



IFB NO. W912P822B0061

US Army Corps
of Engineers ®
New Orleans District

Bayou Teche

East and West Calumet Floodgates Approach Channels, Maintenance Dredging

St. Mary Parish, Louisiana

Construction Solicitation
and Specifications

September 2022



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS, LA 70118-3651

September 30, 2022

REPLY TO
ATTENTION OF

SOLICITATION: W912P822B0061

FOR: Bayou Teche, East and West Calumet Floodgates, Approach Channels, Maintenance Dredging, St. Mary Parish, Louisiana

TO OPEN:

- I. NOTE THE AFFIRMATIVE ACTION PROGRAM REQUIREMENT OF THE EQUAL OPPORTUNITY CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.
- II. NOTE THE CERTIFICATION OF NONSEGREGATED FACILITIES IN THIS SOLICITATION. *Bidders, offerors and applicants are cautioned to note the "Certification of Non-segregated Facilities" in the solicitation. Failure of a bidder or offeror to agree to the certification will render his bid or offer non-responsive to the terms of solicitations involving awards of contracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause.*
- III. Prospective contractors must register in the System for Award Management (SAM). See FAR Clause 52.204-7 for required information. The website for SAM is <https://www.sam.gov>. You will be required to provide your company's Dun and Bradstreet (D&B) D-U-N-S number. If you do not already have a D&B D-U-N-S number, one can be requested at <http://fedgov.dnb.com/webform>.

BIDDERS MUST PROVIDE FULL, ACCURATE AND COMPLETE INFORMATION AS REQUIRED BY THIS SOLICITATION AND ITS ATTACHMENTS. THE PENALTY FOR MAKING FALSE STATEMENTS IN BIDS IS PRESCRIBED IN 18 U.S.C. 1001. (FAR 52.214-4 APR 1984)

DESCRIPTION AND MAGNITUDE OF WORK: The work consists of the removal of shoal material from within the Wax Lake Outlet approach channels to the East and West Calumet Floodgates, and satisfactory disposal of dredged material into the Wax Lake Outlet channel below the -35' contour.

CAUTION TO BIDDERS: Due to the response for COVID-19, most federal employees have been mandated to telework, and currently only authorized personnel are allowed to access the District buildings throughout USACE. As a result, we have implemented Virtual Bid Opening procedures for all current and future bid openings, until such restrictions have been lifted and normal access has resumed at the MVN HQ Buildings.

NOTE: ALL WORK UNDER THESE SPECIFICATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF EM 385-1-1 "CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL", DATED NOVEMBER 2014

ATTENTION: Contractors must complete, and submit with their bid, the provisions located in Section 00600. A bidder may also submit, in lieu of the completed Section 00600, a complete hard copy of their Online Representations and Certifications Applications (ORCA) registration with an expiration date on or after the date of award.

All inquiries regarding this solicitation should be made to the following:

Stephanie Mbelu - Contract Specialists

Email: Stephanie.N.Mbelu@usace.army.mil

Phone: (504) 862-1047

Shermeka Showers - Contracting Officer

Email: Shermeka.L.Showers@usace.army.mil

Phone: (504) 862-2239

Note: For prompt response, please send all questions via e-mail.

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SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. W912P822B0061	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 30-Sep-2022	PAGE OF PAGES 1 OF 62
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.
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7. ISSUED BY USACE, CONTRACTING DIVISION ATTN: CEMVN-CT, ROOM 172 7400 LEAKE AVE. NEW ORLEANS LA 70118-3651	CODE W912P8	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE See Item 7
TEL:	FAX:	TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME STEPHANIE N MBELU	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> 504-862-1047
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SOLICITATION

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

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

Bayou Teche, East and West Calumet Floodgates, Approach Channels, Maintenance Dredging, St. Mary Parish, Louisiana (ED 22-025)

The work consists of the removal of shoal material from within the Wax Lake Outlet approach channels to the East and West Calumet Floodgates, and satisfactory disposal of dredged material into the Wax Lake Outlet channel beyond the -35' contour. No dike work will be necessary for this project.

This is a 100% Small Business Set-Aside procurement.

The estimated value of this work is between \$500,000 and \$1,000,000.

