statistically normal population (i.e., sand grain sizes). Laboratory sieving of sand provides the data for calculation of the Mean Grain Size and Phi Standard Deviation. There are several methods of calculating these statistics. For the purposes of this contract, Mean Grain Size and Phi Standard Deviation shall be calculated by the Method of

Moments. The method of calculation is included in this Section. The Average Mean Grain Size refers to the average of the Mean Grain Sizes calculated for individual samples sieved in the laboratory. The Average Mean Grain Size shall be used to evaluate volume reduction for this contract.

2.2.4 Grain Size Reporting

The grain size distribution information shall be based upon the sieve analysis specified in subparagraph "Laboratory Testing" below. Each sample test result shall be graphically represented by a gradation (cumulative frequency distribution) curve and a frequency distribution curve. All gradation curves shall be submitted on SAJ Form 2087 see paragraph CONSTRUCTION FORMS AND DETAILS below. All SAJ Form 2087 title information shall be filled out with project name, date, sample number, location sample obtained, Unified Soil Classification, percent silt passing the No. 200 sieve (0.074 mm), percent silt passing the No. 230 sieve (0.063 mm) and Method of Moments Mean Grain Size and Phi Standard Deviation. Each gradation curve shall state what Mean Grain Size class the sample meets, according to the Appendix B, Table 1. Frequency curves shall show percent retained on vertical axis and grain size, in millimeters on horizontal axis. The vertical axis shall use a fixed scale of 0 to 40 percent. For samples that contain information exceeding that scale, a vertical scale of 0 to 75 percent shall be used. An automatic scaling feature shall NOT be used for this curve. Frequency curves shall be identified by sample number and date, matching the corresponding gradation curve. A tabulation, on paper, of the laboratory results of weight retained, percent weight retained, and cumulative percent retained on each sieve shall be provided with each gradation curve. Tabulated grain size laboratory results shall also be reported in digital format in an Excel spreadsheet. Digital data shall be supplied not greater than on a weekly basis. Samples from the sand source shall be numbered consecutively. Samples from the project site shall be identified with the Acceptance Section, numbered consecutively for each Acceptance Section, and a station and range location.

2.2.5 Laboratory Testing

All quality control samples shall be sieved according to ASTM D 422, using U.S. Standard sieves 3/4, 3/8, 4, 8, 16, 30, 40, 50, 70, 100, 140, 200, 230. The results of the sieve analysis shall be reported as specified in paragraph GRAIN SIZE REPORTING above. In addition, all quality control samples from the sand source shall include the following laboratory tests, with the results reported on each sample's gradation curve, and tabulated with each sample's sieve analysis tabulation:

- a. Calcium Carbonate Content in accordance with ASTM D 4373.
- b. Munsell Soil Color Chart evaluation of Hue, Chroma, and Value.
- c. Visual Estimate of Shell Content. This shall be accomplished by comparing the visual estimate of shell content on each sieve of the sieve analysis with standard laboratory visual percentage charts. The visual estimate of shell content for the entire sample shall be the weighted average of the individual visual estimates from each sieve.

2.2.6 Certified Testing Laboratory

Certified Testing Laboratory refers to a geotechnical testing laboratory qualified under ASTM E 329 standards and certified by AASHTO (American Association of State Highway and Transportation Officials) National Voluntary Accreditation Program; or MMRL (AASHTO Materials Reference Laboratory accreditation); and, personnel qualified by NICET (National Institute for Certification of Engineering Technicians).

2.2.7 Mean Grain Size And PHI Standard Deviation Calculation Using The Moment Method

The equations and discussion for calculating the Mean Grain Size and Phi Standard Deviation using the moment method are appended to the end of this Section (Appendix B).

2.2.8 Quality Control Sampling Program

The Contractor shall perform sampling that includes no less sample collection than described in the following plan. The Contractor shall conduct all testing in a location accessible to Government inspectors. The Contractor shall include the sampling and testing procedure in his Contractor's Quality Control Plan. The Quality Control Plan shall include the name, address and point of contact for the Certified Testing Laboratory to be used for all grain size analysis. The location of the testing facility to be used for this contract shall also be included in the Quality Control Plan. Gradation test results shall be turned in daily with the daily quality control reports. Individual samples collected shall be approximately one half pound in weight and obtained from a single location. All laboratory test results shall be reported to the Government.

2.2.8.1 Sampling at the Sand Source

Sand samples for laboratory testing shall be collected at the sand source at the rate of one sample for every 200 cubic yards of sand to be transported. Sampling and testing shall be completed before the sand is transported to the project site, and shall be representative of the sand being delivered to the project. Each day's samples Mean Grain Size and Phi Standard Deviation shall be averaged and the running average recorded on the gradation curve, along with the individual sample Mean Grain Size and Phi Standard Deviation. A new average shall be started each day. The Average Daily Mean Grain Size shall be used as an indicator for the Mean Grain Size for the sand proposed. No individual sample Mean Grain Size shall be less than 0.25 mm. Any materials not meeting the Mean Grain Size requirements shall not be transported to the project site.

