



**US Army Corps
of Engineers®**
New England District

DACW33-03-B-0006

MAINTENANCE DREDGING OF THE FEDERAL NAVIGATION PROJECT AT BOSTON HARBOR

BOSTON, MASSACHUSETTS

Construction Solicitation And Specifications

July 2003

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Maintenance Dredging of the Federal Navigation Project, Boston Harbor, Boston, MA

DESIGN AUTHENTICATION



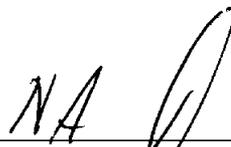
ROBERT MEADER
Technical Lead

for 

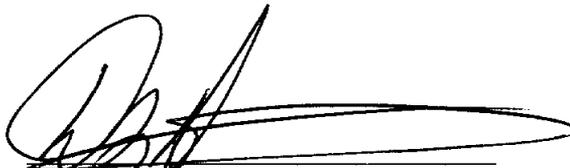
ANTHONY T. MACKOS, P.E.
Chief, Design Branch

NA

RAIMO LIAS, P.G.
Chief, HTRW/Geotechnical Engineering Branch



H. FARRELL MCMILLAN, P.E.
Deputy Chief, Engineering, Planning Division



DAVID L. DULONG, P.E.
Chief, Engineering/Planning Branch

This project was designed for/by the New England District of the 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 ER1110-1-8152.

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SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO.	2. TYPE OF SOLICITATION	3. DATE ISSUED	PAGE OF PAGES
	DACW33-03-B-0006	<input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	02-Jul-2003	1 OF 38

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

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W13G86-3142-0699	6. PROJECT NO.
7. ISSUED BY DEPT. OF THE ARMY N E DISTRICT, CORPS OF ENGINEERS 696 VIRGINIA ROAD CONCORD MA 01742-2751	CODE DACW33	8. ADDRESS OFFER TO (If Other Than Item 7) CODE See Item 7
TEL:	FAX:	TEL: FAX:
9. FOR INFORMATION CALL:	A. NAME RACHAEL RAPOSA	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 978-318-8249

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):

SPECIFICATION titled "MAINTENANCE DREDGING OF THE FEDERAL NAVIGATION PROJECT AT BOSTON HARBOR, BOSTON, MASSACHUSETTS" dated JUNE 2003

DRAWING as listed in SECTION 00800, paragraph titled, CONTRACT DRAWINGS AND SPECIFICATIONS"

SECTION 00700, CONTRACT

11. The Contractor shall begin performance within 10 calendar days and complete it within 360 calendar days after receiving award, notice to proceed. This performance period is mandatory, negotiable. (See PARA. 1.1 _____.)

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS?
(If "YES," indicate within how many calendar days after award in Item 12B.)

YES NO

12B. CALENDAR DAYS

10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 2 copies to perform the work required are due at the place specified in Item 8 by 02:00 PM (hour) local time 01 Aug 2003 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee is, is not required.

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

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

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR <i>(Include ZIP Code)</i>		15. TELEPHONE NO. <i>(Include area code)</i>
CODE		16. REMITTANCE ADDRESS <i>(Include only if different than Item 14)</i>
FACILITY CODE		See Item 14

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 each)

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER <i>(Type or print)</i>	20B. SIGNATURE	20C. OFFER DATE
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AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN <i>(4 copies unless otherwise specified)</i>	ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)
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26. ADMINISTERED BY	CODE	27. PAYMENT WILL BE MADE BY:	CODE
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CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT <i>(Contractor is required to sign this document and return _____ copies to issuing office.)</i> 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.	<input type="checkbox"/> 29. AWARD <i>(Contractor is not required to sign this document.)</i> 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.
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30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN <i>(Type or print)</i>	31A. NAME OF CONTRACTING OFFICER <i>(Type or print)</i>		
30B. SIGNATURE	30C. DATE	TEL:	EMAIL:
		31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE

Section 00010 - Solicitation Contract Form

PRE-BID CONFERENCE

A Pre-Bid Conference will be held on July 8, 2003 at 10:00 at U.S. Army Corps of Engineers, 696 Virginia Road, Concord, Massachusetts to further explain the magnitude of the project and provide answers/clarifications to potential bidders. The conference will be held in the Theater onsite. Potential bidders are asked to register by calling Rachael Raposa at 978-318-8249, no later than July 7, 2003 so that security can be informed and access to the facility can be granted. Also please arrive at 15 minutes early to process through security. Please have a valid picture I.D. to present to security to gain entrance to the facility.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Mobilization and Demobilization for Dredging PURCHASE REQUEST NUMBER: W13G86-3142-0699	1	Lump Sum		\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Mobilization and Demobilization for Blasting Operations	1	Lump Sum		\$

NET AMT \$

0003	Maintenance Dredging FFP and Ocean Disposal of Dredged Material				
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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AA	Outer 35' Main Ship Channel FFP (1) Includes 136,000 cubic yards of allowable overdepth	277,000	Cubic Yard	\$	\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AB	Outer 40' Main FFP Ship Channel and Presidents Roads Anchorage (2) Includes 526,000 cubic yards of allowable overdepth	1,341,000	Cubic Yard	\$	\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AC	40" Borad Sound Channel FFP (3) Includes 32,000 cubic yards of allowable overdepth	61,000	Cubic Yard	\$	\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AD	Navy Dry Dock FFP (4) Includes 20,000 cubic yards of allowable overdepth.	135,000	Cubic Yard	\$	\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AE	Ledge Rock Excavation FFP and Disposal	200	Cubic Yard	\$	\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AF	Boulder Excavation and Disposa FFP	50	Gross Ton	\$	\$

NET AMT \$

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	Removal and Disposal of Steel FFP Hull Deck Barge	1	Lump Sum	\$	\$

NET AMT \$

PLANT AND EQUIPMENT LIST

The bidder must complete the following plant and equipment list by listing the plant available to the Bidder and proposed to be used on the work of this contract. Add additional pages as necessary. Attach the completed list to the BIDDING SCHEDULE and submit the list with the bid. Failure to complete this list and submit it with the BIDDING SCHEDULE may be cause for the rejection of the bid. Prior to commencement of work at the site, the Contractor will be required to submit for review copies of all applicable current inspections, certificates and surveys for all floating plant

BUCKET DREDGES (Clamshell/Dipper/Excavator/Dragline)

Dredge Name and Type	Manufacturer and Age	Bucket Size and Swings/Hour	Capacity – Cubic Yards/Month*	Type and HP of Engine

HYDRAULIC/SUCTION/HOPPER DREDGE

Dredge Name and Type	Manufacturer and Age	Inside Diameter of Discharge Pipe	Capacity – Cubic Yards/Month*	Type and HP of Pump Engine

BARGES/SCOWS

Name And Type	Manufacturer And Age	Length & Beam	Draft - Light	Draft – Loaded	Capacity (Cubic Yards)	Number and Size Of Drills

ATTENDANT PLANT (Give columnar information pertinent to items listed, if to be used)

	Name	Manufacturer And Age	Type and HP Of Engine	Length & Beam	Remarks
Tug					
Tug					
Launch					

(*) When working materials similar to those anticipated to be encountered in the performance of work

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.214-3	Amendments To Invitations For Bids	DEC 1989
52.214-4	False Statements In Bids	APR 1984
52.214-5	Submission Of Bids	MAR 1997
52.214-6	Explanation To Prospective Bidders	APR 1984
52.214-7	Late Submissions, Modifications, and Withdrawals of Bids	NOV 1999
52.214-12	Preparation Of Bids	APR 1984
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award-Sealed Bidding-Construction	AUG 1996
52.232-38	Submission of Electronic Funds Transfer Information with Offer	MAY 1999

CLAUSES INCORPORATED BY FULL TEXT

52.003-4002 BIDS RECEIVING DESK

Bids, if submitted in person or by messenger, shall be delivered to the Bids Receiving Desk (so identified), Building 1, Contracts Branch, Contracting Division, at the above address, prior to the time fixed for opening of bids. Bidders who attend the bid opening may deliver bids directly to the Contracting Officer in the New Hampshire Conference Room.

52.003-4014 INQUIRIES

Telephone inquiries relating to this solicitation should be directed as follows:

New England District, Corps of Engineers
 Procurement of Plans and Specifications,
 Prospective Bidders List, Bid Results,
 and Award Information 978-318-8420

Technical Inquiries on Plans and
 Specifications 978-318-8087

52.003-4015 MAGNITUDE OF PROJECT

The estimated cost of the work is greater than \$10,000,000.00.

52.003-4021 PLACE OF BID OPENING

Bids will be publicly opened at the appointed time at the U. S. Army Engineer District, New England, 696 Virginia Road, Concord, MA 01742-2751, in the New Hampshire Conference Room.

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)

52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS (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 should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(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)

(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 Contracting Officer, U.S. Army Engineer District, 696 Virginia Road, Concord, MA 01742-2751.

(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)

(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: Mike Keegan

Address: 696 Virginia Road, Concord, MA

Telephone: (978) 318-8087

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions 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. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

<http://farsite.hill.af.mil>

<http://www.hq.usace.army.mil/cepr/asp/library/efar.asp>

<http://acqnet.saalt.army.mil/LIBRARY>

(End of provision)

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

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 provision)

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.

(c) 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)

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern 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 its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it () is a women-owned business concern.

(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 (insert NAICS code).

(2) The small business size standard is \$17,500,000.00 (insert size standard).

(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)

52.219-2 EQUAL LOW BIDS. (OCT 1995)

- (a) This provision applies to small business concerns only.
- (b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

(c) Failure to identify the labor surplus area as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

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
<input type="checkbox"/> 50 or fewer	<input type="checkbox"/> \$1 million or less
<input type="checkbox"/> 51 - 100	<input type="checkbox"/> \$1,000,001 - \$2 million
<input type="checkbox"/> 101 - 250	<input type="checkbox"/> \$2,000,001 - \$3.5 million
<input type="checkbox"/> 251 - 500	<input type="checkbox"/> \$3,500,001 - \$5 million
<input type="checkbox"/> 501 - 750	<input type="checkbox"/> \$5,000,001 - \$10 million
<input type="checkbox"/> 751 - 1,000	<input type="checkbox"/> \$10,000,001 - \$17 million
<input type="checkbox"/> Over 1,000	<input type="checkbox"/> 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)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

() (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

() (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

() (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

() (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

() (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(End of clause)

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)

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1 Alt I	Definitions (Dec 2001) --Alternate I	MAY 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 1997
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-18	Variation in Estimated Quantity	APR 1984
52.214-26	Audit and Records--Sealed Bidding	OCT 1997
52.214-27	Price Reduction for Defective Cost or Pricing Data - Modifications - Sealed Bidding	OCT 1997
52.214-28	Subcontracting Cost Or Pricing Data--Modifications--Sealed Bidding	OCT 1997
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-9 Alt I	Small Business Subcontracting Plan (Jan 2002) Alternate I	OCT 2001
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-3	Convict Labor	AUG 1996
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	SEP 2000
52.222-6	Davis Bacon Act	FEB 1995
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	FEB 1988
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	FEB 1988
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-13	Compliance with Davis-Bacon and Related Act Regulations.	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-27	Affirmative Action Compliance Requirements for Construction	FEB 1999
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era and Other Eligible Veterans	DEC 2001
52.223-5	Pollution Prevention and Right-to-Know Information	APR 1998
52.223-6	Drug Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	OCT 2000
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000

52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000
52.227-1	Authorization and Consent	JUL 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.227-4	Patent Indemnity-Construction Contracts	APR 1984
52.228-2	Additional Bond Security	OCT 1997
52.228-11	Pledges Of Assets	FEB 1992
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.228-13	Alternative Payment Protections	JUL 2000
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.228-15	Performance and Payment Bonds--Construction	JUL 2000
52.229-3	Federal, State And Local Taxes	JAN 1991
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 1997
52.232-17	Interest	JUN 1996
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.232-5001	CONTINUING CONTRACTS (MAR 1995) EFARS	DEC 1999
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-16	Quantity Surveys	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	AUG 1987
52.244-6	Subcontracts for Commercial Items	MAY 2002
52.246-12	Inspection of Construction	AUG 1996
52.248-3	Value Engineering-Construction	FEB 2000
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Sep 1996) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.203-7002	Display Of DOD Hotline Poster	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992

252.204-7004	Required Central Contractor Registration	NOV 2001
252.205-7000	Provisions Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.219-7003	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DOD Contracts)	APR 1996
252.223-7006	Prohibition On Storage And Disposal Of Toxic And Hazardous Materials	APR 1993
252.225-7012	Preference For Certain Domestic Commodities	APR 2002
252.225-7016	Restriction On Acquisition Of Ball and Roller Bearings	DEC 2000
252.225-7031	Secondary Arab Boycott Of Israel	JUN 1992
252.227-7033	Rights in Shop Drawings	APR 1966
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7002	Obstruction of Navigable Waterways	DEC 1991
252.236-7008	Contract Prices-Bidding Schedules	DEC 1991
252.242-7000	Postaward Conference	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

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
4.0%	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 Middlesex County – Boston, MA

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 end product (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)

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

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

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region _____. 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)

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)

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

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

(b) The sum of **\$5,000.00** has been reserved for this contract and is available for payments to the contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

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

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

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

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

(g) Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

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

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

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

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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):

<http://www.arnet.gov/far>

<http://farsite.hill.af.mil>

<http://www.hq.usace.army.mil/cepr/asp/library/efar.asp>

<http://acqnet.saalt.army.mil/LIBRARY>

(End of clause)

Section 00800 - Special Contract Requirements

WAGE DETERMINATION**General Decision Number MA030016**

General Decision Number MA030016

Superseded General Decision No. MA020016

State: **Massachusetts**

Construction Type:

DREDGING

County(ies):

STATEWIDE

Massachusetts

All **Dredging**, except self-propelled hopper dredges, on the Atlantic Coast & tributary waters emptying into the Atlantic Ocean.

Modification Number Publication Date

0 06/13/2003

COUNTY(ies):

STATEWIDE

ENGI0025D 10/01/2002

	Rates	Fringes
DIPPER & CLAMSHELL DREDGE:		
Operator	28.07	6.45+a+b
Engineer	24.72	6.45+a+b
Maintenance Engineer	23.59	5.85+a+b
Welder	23.22	5.85+a+b
Mate	21.99	5.85+a+b
Boat Master	23.24	6.45+a+b
Boat Captain	22.15	5.85+a+b
Oiler	18.59	5.25+a+b
Deckhand; Tug Deckhand	18.13	5.25+a+b
Scowman	17.88	5.25+a+b
DRAG BUCKET DREDGE:		
Operator	25.09	6.45+a+b
Engineer	21.41	6.45+a+b
Maintenance Engineer	21.21	5.85+a+b
Mate	19.82	5.85+a+b
Deckhand	16.17	5.25+a+b
HYDRAULIC DREDGES:		
Leverman	27.56	6.45+a+b
Engineer; Derrick Operator	24.17	6.45+a+b
Chief Mate	23.82	6.45+a+b
Chief Welder	24.48	6.45+a+b
Maintenance Engineer	23.59	5.85+a+b

Electrician	23.43	6.45+a+b
Welder Dredge	23.21	5.85+a+b
Spider Barge Operator	23.01	5.85+a+b
Mate	21.99	5.85+a+b
Boat Master	23.23	6.45+a+b
Boat Captain	21.66	5.85+a+b
Steward	21.94	6.45+a+b
Oiler	18.59	5.25+a+b
Deckhand	17.90	5.25+a+b
Tug Deckhand	18.13	5.25+a+b
Shoreman	17.90	5.25+a+b
Assistant Cook	18.00	5.25+a+b
Night Cook	18.00	5.25+a+b
Messman	17.49	5.25+a+b
Janitor/Porter	17.49	5.25+a+b
Fill Placer	23.82	6.45+a+b
Assistant Fill Placer	21.80	6.45+a+b

COMPANY LEAD DREDGEMAN:

Lead Dredgeman	27.56	6.45+a+b
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TUG BOATS over 1,000 H.P. (with master or captain having license endorsed for 200 miles off shore):

Tug Master	24.68	6.45+a+b
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Tug Captain	23.69	6.45+a+b
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Tug Chief Engineer	22.95	5.85+a+b
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Tug Engineer	22.48	5.85+a+b
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Tug Deckhand	18.13	5.85+a+b
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TUG BOATS over 1,000 H.P. (without master or captain having license endorsed for 200 miles off shore):

Tug Master	23.23	6.45+a+b
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Tug Captain	22.15	5.85+a+b
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Tug Engineer	22.48	5.85+a+b
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Tug Deckhand	18.13	5.25+a+b
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DRILL BOATS:

Engineer	23.54	6.45+a+b
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Blaster	23.81	6.45+a+b
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Driller	23.55	6.45+a+b
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Welder	23.30	5.85+a+b
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Machinist	23.30	5.85+a+b
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Tug Master	20.48	6.45+a+b
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Tug Captain	19.53	5.85+a+b
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Oiler	20.46	5.25+a+b
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Tug Deckhand	15.97	5.25+a+b
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Core Driller	18.56	5.25+a+b
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DIVERS:

Diver	40.88	6.45+a+b
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Standby Diver	27.20	6.45+a+b
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Tender	31.46	6.45+a+b
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Standby Tender	22.61	5.85+a+b
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DREDGING PIPELINE CABLE-LAYING:

Leverman	28.18	6.45+a+b
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Control Tower Operator	24.90	6.45+a+b
Rigger	18.42	5.25+a+b
Line up Operator, End Prep.	17.82	5.25+a+b
Diver	41.77	6.45+a+b
Diver Tender	25.93	6.45+a+b
ENGINEER:		
1st	24.90	6.45+a+b
2nd, 3rd & 4th	24.58	6.45+a+b
Electrician	24.48	6.45+a+b
Electro Hydro Tech.	20.14	5.85+a+b
Tug Master	26.15	6.45+a+b
Tug Captain	22.79	6.45+a+b

PREMIUMS: Additional 20% for hazardous material work

FOOTNOTES APPLICABLE TO ABOVE CRAFTS:

- a. PAID HOLIDAYS: New Year's Day, Martin Luther King Day, Memorial Day, Good Friday, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, and Christmas Day
- b. VACATION: Seven percent (7%) of the straight time rate multiplied by the total hours worked.

WELDERS - Receive rate prescribed for craft performing operation

to which welding is incidental.

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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

DOCUMENT TABLE OF CONTENTS

DIVISION 00 - DOCUMENTS

SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

- 1.1 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (APR 1984) FAR 52.211-10
- 1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12
- 1.3 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001
- 1.4 DESIGNATED BILLING OFFICE
- 1.5 BID GUARANTEE (SEP 1996) FAR 52.228-1
- 1.6 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1
- 1.7 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)
- 1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991) DFARS 252.236-7004..
- 1.9 QUANTITY SURVEYS. (APR 1984) ALTERNATE 1 FAR 52.236-16
- 1.10 LAYOUT OF WORK (APR 1984) 52.236-17

-- End of Document Table of Contents --

SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

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

a. The Contractor shall be required to--

(1) commence work under this contract within 15 calendar days after the date the Contractor receives the notice to proceed,

(2) have dredging equipment on-site to initiate dredging by September 01, 2003 or within 30 days of the notice to proceed, whichever comes first, prosecute the work diligently, and

(3) complete the entire work ready for use not later than 360 calendar days after the date the Contractor receives notice to proceed. The time stated for completion shall include final cleanup of the premises.

b. Dredging operations at the project site will not be permitted from the date of receipt of "Notice to Proceed" through September 30, 2003. Upon receipt of notice to proceed, in lieu of dredging operations at the site, the Contractor shall promptly place all orders, award subcontracts, process required submittals and details to ensure effective action when construction operations at the site are required to commence. Actual dredging operations at the site shall commence on October 01, 2003.

c. Due to environmental restrictions, dredging West of Spectacle Island will not be permitted from 1 February to 15 June, inclusive, of any year.