Bid Opening to be established by Future Amendment.**

11. The Contractor shall begin performance within 10 calendar days and complete it within 60 calendar days after receiving award, notice to proceed. This performance period is mandatory, negotiable. (See Para 00010-1.5 _____.)

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 2
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by _____** *(hour)* local time _____** *(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 30 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SECTION 00010 – BIDDING SCHEDULE

Bayou Teche, East and West Calumet Floodgates,
Approach Channels, Maintenance Dredging,
St. Mary Parish, Louisiana

Item	DESCRIPTION	Estimated Quantity	Unit	Unit Price	Estimated Amount
0001	Mobilization and Demobilization	1	JOB		
0002	Dredging	37,000	CY		
0003	Clearing and Snagging	1	JOB		
TOTAL:					\$

Award will be made as a whole to one bidder.

NOTE 1: The unit “JOB” as used in this Bidding Schedule is synonymous with the term “Lump Sum” used elsewhere within these plans and specifications.

NOTE 2: Bidders shall furnish unit prices for each item listed in the Schedule requiring a unit price. If the bidder fails to insert a unit price in the appropriate blank for required item(s), but does furnish an extended total, or an estimated amount for such item(s), the Government shall deem the unit price to be the quotient obtained by dividing the extended amount for that line item by the quantity. IF A BIDDER OMITTS BOTH THE UNIT PRICE AND THE EXTENDED TOTAL OR ESTIMATED AMOUNT FOR ANY ITEM, ITS BID SHALL BE DECLARED NON-RESPONSIVE AND THEREFORE INELIGIBLE FOR AWARD.

NOTE 3: Any bid may be rejected if the Contracting Officer determines in writing that it is unreasonable as to price. Unreasonableness of price includes not only total price of bid, but the price for individual line items as well. Any bid may be rejected if the prices for any line items or subline items are materially unbalanced (See FAR 14.404-2).

NOTE 4: THE NOTICE TO PROCEED (NTP): The successful bidder is advised that performance and payment bonds shall be submitted in accordance with the time frame in block 12B of SF 1442 after Notice of Award. The NTP will be issued immediately after verification of acceptable performance and payment bonds. Within 24 hours after issuance of the NTP, the Contractor shall initiate a meeting to discuss the submittal process with the Area or Resident Engineer or his authorized representative. Physical work cannot start until the Accident Prevention Program, Contractor Quality Control Plan, and other submittals which may be required, have been submitted and approved and all preliminary meetings called for under the contract, have been conducted.

BID BOND <i>(See instructions on reverse)</i>	DATE BOND EXECUTED <i>(Must not be later than bid opening date)</i>	OMB Control Number: 9000-0045 Expiration Date: 8/31/2022
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Paperwork Reduction Act Statement - This information collection meets the requirements of 44 USC § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0045. We estimate that it will take 1 hour to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

PRINCIPAL <i>(Legal name and business address)</i>	TYPE OF ORGANIZATION <i>("X" one)</i> <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION <input type="checkbox"/> OTHER <i>(Specify)</i>
STATE OF INCORPORATION	

SURETY(IES) *(Name and business address)*

PENAL SUM OF BOND				BID IDENTIFICATION		
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NUMBER
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS	FOR <i>(Construction, Supplies or Services)</i>	

OBLIGATION:

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to execute such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) is waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

WITNESS:

The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL				
SIGNATURE(S)	1. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	2. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	3. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	Corporate Seal
NAME(S) & TITLE(S) <i>(Typed)</i>	1. _____	2. _____	3. _____	

INDIVIDUAL SURETY(IES)		
SIGNATURE(S)	1. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	2. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>
NAME(S) <i>(Typed)</i>	1. _____	2. _____

CORPORATE SURETY(IES)					
SURETY A	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1. _____	2. _____		
	NAME(S) & TITLE(S) <i>(Typed)</i>	1. _____	2. _____		

SURETY B	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		

INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.
2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., 20% of the bid price but the amount not to exceed _____ dollars).
4. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitations listed therein. The value put into the LIABILITY LIMIT block is the penal sum (i.e., the face value) of the bond, unless a co-surety arrangement is proposed.