2.2.8.2 Sampling at the Project Site

Sand samples for laboratory testing shall be collected at the project site. Sand samples shall represent the fill material only, avoiding existing beach sand below the project fill. Sand samples shall be collected from each beach fill Acceptance Section. Sand samples shall be collected at the rate of one sample representing 100 cubic yards of sand delivered. The

samples shall be collected on a regular sampling grid covering as entire Acceptance Section, and the location recorded on the gradation curve. The plan of beach sampling shall be submitted with the Contractor's Quality Control Plan. All sample collection in an Acceptance Section shall be distributed temporally over the entire filling operation. Half of the samples shall be collected during filling of the Acceptance Section, when the fill is approximately less than half of the final grade. The second half of the samples shall be taken from the completed Acceptance Section. Samples shall not be collected from the surface, but 6 inches below the ground surface. Before an Acceptance Section is surveyed for final payment and accepted by the Contracting Officer, all sample laboratory analyses shall be completed and submitted to the Contracting Officer. All individual sample Mean Grain Size and Phi Standard Deviation shall be tabulated. The tabulation shall include sample identifying information including Acceptance Section, sample number and date.

2.2.9 Environmental Qualifications

2.2.9.1 General Requirements for Borrow Sources

It is important that any material to be used for a Dade County sand borrow source be considered to be as clean as what exists on Dade beaches or is normally used for playground quality sand. A Phase I HTRW (Hazardous Toxic and Radioactive Waste) Evaluation to meet the requirements of ASTM E 1527 on the borrow source material shall be submitted with the proposal as indicated in Section 00100A ADDITIONAL PROPOSAL PREPARATION/SUBMISSION INSTRUCTIONS. If the borrow site contains HTRW materials or is suspected of containing hazardous materials, fissionable materials, environmental contaminants or otherwise toxic materials it shall not be used as a borrow source. The Government will request the Contractor perform testing/sampling in accordance with what is provided below, and testing results be provided to the Government.

2.2.9.2 Requirements for Radioactive Isotopes

Radiation levels and radioactivity content shall be measured for the borrow material and for beach area. The borrow area and the beach placement area shall be surveyed in a pattern approved by the Contracting Officer as described below. The background radioactivity and radiation levels (milli-roentgens/hour) of the borrow area vs. the beach site shall be compared. The levels of contaminant (radioactivity content in pico-curies/gram) in borrow material cannot exceed the mean levels existing at the beach placement area. If radioactivity levels of the source material exceed the mean naturally occurring radiation levels at the beach area, the site shall not be used as a borrow source. These radiological surveys and analysis shall consist of the following:

- (1) Radiation surveys are to be taken at the beach and borrow sites. These surveys shall be taken at waist level. Additionally, samples from the beach and borrow site shall be analyzed for radioactivity levels and be reported in pico-curies per gram. The measurements shall also fall within 1 standard deviation or suspect high values will be determined to be the most conservative representation of the results. The results of the radioactivity (pico-curies per gram) shall be

reported in graphical and tabular form.

(2) The resulting beach background radiation level shall not be increased by more than 20 micro-roentgens/hour. This is to be determined by gamma radiation surveys (with the probe at waist level) taken both before and after the beach material placement.

(3) Gamma spectroscopy analysis for Radium 236 shall be performed at the beach site and at the potential borrow site. The placement of borrow material shall not allow the resulting composite radioactivity at the beach (determined by the gamma spectroscopy) to increase by more than 5 pico-curies/gram.

(4) Methodology for radioactivity content to be used for individual sample analysis shall be EPA Method 9310 for alpha and beta emissions.

(5) Methodology for gamma spectroscopy analysis shall be submitted by the Contractor and approved by the Contracting Officer.

(6) The Contractor shall provide reports to the Contracting Officer demonstrating their evaluation of the above criteria and provide all data including all radiation values taken.

2.2.9.3 Requirements for Environmental Contaminants

The Contractor shall provide laboratory reports to the Contracting Officer demonstrating their evaluation of the below criteria and provide all data including all chemical values determined. The data shall be provided in graphical and tabular format. It is anticipated that background level of contaminants for Dade County beaches is essentially zero or below detection limits. Should contaminants be detected in borrow material the levels of contaminant in borrow material cannot exceed the mean levels existing at the beach placement area in samples taken as described below. These measurements will consist of the following chemical testing of the borrow material and elutriates:

(1) Total Recoverable Petroleum Hydrocarbons (TRPH), EPA Method 9071B or EPA 8440

(2) Total Metals (those listed as Priority Pollutants), EPA 3050B/EPA 6010B, except Hg, EPA 7471A

(3) Volatile Halogenated Organics and Aromatic Hydrocarbons (BTEX), EPA 8021B

(4) Polynuclear Aromatic Hydrocarbons, EPA 8100

(5) Pesticides, EPA 8081, and PCB's, EPA 8082

(6) Herbicides (Chlorinated Herbicides 2,4-D and 2,4,5-TP), EPA 8151A

(7) Elutriate Preparation shall be by the method provided in EPA/CE 81-1. Testing for all above contaminants shall be performed on

elutriates.

(8) To ensure quality control (QC) and quality assurance (QA) of these procedures, work shall be conducted in accordance with DEP-SOP-001/01

If contaminant levels of the borrow material exceed the mean naturally occurring contaminant levels at the beach area, the site shall not be used as a borrow source. The measurements shall also fall within 2 standard deviation or suspect high values will be determined to be the most conservative representation of the results. Elutriate values shall be compared to State water quality standards to determine whether runoff will violate State standards.