1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$2,700.00 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.

1.3 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001

(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. The drawings will be provided to the Contractor 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 to the contract drawings identified on the following index of drawings:

Drawing No.	Sheet No.	Title
		BOSTON HARBOR MAINTENANCE DREDGING 40 & 35-FOOT CHANNEL 40-FOOT ANCHORAGE BOSTON, MASSACHUSETTS
C-1	2	40-Foot Broad Sound-North Channel Plan No.1, Index To Drawings, Legend, And Navigation Aids

1.4 DESIGNATED BILLING OFFICE

Reference Contract Clause titled "PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS" located in SECTION 00700, CONTRACT CLAUSES. The "designated billing office" will be the Construction Area Engineer, Resident Engineer or project office where the Contracting Officer Representative for this contract is located. The Contractor will be notified of the exact location of this office at the project preconstruction conference specified in Section 01110 SUMMARY OF WORK.

1.5 BID GUARANTEE (SEP 1996) FAR 52.228-1

(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. 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 twenty 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.

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

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

1.7 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(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.).

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

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

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

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

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

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

(i) Actual mobilization costs at completion of mobilization;

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

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

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

1.9 QUANTITY SURVEYS. (APR 1984) ALTERNATE 1 FAR 52.236-16

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.

1.10 LAYOUT OF WORK (APR 1984) 52.236-17

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.

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SECTION 01110

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PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

The general description below is given to indicate the approximate scope of this project only. It does not limit the work required under the project drawings and specifications.

Maintenance dredging of the Federal project will be performed to restore the Main Ship Channel from the Ted Williams Tunnel to the President Roads Channel and Anchorage area, the President Roads channel and anchorage area, and the 40-foot Broad Sound North Channel and the approach to the Navy Dry Dock off the Main Ship Channel to their authorized depths. Sandy silt and clay dredged material will be removed from the Federal project. Rock ledge and some large boulders will be blasted and removed. A sunken flat deck barge about 100-120 feet long and 40-50 feet wide will also be broken up and removed. All material dredged from the Harbor, except the sunken barge, shall be disposed of at the Massachusetts Bay Disposal Site (MBDS).

1.2 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

Progress Schedule; G, C.

In accordance with the contract clauses, the Contractor shall, within five (5) days after receipt of notice to proceed or as otherwise determined by the Contracting Officer, submit for approval a practicable progress schedule. When changes are authorized that result in contract time extensions, Contractor shall submit a modified chart for approval by the Contracting Officer.

1.3 PROJECT/SITE CONDITIONS

1.3.1 Physical Data

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

- a. Site Conditions: The indications of physical conditions on the drawings and in the specifications are the result of site investigations and surveys. The conditions represented prevailed at the time the investigations and surveys were made. A pre-dredge survey

may be performed by the Government of the areas to be dredged prior to the start of Contractor dredging operations at the site. Before commencing work at the site, the Contractor shall verify the existing conditions indicated on the drawings and in the specifications. See CONTRACT CLAUSE entitled "SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK."

b. Weather Conditions: The monthly normal mean temperature and the monthly normal mean precipitation for the site may be obtained by the Contractor from the nearest U.S. National Weather Service Office.

c. Tide Conditions: The mean tide level is 9.0 feet. The fastest tidal currents in Boston outer harbor occur in the deep ship channels (up to 1.4 knots) during spring tides in the southern lane of the Main Ship Channel (Corps/Massport, 1994).

d. Conditions of Channel and Anchorage: Maintenance dredging of the navigation channel was last undertaken in 1983, when about 450,000 cy of material was dredged. Soundings shown on the contract drawings are the results of surveys conducted during the time period indicated on the drawings and are believed to indicate existing conditions.

f. Channel Traffic: Boston Harbor and the adjacent areas to be dredged are mainly used by deep draft commercial vessels, fishing vessels, and numerous small recreation and commercial craft, which may cause some interference with contract operations. Oil barges frequent the harbor during the winter heating season. Certain restrictions on vessel movement are in place when liquid natural gas tankers traverse the harbor. The Contractor will be required to conduct the work in such a manner as to obstruct navigation as little as possible, and in the event the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of any vessels, the plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Moving of dredging plant may also be based on the determination of the docking pilot if vessel traffic requires it.

g. Height Limitations: The Contractor shall coordinate his construction activities with the FAA and Massport Aviation Department's Operations Unit. Height limitations of crane booms, hoisting equipment or other equipment used by the Contractor to complete the dredging shall conform to the ceiling heights established by the FAA. The FAA will require the Contractor to stop work in the event declining weather conditions hinder visibility to the extent that the Contractor's plant becomes a hazard to flying aircraft. Also, when performing dredging operations in the Navy Dry Dock Channel and Main Ship channel near the airport, the dredge shall not be moored in the area during non-work periods or the crane boom shall be lowered.

1.4 SEQUENCING AND SCHEDULING

1.4.1 Hours of Operations

Except as specified for particular items of work, such as blasting, the Contractor will be allowed to perform work 24 hours per day, 7 days per week, including holidays, for the entire performance period. Refer to other sections of these specifications for environmental requirements and restrictions to dredging and disposal activities and for temporary suspension of the work, if required.

1.4.2 Work Sequence

1.4.2.1 General

There are certain essential criteria relative to the preparation of a work sequence and time schedule which the Contractor will be required to implement and follow during the prosecution of the work. Minor variations in the sequence of the items of work as approved may be made by the Contractor, provided such variations do not conflict with critical elements of the schedule and permit requirements. Variations shall be approved by the Contracting Officer prior to implementation.

1.4.2.2 Progress Schedule

The progress schedule shall be in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed and indicating calendar days to completion. Contractor shall indicate on the chart the important work features or operations that are critical to the timely overall completion of the project. Key dates for such important work features and portions of work features are milestone dates and shall be so indicated on the chart. This schedule will be the medium through which the timeliness of the Contractor's construction effort is appraised. Anticipated adverse weather delay days shall be included in the schedule.

1.4.3 Organization at the Site

1.4.3.1 General

The Contractor shall employ ample personnel and sufficient equipment to accomplish the work of this contract in the least amount of time, within the specified prosecution period.

1.4.3.2 Rate of Progress

Should the Contractor fail to maintain a satisfactory rate of progress, the Contracting Officer may require that additional personnel and equipment be placed on the work and weekend and overtime work be performed, in order that the work be brought up to schedule and maintained.

1.5 CONTRACTOR USE OF PREMISES

1.5.1 Storage Areas

Storage area will be provided to the Contractor at the prework conference. Area will be made available for one office trailer, pickup truck parking, and other minor materials. The Contractor shall confine his storage areas to the limits as designated or approved by the Contracting Officer and Harbormaster and shall be responsible for the security of the areas. Upon completion of the contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Contracting Officer at no additional cost to the Government.

1.5.1.1 Work Limits

The limits of work consist of the shoaled areas of the channel and anchorage, and the locations for the removal of ledge rock, boulders, and the sunken barge, as shown on the contract drawings, including the side slope areas which must be dredged to obtain the required depth.

1.5.2 Contractor's Receipt of Supplies

The Contractor shall be responsible for all arrangements for the receipt of materials and supplies at the job site. Government personnel are not permitted to receive or sign for items delivered to the site.

1.5.3 Access to Work Site

Access to the project site is limited as shown on the drawings.

1.6 COORDINATION

1.6.1 Public Notice

The public shall be notified of this dredging project approximately two weeks before commencement of dredging operations at the site. A brief description of the work to be performed and the intended schedule of dredging and disposal operations shall be published in a newspaper of general circulation in the area adjacent to the dredging. The notice shall include the locations where the work is to be performed, the time sequence of events, a map of the haul route to be followed between the dredging areas and the disposal site with reference to the width of the haul lane, the location and limits of the disposal site, and the procedure the Contractor will use to respond to claims of loss of fishing gear during the hauling work. The notice shall include the Contractor's point of contact and telephone number.

1.6.2 Coast Guard

All work conducted in areas in or adjacent to the ship channel shall be coordinated with the U.S. Coast Guard.

1.6.3 Notice to Mariners

Before beginning dredging operations, the Contractor shall coordinate with the U.S. Coast Guard (USCG) to issue a "Notice to Mariners" regarding the work to be performed and the Contractor's proposed operations.

The Corps of Engineers and the USCG have agreed to phraseology when issuing navigational bulletins and notices. The information furnished shall be consistent with USCG Broadcast Notice to Mariners and Local Notice to Mariners. When requesting local USCG offices to issue navigational information for Corps of Engineers work involving marine construction, the following terminology shall be used, as applicable:

For cautionary areas: "Mariners are urged to use extreme caution in the area."

For dredging and work operations: "Mariners are urged to transit at their slowest safe speed to minimize wake and proceed with caution after passing arrangements have been made."

1.6.4 Aids to Navigation

Aids to navigation have been placed by the Coast Guard. The Contractor shall coordinate with the Coast Guard in advance of any dredging work to provide for any necessary relocation or movement of aids to navigation. The Contractor shall also contact the Coast Guard at the completion of all work and the removal of all dredging plant from the Harbor.

1.6.5 Harbormaster

Before beginning dredging operations and barge transport of dredged materials, the Contractor shall coordinate his work operations with the Boston Harbor Master, Sergeant Robert P. Guiney, Boston Police Department, Telephone Number (617)343-4721, (617)343-5349(fax), Beeper (617)-343-5617 #706.

1.6.6 Boston Lobstermen

Before beginning dredging operations and barge transport of dredged materials, the Contractor shall coordinate work areas and barge routes with the Boston Harbor Lobstermen's Cooperative, (Mr. Al Ferent, 30 Ericson Road, Weymouth, MA 02188, 781-331-4593; and the Massachusetts Lobstermen's Association Mr. Bill Adler, 8 Otis Place, Scituate, MA 02066, Telephone Numbers (781)545-6984, 781-834-7418, and (617)545-7837(fax). EMAIL is mla@lobstermen.com

1.6.7 Docking Pilots

In some cases the channels to be dredged will not permit ship traffic during dredging operations, timely communication between the dredge and the Docking Pilots is necessary to avoid conflicts. The Contractor shall maintain daily telephone contact with the dispatchers at Boston Towing and Transportation (781) 567-9100 ext 111 or ext 112 and Bay State Towing (781) 561-0223. While dredge operations are underway the Contractor shall monitor VHF channel 13. Since vessel movements are apt to occur on a random basis, the Contractor shall provide a positive means of communication between the dredge and the towing companies such as a cell phone number.

1.6.8 Weekly Schedule to Users of the Harbor

Coordination with users of the harbor is critical for a smooth operation. All parties should have knowledge of the others' potential activities. Therefore, the Contractor shall prepare a weekly schedule of dredging and disposal activities and forward it to the following:

US Coast Guard: Lt Gary Williams, Chief Waterways 617-223-3030
(617-223-3032 Fax)

Boston Pilots: Captain Larry Cannon 617-569-4500 (617-569-4502 fax)

Harbormaster: Sgt. Robert Guiney (617) 343-5349 (fax), telephone
617-343-4721.

Boston Harbor Lobstermen Co-op: Alex Ferent 781-331-4593 (781-812-1446 Fax)

Mass. Lobstermen Assoc: - Mr. Bill Adler 781-545-6984 (617) 545-7837 (fax)

Docking Masters: Mr. Dave Galman (617) 567-2583 (fax) Mr. Mike Duarte
(617) 561-0813 (fax)

This weekly schedule shall identify all anticipated dredging and disposal activities and shall be updated as appropriate.

1.6.9 Points of Contact

a. Coast Guard: Lt. Frank Kingett (617) 223-8384.

b. Harbor Master: Sergeant Robert P. Guiney, 617-343-4721.

1.7 PRECONSTRUCTION CONFERENCE

The Contracting Officer will conduct a preconstruction conference with key Contractor personnel. The purpose of the conference is to review contract requirements and to establish a working relationship between the Contractor's Staff and the Corps Of Engineers personnel who will be closely associated with the project. During the conference, the Contracting Officer will inform the Contractor concerning Job Safety, Quality Control, Labor Relations, and Environmental Protection. The Contractor's Superintendent, Quality Control Representative, and Site Safety and Health Officer (SSHO) shall attend this conference. All submittals which are ready for submission prior to start of work may be brought to the conference for distribution to the participating reviewers.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01270

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PART 2 PRODUCTS (Not Applicable)

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SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 REFERENCES (Not Applicable)

1.2 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-05 Design Data

Quantity Surveys

Submit originals of all field notes and all other records relating to the quantity surveys.

1.3 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. 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.

1.4 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. Submit originals of all field notes and all other records relating to Quantity Surveys.

1.5 BIDDING SCHEDULE - PAYMENT ITEMS

Payment items for the work of this contract on which the contract progress payments will be based are listed in the BIDDING SCHEDULE and are described below. All costs for items of work, which are not specifically mentioned to be included in a particular Bidding Schedule lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved.

1.5.1 **Item No. 0001, "Mobilization and Demobilization for Dredging"**

a. Payment will be made for costs associated with mobilization and demobilization for dredging operations, as defined in Special Contract Requirements clause "PAYMENT FOR MOBILIZATION AND DEMOBILIZATION."

b. Unit of measure: lump sum.

1.5.2 Item No. 0002, "Mobilization and Demobilization for Blasting Operations"

a Payment will be made for costs associated with mobilization and demobilization of equipment and materials for performing blasting operations, as defined in Special Contract Requirements clause "PAYMENT FOR MOBILIZATION AND DEMOBILIZATION." Separate payment will be made for the mobilization and demobilization of equipment and materials for performing dredging operations as specified above for Item No. 0001.

b Unit of measure: lump sum.

1.5.3 Item No. 0003, "Maintenance Dredging and Ocean Disposal of Dredged Material"

Item No. 0003AA, "Outer 35' Main Ship Channel"

Item No. 0003AB, "Outer 40' Main Ship Channel and Presidents Roads Anchorage"

Item No. 0003AC, "40' Broad Sound Channel"

Item No. 0003AD, "Navy Dry Dock"

Item No. 0003AE "Ledge Rock Excavation and Disposal"

a. The contract price per cubic yard for the Payment Items listed above shall include all cost of removal and disposal of all materials, except as specified below for "Boulder Excavation and Disposal," from the applicable Federal Channels and Anchorage Areas indicated on contract drawings for each site.

b. The total amount of material removed and paid for under the contract for this Item, will be measured by the cubic yard in place by computing the volume between the bottom surface shown by soundings of the last pre-dredge survey made before dredging begins and the bottom surface shown by the soundings of a post-dredge survey made as soon as practicable after the removal of the material, including that within the limits of the side slopes and specified channel overdepth as described in Section 02325 DREDGING, paragraph OVERDEPTH AND SIDE SLOPES, less any deductions that may be required for misplaced material described in paragraph DISPOSAL OF EXCAVATED MATERIAL.

c. The contract drawings listed in Special Contract Requirements, Paragraph "Contract Drawings, Maps and Specifications" are believed to accurately represent conditions existing on the date of the survey shown on the drawings, but the depths and the specific areas to be dredged shown thereon may be verified and corrected by soundings taken by the Government before dredging begins. Determination of quantities removed and the deductions made to determine quantities after having once been made by the Contracting Officer, will not be reopened, except on evidence of collusion, fraud, or obvious error.

d. Monthly partial payments will be based on approximate quantities determined by Contractor quality control surveys. The pre-dredge survey made immediately before dredging, and the post-dredge survey made as soon as practicable after the removal of the material, will be performed by the Government at no cost to the Contractor.

e. Unit of measure: Cubic Yard.

1.5.4 Item No. 0003AF, Boulder Excavation and Disposal

a. The contract price per ton for Item No. 0003AF, "Boulder Excavation and Disposal" shall include all cost of removal and disposal of qualifying heavy boulders from the Federal Channel, in accordance with Section 02328 UNDERWATER DRILLING AND BLASTING.

b. Qualifying heavy boulders are defined as large rocks which can not be removed by the plant and equipment employed for the project, but which require equipment, procedures and, techniques not a part of the ordinary dredging operation, to accomplish the removal, such as drilling and blasting. Qualifying heavy boulders shall be disposed in the same manner as maintenance material. Each boulder or rock piece removed by the Contractors special plant or equipment will be measured and photographed by the on site Contracting Officer Representative, who will calculate the weight of the object for payment. No volume deduction will be made under the above payment items for "Maintenance Dredging and Disposal" for the volume of removed and disposed under this payment item.

c. Verification of removal will be made by the Government using soundings.

d. Unit of measure: Ton (2,000 lbs).

1.5.5 Item No. 0004 "Removal and Disposal of Steel Hull Deck Barge"

a. Payment will be made for all costs associated with operations necessary for the location, removal and proper disposal of the steel hull deck barge as specified in Section 02325.

b. Verification of removal will be made by the Government using soundings.

c. Unit of Measure: One job, Lump Sum.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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SECTION 01312

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SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

1.1 GENERAL

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

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

1.1.1 Correspondence and Electronic Communications

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

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01330, SUBMITTAL PROCEDURES, and Section 01451, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS.

Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS

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

Hardware

IBM-compatible PC with 500 MHz Pentium or higher processor
 128+ MB RAM for workstation / 256+ MB RAM for server
 1 GB hard drive disk space for sole use by the QCS system
 3 1/2 inch high-density floppy drive
 Compact disk (CD) Reader, 8x speed or higher
 SVGA or higher resolution monitor (1024 x 768, 256 colors)
 Mouse or other pointing device
 Windows compatible printer (Laser printer must have 4+ MB of RAM)
 Connection to the Internet, minimum 56 BPS

Software

MS Windows 98, ME, NT, or 2000
 Word Processing software compatible with MS Word 97 or newer
 Latest version of : Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher
 Electronic mail (E-mail), MAPI compatible
 Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control(CQC) Training

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

1.5 CONTRACT DATABASE

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

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, 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 QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

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

1.6.1.2 Subcontractor Information

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

1.6.1.3 Correspondence

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".

1.6.1.4 Equipment

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

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC

comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of 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.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under 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 QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS 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 QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01451, CONTRACTOR QUALITY CONTROL. 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.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by Section 01451, CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch

list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of 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.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

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

1.6.4 Submittal Management

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

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts". This schedule shall be input and maintained in the QCS 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.

1.6.6 Import/Export of Data

QCS 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.

1.7 IMPLEMENTATION

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

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

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

1.8.1 File Medium

The Contractor shall submit required data on 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 98 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.

1.8.2 Disk or CD-ROM Labels

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

1.8.3 File Names

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

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", 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 QCS export file is received.

1.10 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 01330

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-- End of Section Table of Contents --

SECTION 01330

SUBMITTAL PROCEDURES

1.1 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

SD-02 Shop Drawings

SD-03 Product Data

SD-05 Design Data

SD-06 Test Reports

SD-07 Certificates

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 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."

1.2.2 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. 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.

1.3 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 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.

1.4 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.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.6 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 and measure 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.

1.7 SUBMITTAL REGISTER

At the end of this section is a submittal register 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 01312 QUALITY CONTROL SYSTEM (QCS). The Government will provide the initial submittal register in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall track all submittals.

1.8 SCHEDULING

Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 21 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.

1.9 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 are included in the 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.