 (b) When multiple corporate sureties are involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designated "SURETY(IES)" on the face of the form, insert only the letter identifier corresponding to each of the sureties. Moreover, when co-surety arrangements exist, the parties may allocate their respective limitations of liability under the bond, provided that the sum total of their liability equals 100% of the bond penal sum.

 (c) When individual sureties are involved, a completed Affidavit of Individual Surety (Standard Form 28) for each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.
5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.
6. Type the name and title of each person signing this bond in the space provided.
7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

Section 00100 - Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.204-7	System for Award Management	OCT 2018
52.204-22	Alternative Line Item Proposal	JAN 2017
52.207-1	Notice Of Standard Competition	MAY 2006
52.214-4	False Statements In Bids	APR 1984
52.214-5	Submission Of Bids	DEC 2016
52.214-6	Explanation To Prospective Bidders	APR 1984
52.214-7	Late Submissions, Modifications, and Withdrawals of Bids	NOV 1999
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991

CLAUSES INCORPORATED BY FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm-fixed price contract resulting from this solicitation.

(End of provision)

52.228-1 BID GUARANTEE (SEP 1996)

(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 (20%) of the bid price or \$3,000,000.00, 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.

(End of provision)

52.233-2 SERVICE OF PROTEST (SEP 2006)

(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 Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from Shermeka L. Showers, Contracting Officer, U.S. Army Corps of Engineers, ATTN: CEMVN-CTW, 7400 Leake Avenue, New Orleans, LA 70118-3651.

(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: Jason Binet

Email Address: Jason.A.Binet@usace.army.mil

Telephone: 504-862-2127

(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):

www.acquisition.gov

(End of provision)

252.204-7019 NOTICE OF NIST SP 800-171 DOD ASSESSMENT REQUIREMENTS (MAR 2022)

(a) Definitions.

Basic Assessment, Medium Assessment, and High Assessment have the meaning given in the clause 252.204-7020, NIST SP 800-171 DoD Assessments.

Covered contractor information system has the meaning given in the clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, of this solicitation.

(b) Requirement. In order to be considered for award, if the Offeror is required to implement NIST SP 800-171, the Offeror shall have a current assessment (i.e., not more than 3 years old unless a lesser time is specified in the

solicitation) (see 252.204-7020) for each covered contractor information system that is relevant to the offer, contract, task order, or delivery order. The Basic, Medium, and High NIST SP 800-171 DoD Assessments are described in the NIST SP 800-171 DoD Assessment Methodology located at <https://www.acq.osd.mil/asda/dpc/cp/cyber/safeguarding.html#nistSP800171>.

(c) Procedures.

(1) The Offeror shall verify that summary level scores of a current NIST SP 800-171 DoD Assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) are posted in the Supplier Performance Risk System (SPRS) (<https://www.sprs.csd.disa.mil/>) for all covered contractor information systems relevant to the offer.

(2) If the Offeror does not have summary level scores of a current NIST SP 800-171 DoD Assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) posted in SPRS, the Offeror may conduct and submit a Basic Assessment to webptsmh@navy.mil for posting to SPRS in the format identified in paragraph (d) of this provision.

(d) Summary level scores. Summary level scores for all assessments will be posted 30 days post-assessment in SPRS to provide DoD Components visibility into the summary level scores of strategic assessments.

(1) Basic Assessments. An Offeror may follow the procedures in paragraph (c)(2) of this provision for posting Basic Assessments to SPRS.

(i) The email shall include the following information:

(A) Cybersecurity standard assessed (e.g., NIST SP 800-171 Rev 1).

(B) Organization conducting the assessment (e.g., Contractor self-assessment).

(C) For each system security plan (security requirement 3.12.4) supporting the performance of a DoD contract--

(1) All industry Commercial and Government Entity (CAGE) code(s) associated with the information system(s) addressed by the system security plan; and

(2) A brief description of the system security plan architecture, if more than one plan exists.

(D) Date the assessment was completed.

(E) Summary level score (e.g., 95 out of 110, NOT the individual value for each requirement).