2.2.9.4 Sampling Locations for Environmental Contaminants

Samples to be taken for the above requirements shall be taken every 100 feet as needed in the beach placement area, for representative beach quality samples, and in spots considered to be representative of every 200 cubic yards of the borrow material. Representative samples from all sites shall be taken in a pattern and locations approved by the Contracting Officer.

PART 3 EXECUTION

3.1 CONDITION SURVEYS

3.1.1 Pre-Condition Survey

Prior to any work being conducted on the beach, the Contractor using a professional land surveyor licensed in the state of Florida shall obtain a pre-condition survey of the project area. Beach profiles are to be taken at the Florida Department of Environmental Protection (FDEP) control monuments-R-84 (Azimuth 325°), R-85 (Azimuth 345°), R-86 (Azimuth 335°), and R-87 (Azimuth 335°). The profiles shall extend from the monument to 1,500 feet offshore according to the azimuths noted. The survey shall reference the construction datum, which is located at 1.30 feet below National Geodetic Vertical Datum of 1929 (NGVD). The coordinates shall be in feet and based on the Florida State Plane Coordinate System, East Zone (0901), Transverse Mercator Projection, North American Datum, 1927 (NAD27). Elevations and soundings shall be taken at abrupt changes in grade and at a distance not to exceed 25 feet apart. For each profile, the Contractor shall locate the edge of vegetation, the Mean High Water Line as established in the contract drawings, and the edge of seagrass. The Contractor shall submit the x-y-z data in FDEP format (See Appendix A.) and field notes to the Contracting Officer's Representative.

3.1.2 Final Condition Survey

Upon completion of the project, the Contractor shall conduct a final survey of the beach in the same manner as referenced above. The Contractor shall provide digital and hardcopy data of the survey to the Contracting Officer's Representative.

3.2 EXCAVATION

3.2.1 General

All excavation and handling operations for beach fill shall be performed in a manner that complies with all applicable Federal, State, and local laws. All excavation for beach fill using the sand mounds shall be performed within the limits of the borrow areas shown on the drawings. Vegetation shall be removed from the sand in areas of excavation and disposed of in a manner acceptable to the Contracting Officer. Topsoil shall be stockpiled in a manner acceptable to the Contracting Officer. Existing conditions are represented on the survey in the drawings and core boring logs appended to the end of Section 00320 GEOTECHNICAL DATA. Excavation shall be performed in a uniform and continuous manner so as to avoid creating multiple holes, valleys or ridges. The depth of excavation of the sand mounds shall not extend below the adjacent terrain. Positive drainage shall be maintained at all times. If the Contracting Officer determines the quality of beach fill is adversely affected, that location shall be avoided.

3.2.2 Turbidity

The Contractor shall place and maintain turbidity curtains along the beach during filling operations to prevent dispersion of sediments into seagrass beds. Filling operations shall be done in a manner that will minimize turbidity of the water at the discharge from the fill area. If monitoring shows turbidity exceeds the background at the compliance stations by more than 29 NTU's, construction activities shall cease immediately and not resume until corrective measures have been taken and turbidity has returned to acceptable levels.

3.2.3 Deduction for Nonconforming Work

Beach fill that is obtained from unauthorized areas will not be paid for under this contract. Excavation in such area(s) is a violation of State of Florida Permits for this work. If it is determined that excavation has been performed outside the permitted borrow area(s), the quantity of the material excavated from these areas will be computed and subtracted directly from the pay quantity of material placed on the beach.

3.3 Excavated Material Transport Plan

3.3.1 General

The method of transporting the fill from the borrow area (s) to the fill area shall be approved by the Contracting Officer.

3.3.2 Upland Transport

The Contractor is responsible for obtaining all permits, licenses, easements, and rights-of-way required for transport or staging of equipment and materials.

3.4 BEACH FILL

All beach fill sand excavated from the borrow area shall be transported to and deposited on the beach within the lines, grades, and cross section shown on the drawings except as may be modified by the provisions of subparagraph b. of subparagraph "Construction" below. Except as specified in subparagraph "Dressing for Payment" below, the Contractor shall maintain and protect the fill in a satisfactory condition at all times until acceptance of the work. Any fill sand which is lost in transit or permitted to flow into the offshore waters or onto the upland from the point the sand is discharged on the beach will not be subject to payment.

3.4.1 General

3.4.2 Construction

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. Any groins within the fill area shall be adequately ramped over by the Contractor to prevent damage thereto by the Contractor's equipment. Grading and other construction equipment will not be permitted outside the easement lines shown on the drawings except for designated 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, grades, and cross section indicated on the drawings, unless otherwise provided for herein or directed 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 and grade of the berm from the lines and grades shown on the plans in order to establish a uniform beach for the entire length of the project. The beach fill cross sections shown on the drawings are 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 grades. The Contractor will not be required to dress the fill below the mean high water to the slopes shown but will be required to do the dressing specified in subparagraph "Dressing for Payment" below.

c. Construction staking on the beach shall be made of steel pipe or other material that can and will be removed intact after filling as verified during final walk-through inspection. The Contractor shall inventory all the construction staking used on the project in a manner acceptable to the Contracting Officer.