1.10 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

1.10.1 Procedures for Review Copies

Submit seven (7) copies of each submittal item with an attached ENG FORM 4025 Transmittal Form.

a. Construction/Operations Division ("RE" Reviewer): An "RE" in column "f" indicates that the submittal review action is by New England District Construction/Operations Division. Send all such submittals to the project Resident or Area Engineer, as applicable.

b. Engineering/Planning Division ("ED" Reviewer): An "ED" on the attached submittal register, column "f" indicates that the submittal review action is by the New England District, Engineering/Planning Division. Send all such submittals to the U.S. Army Corps of Engineers, New England District 696 Virginia Road, Concord, Massachusetts 01742-2751.

1.10.2 Information on Submittal Status

All Contractor requests for current status of submittal reviews shall be made through the Resident Engineer.

1.10.3 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.

1.11 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."

1.12 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. Five copies of the submittal will be retained by the Contracting Officer and two copies of the submittal will be returned to the Contractor.

1.13 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.

1.14 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

<p>CONTRACTOR</p> <p>(Firm Name)</p> <p>_____ Approved</p> <p>_____ Approved with corrections as noted on submittal data and/or attached sheets(s).</p> <p>SIGNATURE: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>

-- End of Section --

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- | | |
|---|---|
| A -- Approved as submitted. | E -- Disapproved (See attached). |
| B -- Approved, except as noted on drawings. | F -- Receipt acknowledged. |
| C -- Approved, except as noted on drawings.
Refer to attached sheet resubmission required. | FX -- Receipt acknowledged, does not comply
as noted with contract requirements. |
| D -- Will be returned by separate correspondence. | G -- Other (<i>Specify</i>) |

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

SUBMITTAL REGISTER

CONTRACT NO.
DACW33-03-B-0006

TITLE AND LOCATION MAINTENANCE DREDGING BOSTON HARBOR, BOSTON, MA						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
	01110		SD-01 Preconstruction Submittals														
			Progress Schedule	1.4.2.2	G C												
	01270		SD-05 Design Data														
			Quantity Surveys	1.4													
	01355		SD-01 Preconstruction Submittals														
			Environmental Protection Plan	1.7	G RE												
			SD-03 Product Data														
			Fish Startle Equipment and Sonar		G RE												
			SD-07 Certificates														
			Fisheries Observer		G ED												
			Marine Mammal Observer		G ED												
	01500		SD-01 Preconstruction Submittals														
			Site Plan		G RE												
			SD-02 Shop Drawings														
			Temporary Electrical System		G RE												
	01525		SD-01 Preconstruction Submittals														
			Accident Prevention Plan (APP)	1.8	G RE												
			Activity Hazard Analysis (AHA)	1.9	G RE												
			SD-06 Test Reports														
			Reports	1.13													
			Accident Reports	1.13.1													
			Monthly Exposure Reports	1.13.3													
			Regulatory Citations and	1.13.4													
			Violations														
			Crane Reports	1.13.5													
			Certificate of Compliance	1.13.6													

SUBMITTAL REGISTER

CONTRACT NO.
DACW33-03-B-0006

TITLE AND LOCATION						CONTRACTOR											
MAINTENANCE DREDGING BOSTON HARBOR, BOSTON, MA																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01545	SD-01 Preconstruction Submittals Plant and Equipment														
		01723	SD-01 Preconstruction Submittals Survey Plans Layout Plan Charts Survey Personnel	3.1.1	G R E												
			SD-05 Design Data Field Survey Data Electronic Tracking System	1.7													
		02325	SD-01 Preconstruction Submittals Work Plan Enclosed, Clamshell Bucket Performance Data Debris Management Plan Inspection of Disposal Scow Cards	3.1.2	G R E G C												
			SD-05 Design Data Equipment and Performance Data Daily/Monthly Report of Operations	1.11													
		02328	SD-01 Preconstruction Submittals Blasting Safety Plan SD-07 Certificates Licenses Daily Blasting Log	1.6.2 1.8.3 1.8.4	G R E												

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 - 1.2.4 Pesticide
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 - 1.7.2 Contents
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- 1.8 PROTECTION FEATURES
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SECTION 01355

ENVIRONMENTAL PROTECTION

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. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification

ENGINEERING MANUALS (EM)

EM 385-1-1	(1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual
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1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 Pesticide

Pesticide is defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant or desiccant.

1.2.5 Pests

The term "pests" means arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds and other organisms (except for human or animal disease-causing organisms) that adversely affect well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

1.2.6 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.4 SUBCONTRACTORS

The Contractor shall ensure compliance with this section by subcontractors.

1.5 PAYMENT

No separate payment will be made for work covered under this section. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

1.6 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 Protection Plan; G, RE

The environmental protection plan.

SD-03 Product Data

Fish Startle Equipment and Sonar; G, RE.

Submit for review and approval sufficient data showing compliance with specification requirements.

SD-07 Certificates

Fisheries Observer; G, ED.

Submit for review and approval the name and qualifications of the Fisheries Observer. Present evidence that the Fisheries Observer is acceptable to the Massachusetts Division of Marine Fisheries and the National Marine Fisheries Service.

Marine Mammal Observer; G, ED.

Submit for review and approval the name and qualifications of the Marine Mammal Observer. Present evidence that the Marine Mammal Observer meets the qualifications as specified in the "Conditions Recommended by the National Marine Fisheries Service for Projects Funded or Undertaken by the Corps of Engineers that Include Disposal of Dredged Material at the Massachusetts Bay Disposal Site" attached at the end of this section.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan including any reporting requirements; and methods for administration of the Contractor's Environmental Plans. The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

The environmental protection plan shall include, but shall not be limited to, the following:

- a. Name(s) of person(s) within the Contractor's organization who is(are) responsible for ensuring adherence to the Environmental Protection Plan.
- b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.
- d. Description of the Contractor's environmental protection personnel training program.
- e. A silt and sediment control plan which identifies the equipment and construction methods to minimize dispersment of silt and sediment during dredging operations. The plan shall include monitoring and reporting requirements to assure that the control measures are in compliance with the plan.
- j. The Spill Control plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:
 1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local Fire Department in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.
 2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.
 3. Training requirements for Contractor's personnel and methods of accomplishing the training.
 4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
6. The methods and procedures to be used for expeditious contaminant cleanup.
- k. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including debris collected during dredging operations. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance of the solid waste shall be attached to this plan during the construction.
- m. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, etc., do not become air borne and travel off the project site.
- n. A contaminant prevention plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.
- o. Protection of Fish and Wildlife Resources: The Contractor shall prepare and submit a "Fish Detection and Protection Plan" and a "Marine Mammal Protection Plan" as part of the Environmental Protection Plan. The plan shall include the names and qualifications of the designated observers, as well as specific details regarding protection of fish and wildlife resources during the work, including the type of fish deterrent system that will be used. If at any time during the implementation of the project, a significant fish kill or significant water quality problem occurs, and can be attributed to the project, all site activities impacting the water shall cease until the source of the problem is identified. Adequate mitigating measures shall be followed upon discussion with the appropriate state, Federal, State, and local agencies. The Contractor shall also comply with all aspects of the "Legal Requirements for operation of any vessel around North Atlantic Right Whales:" and other requirements relative to the protection of marine mammals attached at the end of this section. See also Section 02492 UNDERWATER DRILLING AND BLASTING for additional requirements for the protection of fish and wildlife to be included in the plans.

1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents shall be attached, as an appendix, to the Environmental Protection Plan.

1.8 PROTECTION FEATURES

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, the Contractor and the Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

1.9 SPECIAL ENVIRONMENTAL REQUIREMENTS

The Contractor shall comply with the special environmental requirements included below. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development.

1.9.1 Fisheries Observer

The Contractor shall provide the services of a Fisheries Observer with qualifications acceptable to the Massachusetts Division of Marine Fisheries and the National Marine Fisheries Service. The Fisheries Observer will be responsible for prohibiting blasting operations during the passage of schools of fish and other duties as specified, including performing marine mammal observer duties in the absence of the Marine Mammal Observer. Funding of the Fisheries Observer shall be the Contractor's responsibility.

The Fisheries Observer shall be approved by the Contracting Officer. The Contractor shall provide sonar equipment and fish startle equipment for the exclusive use of the Fisheries Observer for performing dredging operations at the specific locations and time periods specified in Section 02325 DREDGING.

Sonar (hydroacoustic monitoring equipment) shall be a side-scan type, which can provide a low target recognition value, distance to fish, determine the direction the fish are traveling, and provide a record of the information collected on a tape or disk.

Fish startle equipment shall be capable of deterring fish from the family Cupeidae (blueback herring, alewife) using high amplitude sound at specific frequencies. The equipment shall be similar or approved equal to Electronic Fish Startle System (EFSS) by Sonalysts, Inc., 215 Parkway North, Waterford, CT.

1.9.1.1 Marine Mammal Observer

The Contractor shall provide the services of a Marine Mammal Observer with qualifications and duties as specified in the "Conditions Recommended by the National Marine Fisheries Service for Projects Funded or Undertaken by the Corps of Engineers that Include Disposal of Dredged Material at the Massachusetts Bay Disposal Site" attached at the end of this section.

Provide whale observers on board the scows transiting to the MBDS from February to May 31 to avoid potential ship strikes, and for all underwater blasting operations. The Marine Mammal Observer will be responsible for prohibiting harassment of marine mammals and sea turtles during disposal operations. Funding of the Marine Mammal Observer shall be the Contractor's responsibility. The Marine Mammal Observer shall be approved by the Contracting Officer.

1.10 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.11 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental 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 the proposed corrective action and take such action when approved by the Contracting Officer. 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 equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

This Article supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES to the extent that the Government has already obtained the listed environmental permits issued for the Boston Harbor maintenance Project. A Coastal Zone Consistency Determination has been obtained for this project. The Contractor shall comply with permit terms and conditions that are applicable to this contract. Such applicable terms and conditions have been extracted from the permit and are specified in the various sections of these specifications and on the contract drawings.

3.2 WATER RESOURCES

The Contractor shall keep construction activities under surveillance,

management, and control to avoid pollution of surface and ground waters.

3.3 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and State air emission and performance laws and standards.

3.3.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall comply with all State and local visibility regulations.

3.3.2 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State regulations and/or local ordinances.

3.3.3 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall comply with the provisions of the State of Massachusetts rules.

3.4 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.4.1 Solid Wastes

Solid wastes shall be placed in containers which are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas.

3.4.2 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be in accordance with all Federal, State, and local laws and regulations.

3.5 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.6 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

3.7 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. The Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.8 MAINTENANCE OF POLLUTION FACILITIES

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

3.9 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, and endangered species and their habitat that are known to be in the area.

3.10 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all

signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

ATTACHMENTS

Boston Harbor Fisheries (and Marine Mammal) Observer Criteria

The fisheries observer should have an educational background in marine biology, general experience aboard dredges, and hands on field experience with Massachusetts marine fish species. A person who does not have a college degree in marine biology or related field may be qualified as an observer if s/he has field experience with fisheries, sonar, and fish startle systems..

1. Education: College degree (B.S. or higher) in marine biology or related field.
2. Field Experience and Equivalents:
 - a. Documented field research focused on Massachusetts marine fish species or its habitat OR has worked at least two years on a commercial fishing vessel identifying and locating at least two of the following fish species, rainbow smelt, alewife, blueback herring, menhaden, winter flounder, and striped bass, using sonar AND
 - b. Has at least one month of work experience with a fish startle system.
3. Dredge Experience: Experience in any capacity aboard dredges of the same type as those to be used in the proposed project, would be helpful.
4. Skill Set - Observers must be able to:
 - a. identify the following six species: rainbow smelt (*Osmerus mordax*), alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), menhaden (*Brevoortia tyrannus*), winter flounder (*Pseudopleuronectes americanus*), and striped bass (*Morone saxatilis*).
 - b. take standard field measurements (total length and weight) of fish killed by blasting (i.e. floating at the surface), if more than a few dozen fish. If hundreds or thousands of fish are killed, then representative samples will be taken.
 - c. run the fish startle system and observe and record the behavior of fish before and during use of the fish startle system.
 - d. observe fish patterns and any marine mammals (such as harbor porpoises and seals) in the area, and advise dredge and disposal operators on the appropriate blast timing to avoid impacting these biological resources.
 - e. provide a summary report of data collected on fish behavior, before and during the use of the fish startle system, results of fish killed (including species, length, and weight) during blasting, and observations of marine mammals to dredging and blasting operations.

**Conditions Recommended by the National Marine Fisheries Service for
Projects Funded or Undertaken by the Corps of Engineers that Include
Disposal of Dredged Material at the Massachusetts Bay Disposal Site**

(1) From February 1 through May 31 of any year, disposal vessels including tugs, barges, and scows transiting between the dredge site and the Massachusetts Bay Disposal Site shall operate at speeds not to exceed 5 knots after sunset, before sunrise, or in daylight conditions where visibility is less than one nautical mile. Disposal shall not proceed if these requirements cannot be met due to weather or sea conditions. In that regard, the vessel captain and/or contractor should be aware of predicted conditions before departing for the disposal site. The intent of this condition is to reduce the potential for vessel collisions with threatened and endangered species, including right whales.

(2) From February 1 through May 31 of any year, an approved marine observer (i.e., meeting the attached National Marine Fisheries Service (NMFS) criteria on observer qualifications, including the specified skill sets for sea turtles and whales) must be present aboard disposal vessel transiting between the dredge site and the Massachusetts Bay Disposal Site during daylight hours. When threatened or endangered species are observed to be present, the vessel captain shall, except when precluded by safety considerations, follow the advice of the marine mammal observer to avoid harassment of or direct impact to individual animals. The observer shall fully complete a separate Corps of Engineers marine mammal observation report for every sighting and shall ensure that this report is received by the Corps New England District, Environmental Resources Section (fax number (978) 318-8560) and The Regulatory Compliance Branch (fax number (978) 318-8303) within one week of the trip date. The observer shall maintain contact with the NMFS (Habitat and Protected Resource Division, phone number (508)281-9328) and other recognized experts to provide and receive information regarding the presence and distribution of threatened and endangered species in Massachusetts Bay. All right whale sightings (including location) shall be reported. The contractor or observer shall call a pager # 978-585-8473 if a right whale is spotted. The intent of this condition is to reduce the potential for vessel collisions with threatened and endangered species, including right whales, and to minimize potential impacts of dredged material disposal on threatened and endangered species.

Marine mammal observers shall use the following guidelines to minimize conflicts with threatened or endangered species:

(a) A marine mammal observer shall be posted on lookout at all times during daylight hours when disposal vessels have left the harbor and are underway or at the disposal site.

(b) Disposal vessels shall not approach threatened or endangered species closer than 100 feet (see additional condition below for approaching right whales).

(c) Disposal vessels shall adhere to the attached NMFS regulations for approaching right whales, 50 CFR Part 222.32, which restrict approaches within 500 yards of a right whale and specify avoidance measures for vessels that encounter right whales.

(d) If threatened or endangered species are sighted within 500 feet from

the disposal point, dredged material shall not be released. In this case, the vessel captain may elect to wait until the animals move away from the disposal point prior to disposal, or, subject to the judgement of the observer, may dispose at an authorized alternative disposal location under the same restrictions noted herein for disposal at the primary disposal location.

(e) If threatened or endangered species are sighted between 500 feet and 1500 feet from the disposal point, the observer shall note the animal's behavior, relative position, and direction and speed of movement to determine if release of dredged material is likely to harass or endanger the animals. For example, whales actively feeding at or near the disposal point are more likely than resting whales to interact with released sediments. If the observer judges that disposal is likely to harass or endanger the animals, the observer shall inform the vessel captain and disposal shall be delayed until the animals change their behavior or move away such that the observer judges that no danger to the animals will result from disposal.

OBSERVER CREDENTIALS

Certain credentials and experience might indicate an observer has the skills listed below. Ideally, the applicant will have an educational background in marine biology, general experience aboard dredges, and hands on field experience with the species of concern.

A person who does not have a college degree in marine biology or a related field may be qualified as an observer if she/he has successfully completed an approved endangered species dredge observer training program (item 3a), and has twice the experience identified as necessary in items 2b, 3c, and 3d.

1. EDUCATION: College degree (BS or higher) in marine biology or a related field, and
2. DREDGE/FLOAT EXPERIENCE:
 - a) For shortnose sturgeon or sea turtle observers: Work for a minimum of one week in any capacity aboard dredges of the same type as those to be used in the proposed project, or
 - b) For large whale observers: Work for a minimum of two months as a naturalist or wildlife guide aboard an active whale watch vessel or other vessel primarily engaged in the observation of large whales in the wild, and
3. FIELD EXPERIENCE AND EQUIVALENTS
 - a) Successful completion of an approved endangered species dredge observer training course, or
 - b) Documented field research focused on the species or its habitat, or
 - c) Work for a minimum of four months as an endangered species observer-in-training aboard dredges that have interacted with the species in question, or
 - d) Active involvement for a minimum of one year in organized responses to protected species stranding events where sea turtles and marine mammals are identified and handled.

Note: If dredge operations are likely to interact with more than one group of protected species, the observer must demonstrate that he/she has all of the respective skill sets.

4. SKILL SETS

- a) Observers must be able to identify sea turtle species.
- b) Observers must be able to advise dredge operators on the appropriate maneuvering to avoid harassing or impacting sea turtles.
- c) Observers must be able to identify endangered whale species that may be encountered during project operations.
- d) Observers must be able to discern whale behaviors, such as milling, traveling, and feeding.
- e) Observers must be able to demonstrate knowledge of individually distinctive markings on humpback and right whales for identification purposes.

5. NOAA AND NMFS APPROVAL

Marine mammal observers for this project shall be NOAA Fisheries approved observers and shall also have written approval/certification from the National Marine Fisheries Service (NMFS).

I. Legal Requirements for operation of any vessel around North Atlantic Right Whales:

50 CFR Parts 217 and 222

222.32 Approaching North Atlantic Right Whales

(a) Prohibitions. Except as provided under paragraph (c) of this section, it is unlawful for any person subject to the jurisdiction of the United States to commit, attempt to commit, to solicit another to commit, or cause to be committed any of the following acts:

(1) Approach (including by interception) within 500 yards (460m) of a right whale by vessel, aircraft, or any other means;

(2) Fail to undertake required right whale avoidance measures specified under paragraph (b) of this section.

(b) Right Whale Avoidance Measures. Except as provided under paragraph (c) of this section, the following avoidance measures must be taken if within 500 yards (460m) of a right whale:

(1) If underway, a vessel must steer a course away from the right whale, and immediately leave the area at a slow safe speed;

(2) An aircraft must take a course away from the right whale and immediately leave the area at a constant air speed.

(c) Exceptions. The following exceptions apply to this section, but any person who claims the applicability of an exception has the burden of proving that the exception is applicable:

(1) Paragraph (a) and (b) of this section do not apply if a right whale approach is authorized by NMFS through a permit issued under subpart C (Endangered Fish or Wildlife Permits) of this part or through a similar authorization.

(2) Paragraph (a) and (b) of this section do not apply where compliance would create an imminent and serious threat to a person, vessel, or aircraft

(3) Paragraph (a) and (b) of this section do not apply when approaching to investigate a right whale entanglement or injury, or to assist in the disentanglement or rescue of a right whale.

(4) Paragraphs (a) and (b) of this section do not apply to an aircraft unless the aircraft is conducting whale watch activities or is being operated for that purpose.

(5) Paragraph (b) of this section does not apply to the extent that a vessel is restricted in her ability to maneuver, and because of the restriction, cannot comply with paragraph (b) of this section.