d. Grade stakes and any other stakes for any purpose shall be made of steel pipe that can and will be removed intact after filling to cross sections accepted by or as directed by the Contracting Officer. All stakes shall have sufficient length above grade so they may not be accidentally covered by fill. The Contractor shall consecutively number each piece of pipe used for grade stakes, shall clearly mark that number upon the pipe, and shall record the location of each

numbered pipe in a grade stake log. The removal of each numbered pipe shall be recorded in the grade stake log at the time of the pipe/stake removal. At the request of the Contracting Officer, all of the grade stake pipes shall be displayed after their removal to demonstrate those pipes that have been removed. All pipes used for grade stakes placed within the limits of the beach fill work shall be numbered and shall be recorded in the log. It is the Contractor's responsibility to track, locate, and completely remove all grade stakes in their entirety to the satisfaction of the Contracting Officer.

e. As the work progresses, dikes or mounds may be constructed along the beach as necessary to avoid transverse gullying directly from the discharge point to the ocean, and to build the new berm to design grade. 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. Groins, bulkheads, revetments, piers, dune walkovers, 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.

f. Mechanical operations may be needed to place material to the required lines and grades. Stockpiling, additional longitudinal dikes, and/or other special handling may be needed. It is the Contractor's responsibility to place material to the specified lines and grades within the fill crossed section.

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

3.4.2.1 Sand Flooding

If the sand is placed in a state that is not completely saturated by hydraulic placement, the Contractor must saturate the dry placed sand to effect consolidation equal to hydraulic placement. No more than 100 cubic yards of sand at a time shall be placed on the beach without saturating. Enough water must be used to completely saturate the sand, not less than 100 gallons of water shall be available for each cubic yard of sand placement. Runoff water shall be controlled so as not to run off the project limits on the upland side and not to run directly to the ocean forming gullies, eroding the fill sand.

3.4.3 Dressing for Payment

Immediately following placement of the new beach fill the Contractor shall grade, level and dress the beach fill to meet the required elevations and dimensions indicated on the drawings. The dressing for payment shall include the removal of humps, depressions, undrained pockets, excavated material at locations of swales for drainage culverts, and vehicle access

ramps, etc., prior to final pay survey being taken of an area of Acceptance Section.

3.4.4 Dressing for Final Acceptance

Immediately upon the completion of beach fill placement and removal of equipment and materials from the beach fill area, the final dressing shall be accomplished by the Contractor for final acceptance. This final dressing is a requirement as part of the post-construction cleanup and prior to the sand compaction measurements required by Section 01355 ENVIRONMENTAL PROTECTION of the contract. The bank caused by wave forces shall be graded down to slope not steeper than 1 vertical to 10 horizontal.

Grade stakes shall be removed intact and any excavation required to remove the stakes shall be backfilled.

3.4.5 Tolerances

Final grade (F.G.) shall be within tolerances of plus or minus five-tenths (0.5) of a foot of beach fill grade line. Any material placed above the prescribed tolerances may be left in place at the discretion of the Contracting Officer; however this material will not be included in the pay quantities.

3.4.6 Misplaced Materials

If any material is deposited other than in places designated or approved, the Contractor may be required to remove such misplaced material and redeposit it where directed at his expense.

3.4.7 Work Area

The construction easements and borrow area limits available to the Contractor for accomplishing the work are shown on the drawings. The contractor shall allow access for others to work at the nursery or exclude it from the construction area fencing. At the fill site, The Contractor may only operate within the work areas shown on the drawings. The Contractor shall exclude the public from the work areas in the immediate vicinity of his excavating, transporting, stockpiling, and disposal operations.

3.4.8 Construction Access

Construction access is provided as shown on the contract drawings. Procurement of additional access routes for ingress and egress to the construction area shall be obtained by and at the expense of the Contractor and shall be approved by the Contracting Officer. At all access sites to be utilized, the Contractor shall:

- a. Photo-document the condition of the access location prior to disrupting the site.
- b. Limit access width through existing vegetation to 20 feet or less.
- c. Replace any fencing, signage or curbing disturb by the Contractor's activities; and,

d. Restore and vegetate the access route with native dune plants subject to the approval of the Contracting Officer. Revegetation of access and staging areas shall be with sod (non-dune areas or viable plant units (dune area) at 18 inch maximum spacing with species and diversity equivalent to preconstruction conditions. Revegetation shall include a survival warranty of 90 percent of the plant material for 90 days. Vegetation shall be installed with fertilization and irrigation, or with initial irrigation, fertilization and approved water-absorbent polymeric gels, at no additional expense to the Government. Shrubs and trees shall be replaced to preconstruction conditions per the requirements of section 01355 ENVIRONMENTAL PROTECTION.

3.5 NOISE CONTROL

3.5.1 Hauling and Excavating Equipment Other Than Dredges and Booster Pumps

All hauling and excavating equipment, other than dredges and booster pumps, 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.

a. Sound pressure measurements shall be made with a sound level meter and shall be reported to the Contracting Officer under provisions for the Contractor Quality Control.

b. Sound pressure measurements shall be made at distances of 50 feet, 100 feet, 300 feet, and 500 feet from each major piece of equipment such as draglines, dump trucks, dewatering pumps, pneumatic drills, bulldozers, etc., at locations approved by the Contracting Officer. The measurements shall be made by personnel qualified to make such measurements and whose credentials have been verified by the Contracting Officer. The measurements shall be taken during operations every 4 weeks. Temperature, atmospheric pressure, and general weather conditions shall also be recorded with the measurements.

3.6 QUALITY CONTROL

The Contractor shall establish and maintain quality control for operations under this section to assure compliance with contract requirements and maintain records of his quality control for materials, equipment, and construction operations, including but not limited to the following:

3.6.1 Preparatory Inspection

(To be conducted prior to commencing work.)

a. Check location of borrow area, and conditions of beach areas to be filled.

b. Discuss plan of action for excavating, transporting, and placing fill on beach.

c. See that all equipment is approved and is in satisfactory

working condition.

d. Check safety requirements and, particularly, public safety.

e. Check the beach site for structures that could be susceptible to damage or which could have further damage caused by the Contractor's activity.

3.6.2 Initial Inspections

(To be conducted after a representative sample of the work is complete.)

a. Check for proper lines, grades, and elevations.

b. See that diking and fill discharge is satisfactory.

c. Check grades and slopes of fill placement.

d. Check finished area for proper dressing and elimination of undrained pockets and abrupt humps.

e. Check any adjacent structures to search for damage by Contractor's equipment.

3.6.3 Follow-up Inspection

(To be conducted daily to assure compliance with results of initial inspection.)

a. Check items mentioned in preparatory and initial inspection.

b. Damage or defects.

A copy of these records, as well as results of corrective action taken, shall be furnished the Government as directed by the Contracting Officer.

3.7 INSPECTION

3.7.1 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, 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.

3.8 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATION, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/eng/construction_forms_and_details.htm

3.9 X-Y-Z DATA IN FDEP FORMAT

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

3.10 UPLAND SAND SOURCE CALCULATION

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

-- End of Section --

Section 02391 – BEACH FILL

- Appendix A - X-Y-Z data in FDEP format,

APPENDIX A

DEPSvy_format
Explanation of format for each xyz file

The following illustrates the format required by Florida's Department of Environmental Protection for each XYZ file:

	1	2	3	4	5
	12345678901234567890123456789012345678901234567890123456789				

DNR-1	MAR1997 00	1165473.800	259662.300	27.00	4.10
	01FEB97 05FEB97	235 0	9226		
259655.0	1165461.0	3.6			
259661.8	1165474.3	3.7			
259673.2	1165496.6	3.9			
259684.5	1165518.9	3.7			
259695.9	1165541.1	4.0			
259701.8	1165552.7	4.4			
259707.2	1165563.4	2.5			
259710.4	1165569.7	1.9			
259718.6	1165585.7	-0.6			
259729.9	1165608.0	-2.1			

The numbers at the top illustrate columns in an ASCII File.

Two lines of information are required for each individual XYZ file. The information are as follow:

LINE 1:

Column 1 - 8: Monument name (DNR-1)
 Column 9 - 16: Monument set date (MAR1997)
 Column 17 - 18: Reset Code (00 for all DEP lines)
 Column 19 - 30: Northings (1165473.800 decimal point
 MUST be at Column 27)
 Column 31 - 42: Eastings (259662.300 decimal point
 MUST be on Column 39)
 Column 43 - 49: Azimuths (27.00 decimal point MUST
 be on Column 47)
 (Note: Azimuths measured 0 from North)
 Column 50 - 54: Monument elevation (4.10 in NGVD, decimal point
 MUST be on Column 52)

LINE 2:

Column 9 - 16: Date of beach points (01FEB97)
 Column 17 - 24: Date of offshore points (05FEB97)
 Column 25 - 27: Total number of points (235)
 Column 28 - 30: Total number of DOT points (0)
 Column 31 - 33: Total number of beach points (9)
 Column 34 - 36: Total number of offshore points (226)

LINE 3: Blank

LINE 4 - END:

XYZ data must be separated by at least one space.

 If you have questions or need additional information, please call
 Mr. Son Vu at (904) 232-1606.

APPENDIX B

CALCULATION OF MOMENT METHOD FOR MEAN GRAIN SIZE AND PHI STANDARD DEVIATION

The equations for calculating the Mean Grain Size and Phi Standard Deviation using the moment method are as follows:

$$\text{Mean Grain Size } M = \frac{\sum fx}{n}$$

$$\text{Phi Standard Deviation } \sigma = \sqrt{\frac{\sum(x-M)^2}{n}}$$

Use of these equations to calculate the moment method values is illustrated in the following table and text.

CALCULATION OF MOMENT METHOD FOR MEAN GRAIN SIZE AND PHI STANDARD DEVIATION								
A	B	C	D	E	F	G	H	I
U.S. STANDARD SIEVE	GRAIN SIZE		CUMULATIVE PERCENT RETAINED*	* Cumulative Percent Retained is example results of laboratory sieving of a sand sample.				
	mm	PHI		x	f	fx	(x-M) ²	f(x-M) ²
3/4	19.00	-4.25						
				-3.75	0.9%	-0.034	28.084	0.253
3/8	9.51	-3.25						
				-2.75	3.8%	-0.105	18.498	0.703
4	4.76	-2.25						
				-1.75	4.7%	-0.082	10.901	0.512
8	2.38	-1.25						
				-0.75	9.5%	-0.071	5.298	0.503
16	1.19	-0.25						
				0.25	10.5%	0.026	1.694	0.178
30	0.595	0.75						
				1.00	4.5%	0.045	0.303	0.014
40	0.420	1.25						
				1.50	5.3%	0.080	0.002	0.000
50	0.297	1.75						
				2.00	9.0%	0.180	0.203	0.018
70	0.210	2.25						
				2.50	12.3%	0.307	0.899	0.111
100	0.149	2.75						
				3.00	24.8%	0.744	2.098	0.520
140	0.105	3.25						
				3.50	10.6%	0.371	3.815	0.404
200	0.074	3.76						
				3.88	1.1%	0.043	5.417	0.060
230	0.063	4.00						
SUM				n=	97.0%			
SUM				Σ=		1.50		3.276
MEAN GRAIN SIZE (PHI)				M(phi) =		1.55		
MEAN GRAIN SIZE (mm)				M(mm) =		0.34		
PHI STANDARD DEVIATION				σ				1.84