II. Requirements on operation around any large whale or sea turtle for purposes of ocean disposal at the Massachusetts Bay Disposal Site:

(a) Operational restrictions.

(1) Disposal operators must not approach within 500 yards (460m) of any

large whale or 100 yards of any sea turtle with a vessel;

(2) Disposal operators must follow the avoidance measures described below:

(b) Avoidance Measures. Except as provided under paragraph (c) of this section, the following avoidance measure must be taken if within 500 yards (460m) of any large whale or 100 yards of any sea turtle:

(1) If underway, a vessel must steer a course away from the whale or sea turtle, and immediately leave the area at a slow safe speed;

(c) Exceptions. The following exceptions apply to this section, but any person who claims the applicability of an exception has the burden of proving that the exception is applicable:

(1) These requirements do not apply where compliance would create an imminent and serious threat to a person or vessel.

(2) These requirements do not apply when approaching to investigate a right whale entanglement or injury, or to assist in the disentanglement or rescue of a right whale, provided that permission is received from NMFS or a NMFS designee prior to the approach.

(3) Paragraph (b) of this section does not apply to the extent that a vessel is restricted in her ability to maneuver (as defined in 72 COLREGS, 33 CFR) , and because of the restriction, cannot comply with paragraph (b) of this section.

III. Requirements for release of dredged material at the Massachusetts Bay Disposal Site:

If threatened or endangered species of any kind (including whales and sea turtles) are sighted within 500 yards from the disposal point, operators must wait for the animals to leave the area or must use an alternative disposal point specified by the Corps of Engineers (NAE) within the boundary of the designated disposal site. If threatened or endangered species of any kind are sighted between 500 and 1500 yards from the disposal point, the observer shall note animals behavior, relative position, and direction and speed of movement to determine if release of dredged material is likely to harass or endanger the animals. For example, whale actively feeding at or near the disposal point are more likely than resting whales to interact with released sediments. If the observer judges that disposal is likely to harass or endanger the animals, the observer shall inform the vessel captain. Disposal shall be delayed until the animals change their behavior or move away such that the observer judges that no danger to the animals will result from disposal. In the event that behavior and direction of movement is unpredictable, operators should use the alternative approved disposal point. In the presence of right whales, the most protective operational measure is advised.

IV. Other Responsibilities of Vessel Operator/Onboard Observer (as appropriate):

(a) The observer is responsible for contacting NMFS early warning network for the most recent information on whale movements and locations prior to departure for the disposal site to check for the presence of whales.

(b) The observer shall report all whale sightings, noting location, to the early warning network at the end of the day. The observer shall call pager

number 978-585-8473 if a Right Whale is spotted. The World Wide Web site is http://whale.wheelock.edu/whalenet-stuff/rw_intro.html.

-- End of Section --

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SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 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 20 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. The Government will consider an interim plan for the first 30 days of operation. 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:

- 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 must 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 10 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 construction person with a

minimum of 3 years in related work. 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 as System Manager but may have duties as project superintendent in addition to quality control. 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 experience requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at the US Army Corps of Engineers, New England District Office at 696 Virginia Rd, Concord, MA.

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 the construction 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 review of the appropriate activity hazard analysis to assure safety requirements are met.
- g. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- h. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- i. Discussion of the initial control phase.
- k. The Government shall be notified at least 48 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 inspections.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.
- 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 48 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 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.

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 COMPLETION INSPECTION

3.7.1 Final Acceptance Inspection

See Section 01723 FIELD ENGINEERING FOR DREDGING.

3.8 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities 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.
- d. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- f. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- g. 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. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the

date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one 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.

3.9 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.10 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.

Contractor/Sub. Name _____

DAILY CONSTRUCTION QUALITY CONTROL REPORT FOR WORK IN FEDERAL CHANNEL

Date: _____

Day: _____

Contract No: _____

Description and Location of Work: _____

Tide: (high) _____ (low) _____ (high) _____ (low) _____ Sea Condition: _____
Weather: Temp: _____ Cloud condition _____ Wind speed/direction _____

Environmental Protection:

Management

Area of responsibility

- a. Consultant - _____
- b. Contractor - _____
- c. Subcontractor - _____
- d. Surveyor - _____
- e. Supplier - _____
- f. Technical Support - _____

1. WORK PERFORMED TODAY (Indicate location and description of work performed. Refer to work performed by individuals listed by letter above.) _____

2. Results of Surveillance (Include satisfactory work completed, or deficiencies with action to be taken.)

a. Preparatory Inspection: _____

b. Initial Inspection: _____

c. Follow-up Inspection: _____

3. Tests Required by Specifications, Performed, and the Results:

- a. _____
- b. _____
- c. _____

Contractor/Sub. Name _____

-- End of Section --

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PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-- End of Section Table of Contents --

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 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

Site Plan; G, RE.

Sketch of the proposed location and dimensions of any area to be used by the Contractor for storage and staging, the number of trailers to be used, avenues of ingress/egress to the areas and details of improvements.

SD-02 Shop Drawings

Temporary Electrical System; G, RE.

Sketch of the proposed temporary electrical system.

1.2 SITE PLAN

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

1.3 EMPLOYEE PARKING

Contractor employees shall park privately owned vehicles in an area designated by the Contracting Officer. Contractor employee parking shall not interfere with existing and established parking requirements of the facility.

1.4 AVAILABILITY OF UTILITIES

Provide service required for construction operations. All water and electricity that may be required in the prosecution of the work shall be furnished by the Contractor at his own expense. There will be no Government furnished water and electricity at the project site.

1.5 SANITATION

Adequate sanitary conveniences of a type approved for the use of persons

employed on the work shall be provided, properly secluded from public observation, and maintained by the Contractor in such a manner as required or approved by the Contracting Officer. These conveniences shall be maintained at all times without nuisance. Upon completion of the work, the conveniences shall be removed by the Contractor from the premises, leaving the premises clean and free from nuisance.

1.6 TELEPHONE SERVICE

Provide telephone service to field offices. Provide and maintain a telephone or equal means of communication which will be in an easily accessible location at each of the large construction areas on the project. Such means of communication shall be accessible during all work hours.

1.7 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.

1.8 BULLETIN BOARD

1.8.1 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.

1.9 CONTRACTOR'S TEMPORARY FACILITIES

1.9.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities at the designated site.

1.9.2 Storage Areas

Area is available for use by the Contractor, for work, storage of equipment, materials and trailers during the life of this contract. A site will be determined at a prework conference prior to commencing work. The Contractor shall confine his storage areas to the limits as designated or approved by the Contracting Officer and shall be responsible for the security of the areas. Upon completion of the contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Contracting Officer at no additional cost to the Government.

1.9.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer will designate another

or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site. Fencing of storage area will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government.

1.9.4 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed in the storage area.

1.9.5 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.

1.9.6 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own equipment.

1.10 GOVERNMENT FIELD OFFICE

1.10.1 Resident Engineer's Office

The Contractor shall provide the Government Resident Engineer with an office, approximately 200 square feet in floor area, and providing space heat, electric light and power, and toilet facilities consisting of one lavatory and one water closet complete with connections to water and sewer mains. A portable toilet may be substituted for the water closet. A mail slot in the door or a lockable mail box mounted on the surface of the door shall be provided. At completion of the project, the office shall remain the property of the Contractor and shall be removed from the site. Utilities shall be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer.

1.10.2 Trailer-Type Mobile Office

The Contractor may, at its option, furnish and maintain a trailer-type mobile office acceptable to the Contracting Officer and providing as a minimum the facilities specified above. The trailer shall be securely anchored to the ground at all four corners to guard against movement during high winds.

1.11 CLEANING DURING CONSTRUCTION

1.11.1 Daily Cleaning

Execute daily cleaning to keep the work, the site, and adjacent properties free from accumulation of waste materials, rubbish, and windblown debris, resulting from construction operations.

1.11.2 On-Site Container

Provide on-site containers for the collection of waste materials, debris, and rubbish.

1.11.3 Removal of Waste

Remove waste materials, debris, and rubbish from the site periodically and dispose of off Government property in accordance with applicable laws and regulations.

1.11.4 Burning

No burning of brush or debris will be permitted at the site.

1.12 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.

1.13 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.

1.14 REMOVAL OF TEMPORARY MATERIALS AND EQUIPMENT

Remove temporary materials, equipment, services, and construction prior to completion of work. Clean and repair damage caused by installation or use of temporary facilities. Return site to pre-construction condition.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

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SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

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

ASME INTERNATIONAL (ASME)

ASME B30.5	(2000) Mobile and Locomotive Cranes
ASME B30.8	(2000) Floating Cranes and Floating Derricks
ASME B30.22	(2000) Articulating Boom Cranes

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.94	Ventilation
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1926.500	Fall Protection

U. S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) Safety and Health Requirements Manual
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NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(1998) Portable Fire Extinguishers
NFPA 241	(2000) Safeguarding Construction, Alteration, and Demolition Operations

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as

otherwise designated. 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, RE

Activity Hazard Analysis (AHA); G, RE

SD-06 Test Reports

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports

Monthly Exposure Reports

Regulatory Citations and Violations

Crane Reports

Certificate of Compliance (Crane)

1.3 DEFINITIONS

- a. Certified Safety Professional (CSP). An individual who is currently certified by the Board of Certified Safety Professionals.
- b. Certified Safety Trained Supervisor (STS). An individual who is currently certified by the Board of Certified Safety Professionals.
- c. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.
- d. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- e. Multi-Employer Work Site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.
- f. Operating Envelope. The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).
- g. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:
 - (1) Death, regardless of the time between the injury and death, or the length of the illness;

- (2) Days away from work;
- (3) Restricted work;
- (4) Transfer to another job;
- (5) Medical treatment beyond first aid;
- (6) Loss of consciousness; or
- (7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

h. Site Safety and Health Officer (SSHO). The superintendent or other qualified or competent person who is responsible for the on-site safety and health required for the project. The Contractor quality control (QC) person cannot be the SSHO, even though the QC has safety inspection responsibilities as part of the QC duties.

i. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.4 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and the federal, state, and local, laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following requirements:

Level 2:

- A minimum of 3 years safety work on similar project.
- 30-hour OSHA construction safety class or equivalent within last 3 years.
- Competent person training as needed.

1.6.1.2 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Appendix G.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.
- b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.
- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

- a. The Contractor will be informed, in writing, of the date of the preconstruction conference. The purpose of the preconstruction conference is for the Contractor and the Contracting Officer's

representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's APP before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the AHAs and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated activity hazard analyses (AHAs) that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

1.6.3.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.3.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and any designated CSP and/or CIH.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the resident engineer's office and at the job site. The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be used such as CSPs, CIHs, STSs, CHSTs. The duties of each position shall be specified.

b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.

c. Alcohol and Drug Abuse Plan

(1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

(2) Description of the on-site prevention program

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. An AHA will be developed by the Contractor for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used, inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall arrest systems. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when

procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

1.10 DISPLAY OF SAFETY INFORMATION

Within 10 calendar days after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

- a. Map denoting the route to the nearest emergency care facility.
- b. Emergency phone numbers.
- c. Copy of the most up-to-date APP.
- d. AHA(s).
- e. OSHA 300A Form.
- f. A sign indicating the number of hours worked since last lost workday accident.
- g. OSHA Safety and Health Protection-On-The-Job Poster.
- h. Safety and Health Warning Posters.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 REPORTS

1.13.1 Accident Reports

- a. For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 2 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.
- b. For a weight handling equipment accident the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report form and provide the report

to the Contracting Officer within 30 calendar days of the accident. The Contracting Officer will provide a blank copy of the accident report form.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident involving a overturned crane, collapsed boom, or any other major damage to the crane or adjacent property. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.13.5 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.13.6 Certificate of Compliance

The Contractor shall provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance shall comply with 29 CFR 1926 and USACE EM 385-1-1 section 16 and Appendix H. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used. The Contractor shall also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices). These certifications shall be posted on the crane.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with USACE EM 385-1-1, NFPA 241, the APP, the AHA, and other related submittals and activity fire and safety regulations.

3.1.1 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.1.2 Unforeseen Hazardous Material

If material that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 5 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 EQUIPMENT

3.2.1 Weight Handling Equipment

b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.

d. The Contractor shall comply with ASME B30.5 for mobile cranes, ASME B30.22 for articulating boom cranes and ASME B30.8 for floating cranes and floating derricks.

e. The presence of Government personnel does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from contractor employees, federal civilian employees, or military personnel.

f. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged

materials) is not allowed.

h. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.

i. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

j. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at all operator stations or crane cabs. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.

k. All employees shall be kept clear of loads about to be lifted and of suspended loads.

l. A weight handling equipment operator shall not leave his position at the controls while a load is suspended.

m. Only Contractor crane operators who have met the requirements of 29 CFR 1910.94, 29 CFR 1910.120, 29 CFR 1926.65, 29 CFR 1926.500, USACE EM 385-1-1, ASME B30.5, and ASME B30.22 and other local and state requirements shall be authorized to operate the crane.

n. The Contractor shall use cribbing when performing lifts on outriggers.

o. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

p. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

q. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.

r. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

s. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

t. The Contractor shall certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.2.2 Equipment and Mechanized Equipment

a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment shall be on site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.

c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.3 HOUSEKEEPING

3.3.1 Clean-Up

All debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

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SECTION 01545

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PART 3 EXECUTION (Not Used)

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SECTION 01545

DREDGING PLANT AND EQUIPMENT

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.

CORPS OF ENGINEERS (COE)

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

1.2 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

Plant and Equipment

Submit a schedule of the plant and equipment the Contractor will employ in the performance of the work of this contract. Submit also copies of all applicable inspections and certifications for all floating plant and equipment.

1.3 PLANT AND EQUIPMENT

1.3.1 Sufficient Capacity

The Contractor shall keep on the job sufficient plant and equipment to meet the requirements of the work. The plant and equipment shall be in satisfactory operating condition and be capable of safely and efficiently performing the work. The plant and equipment shall be subject to inspection by the Contracting Officer and/or his representatives at all times.

1.3.2 Minimum Capacity

The plant and equipment listed on the Plant and Equipment Schedule submitted with the Contractor's bid is the minimum which the Contractor shall place and keep on the job unless otherwise determined by the Contracting Officer. The listing of plant and equipment is not to be construed as an agreement on the part of the Government that the equipment is adequate to perform the required work.

1.3.3 Reduction in Capacity

No reduction in the capacity of the plant and equipment employed on the work shall be made except by written permission of the Contracting Officer. The measure of the capacity of the plant and equipment shall be its actual performance on the work covered by this contract.

1.3.4 Inspections and Certifications

Prior to commencement of work at the site, the Contractor shall make available to the Contracting Officer Representative for review, copies of all applicable inspections and certifications of floating plant and equipment as required by Federal, State and local laws and regulations. See also EM 385-1-1, Sections 16, 19, and 20. Such inspections and certifications shall be current and maintained in force for the duration of this contract. Each item of floating plant and equipment shall have on board a waste oil management plan which details the intended disposal method for waste oil.

1.4 LICENSE REQUIREMENTS

Each vessel exceeding twenty-six feet in length, excluding sheer, which is used for pushing, hauling alongside, or any other method of towing, and not required by law to have a valid Certificate of Inspection by the U.S. Coast Guard, shall be under the actual direction and control of a person licensed for towing in the geographic area of the work by the U.S. Coast Guard. Licensed persons shall not perform command or other duties in excess of twelve hours in any consecutive twenty-four hour period except in an emergency.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

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SECTION 01723

FIELD ENGINEERING FOR DREDGING

PART 1 GENERAL

1.1 SUMMARY

1.1.1 Engineering Services

The Contractor shall furnish the required personnel, equipment, instruments, and transportation, as necessary to accomplish all required surveys. Reports and other data together with supporting material developed during the prosecution of the work shall be furnished to the Contracting Officer. The Contractor shall also provide adequate professional supervision and quality control to assure the accuracy, quality, completeness, and progress of the work.

The Contractor shall provide and pay for the following field engineering services for the project:

- a. Hydrographic and other survey work specified or required in execution of this project, except for surveys performed by the Government, as indicated in these specifications.
- b. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.

1.2 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referenced in the text by basic designation only. The Army Corps of Engineers references below may be viewed or downloaded free of charge via the Internet (<http://www.hnd.usace.army.mil/techinfo/>).

U.S. ARMY CORPS OF ENGINEERS

EM 1110-1-1002	(1996) SURVEY MARKERS AND MONUMENTATIONS
EM 1110-2-1003	(2002) HYDROGRAPHIC SURVEYING
EM 1110-1-2909	(1998; Chg 2) Geospatial Data and Systems

1.3 DEFINITIONS

1.3.1 Survey Datum

The contract drawings refer to Mean Lower Low Water (MLLW). The Government will and the Contractor shall perform all surveys using the Mean Lower Low Water (MLLW) datum. The Contractor shall calibrate GPS equipment to the Corps of Engineers existing horizontal control net indicated on the

drawings.

1.4 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

Survey Plans; G, RE.

The Contractor shall submit, as part of the Quality Control Plan, a detailed plan describing the survey methods to be used during the work. The plan shall include the equipment to be utilized, tidal data, general site plan map, line designation map, calibration procedures to be used, expected horizontal and vertical accuracies, and pertinent information to describe the methods, and results to be obtained. Field surveys shall not begin until these plans are approved.

Layout Plan; G, RE.

A complete plan of the dredging areas showing the horizontal layout of all physical and electronic ranges to be used for horizontal control. The drawings shall be drawn at a scale sufficiently large to show all pertinent details. The drawings shall be submitted as blue or black lines on a white background.

Charts..

Current and tide charts to be used for the areas being dredged shall be submitted.

Survey Personnel.

Furnish a listing of the personnel who will perform the survey work required by this contract. The listing shall include a brief summary of the hydrographic survey experience of each person. The list shall be submitted prior to the preconstruction conference.

SD-05 Design Data

Field Survey Data.

Submit field data; depth sounder rolls, corrected for tide, and corresponding boat plots; daily logs; and quantity computations. Submit data sufficient for the Government to reproduce the Contractor's survey plot by referring only to this field data.

The electronic field data, including XY coordinates (points), and Z depths (elevations) in ASCII file format, shall be submitted on a daily basis with the CQC reports. Deficiencies shall be corrected and a re-survey of the area shall be performed, as necessary to ensure correction has been achieved. Data shall be submitted in a readable and usable format, utilizing industry recognized standard file formats and extensions. Data shall be submitted with a commercially available software program and technical support to provide the on-site capability to read and print the

data.

Electronic Tracking System.

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

1.5 GENERAL HYDROGRAPHIC SURVEY REQUIREMENTS

All hydrographic surveys for this project shall follow the mandatory criteria given in EM 1110-2-1003 for the "Navigation and Dredging Support Surveys" class of survey as a minimum.

Survey lines may be run either perpendicular to the channel limits at 50 foot offsets or longitudinal at 25 foot offsets. The lines shall clearly identify the toe and extend out to a minimum of three times the project depth to accurately depict the side slope.

1.6 HORIZONTAL POSITIONING PROCEDURES AND ACCURACIES

a. Vessel positioning systems utilized on this contract shall conform to the allowable horizontal positioning criteria in EM 1110-2-1003. The positioning system used shall be capable of meeting or exceeding the accuracy requirements and shall not exceed the allowable ranges where indicated. The Contractor may be required to demonstrate to the Government that its positioning system is capable of meeting or exceeding the accuracy requirements in EM 1110-2-1003.

b. All dredges, all survey vessels, and all towing equipment engaged in transport of dredged material, shall be equipped with automated electronic positioning and progress track-plotting equipment having a degree of accuracy commensurate with EM 1110-2-1003. In addition, dredges shall have production recording and efficiency optimizing data collection equipment; capable of storing, plotting, and printing in-situ operational data.