02391-B2

Column A is the sieve size used; Column B is the corresponding sieve opening in millimeters; and, Column C is the sieve opening in Phi. The Phi values are used in the calculation.

Sieve analysis measures the percent retained on each sieve size by weight (Column D). Column E (x) is the midpoint value in Phi between adjacent sieves. Column F (f) is the percent retained by the smaller of adjacent sieves. Column G is the product of Column E and F (x * f). The sum of the values in Column F is n, sum of the percent retained on the smallest sieve used. This value will generally be less than 100%, as some fine material passes through all the screens. The sum of the values in Column G is $\sum fx$, and its division by n produces the mean grain size in Phi units of measure. The millimeter (mm) value is calculated as follows:

$$2^{-\text{phi}} = \text{mm}$$

$$\text{Example: } 2^{-1.25 \text{ phi}} = 0.42 \text{ mm}$$

Columns H and J are used to calculate the Phi Standard Deviation (σ) value of the material. If a sieve size is not used in the testing process it should be completely eliminated from the calculation table.

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SECTION 02398N

GROIN TIMBERWORK

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 307 (1994) Carbon Steel Bolts and Studs,
60,000 psi Tensile Strength

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C2 (1996) Lumber, Timber, Bridge Ties and
Mine Ties - Preservative Treatment by
Pressure Processes

AWPA M4 (1996) Care of Preservative-Treated Wood
Products

AWPA M6 (1996) Brands Used on Forest Products

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-06 Test Reports

Timber preservative inspection

Delivery inspection list

SD-07 Certificates

MSDS and CIS

1.3 DELIVERY AND STORAGE

Close-stack treated timber and lumber material in a manner that will prevent long timbers or preframed material from sagging or becoming crooked. Keep ground under and within 5 feet of such piles free of weeds, rubbish, and combustible materials. Protect materials from weather. Handle treated timber with ropes or chain slings without dropping, breaking outer

fibers, bruising, or penetrating surface with tools. Do not use cant dogs, peaveys, hooks, or pike poles. Protect timber and hardware from damage.

1.4 QUALITY ASSURANCE

1.4.1 MSDS and CIS

Provide Material Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

1.4.2 Timber Preservative Inspection

Submit the inspection report of an independent inspection agency, for approval by the Contracting Officer, that offered products complying with applicable AWPAs Standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee.

1.4.3 Delivery Inspection List

Field inspect and submit a verification list of each treated timber member and each strapped bundle of treated lumber indicating the wording and lettering of the quality control markings, the species and the condition of the wood. Do not incorporate materials damaged in transport from plant to site. Inspect all preservative-treated wood, visually to ensure there are no excessive residual materials or preservative deposits. Material shall be clean and dry or it will be rejected due to environmental concerns.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Lumber and Timbers

2.1.1.1 Solid Sawn

Provide No. 2 "Marine" Southern Pine and identified by the grade mark of a recognized association or independent inspection agency using the specific grading requirements of an association recognized as covering the species used. The association or independent inspection agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used. Use commercial grade lumber for secondary members such as decking, joists and railings.

2.1.1.2 Preservative Treatment

Fabricate lumber and timbers before preservative treatment. Each piece of treated lumber or timber shall be branded, by the producer, in accordance with AWPAs M6. Treat wood in accordance with AWPAs C2 (Material Subject to Marine Borer Exposure) with dual treated, with creosote and water-borne preservative. The Contractor shall be responsible for the quality of treated wood products.

To minimize the amount of creosote material available to migrate into the environment, the following guidelines (based on Western Wood Preservers Institute Best Management Practices for the Use of Treated Wood in Aquatic Environments) shall be used when treating material for use in marine applications:

a. Treatment Procedures

- i. Treat using preservative specified in AWWPA P1/P13, using low xylene new creosote. New material creosote shall have a xylene insoluble (XI) of 0.10% maximum.
- ii. Follow good housekeeping practices to minimize sawdust and other surface residues on the wood products prior to treatment.
- iii. The "in use" creosote inventory maintained by the treating firm at the plant for aquatic applications shall be purchased, managed and/or processed such as to maintain a XI of 1.5% maximum.
- iv. Techniques shall be incorporated into the treating process to minimize the amount of residual creosote that may occur on the surface of the treated product.
- v. The wood shall be conditioned using one of the techniques recommended in AWWPA C2.

b. Post Treatment Procedures. Prior to shipment, material shall be processed under one of the following procedures as determined by the producer.

- i. Expansion Bath. Following the pressure period, the creosote should be heated 10 to 20 degrees F above press temperatures for a minimum of one hour. Pump creosote back to storage and apply a minimum vacuum of 24" for a minimum of 2 hours.
- ii. Steaming. Following the pressure period and once the creosote has been pumped back to the storage tank, a vacuum shall be applied for a minimum of two hours at no less than 22" of vacuum to recover excess preservative. Release vacuum back to atmospheric pressure and steam for 2 hours. Maximum temperature during this process shall not exceed 240 degrees F. Apply a second vacuum for a minimum of 4 hours at 22" vacuum.

c. Maximum Chemical Loading. Treating shall be conducted to seek to minimize the amount of chemical placed into the wood while assuring conformance with AWWPA retention and penetration requirements.

d. Visual Inspection. The creosote product shall be inspected visually to insure that there are no excessive residual materials or preservative deposits. If the material does not appear clean and dry it shall be rejected. Once on site and prior to installation the materials should be visually inspected in accordance with the above directions. Materials that have developed areas of "bleeding" or do not meet the criteria of a clean and dry appearance shall be rejected. Good housekeeping is essential to avoid surface deposits and keep the product clean until shipment and installation.

2.1.3 2.1.2 Hardware

Bolts with necessary nuts and washers, nails, and other fastenings. Bolts and nuts shall conform to ASTM A 307. Provide cast-iron ogee, malleable iron washers, or plate or cut washers where indicated. Provide bolts with washers under nut and head. Provide timber connectors and other metal

fastenings of type and size shown. Hot-dip galvanize hardware.

PART 3 EXECUTION

3.1 CONSTRUCTION

Cut timbers prior to plant preservative treatment. In addition to the contract clause entitled "Accident Prevention" provide protective equipment for personnel fabricating, field treating, or handling materials treated with creosote or water-borne salts. Refer to paragraph entitled "MSDS and CIS."

3.1.1 Framing

Cut and frame lumber and timber so that joints will fit over contact surface. Secure timbers and piles in alignment. Open joints are unacceptable. Shimming is not allowed. Bore holes for bolts with a bit 1/16 inch larger in diameter than bolt. Counterbore for countersinking wherever smooth faces are indicated or specified.

3.1.2 Fastening

Bolt members together when they are installed and retighten immediately prior to final acceptance of contract. Provide bolts having sufficient additional threading to provide at least 3/8 inch per foot thickness of timber for future retightening.

3.2 FIELD TREATMENT

3.2.1 Timberwork

Field treat cuts, bevels, notches, refacing and abrasions made in the field in treated piles or timbers in accordance with AWPA M4, MSDS and CIS. Wood preservatives are restricted use pesticides and shall be applied according to applicable standards. Trim cuts and abrasions before field treatment. Pour hot creosote oil into the bolt holes before the insertion of the bolts. Paint depressions or openings around bolt holes, joints, or gaps including recesses formed by counterboring, with hot creosote oil; and after bolt or screw is in place, fill with hot pitch or a bitumastic compound.

3.2.2 Piling Protection

Immediately after pile tops are cut off give the heads of piles three coats of hot creosote oil. Then cover them with a coat of hot tar over which place a sheet of copper, of a weight of 10 oz/ft squared or greater, meeting the requirements of ASTM B 370. Provide a cover that measures at least 4 inches more in each dimension greater than the diameter of the pile. Bend the cover down over the pile and fasten the edges with large copper nails or three wraps of No. 12 copper wire.

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SECTION 02461N

WOOD MARINE PILES

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 25 (1991) Round Timber Piles

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C1 (1996) All Timber Products - Preservative Treatment by Pressure Processes

AWPA C3 (1995) Piles, Pressure Treatment

AWPA M4 (1996) Care of Preservative-Treated Wood Products

AWPA M6 (1996) Brands Used on Forest Products

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-03 Product Data

Piles

Hammer

Driving equipment

Driving helmet

Pile caps

Pile shoes

Jetting equipment

Cushion block

SD-07 Certificates

MSDS and CIS

1.3 QUALITY ASSURANCE

1.3.1 Timber Piles Preservative Treatment

The Contractor shall be responsible for the quality of treated wood products. The Contractor shall provide the Contracting Officer's Representative (COR) with the inspection report of an independent inspection agency, approved by the Contracting Officer, that offered products comply with applicable AWPA standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee. Inspect all preservative-treated wood visually to ensure there are no excessive residual materials or preservative deposits. Materials shall be clean and dry or it will be rejected because of environmental concerns.

1.3.2 MSDS and CIS

Provide Materials and Safety Data Sheets (MSDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor shall comply with all safety precautions indicated on MSDS and CIS.

1.4 DELIVERY, STORAGE, AND HANDLING

Store piles in accordance with AWPA M4. Comply with paragraph entitled "MSDS and CIS."

1.5 ORDER OF WORK

1.5.1 PRE-CONDITION SURVEY

The Contractor shall not begin any construction work along the shore until the pre-condition survey noted in Section 02391, Beach Fill, is complete and accepted by the Contracting Officer.

1.5.2 GROIN CONSTRUCTION

The Contractor shall install turbidity curtains around the operation areas prior to the construction of the groins.

1.5.3 COORDINATION WITH OTHER CONTRACTORS

Construction of the groin field shall begin at the western portion of the project at Groin 25 and proceed eastward. Another contractor maybe working in the project area for seagrass mitigation purposes. If the Contractor of the seagrass mitigation is present, the contractor shall coordinate his activities with the other to minimize impact to the project schedule.