1.7 ELECTRONIC TRACKING SYSTEM (ETS) FOR DREDGING AND OCEAN DISPOSAL VESSELS

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

1.7.1 ETS Standards

The Contractor shall provide an automated computer system and components to perform in accordance with EM 1110-1-2909. A copy of the EM can be downloaded at <http://www.usace.army.mil/inet/usace-docs/eng-manuals>. Horizontal location shall have an accuracy equal to +/- 10 feet (horizontal repeatability). Vertical (draft) data shall have an accuracy of +/- 0.5 foot. Horizontal location and vertical data shall be collected in sets and each data set shall be referenced in real-time to date and local time (to nearest minute), and shall be referenced to the same state plane coordinate system used for the survey(s) shown in the contract plans. The ETS shall be calibrated as required, in the presence of the Contracting Officer at the work location before disposal operations have started, and at 30-day intervals while work is in progress. The Contracting Officer shall have

access to the ETS in order to observe its operation. Disposal operations will not commence until the ETS to be used by the Contractor is certified by the Contracting Officer to be operational and within acceptable accuracy. It is the Contractor's responsibility to select a system that will operate properly at the work location. The complete system shall be subject to the Contracting Officer's approval.

1.7.2 Data Requirements and Submissions

All data shall be collected and stored on 3-1/2 inch disks or CD-ROM in ASCII format using IBM-compatible MS-DOS 5.0 or later version. Data shall include date, time, trip ID number, vessel name and name of vessel's captain, location and draft of disposal vessel every 500 feet (at least) during loading cycle and during travel to disposal area, and every minute (at least) or every 200 feet of travel, whichever is smaller, while approaching within 1000 feet and within limits of disposal area. Data collected while the disposal vessel is in the vicinity of the disposal area shall also be plotted in chart form, in 200-foot intervals, to show the track and draft of the disposal vessel approaching, traversing, and leaving the disposal area. More than one disposal area trip may be stored on a single disk or CD ROM as long as trip data is indexed and clearly identifiable. The completed, original disk or CD-ROM shall be furnished to the Contracting Officer within 24 hours. Plotted charts shall be organized and maintained at a central work location for inspection on a daily basis by the Contracting Officer. Plotted charts shall be organized as directed, bound and submitted weekly to the Contracting Officer for permanent file record.

1.7.3 ETS

The ETS for each disposal vessel shall be in operation for all dredging and disposal activities and shall record the full round trip for each loading and disposal cycle. The Contracting Officer shall be notified immediately in the event of ETS failure and all dredging operations for the vessel shall cease until the ETS is fully operational. Any delays resulting from ETS failure shall be at the Contractor's expense.

1.8 REFERENCE HORIZONTAL CONTROL DATA

At the preconstruction conference, the Contracting Officer will provide project control from which hydrographic surveys may be extended. This control shall be presumed to meet the accuracy requirements in EM 1110-2-1003. The Contractor shall immediately notify the Contracting Officer if existing control points have been disturbed. In the event new station monumentation is required to perform the work, new stations shall be monumenteted in accordance with EM 1110-1-1002 criteria, and an equitable adjustment will be made to the contract.

1.9 DEPTH MEASUREMENT PROCEDURES AND CALIBRATION

1.9.1 Depth Measurement Precision and Accuracy

Depth measurements including depth observation precision and resolution shall meet the vertical accuracy standards prescribed in EM 1110-2-1003.

1.10 VERTICAL REFERENCE DATUMS

Depth measurements shall be reduced to the specified datum using concurrent staff/gage readings, as described in EM 1110-2-1003. Tide staffs/gages

shall be constructed, referenced, maintained, stilled, and read in accordance with the criteria in EM 1110-2-1003.

1.11 FIELD DATA RECORDING, REDUCTIONS, ARCHIVING, AND PLOTTING REQUIREMENTS.

The data format fields for submitting reduced hydrographic data to the District is x y z. The topographic and feature data shall conform to the intergraph general 3D design file formats specified in EM 1110-2-1003. Digital data shall be contained on a 3.5 inch floppy disk or CD-ROM.

1.12 VOLUME COMPUTATIONS

The Contractor shall have the capability to compute excavation quantities from work performed under this contract. The Contracting Officer will furnish construction templates and limits from which volumes are to be computed using any of the techniques given in EM 1110-2-1003. Section drawings shall be made at the horizontal and vertical scales given in EM 1110-2-1003.

1.13 MISCELLANEOUS QUALITY CONTROL PROCEDURES

1.13.1 Automated System Synchronization Checks

Each automated hydrographic survey system shall be checked to insure adequacy of correlation between position and depth. Methods for performing this check are given in EM 1110-2-1003.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 CONTRACTOR SURVEYS

3.1.1 Survey Personnel

The Contractor survey work to be performed under this contract shall be accomplished by, or reviewed and approved by a surveyor familiar with and having personal experience with hydrographic surveys. In addition, the survey personnel shall also be familiar with and have personal experience with hydrographic surveys.

3.1.2 Contractor Quality Control Surveys

The Contractor shall examine his work by conducting hydrographic surveys at no more than 30-day intervals, upon completion of separable portions of the work, and upon completion of the entire work. Contractor quality control surveys shall also be performed and submitted to the Contracting Officer prior to any request for a Government survey for final acceptance. The Contractor shall prepare survey maps based on the results of these surveys.

These maps shall be used, by the Contractor, to satisfy himself of the effectiveness of his operations. Attainment of contract depth shall be verified, and a comparison of actual progress and in-place quantities dredged with scheduled progress shall be performed. Contractor surveys will not be used for final payment or acceptance. See Section 02325 DREDGING for additional Contractor survey requirements.

3.1.3 Contractor Progress Payment Surveys

The Contractor shall conduct surveys for any periods for which progress

payments are requested. The Contractor will make the computations based on these surveys. All surveys accomplished by the Contractor shall be conducted under the direction of the Contracting Officer, unless the Contracting Officer waives this requirement for each specific instance. Promptly upon completing a survey, the Contractor shall furnish the all data relating to the survey to the Contracting Officer, who will use the data as necessary to determine the amount of progress payments.

3.2 GOVERNMENT SURVEYS

3.2.1 Government Quantity Surveys

The Contracting Officer will conduct the original and final surveys for all dredging areas and make all quantity computations based on those surveys. The surveys will be performed at no expense to the Contractor, except as noted in paragraph "Final Examination and Acceptance" below and as specified in Section 02325 DREDGING. The Contractor shall give a minimum of 3 days notice before completion of a portion of the work requiring a post-dredge survey. A minimum of 2 days will be required by the Government for completion of each of the post-dredge surveys at the site and another 10 to 15 days for calculation of quantities removed and verification of completion of work.

All quantity estimates for dredged material removed will be determined using either single beam or multi-beam survey technology. If single beam technology is used, all edited sounding information obtained from Government pre and post dredge surveys will be used in determining the payable quantity of dredged material removed. If multi-beam survey technology is used, then a 3-foot by 3-foot matrix using the sounding closest to cell center (shot depth) will be generated from the edited multi-beam data and used in determining the payable quantity of dredged material removed. A Digital Terrain Model (DTM) will be created from each of the pre and post dredge surveys. A channel design template will be created at the required dredging depth and at the total allowable overdepth. Each of the channel design templates will be compared with the pre dredge DTM to determine the available quantity of required dredge material and available quantity of overdepth material. The same channel design templates will be compared to the post dredge DTM to determine the quantity of material remaining above the required dredging depth and the quantity of material remaining above the total allowable overdepth. The quantity of required dredged material removed will be derived from these comparisons. If the "box-cutting" method of dredging is used to remove dredge material contained in side slopes where "box-cutting" is permitted, the channel design templates will be modified to include a "box-cut" width. In all cases, the same channel design templates will be used to determine both the pre and post dredge quantities. Material removed below the total allowable overdepth will not be included in the payable quantity of material.

3.2.2 Final Examination by the Government

a. Submission of all Contractor quality control survey data, including plots, is required prior to performance of final examination and acceptance surveys by the Government.

b. As soon as practicable after completion of the entire work or any section thereof such work will be thoroughly examined at the expense of the Government by sounding or sweeping, or both, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract

depth be disclosed by this examination the Contractor will be required to remove the shoals by dredging at the contract rate for dredging. If the bottom is soft and the shoal areas are small and form no material obstruction to navigation, the removal of such shoal may be waived at the discretion of the Contracting Officer. Dragging the bottom to remove lack of contract depth will not be permitted. The Contractor will be notified when soundings and/or sweepings are to be made, and may be permitted to accompany the survey party if approved by the Contracting Officer. When the area is found to be in a satisfactory condition, it will be accepted finally. Should more than one sounding or sweeping operation by the Government over an area be necessary by reason of work for removal of shoals disclosed by a prior sounding or sweeping, the cost of such second and any subsequent sounding or sweeping operations will be charged against the Contractor. The rate for each day in which the Government survey plant is engaged in such sounding or sweeping operations and/or is en route to or from the site, or is held, for the Contractor's convenience at or near the site for these operations, shall be \$2,400.00.

3.2.3 Final Acceptance by the Government

Final acceptance of the whole or any part of the work, and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error.

-- End of Section --

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SECTION 02325

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SECTION 02325

DREDGING

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.

CORPS OF ENGINEERS (COE)

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

1.2 RELATED WORK SPECIFIED ELSEWHERE

1.2.1 Environmental Protection Requirements

Provide and maintain during the life of the contract, environmental protective measures. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution. See Section 01355 ENVIRONMENTAL PROTECTION.

Additional requirements relative to protection of finfish and marine mammals, are specified in Sections 01355 ENVIRONMENTAL PROTECTION and 02328 UNDERWATER DRILLING AND BLASTING.

1.2.2 Underwater Diving Operations

In the event that underwater diving operations become necessary due to the work of this contract, such operations shall be conducted in accordance with CORPS OF ENGINEERS (COE) COE EM-385-1-1 Section 30.

1.3 DEFINITIONS

1.3.1 Maintenance Material

Maintenance material is defined as the shoals and silty sediments that have accumulated within the Federal Channel, anchorage areas, and the Navy Dry Dock approach channel since completion of the last improvement or maintenance dredging. Maintenance material also includes accumulated silty sediment material that sloughs off side slopes.

1.3.2 Rock Material

Rock material is defined as material requiring drilling and blasting or the use of special equipment for economical removal, and includes boulders or rock fragments too large to be removed in one piece by the dredge. Rock

material shall be removed as specified in Section 02328 UNDERWATER DRILLING AND BLASTING. Blasting shall be performed only by experienced persons. Conduct operations in strict accordance with applicable regulations.

1.4 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

Work Plan; G, RE.

The Contractor shall submit a work plan for accomplishing the dredging work of this contract. The following items shall be considered, at a minimum, for inclusion in the work plan:

- a. Anticipated plant and equipment.
- b. Proposed means and methods for removal of rock ledge and boulders.
- c. Proposed method of demolition and removal of the sunken flat deck barge. Include the proposed procedures for breaking-up the barge, removing all of the resulting debris, and verifying that the barge has been completely removed.
- d. Expected coordination requirements.
- e. Survey requirements.
- f. Proposed means and methods for minimizing turbidity during dredging operations.
- g. Proposed measures for avoiding damage to adjacent structures and banks of the Harbor.
- h. Proposed measures to avoid overdredging.

Enclosed, Clamshell Bucket Performance Data; G, C.

Submit Enclosed Clamshell Bucket Performance Data to the Contracting Officer of approval before commencement of work.

Debris Management Plan.

A debris management plan shall be developed as specified in this section and submitted to the Contracting Officer for review.

Inspection of Disposal.

Submit names of inspectors certified by the Corps of Engineers to be used for monitoring disposal activities for the Government.

Scow Cards.

Submit scow cards for each scow to be used for contract work. Scow cards

shall have information specified in paragraph "Scows."

SD-05 Design Data

Equipment and Performance Data.

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

Daily/Monthly Report of Operations

The Contractor shall prepare and submit two (2) copies of the Daily Report of Operations, using ENG Form No. 4267, for each dredge. This report shall be submitted on a daily basis. A copy of this form is appended to the end of this Section. In addition to the daily report, the Contractor shall prepare a Monthly Report of Operations for each month or partial month's work on ENG Form No. 4267. The monthly report shall be submitted to the Contracting Officer on or before the 7th of each month, consolidating the previous month's work. Upon completion of the project, the Contractor shall submit a consolidated project report, combining the monthly reports.

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

1.5 NOTIFICATIONS

1.5.1 Notice of Misplaced Material

The Contractor shall notify the Contracting Officer and the U.S. Coast Guard Marine Safety Office of any misplaced material.

1.5.2 Notice of Need for Dredging Survey

The Contractor shall give advance notice to the Contracting Officer of the need for a after-dredging survey for final acceptance for each acceptance section. See Section 01723FIELD ENGINEERING FOR DREDGING, Article GOVERNMENT SURVEYS.

1.5.3 Relocation of Navigation Aids

The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Coast Guard District Commander, in writing, with a copy to the Contracting Officer, 30 days in advance of the time he plans to dredge adjacent to any aids which require relocation to facilitate the dredging operation. A copy of the notification shall be provided to the Contraction Officer.

1.6 MATERIAL TO BE REMOVED

1.6.1 Character of Materials to be Removed

Samples have been taken by the Government to determine the character of materials to be removed. Although the results of such explorations are representative of subsurface conditions at their respective locations, local minor variations in the subsurface materials are to be expected and, if encountered, will not be considered materially different within the

purview of the contract. Grain size analysis of the samples and maps of the locations where the samples were taken in the areas to be dredged are included in Appeddix A, attached at the end of this section. The Contractor is expected to examine the site of the work and decide the character of the material for himself.

1.6.1.1 Grain Size Analysis

Physical grain size analysis showed that the material from the 35-foot and 40-foot MLW Main Ship Channel and the Navy Dry Dock are composed of silty black mud. The material from the President Roads anchorage area is composed of dark clay/silt material with fine sand while grain size analysis of the material from the 40-foot MLW Broad Sound (North) Channel indicates that the material is predominately sand, gravel, and cobbles.

1.7 WORK AREA

1.7.1 Access

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

1.7.2 Protection of Existing Waterways

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

1.7.3 Adjacent Property and Structures

The Contractor shall conduct the dredging operation such that it does not undermine, weaken or otherwise impair existing structures located in or near the areas to be dredged. The Contractor shall investigate the existing structures at the site and plan the dredging work accordingly.

Damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Damage to structures resulting from the Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

1.7.4 Artificial Obstructions

The Contractor may encounter bottom debris such as, but not limited to, pieces of broken cable, rope, miscellaneous metal, and broken and derelict moorings. The location of the sunken barge to be removed is indicated on the drawings. Special or additional plant may be required for the economical removal of the barge. The Government has no knowledge of other existing wrecks, wreckage, or other artificial obstructions of such size or character as to require the use of explosives or special means for its

removal. During dredging operations, the Contractor shall remove all debris encountered. Floating debris removed from the dredging area shall be separated and stockpiled for upland disposal. Disposal in accordance with local, Federal, and State laws and regulations shall be the responsibility of the Contractor. In case the actual conditions differ from those stated or shown, or both, an adjustment in contract price or time of completion, or both, will be made in accordance with "FAR 52.236-2, Differing Site Conditions."

1.7.5 Existing Utilities

1.7.5.1 Private Utilities and Public Agencies

The following tabulation of utility owners and public agencies is provided for the convenience of the Contractor:

LIST NOT CONFIRMED

- a. Nstar - Greg Sullivan (781) 441-8515 and (781) 441-8559 (fax).
781-441-8359 or Beverly Schultz 781-441-3809.
- b. NYNEX: - Everette Bryan (617) 381-6423.
- c. Keyspan - Walter Fromme 617-723-5512 x 4421.
- d. MWRA - Robert Casey (E&CD Dept/Tech Support) Chelsea Facility 2
Griffin Way Chelsea MA 02150 (617) 305-5715 and (617) 371-1606 (fax).
- e. Verizon - Mr. Frank Furber (185 Franklin St., Boston) (617)
743-4329 (617) 330-1688 (fax).

1.7.5.2 Protection of Utility Lines

Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to dredging, and that are to be retained, shall be protected from damage during dredging, and if damaged, shall be satisfactorily repaired by the Contractor at no additional cost to the Government. Prior to commencement of dredging, the Contractor shall coordinate with the Contracting Officer and the applicable utility company to mark the exact locations of existing utilities, and establish in detail the proposed method of protecting the existing utilities. "No Spud" areas are marked on the contract drawings for protection of known utilities. In the event that the Contractor damages any existing utility lines that are not shown on the drawings or the locations of which are not known to the Contractor, report thereof shall be made immediately to the Contracting Officer. If the Contracting Officer determines that repairs shall be made by the Contractor, such repairs will be ordered under the Contract Clause entitled "DIFFERING SITE CONDITIONS."

1.8 QUANTITY OF MATERIAL

The total estimated amount of material to be removed from within the specified limits, including side slopes and allowable overdepths is shown on the Bidding schedule. The estimated quantity for bidding purposes and for application of the "FAR 52.212-11, Variation in Estimated Quantity" shall be the total quantity, including overdepth. The quantities listed are estimates only.

1.9 OVERDEPTH AND SIDE SLOPES

1.9.1 Allowable Overdepth

To cover unavoidable inaccuracies of dredging processes, material removed to the overdepth shown on the drawings and within the dredging limits will be measured and paid for at full contract price.

1.9.2 Side Slopes

Material dredged to provide for final indicated side slopes will be measured and paid for at the applicable unit price. The material may be dredged from the original position or by dredging the space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. Payment will not be made for material in excess of the amount originally lying above the pay slope plane. The limiting amount of side-slope overdepth will be measured vertically.

Dredging on side slopes shall follow, as closely as practicable, the lines indicated on the drawings. An allowance will be made for dredging beyond the lines indicated or specified for side slopes. The allowance will be determined by projecting a line upwards, paralleling the project design side slopes, from the intersection of the overdepth dredging limit (at a point located vertically below the limit of dredging at the top of slope). The amount of material excavated from side slopes will be determined by either cross-sections or computer, or both.

1.9.3 Excessive Dredging

Material taken from beyond the limits as extended in the Article "OVERDEPTH AND SIDE SLOPES" above will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side-slope dredging for which payment will not be made.

1.10 INSPECTION

Inspect the work, keep records of work performed, and ensure that gages, targets, ranges, and other markers are in place and usable for the intended purpose. See Section 01451 CONTRACTOR QUALITY CONTROL.

1.10.1 Method of Communication

Provide a system of communication between the dredge crew, towboats, the fish and mammal Observer, the disposal inspector, and the Contracting Officer. Portable two-way marine radios are acceptable.

1.10.2 Transportation

The Contractor shall furnish, at the request of the Government Representative or fish and mammal observer, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the equipment or marine plant as may be reasonably necessary in inspecting and monitoring the work. The Contractor shall furnish, on the request of the Government Representative observer, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and the work site.

1.11 INSPECTION OF DISPOSAL

The Contractor shall be and provide qualified disposal inspection services

at no additional cost to the Government. The Contractor shall notify the Contracting Officer of the names of the Corps of Engineers Certified inspectors to be used prior to commencement of work. Every discharge of dredge material must be officially witnessed and properly documented by an onboard inspector who has been trained by, and who holds a current certification from the New England District, Army Corps of Engineers. Failure to adhere to this requirement will be considered a serious violation of this contract and cause for an immediate stop-work order by the Contracting Officer and which could precipitate substantial penalties including but not necessarily limited to fines, withholding of funds and non-payment due to misplaced materials.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 DREDGING PLANT AND ASSOCIATED EQUIPMENT

3.1.1 Dredging Plant

All dredging under this contract shall be performed using a mechanical type dredge. Hydraulic dredging will not be permitted. To reduce the effects of turbidity on water quality, an enclosed clamshell bucket shall be used when dredging in silty areas. A conventional open bucket may be used for dredging in sandy areas. The maintenance material in the area indicated on the drawings as "Broad Sound North Channel" is considered sandy and may be dredged using a conventional bucket. Blasted rock bedrock and boulders may also be excavated using a conventional bucket. Maintenance material in all other reaches of the Federal channel and harbor is considered silty and shall be dredged using an enclosed clamshell bucket. Overflow of water from scows while being filled will not be permitted for any part of dredging operations.

3.1.2 Enclosed Clamshell Bucket

Dredging of silty maintenance material, in the areas indicated on the drawings, shall be performed using an enclosed clamshell bucket. The dredge bucket shall be designed to completely enclose the dredged sediment and water captured. The bucket shall not have teeth. This is to prevent the bucket from digging into the harder native material. The bucket shall be equipped with escape valves which shut when the bucket is withdrawn from the water column. Submit Enclosed, Clamshell Bucket Performance Data to the Contracting Officer for approval before commencement of work.

3.1.2.1 Enclosed Clamshell Bucket Control

The Contractor shall demonstrate that the dredge operator has sufficient control over bucket depth in the water and bucket closure so that silty sediment re-suspension from bucket contact with the bottom and due to bucket over-filling can be minimized.

3.1.2.2 Equivalent Alternative Dredging Technology

Alternatives to the enclosed clamshell bucket technology for the removal of silt maintenance materials will not be considered under this contract.

3.1.3 Tow Boats

All tow boats used for towing to disposal areas shall be equipped with DGPS

navigational equipment, radar, corrected compass, marine radio, and depth sounding equipment which is to be maintained in operating condition during each tow. The tow boats utilized by the Contractor for this purpose shall be of a size adequate for towing in heavy seas and shall have necessary reserve power for maneuvering with scows in rough seas and under emergency conditions as well as for control of scows at the disposal point.

3.1.4 Scows Cards

a. Water and dredged materials shall not be permitted to overflow or spill out of scows when being filled. Failure to repair leaks or change the method of operation which is resulting in overflow or spillage will result in suspension of dredging operations and require prompt repair or change of operation to prevent overflow or spillage as a prerequisite to the resumption of dredging.

b. The Contractor shall provide and maintain markings on all scows clearly indicating the draft of the scow and shall provide scow cards for each scow used on the contract work. The scow cards shall show dimensions and volumes of individual pockets of scows and total volumes for varying depths below coaming or top of pockets. This is to enable Government personnel to make a determination of scow volume and corresponding drafts under partial and full load conditions. These measurements are to be made at the time of initial use of each scow. This information will then be furnished to disposal inspectors to enable them to estimate scow volume from draft of scows for each scow being towed to the disposal area. The scow volume estimates are for use in connection with disposal area monitoring studies and are not intended to be used in determining quantities dredged. At the beginning of the work and as additional scows arrive on the project, sufficient time shall be allowed by the Contractor and assistance of Contractor personnel shall be made available by the Contractor for the purpose of obtaining the measurements of each scow under various partial and full load conditions. During the entire period of contract work, the Contractor shall provide and maintain sufficient spot or floodlights to permit the reading of the draft on the sides of scows at bow and stern from the tow boat at night and when visibility is impaired. The draft readings and each pocket/compartments measurement will be required for each scow towed to the disposal area and will be made by the disposal inspector. Measurements are to be taken and recorded prior to departure from the dredge site and upon arrival at the immediate disposal location. The Contractor shall ensure that adequate time is allowed by the tow boat captain for these readings to be obtained.

c. Due to the fine nature of the dredged material, the Contractor shall achieve proper closure and watertightness of pocket doors to eliminate seepage or leakage of material. The use of plastic material to cover cracks in scow pockets will not be allowed.

3.1.5 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

3.2 CONDUCT OF DREDGING WORK

3.2.1 Order of Work

- a. In order to avoid potential impact on winter flounder spawning, the Contractor shall sequence the work so that dredging West of Spectacle Island is not conducted during the 1 February to 15 June timeframe.
- b. The Contractor shall start and complete the work in the order of precedence as approved by the Contracting Officer. The Government reserves the right to change the order of work at any time. The Contractor shall fully coordinate all work with the Harbormaster.
- c. The Contractor shall prepare and submit to the Contracting Officer for review and approval a progress schedule in accordance with Section 01110, Paragraph "Work Sequence."

3.2.2 Method of Dredging

- a. All dredging under this contract shall be performed using a mechanical type of dredge and scows.
- b. Contract depth shall be achieved by mechanically dredging the bottom using a clamshell bucket. Dragging the bottom to remove lack of contract depth, using a steel beam or similar equipment, will not be permitted.
- c. Requirements for the excavation of rock and boulders by drilling and blasting are specified in Section 02328 UNDERWATER DRILLING AND BLASTING.
- d. Requirements for the removal of the sunken steel barge are specified below in Article "Removal of Sunken Barge."

3.2.3 Method of Disposal

- a. Disposal of the dredged material will be at the Massachusetts Bay Disposal Site, the center of which is located at 42 25.106 north latitude and 70 34.969 west longitude. Every discharge of dredged material shall be witnessed by an inspector who has been trained and certified by the New England District, Corps of Engineers to insure that disposal occurs at the designated site.
- b. Provide for safe transportation and disposal of dredged materials. Transport and dispose of dredged material at the Massachusetts Bay Disposal Site (MBDS) and dispose at a taut wire buoy. The maximum distance to which material will have to be transported to the disposal site will not exceed 20 nautical miles.
- c. Deposit dredged material by self-dumping scow or barge. Do not remove loaded or partially loaded scows or barges from the dredge area until the load has been measured by the Contracting Officer. Notify the Contracting Officer when scows or barges are returned to the dredge area.
- d. Buoy positions will be documented and monitored by Government inspectors during the course of work. The Contractor will be required to use care in making his turn into the travel lane to avoid lobster buoys/fishing gear. The disposal points will be marked by one or more buoys. Coordinates of the buoys locations will be specified at the time a disposal inspector is approved by the Contracting Officer. All disposal shall be done at the buoys with the scow at a complete halt. This requirement must be followed except when weather or sea state create unsafe conditions, in which case disposal within 100 feet of the buoy with the

scow moving only fast enough to maintain safe control (generally less than one knot) will be permitted. Disposal shall not be attempted if the above conditions cannot be met. Anticipated weather conditions shall be determined prior to departing for the disposal site.

e. Provide whale observers on board the scows transiting to the MBDS from February to May 31 to avoid potential ship strikes.

3.2.4 Removal of Sunken Barge

The barge is located on the edge of the Broad Sound North Channel, as indicated on the drawing. The vessel is a steel hull, flat deck barge in two pieces. The larger piece is about 100-120 feet long and 40-50 feet wide. The smaller piece is about 10-20 feet long and 40-50 feet wide. There is marine growth on the barge, indicative that the barge has been sunk for some time. There is no cargo aboard the barge. The contractor shall propose a plan for demolition and removal of the sunken barge and include the plan in the work plan submittal for the approval of the Contracting Officer. Include in the proposed the procedures for verifying the location of the barge, breaking-up the barge, removing all of the resulting debris, and verifying that the barge has been completely removed.

Demolition methods may include underwater cutting, breaking, controlled blasting and other methods approved by the Contracting Officer. Underwater blasting shall be performed in accordance with Section 02328 UNDERWATER DRILLING AND BLASTING, with peak particle velocities no greater than 1.0 inch per second. Steel parts comprising the barge shall be disposed at a upland disposal site furnished by the Contractor.

3.2.5 Alternative Disposal Sites

Bids received shall be based on utilizing only the above described areas. Alternate areas will not be considered until after the award of the contract. If, after the award of the contract, a disposal area other than that stipulated in these specifications is proposed, its acceptance will be subject to the approval of the Contracting Officer after an adjustment of the contract price if found necessary by the Contracting Officer to protect the Government interest. The Contractor shall obtain the written consent of the owners of the substitute grounds and furnish evidence thereof to the Contracting Officer. All expenses incurred in connection with providing and making available such disposal areas shall be borne by the Contractor, and all materials deposited thereon, and all operations in connection therewith, shall be at the Contractors risk. Comply with rules and regulations of local port and harbor governing authorities.

3.2.6 Misplaced Material Disposal

Material that is deposited elsewhere than in locations designated or approved by the Contracting Officer will not be paid for and the Contractor shall be required to remove such misplaced material and deposit it where directed at his expense.

3.2.7 Interference with Navigation

Minimize interference with the use of channels and passages. The Contracting Officer will direct the shifting or moving of dredges or the interruption of dredging operations to accommodate the movement of vessels and floating equipment, if necessary. The Contractor shall comply with all requests from the Contracting Officer to move or interrupt dredging operations for a reasonable time period at no additional cost to the

Government.

3.2.8 Ranges, Gages, and Lines

Furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The Contracting Officer will furnish, upon request by the Contractor, survey lines, points, and elevations necessary for the setting of ranges, gages, and buoys.

3.2.9 Debris Management

Debris removed from the bottom during dredging operations, which is not suitable for disposal at the Massachusetts Bay Disposal Site (MBDS), shall be collected and removed from the site. Unsuitable materials include large items such as timbers, pilings, sections of piers, and metallic debris. A debris management plan shall be developed, reviewed by the Contracting Officer and followed by the Contractor. Each day during dredging operations, the Contractor shall use a boat to collect and remove floating debris resulting from project activities. Floating debris shall also be removed from within scows or barges. Containers for temporary storage of the collected debris shall be maintained on the dredge or support barge. In the event debris material prevents the dredge bucket from closing properly, then the bucket shall be held close to the bottom to allow the dredged material and debris to fallout before lifting the bucket through the water column to reduce turbidity impacts.

3.3 SHOALING

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

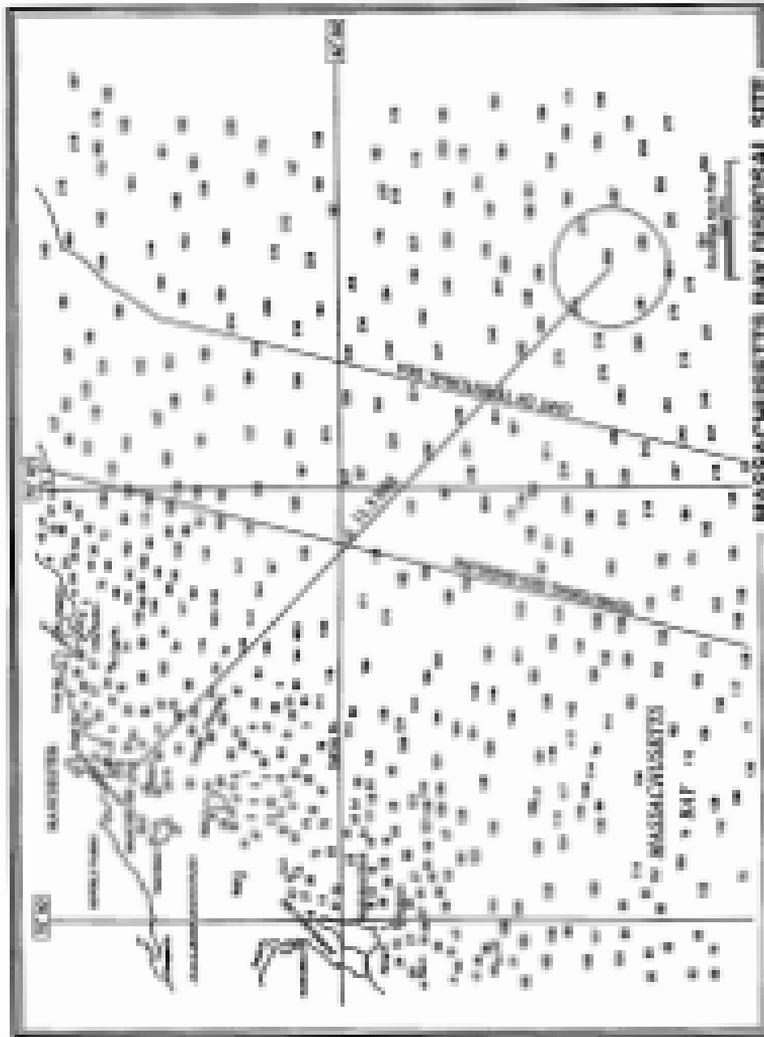
3.4 FINAL CLEANUP

Final cleanup shall include the removal of all the Contractor's plant and equipment. Plant, equipment, and materials to be disposed of shall only be disposed in a manner and at locations approved by the Contracting Officer. Unless otherwise approved by the Contracting Officer, the Contractor will not be permitted to abandon any equipment in the disposal area or other areas adjacent to the worksite.

Failure to promptly remove all plant, equipment, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work. In such case, the Government will exercise its right to remove any plant, equipment, and materials at the Contractor's expense.

-- End of Section --

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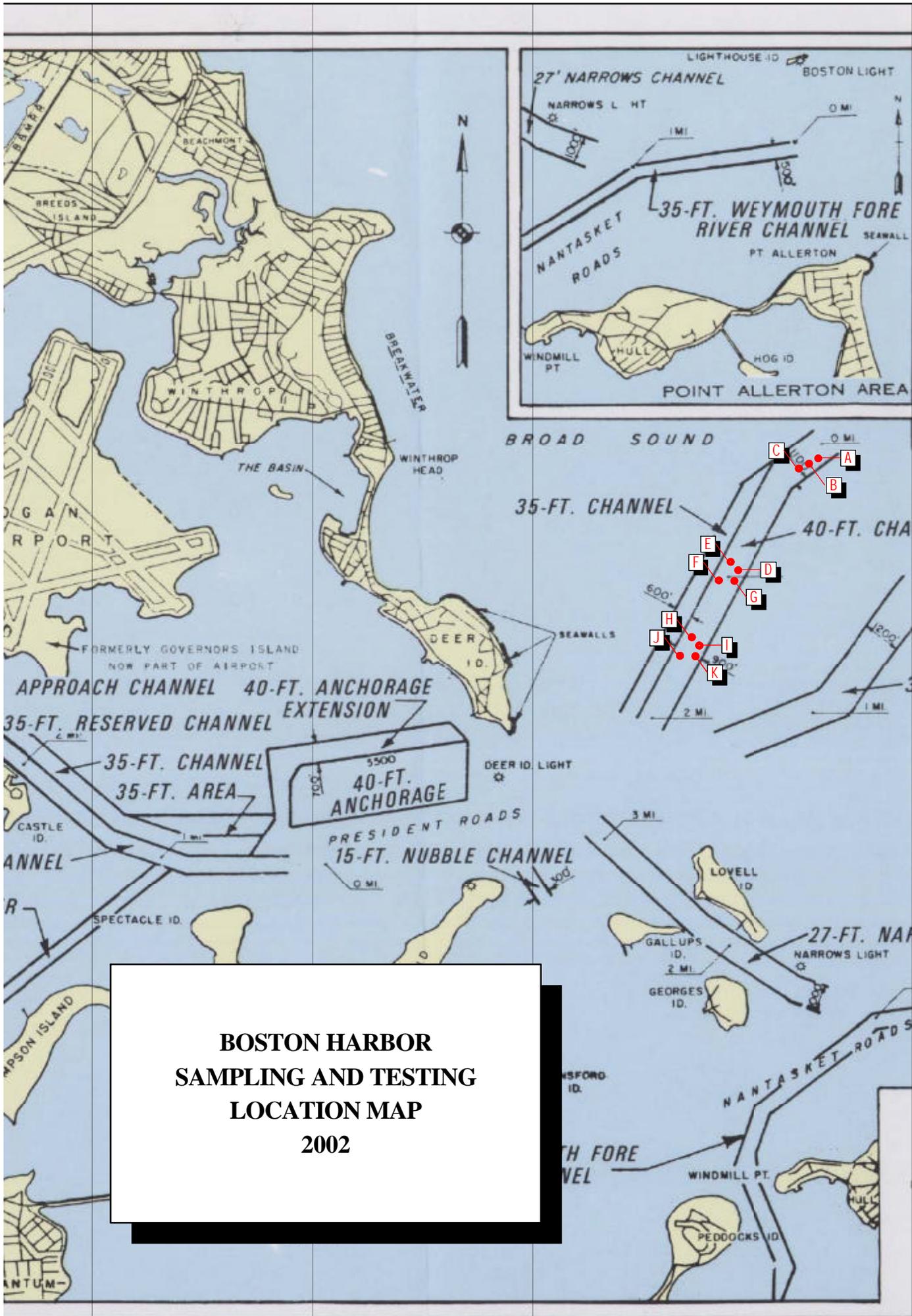
Description: This site is a circular area with a diameter of 2 nautical miles and center at 42° 23' 17N, 70° 25.07W. From the center, the Massachusetts Turnpike runs 300° at 34,410 yards and the Massachusetts Bay Bridge runs 300° at 23,237 yards. The authorized disposal point (within the vessel disposal area) is specified for each dredging project in other project description sheets. Depth range: 100 to 350 feet MLLW.

NOTE: The map depicts the disposal site's location in relation to landmarks. It is not intended for use in navigation.