PART 2 PRODUCTS

2.1 PILES

Provide Douglas fir or Southern pine clean-peeled piles conforming to ASTM D 25. Piles shall be in one piece. Splices will not be permitted. Each treated pile shall be branded by the producer, in accordance with AWPA M6. Pile circumferences shall be as follows:

- a. Minimum butt circumference measured at 3 feet from the butt end shall be 38 inches.

2.2 PRESERVATIVE TREATMENT

Treat piles by the full-cell pressure process in accordance with AWPA C1 and AWPA C3 for marine piling, as follows:

Dual treatment of creosote plus waterborne preservative for marine piles.

To minimize the amount of creosote material available to migrate into the environment, the following guidelines (based on Western Wood Preservers Institute Best Management Practices for the Use of Treated Wood in Aquatic Environments) shall be used when treating material for use in marine applications:

a. Treatment Procedures

- i. Treat using preservative specified in AWPA P1/P13, using low xylene new creosote. New material creosote shall have a xylene insoluble (XI) of 0.10% maximum.
- ii. Follow good housekeeping practices to minimize sawdust and other surface residues on the wood products prior to treatment.
- iii. The "in use" creosote inventory maintained by the treating firm at the plant for aquatic applications shall be purchased, managed and/or processed such as to maintain a XI of 1.5% maximum.
- iv. Techniques shall be incorporated into the treating process to minimize the amount of residual creosote that may occur on the surface of the treated product.
- v. The wood shall be conditioned using one of the techniques recommended in AWPA C2.

b. Post Treatment Procedures. Prior to shipment, material shall be processed under one of the following procedures as determined by the producer.

- i. Expansion Bath. Following the pressure period, the creosote should be heated 10 to 20 degrees F above press temperatures for a minimum of one hour. Pump creosote back to storage and apply a minimum vacuum of 24" for a minimum of 2 hours.
- ii. Steaming. Following the pressure period and once the creosote has been pumped back to the storage tank, a vacuum shall be applied for a minimum of two hours at no less than 22" of vacuum to recover excess preservative. Release vacuum back to atmospheric pressure and steam for 2 hours. Maximum temperature during this process shall not exceed 240 degrees F. Apply a

second vacuum for a minimum of 4 hours at 22" vacuum.

c. Maximum Chemical Loading. Treating shall be conducted to seek to minimize the amount of chemical placed into the wood while assuring conformance with AWPAs retention and penetration requirements.

d. Visual Inspection. The creosote product shall be inspected visually to insure that there are no excessive residual materials or preservative deposits. If the material does not appear clean and dry it shall be rejected. Once on site and prior to installation the materials should be visually inspected in accordance with the above directions. Materials that have developed areas of "bleeding" or do not meet the criteria of a clean and dry appearance shall be rejected. Good housekeeping is essential to avoid surface deposits and keep the product clean until shipment and installation.

2.3 SOURCE QUALITY CONTROL

2.3.1 Plant Inspection

The Contracting Officer reserves the right to perform plant inspection of the treating process. Provide the Contracting Officer with a minimum 3-week advance notice, indicating location of the initial preservative treatment. Allow the Contracting Officer unlimited access to the plant and inspection privileges for each facet of the treating process.

PART 3 EXECUTION

3.1 GENERAL - INSTALLATION

3.1.1 Piles

Inspect piles when delivered and when in the leads immediately before driving. Secure piles in their proper alignment and cut piles at cutoff grade with pneumatic tools by sawing or other approved method. Pile heads at cutoff shall be sound. Counterbore holes for bolts where indicated for countersinking bolt heads and washers. After installation of bolts, fill counterbored holes with an approved bituminous material. Drill holes for through bolts 1/16 inch larger than diameter of bolt shank.

3.1.1.1 Driving

Pile hammers shall be air, steam, or diesel powered, and of an approved type with a capacity at least equal to the hammer manufacturer's recommendation for the total weight of pile and character of subsurface material to be encountered. Minimum driving energy shall be 8,000 foot-pounds with maximum driving energy of 15,000 foot-pounds. Weight of the hammer for drop hammers shall not be less than 2,000 pounds. Since hard driving is expected above the rock surface pile shoes are required.

3.1.1.2 Fastening

Use washers of the size and type specified under bolt heads and nuts which would otherwise come in contact with wood.

3.1.1.3 Tolerances in Driving

Piles shall be driven in the locations indicated. Remove and replace with new piles those damaged, mislocated, driven below the design cutoff, or driven out of alignment.

3.2 JETTING OF PILES

Water jetting of piles shall not be permitted.

3.3 SPUDDING OF PILES

Spudding shall not be permitted.

3.4 PREDRILLING

Predrilling shall not be permitted.

3.5 PROTECTION OF PILES

Square the heads and tips of piles to the driving axis. Laterally support piles during driving, but do not unduly restrain piles from rotation in the leads. Swinging leads will not be permitted. Where pile orientation is essential, take precautionary measures to maintain the orientation during driving. Handle, protect, and field treat piles in accordance with AWPA M4.

3.6 FIELD QUALITY CONTROL

3.6.1 Inspections

When Government inspections result in product rejection, the Contractor shall promptly segregate and remove rejected material from the premises. The Government may also charge the Contractor an additional cost of inspection or test when prior rejection makes reinspection or retest necessary.

-- End of Section --