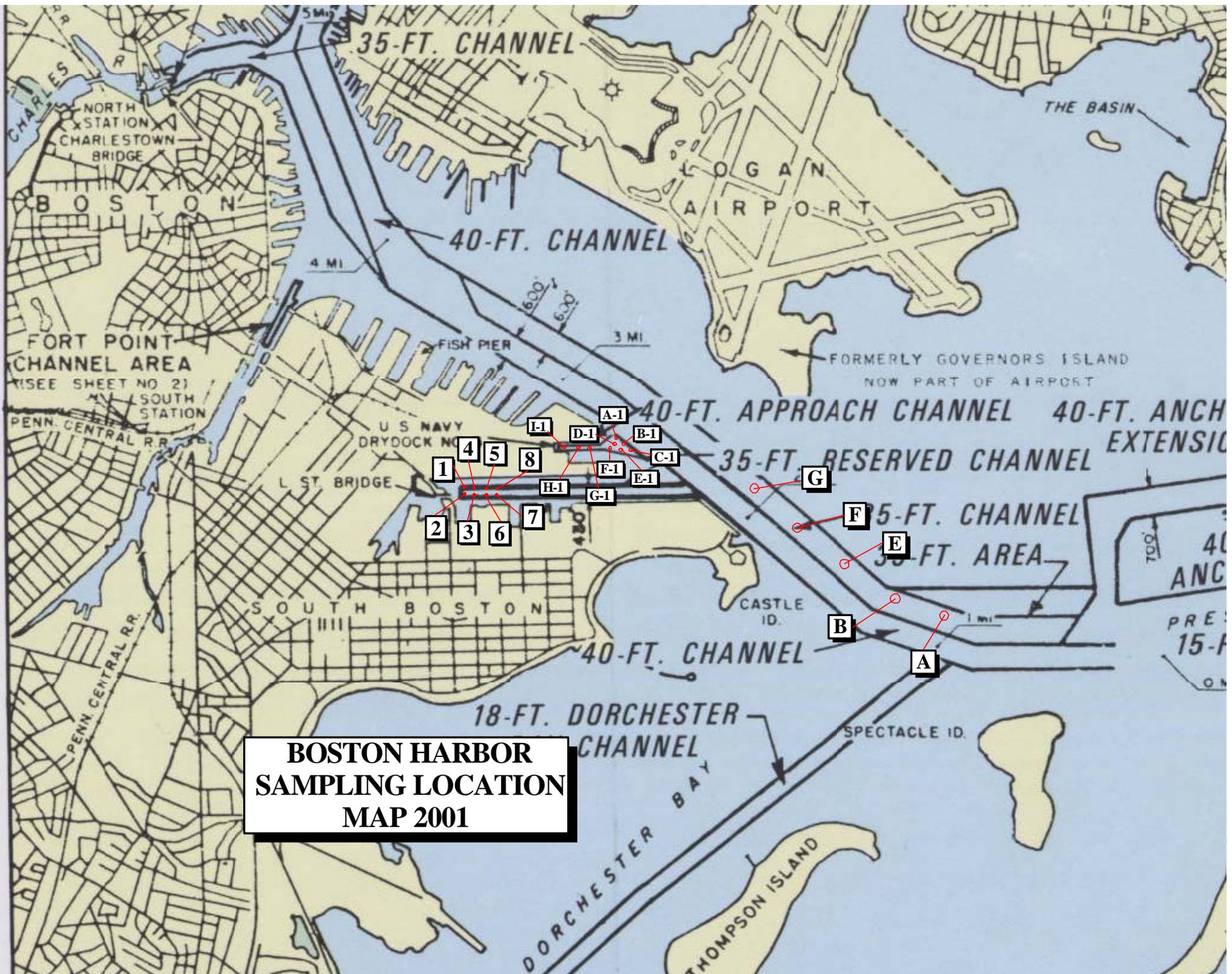
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APPENDIX A

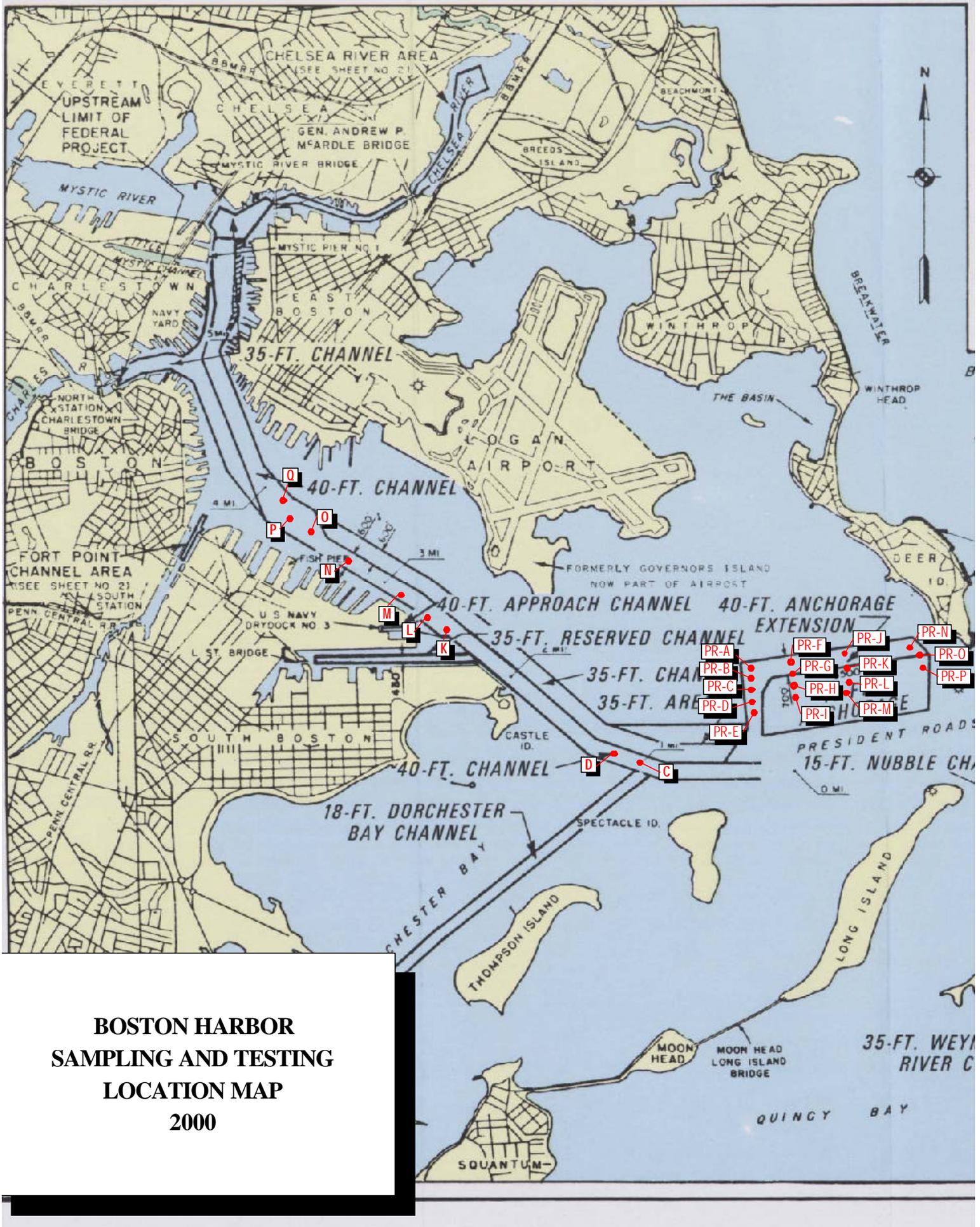
Sediment Grain Size Analysis



**BOSTON HARBOR
 SAMPLING AND TESTING
 LOCATION MAP
 2002**



**BOSTON HARBOR
SAMPLING LOCATION
MAP 2001**



**BOSTON HARBOR
SAMPLING AND TESTING
LOCATION MAP
2000**

Broad Sound (North Channel), Boston Harbor Grain Size Analysis

	<u>Site BS-A</u>	<u>Site BS-B</u>	<u>Site BS-C</u>	<u>Site BS-D</u>	<u>Site BS-E</u>	<u>Site BS-F</u>	<u>Site BS-G</u>
Sample Depth (Feet)							
Visual Classification							
Soil Class/Dominant							
Normal/Bimodal							
% Gravel (Retained by #4 Sieve)	29.34	42.81	15.92	41.19	45.17	28.33	39.88
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	11.83	11.98	13.36	6.79	11.39	9.18	6.19
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	39.50	23.44	25.38	21.40	16.63	12.73	16.18
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	17.19	13.44	27.76	25.13	16.90	15.70	27.05
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)							
% Fines Clay (<0.005mm)							
Water Content - %							

Broad Sound (North Channel), Boston Harbor Grain Size Analysis (continued)

	<u>Site BS-H</u>	<u>Site BS-I</u>	<u>Site BS-J</u>	<u>Site BS-K</u>
Sample Depth (Feet)				
Visual Classification				
Soil Class/Dominant				
Normal/Bimodal				
% Gravel (Retained by #4 Sieve)	26.98	22.20	28.63	29.15
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	16.97	12.76	5.61	9.69
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	22.11	38.15	10.54	27.32
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	15.32	23.80	13.81	20.11
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)				
% Fines Clay (<0.005mm)				
Water Content - %				

President Roads Anchorage Area Grain Size Analysis

	<u>Site PR-A</u>	<u>Site PR-B</u>	<u>Site PR-C</u>	<u>Site PR-D</u>	<u>Site PR-E-A</u>	<u>Site PR-E-B</u>	<u>Site PR-F</u>
Sample Depth (Feet)					0-3 ft	3-4.4 ft	
Visual Classification	Black, Silty Clay with Fine -Grained Sand, Slight Hydrocarbon Odor	Black, Silty Clay, Slight Hydrocarbon Odor	Black, Silty Clay with fine-grained Sand, H ₂ S Odor	Black, Sandy Silty Clay Slight Hydrocarbon Odor	Dark Gray, Silt with fine- Grained Sand H ₂ S Odor	Olive Black, Clayey Fine- Grained Sand, Slight Hydro- Carbon Odor	Dark Gray, Silt with Fine Grained Sand H ₂ S Odor
Soil Class/Dominant	CL-ML	CL-ML	CL-ML	CL-ML	ML	SC	ML
Normal/Bimodal							
% Gravel (Retained by #4 Sieve)	0.00	0.00	0.00	.57	0.00	2.36	0.00
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	.33	.01	0.00	.90	0.00	1.80	.03
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	1.64	1.32	1.41	3.15	1.45	5.74	2.05
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	19.99	12.77	15.38	35.78	18.93	55.13	18.01
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)	40.04	45.40	43.21	29.11	42.62	14.97	42.91
% Fines Clay (<0.005mm)	38.00	40.50	40.00	30.50	37.00	20.00	37.00
Water Content - %	86	96	94	65	94	46	89

President Roads Anchorage Area Grain Size Analysis (continued)

	<u>Site PR-G</u>	<u>Site PR-H</u>	<u>Site PR-I</u>	<u>Site PR-J</u>	<u>Site PR-K</u>	<u>Site PR-L</u>	<u>Site PR-M</u>
Sample Depth (Feet)							
Visual Classification	Dark Gray, Silty Clay Slight Hydro-Carbon Odor	Black, Silt with Fine-Grained Sand H ₂ S Odor	Dark Gray, Silt with Fine-Grained Sand, Slight Hydro-Carbon Odor	Black, Silt with Fine-Grained Sand, Slight Hydrocarbon Odor	Dark Gray, Silt with Fine-Grained Sand, Slight Hydro-Carbon Odor	Dark Gray, Fine Grained Sandy Silt, Slight Hydrocarbon Odor	Dark Gray, Fine-Grained Sandy Silt, Slight Hydrocarbon Odor
Soil Class/Dominant	CL-ML	ML	ML	ML	ML	ML	ML
Normal/Bimodal							
% Gravel (Retained by #4 Sieve)	0.00	0.00	0.00	1.56	0.00	0.00	.88
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	0.00	0.00	0.00	0.00	0.00	.01	0.00
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	.81	1.04	1.09	1.58	.97	2.34	1.92
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	11.86	17.73	23.68	17.92	23.09	31.57	39.70
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)	43.33	43.23	40.23	41.94	40.94	37.08	34.50
% Fines Clay (<0.005mm)	44.00	38.00	35.00	37.00	35.00	29.00	23.00
Water Content - %	101	87	83	84	75	70	59

President Roads Anchorage Area Grain Size Analysis (continued)

	<u>Site PR-N</u>	<u>Site PR-O</u>	<u>Site PR-P-A</u>	<u>Site PR-P-B</u>
Sample Depth (Feet)			0-2.5 ft	2.5-3.5 ft
Visual Classification	Black, Silty Clay With Fine-Grained Sand, Slight Hydro- carbon Odor	Black, Silty Clay Slight Hydro- carbon Odor	Black, Fine- Grained Sandy Silt, H ₂ S Odor	Light Olive Gray, Fat Clay
Soil Class/Dominant	CL-ML	CL-ML	ML	CH
Normal/Bimodal				
% Gravel (Retained by #4 Sieve)	0.00	0.00	0.00	0.00
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	0.00	.14	.08	0.00
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	.31	1.07	1.44	.04
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	16.61	10.28	30.16	.13
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)	41.08	44.51	38.32	12.83
% Fines Clay (<0.005mm)	42.00	44.00	30.00	87.00
Water Content - %	92	97	77	42

Main Ship Channel Area Grain Size Analysis

	<u>Site BH-A-1</u>	<u>Site BH-A-2</u>	<u>Site BH-B-1</u>	<u>Site BH-B-2</u>	<u>Site BH-C</u>	<u>Site BH-D</u>	<u>Site BH-E</u>
Sample Depth (Feet)							
Visual Classification	Grayish Black Organic Clay with Fine Sand	Dark Gray Organic Clay	Grayish Black Organic Clay with Fine Sand	Dark Gray Sandy Organic Clay	Grayish Black Organic Clay with Fine Sand	Grayish Black Organic Clay	Grayish Black Organic Clay
Soil Class/Dominant	OL/OH	OL/OH	OL/OH	OL/OH	OL/OH	OL/OH	OL/OH
Normal/Bimodal							
% Gravel (Retained by #4 Sieve)	0.00	0.00	0.00	1.26	0.00	0.00	0.00
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	0.23	0.28	0.34	1.68	0.00	0.00	0.09
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	0.36	0.80	0.61	5.16	0.51	0.25	0.05
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	15.78	12.94	14.20	25.91	15.16	12.03	6.00
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)	38.43	23.87	38.25	24.49	35.03	41.62	45.45
% Fines Clay (<0.005mm)	45.20	62.10	46.60	41.50	49.30	46.10	48.40
Water Content - %	112.50	83.09	107.37	68.98	113.93	120.54	130.08

Main Ship Channel Area Grain Size Analysis (continued)

	<u>Site BH-F</u>	<u>Site BH-G</u>	<u>Site BH-H</u>	<u>Site BH-I</u>	<u>Site BH-J</u>	<u>Site BH-K</u>	<u>Site BH-L</u>
Sample Depth (Feet)							
Visual Classification	Black Organic Clay	Black Organic Clay with Fine Sand	Dark Gray Organic Clay	Black Organic Clay	Grayish Black Organic Clay	Grayish Black Organic Clay	Grayish Black Sandy Organic Clay with Gravel
Soil Class/Dominant	OL/OH	OL/OH	OL/OH	OL/OH	OL/OH	OL/OH	OL/OH
Normal/Bimodal							
% Gravel (Retained by #4 Sieve)	0.00	0.00	0.00	0.00	0.00	0.00	21.70
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	0.00	0.00	0.50	0.00	0.06	0.27	2.00
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	0.23	0.81	0.44	0.09	0.64	0.79	2.79
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	9.28	15.61	8.79	4.73	6.01	9.36	11.25
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)	44.84	40.68	32.28	45.19	41.29	33.43	22.50
% Fines Clay (<0.005mm)	45.65	42.90	58.00	50.00	52.00	56.15	39.75
Water Content - %	122.37	109.45	94.54	126.97	129.99	99.52	90.39

Main Ship Channel Area Grain Size Analysis (continued)

	<u>Site BH-M</u>	<u>Site BH-N</u>
Sample Depth (Feet)		
Visual Classification	Black Organic Clay	Grayish Black Organic Clay
Soil Class/Dominant	OL/OH	OL/OH
Normal/Bimodal		
% Gravel (Retained by #4 Sieve)	0.00	0.00
% Course Sand (Pass #4 Sieve, Retained by #10 Sieve)	0.08	0.00
% Medium Sand (Pass #10 Sieve, Retained by #40 Sieve)	0.17	0.21
% Fine Sand (Pass #40 Sieve, Retained by #200 Sieve)	5.13	4.13
% Fines Silt (.074-.005mm) (Pass #200 US Std Sieve)	43.47	39.01
% Fines Clay (<0.005mm)	51.15	56.65
Water Content - %	134.21	110.05

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DIVISION 02 - SITE WORK

SECTION 02328

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SECTION 02328

UNDERWATER DRILLING AND BLASTING

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.

ENGINEERING MANUALS (EM)

EM 385-1-1 (1996) U.S. Army Corps of Engineers,
Safety and Health Requirements Manual

1.2 RELATED WORK SPECIFIED ELSEWHERE

a. Additional requirements relative to protection of finfish and marine mammals, are specified in Section 01355 ENVIRONMENTAL PROTECTION.

b. See also EM 385-1-1, U.S. Army Corps of Engineers, Safety and Health Requirements Manual, Section 29 for additional requirements relative to blasting.

1.3 DEFINITION

1.3.1 Rock Material

Rock material must be of such composition as, in the opinion of the Contracting Officer, requires blasting or the use of special plant for its removal. All other materials including small wrecks, snags, stumps, piles, fragments of rock, and boulders, capable of being removed by the dredge in one piece will be classified and paid for under other items of work, as applicable. Rock material shall be removed and disposed as specified in this section, and as indicated on contract drawings.

1.4 PERFORMANCE REQUIREMENTS

1.4.1 Responsibilities

1.4.1.1 General

The Contractor's blasting program and methods shall be those necessary to accomplish the excavation shown on the contract drawings in accordance with the procedures specified in this section. The Contractor will be required to make necessary plans, examinations, surveys, and test blasts to determine the quantity of explosives that can be fired without injuries to persons, and fish and wildlife, or damage to personal or public property.

1.4.2 Coordination

1.4.2.1 Schedules

The Contractor shall thoroughly coordinate his schedules for blasting with the proper authorities, Federal, State, and local. No blasting will be done unless the Contractor is notified by all concerned parties.

1.4.2.2 Permits

The Contractor will be required to obtain all necessary permits from the local authorities to perform blasting operations. The Contracting Officer shall be notified in writing that all permits have been obtained.

1.4.2.3 Fisheries Observer

The Contractor shall provide the services of a National Marine Fisheries Service (NMFS) approved fisheries and mammal observer to monitor fish passage and the presence of mammals within the established safety zone for mammal and report on any possible fish kills from the blasting operations. The Contractor shall cooperate with the observer in his observations and recommendations. The Contractor, in cooperation with the fisheries/mammal observer, shall also avoid impacts to marine mammals during blasting operations. See Section 01355 ENVIRONMENTAL PROTECTION for Fisheries Observer qualifications and approval action requirements.

1.4.3 Work Restrictions

1.4.3.1 Protection of Finfish and Marine Mammals

Blasting shall comply with the following restrictions:

a. No blasting will be permitted from February 15 to June 1 or during periods of dead slack water consistent with safety requirements.

b. All blasting operations are contingent upon using sonar, and with a Fisheries Observer present. Significant schools of fish may appear in the area at any time of year. In the event that a fish school is detected, the Contractor shall temporarily stop blasting operations when so advised by the Fisheries Observer

c. The Contractor is required to determine the radius from the blast site that the overpressure will be equal to or less than 180 dB. The zone defined by this radius around the blast center will be a mammal protection zone. Prior to the blast, the mammal observer shall inspect the mammal protection zone for the presence of mammals or sea turtles. If mammals or sea turtles are observed, the blasting operations are to be suspended until the mammals or sea turtles leave the protection zone.

d. To reduce fish mortality, all blasting shall be conducted using inserted delays of a fraction of a second per hole and stemming shall be rock or similar material placed into the top of the borehole to deaden the shock wave reaching the water column.

1.4.3.2 Other Restrictions

Blasting will not be permitted on Sundays or on State or Federal Legal Holidays, unless approved in advance in writing by the Contracting Officer.

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

Blasting Safety Plan; G, RE

Prior to blasting, submit a plan for protection of equipment, vessels and the environment. The blasting plan have a sea turtle/mammal protection plan as a critical component. See Section 01355 ENVIRONMENTAL PROTECTION. Acceptance of the plan by the Contracting Officer will not relieve the Contractor of the responsibility for producing safe and satisfactory results.

SD-07 Certificates

Licenses

Prior to blasting, submit a list of blasting license holders and their responsibilities for this project.

Daily Blasting Log

Submit the required daily blasting log of operations on a weekly basis.

SD-05 Design Data

Test Blast Program; G, RE.

After test blasting, submit the results of the test blast program. Acceptance of the plan by the Contracting Officer will not relieve the Contractor of the responsibility for producing safe and satisfactory results.

1.6 QUALITY CONTROL

1.6.1 Qualifications

The Contractor shall employ a specialist qualified in vibration control methods and who is capable of analyzing results obtained from seismograph readings. A minimum of 30 days prior to commencement of blasting operations, the Contractor shall provide the Contracting Officer with the written qualifications of the seismic specialist to include but not be limited to past experience, training, and education. The acceptability of the specialist is subject to the approval of the Contracting Officer. The Contractor shall provide a minimum of three seismographs to measure and vibrations of nearby structures caused by each blast detonated under the contract. Seismograph operators shall be qualified personnel capable of setting up instruments at designated locations and efficiently recording the blast.

1.6.2 Blasting Safety Plan

No later than 60 days after receipt of Notice to Proceed, the Contractor shall submit a Blasting Plan for review and acceptance. If the plan is not acceptable, the Contractor shall revise and resubmit the plan. The

Contracting Officer will require seven days for review and acceptance of the revised plan.

The Contractor shall also submit a weekly blasting operation schedule to the Contracting Officer to facilitate the Corps' monitoring of the effects of blasting operations on the fishery resource; include also the Fisheries (marine mammal) Observer report. This schedule shall be provided by Wednesday of the week before the blasting is to occur. The schedule shall include, as a minimum, the days when blasting will occur and the areas to be blasted.

No blasting shall be started until after the Blasting Safety Plan has been reviewed and accepted by the Contracting Officer.

In addition to the requirements of EM 385-1-1, Section 29, the Contractor's Blasting Plan shall include, as a minimum, the following items:

- (1) Proposed method of transportation, storage, and handling of explosives.
- (2) Procedure for monitoring the blast operations and handling misfires.
- (3) Location, size, depth, and spacing of blast holes, type of explosive and method of loading and detonating, and maximum number of holes to be detonated per blast. Type of blasting machine to be used and when last tested.
- (4) Type of instrumentation to be used, manufacturer, and when last calibrated and/or certified.
- (5) List of licenses, permits, and/or clearances required, when applied for, and date of approval or anticipated approval by Federal, State, and local concerns.
- (6) A format for maintaining a record of individual blasts (i.e. the "Daily Blasting Log") throughout the life of the project designed to record pertinent data before, during, and after the blasting operation. Pertinent information shall include, but not be limited to, those items specified in paragraph "Daily Blasting Log".
- (7) Names and qualifications of specialists for vibration control analysis and airblast over-pressure measurements, see paragraph "Qualifications". Names and addresses of all certified blasters and users.
- (8) Plan showing location of warning signs and signals to be used. Method of controlling vessel traffic and communications.
- (9) Name and address of Contractor's representative to which any claims for damage due to blasting should be addressed.
- (10) A test plan which encompasses the requirements of the Test Blast Program specified below. This plan shall also include the planned test patterns and weights of explosives of each test blast with the anticipated and the allowed peak particle velocities and peak positive airblast pressures at structures most likely to receive damage from the test blast.
- (11) The plan shall be signed off by the Contractor's "Contractor Quality Control System Manager."

1.7 LIGHTNING PROTECTION

The Contractor shall furnish, maintain, and operate lightning-detection equipment during the entire period of blasting operations and/or during the periods that explosives are stored at the site. The equipment shall be similar and equal to the Litton TSM/C Thunderstorm Monitor and Lightning Warning Instrument, as manufactured by Litton Industries, Inc., Environmental Systems Division, Camarillo, California. The equipment shall be installed in accordance with the manufacturer's written instructions. When the lightning-detection device indicates a blasting hazard potential, personnel shall be evacuated from all areas where explosives are present. The lightning protection equipment shall be identified in the Blasting Plan.

1.8 RECORDKEEPING

1.8.1 Daily Explosive Material Summary

The Contractor shall keep a daily record of transactions, to be maintained at each storage magazine. The inventory records shall be updated at the close of business each day. Records shall show class and quantities received and issued, and total remaining on hand at end of each day. The remaining stock shall be checked each day, and any discrepancies that would indicate a theft or loss of explosive material shall be reported immediately.

1.8.2 Report of Loss

Should a loss or theft of explosives occur, all circumstances and details of the loss/theft will be immediately reported to the nearest office of the Bureau of Alcohol, Tobacco and Firearms (ATF), as well as to the local law enforcement authorities and the Contracting Officer's Representative.

1.8.3 Licenses

The Contractor shall provide the Contracting Officer with a list of Contractor's blasting license holders, and only these personnel shall be permitted to handle explosives and conduct blasting operations.

1.8.4 Daily Blasting Log

The Contractor shall provide the Contracting Officer, on a weekly basis, a daily log of blasting operations. The log shall be updated at close of business each day. The log shall include the number of blasts; time and date of blast; the blast locations and patterns; the pounds of explosive used per hole; average water and substrate depth; millisecond delays used; the drill tip elevation at the top of bedrock for each hole drilled as recorded by the Contractor under the direction of the Contracting Officer's representative; and the occurrence of any fish kills.

1.9 DELIVERY, STORAGE, AND HANDLING

1.9.1 Safety

The Contractor shall take all reasonable precautions for the protection of individuals and property exposed to his operations. Such precautions shall include, but are not limited to:

(1) The amount of explosives permitted aboard the plant at one time will be subject to the approval of the Contracting Officer, but in no case

shall such amount exceed that required by the Contractor for one day's operations.

(2) Provision shall be made for jettisoning explosives in emergencies. It shall be the Contractor's responsibility for retrieving the same after the emergency is over.

(3) The Contractor shall take all necessary precautions to prevent damage to any vessel (moored or underway), structures or property, and preserve the crew or occupants thereof from exposure to injury as a result of his operations.

(4) In order to prevent flyrock damage, blasting mats shall be employed unless four or more feet of water overlies the rock surface.

(5) The Contractor shall look out for and take all precautions necessary to warn and/or protect swimmers, divers, or other individuals in the water exposed to his operations prior to blasting.

(6) Transport of explosives and detonators shall be in vehicles suitably grounded and protected from lightning strikes and electrical storm phenomena, in accordance with Federal and State requirements.

(7) No explosive material shall be handled, transported, or in any way made use of during any period of electrical storms, of lightning, or other electrical phenomenon. In the event that any such condition should appear imminent or occur, or if some known leakage of electricity should occur in the neighborhood of or in the work area, while the transport, handling, making up, charging, or such like use of explosives is being effected, then the work area shall be evacuated and abandoned completely until at least 30 minutes after the condition has ceased or the leakage stopped. The Contracting Officer shall be notified prior to any blasting or loading operation so that stationary or mobile radio transmissions are not made on the site.

(8) The handling, storage, and use of explosives shall be governed by the applicable provisions of the section on "Blasting" of the Corps of Engineers Manual EM 385-1-1, dated September 1996, entitled, "Safety and Health Requirements Manual." In addition, the Contractor shall make necessary arrangements as may be required by the applicable U.S. Coast Guard, State, County, Municipal, or Port Authority codes, rules, regulations, and laws, and shall be responsible for compliance therewith, including storage of explosives.

All handling, use, and storage of explosives will be under the personal supervision of a Licensed Blaster.

No blasting is permitted when visibility is less than 1,500 feet in fog or rain, and between beginning of evening nautical twilight, and ending of morning nautical twilight.

1.10 PROJECT/SITE CONDITIONS

1.10.1 EXISTING CONDITIONS

a. Rock ledge is located between the boundary of the 35 foot and 40 foot deep Main Ship channel near Castle Island, as indicated on the drawings. The ledge shall be blasted and removed with a clamshell bucket dredge.

b. Staff from the Massachusetts Division of Marine Fisheries dove the rock ledge in the navigation channel off of Castle Island on July 3, 2001 at slack high tide. The rock ledge area is approximately 140 feet around the base. The top is rounded, smooth and multi-level, with a maximum height of about 6 feet off the bottom; average height was about 4 feet from the bottom. Surrounding the ledge proper were several clusters of boulders and an apron of cobble extending 10-15' on all sides. A depth reading of 45 feet was recorded on the highest portion of the ledge.

c. In addition to removal of the rock ledge, two boulders shall be removed from the Broad Sound North Channel. The boulders shall be blasted as necessary to reduce the size of the boulders for removal by the clamshell bucket.

d. The rock to be excavated is from the geologic formation locally known as the Cambridge slate in early literature and as argillite in later references. Argillite is used as the classification for this project. The bedrock map of the area by the United States Geological Survey describes the argillite as gray, laminated to massively bedded with poorly developed bedding-plane partings, having locally imperfect slaty cleavage, and with minor inter bedded sandstone and (or) quartzite.

e. The Government assumes no responsibility for the types of material encountered, nor does it guarantee that other materials will not be encountered in performance of the work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 EXAMINATION

3.2 PREPARATION

3.2.1 Test Blast Program

A test blast program shall be conducted by the Contractor, consisting of a minimum of three test blasts in each area of rock excavation. The purpose of the test program is to allow the Contractor to establish the desired effects for excavation, the safe limits of vibration and airblast over-pressure. The test blast program shall be conducted and reported in strict accordance with procedures outlined in these specifications covering blasting methods and vibration control.

No test blasting shall be started until after the location for the individual test blasts has been reviewed and approved by the Contracting Officer.

The test event shall begin with a small number of charges and extend upward to the maximum yield to be used. The final test event shall simulate as close as practicable the explosive charge type, size, overlying water depth, charge configuration, charge separation, initiation methods, and emplacement conditions anticipated for the largest detonations. Upon any evidence of any damage to preblast survey structures, test blasting shall cease until the Contracting Officer has been notified and adjustments made.

One copy of the record for the test blasts shall be submitted in tabular form to the Contracting Officer.

After the series of test blasts, the Contractor shall examine the

representative structures of the preblast survey as previously specified. All new damage resulting from the test blasting shall be reported in detail to the Contracting Officer, including photographs.

At the conclusion of the test blast program, the Contractor shall examine all reports, surveys, test data, and other pertinent information: The conclusions reached shall be the basis for developing a completely engineered procedure for blasting. The procedures shall include sketches showing blasting patterns, weights and explosives, wiring, and charge emplacement. The developed procedure shall be submitted for review to the Contracting Officer, and upon completion of the review and acceptance, it shall be appended to and become a part of the blasting plan. A period of seven days will be required for review and acceptance by the Contracting Officer of the proposed procedure. Such review period shall not be the basis for a claim against the Government for delay. In no event shall operational blasting proceed until the developed procedure for blasting has been reviewed and accepted by the Contracting Officer. If the procedure is not acceptable, the Contractor shall revise and resubmit the procedure. The Contracting Officer will require five days for review and acceptance of the revised procedure.

3.3 BLASTING METHODS AND PROCEDURES

3.3.1 General

The Contractor shall take appropriate measures for controlling blast damage which shall include but are not limited to:

- a. Choosing a suitable ignition pattern with millisecond delay detonators to minimize the instantaneous impulse.
- b. Using lower charges in the first detonating delay than those in subsequent delays.
- c. Taking precautions to avoid flashover, which shall include the following measures unless otherwise allowed by the Contracting Officer:
 - (1) Keeping the top of the hole uncharged for a depth equal to at least one-half the burden width.
 - (2) Using low sensitivity explosives in the entire pattern or loading the holes alternatively with high and low sensitivity explosives.
 - (3) Inspecting the ignition system using ground fault testing.
- d. One person shall be charged with overall development of pattern design, loading and connecting the explosives and may supervise subordinates, who also shall have blasting credentials to accomplish the same duties.
- e. Proper lighting plant shall fully illuminate the drilling and loading barge(s) when work is being conducted without full daylight. Drilling shall be vertical with a hole diameter of 6-inches or smaller. Blast holes shall be accurately positioned a Differential Global Positioning System (DGPS) and recorded with electronic drill monitoring.
- f. The Contractor shall determine a safe means to drill, load and connect the firing lines to the submerged borings. The vertical

loading casing shall be seated into rock and accurately positioned by modern survey procedures.

3.3.2 Blasting Control

3.3.2.1 Submittals

On a monthly basis, the Contractor shall submit in tabular form a record for each blast which shall consist of positively identified, date and time and location of blast, amount of explosives used, peak particle velocity, and all other data necessary to adequately control blasting operations. A memorandum or telephone report on vibration intensity shall be submitted within 24 hours when specifically requested by the Contracting Officer or without request when such intensity exceeds a peak particle velocity of 1.5 inches per second. [Air blast pressure resulting from blasting shall not exceed 180 db (0.018 psi).] [Air blast pressure exerted on structures resulting from blasting shall not exceed 133 db (0.013 psi).]

3.3.2.2 Vibration Control

The vibration specialist shall adopt appropriate measures for blast damage reduction and shall be fully involved in a design of the test blasting and monitoring program and the final production blasting and monitoring program. Fourteen days shall be allowed for the Contracting Officer to review and accept the final blasting plan. The vibration specialist shall be retained throughout the operational program to provide and verify round-by-round blasting records.

Millisecond delay caps shall be used on all blasting work.

Blasting shall be controlled in such a manner that the maximum ground vibration level at any structure which is vulnerable to damage shall not exceed a zero-to-peak particle velocity of 1.0 inches per second nor an energy ratio of 1.0. The instrumentation shall record all three orthogonal components (vertical, radial, and transverse with respect to the location of the blast) of particle velocity direct (or shall have sufficient resolution of acceleration or displacement such that particle velocity can be readily and accurately determined from the records). The instantaneous vector sum of the three directional components of vibration will be used to compute the maximum vibration level.

3.4 DISPOSAL OF DREDGED ROCK MATERIAL

Rock material shall be placed in dump scows and transported to the Massachusetts Bay Disposal Site and disposed at a taut wire buoy. The rock blasted from Boston Harbor shall be placed within a new area for rock disposal to increase essential fish habitat. Coordinates of the new area will be given to the Contractor by the Contracting Officer. The location of the Mass Bay Disposal Site is shown on the drawing attached at the end of Section 02325 DREDGING.

-- End of Section --

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DIVISION 02 - SITE WORK

SECTION 02492

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PART 2 PRODUCTS (Not Used)

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-- End of Section Table of Contents --

SECTION 02492

UNDERWATER DIVING WORK

PART 1 GENERAL

1.1 SUMMARY

1.1.1 Location of Diving Operations

The location of services to be performed under this contract include Boston Harbor Channels.

1.1.2 Underwater Work

Provide diving services and equipment as necessary to perform the work of this contract.

1.1.3 Time of Year and Weather

Diving operations may be conducted year round and in all weather conditions.

1.1.4 Depths of Diving Operations and Visibility

Depths of diving operations may range down to 50 feet, and may include both clear and limited visibility conditions.

1.1.5 Types of Diving Operations

The surface supplied air mode of diving shall be used for all underwater work.

1.1.6 Potential Diving Tasks

A partial list of potential underwater tasks that may be necessary due to the work performed under this contract are as follows:

- a. Underwater investigations and inspections may be necessary in support of underwater drilling and blasting operations.
- b. Services may include conducting underwater surveys to see what is on the channel or dock area bottom prior to dredging.
- c. Diving operations may be necessary for the attachment of rigging equipment for removal of debris and obstructions.
- d. Diving operations may be necessary for locating and marking underwater utilities with buoys to reduce the risk of damage due to the dredging operation.
- e. Diving operations may be necessary for assisting in retrieving dredge equipment lost in the water during the dredging operation.
- h. The Contractor may utilize underwater surveys to verify complete removal of the sunken steel deck barge.

1.1.7 Measurement and Payment

No separate measurement or payment will be made for the work of this section. All costs associated with underwater diving work shall be included in the unit and lump sum Bidding Schedule payment items most closely associated with the work involved.

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.

CORPS OF ENGINEERS (COE)

COE EM 385-1-1

(1996) Safety & Health Requirements Manual

1.3 SUBMITTALS

The items listed in subpart "Submittal Items" below shall be submitted to the Contracting Officer for review and acceptance by the New England District Safety Officer and the USACE Diving Coordinator (UDC).

1.3.1 Accepted Submittals

The acceptance of submittals by the Contracting Officer shall not be construed as a complete check, but will indicate only that the submittal generally complies with regulatory requirements. Acceptance will not relieve the Contractor of the responsibility for compliance with COE EM 385-1-1, Section 30. After submittals have been accepted by the Contracting Officer or his designated representative, no resubmittal will be given consideration unless accompanied by an explanation as to why changes are necessary.

1.3.2 Unaccepted 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 as specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, notice shall be given promptly to the Contracting Officer.

1.3.3 Submittal Procedure

Submittals shall be made as follows:

1.3.3.1 Procedures

Submit six (6) copies of each submittal item to the USACE Diving Coordinator. For emergency work, FAX or hand carry one copy of each submittal. In extreme emergencies, review actions may take place at the dive site, just prior to the dive operation.

1.3.3.2 Diving Coordinator Review

Review action on all submittals is by the New England District Diving Coordinator (UDC), Mr. George Norton, Telephone Number (978) 318-8870.

1.3.3.3 Information on Submittal Status

All Contractor requests for current status of submittal reviews shall be made through the Project Resident Engineer.

1.3.3.4 Deviations

For submittals which include proposed deviations requested by the Contractor, the Contractor shall set forth in writing the reason for the deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.3.4 Government Accepted Submittals

Upon completion of review of submittals requiring Government acceptance, the submittals will be identified as having received acceptance by being so noted and dated. Four copies of the submittal will be retained by the Contracting Officer and two copies of the submittal will be returned to the Contractor.

1.3.5 Information Only Submittals

Normally submittals for information only will not be returned. Acceptance of the Contracting Officer is not required on information only submittals. These submittals will be used for information purposes. 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 comply with these specifications and will not prevent the Contracting Officer from requiring contract compliance.

1.3.6 Submittal Items

The Contractor shall submit all items listed below. The Contracting Officer may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the particular work order. 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) representative and shall be stamped, signed, and dated by the CQC representative certifying that the submittal complies with the contract requirements. Proposed deviations from the contract requirements shall be clearly identified.

1.3.6.1 Contractor Safe Practices Manual

The Contractor shall develop and maintain a safe practices manual. The safe practices manual shall contain all of the information required by 29 CFR 1910.420 and the additional information as specified below. This manual shall encompass the Contractor's entire diving program and be available at all times at the dive location to each dive team member and the Government representative. The safe practices manual shall include the items listed in paragraph 30.A.11 of COE EM 385-1-1, Section 30, and verification of dive team qualifications and experience. Verification of dive team qualifications and experience includes divers, diving supervisor, and tenders. Evidence that each dive team member has current certification in cardiopulmonary resuscitation (CPR) and first aid shall be submitted. A lack of experience or qualifications to perform the tasks stated in the dive plan will be cause for rejection or cessation of operations.

1.4 REGULATORY REQUIREMENTS

All diving operations performed under this contract shall comply with COE EM 385-1-1, Section 30, dated 3 Sep 96.

The New England District may elect to implement and enforce more stringent diving requirements than stated in the above reference, but under no circumstances will the operational requirements be less than specified in the reference.

1.4.1 Policy

It is the policy of the Corps of Engineers that all contract diving operations be conducted in a prudent manner that will provide for maximum efficiency and minimize the potential for personal injury, loss of life, occupational illness and/or property damage. The Contractor shall not utilize divers if the objective can be more safely and efficiently accomplished by another means, e.g., using remote controlled television systems in lieu of divers.

The Contractor shall demonstrate that each diver is:

- (1) Medically fit to dive.
- (2) Adequately trained and have the required proficiency for the work assigned.
- (3) Provided with and adheres to prescribed safe operating procedures.
- (4) Trained with and required to use all equipment and/or tools to safely perform the assigned tasks.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-- End of Section --

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