(F) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(ii) If multiple system security plans are addressed in the email described at paragraph (d)(1)(i) of this section, the Offeror shall use the following format for the report:

System security plan	CAGE codes supported by this plan	Brief description of the plan architecture	Date of assessment	Total score	Date score of 110 will be achieved
-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----

(2) Medium and High Assessments. DoD will post the following Medium and/or High Assessment summary level scores to SPRS for each system assessed:

- (i) The standard assessed (e.g., NIST SP 800-171 Rev 1).
- (ii) Organization conducting the assessment, e.g., DCMA, or a specific organization (identified by Department of Defense Activity Address Code (DoDAAC)).
- (iii) All industry CAGE code(s) associated with the information system(s) addressed by the system security plan.
- (iv) A brief description of the system security plan architecture, if more than one system security plan exists.
- (v) Date and level of the assessment, i.e., medium or high.
- (vi) Summary level score (e.g., 105 out of 110, not the individual value assigned for each requirement).
- (vii) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(3) Accessibility.

(i) Assessment summary level scores posted in SPRS are available to DoD personnel, and are protected, in accordance with the standards set forth in DoD Instruction 5000.79, Defense-wide Sharing and Use of Supplier and Product Performance Information (PI).

(ii) Authorized representatives of the Offeror for which the assessment was conducted may access SPRS to view their own summary level scores, in accordance with the SPRS Software User's Guide for Awardees/Contractors available at https://www.sprs.csd.disa.mil/pdf/SPRS_Awardee.pdf.

(iii) A High NIST SP 800-171 DoD Assessment may result in documentation in addition to that listed in this section. DoD will retain and protect any such documentation as "Controlled Unclassified Information (CUI)" and intended for internal DoD use only. The information will be protected against unauthorized use and release, including through the exercise of applicable exemptions under the Freedom of Information Act (e.g., Exemption 4 covers trade secrets and commercial or financial information obtained from a contractor that is privileged or confidential).

(End of provision)

252.215-7008 ONLY ONE OFFER (JUL 2019)

(a) Cost or pricing data requirements. After initial submission of offers, if the Contracting Officer notifies the Offeror that only one offer was received, the Offeror agrees to--

(1) Submit any additional cost or pricing data that is required in order to determine whether the price is fair and reasonable or to comply with the statutory requirement for certified cost or pricing data (10 U.S.C. 2306a and FAR 15.403-3); and

(2) Except as provided in paragraph (b) of this provision, if the acquisition exceeds the certified cost or pricing data threshold and an exception to the requirement for certified cost or pricing data at FAR 15.403-1(b)(2) through (5) does not apply, certify all cost or pricing data in accordance with paragraph (c) of DFARS provision 252.215-7010, Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data, of this solicitation.

(b) Canadian Commercial Corporation. If the Offeror is the Canadian Commercial Corporation, certified cost or pricing data are not required. If the Contracting Officer notifies the Canadian Commercial Corporation that additional data other than certified cost or pricing data are required in accordance with DFARS 225.870-4(c), the Canadian Commercial Corporation shall obtain and provide the following:

(1) Profit rate or fee (as applicable).

(2) Analysis provided by Public Works and Government Services Canada to the Canadian Commercial Corporation to determine a fair and reasonable price (comparable to the analysis required at FAR 15.404-1).

(3) Data other than certified cost or pricing data necessary to permit a determination by the U.S. Contracting Officer that the proposed price is fair and reasonable [U.S. Contracting Officer to provide description of the data required in accordance with FAR 15.403-3(a)(1) with the notification].

(4) As specified in FAR 15.403-3(a)(4), an offeror who does not comply with a requirement to submit data that the U.S. Contracting Officer has deemed necessary to determine price reasonableness or cost realism is ineligible for award unless the head of the contracting activity determines that it is in the best interest of the Government to make the award to that offeror.

(c) Subcontracts. Unless the Offeror is the Canadian Commercial Corporation, the Offeror shall insert the substance of this provision, including this paragraph (c), in all subcontracts exceeding the simplified acquisition threshold defined in FAR part 2.

(End of provision)

INSTRUCTIONS TO BIDDERS

Electronic Submission of Bids:

Bids will be only be accepted by email

1. Send an email containing your bid to the Contracting Officer and Contract Specialist associated with the IFB:
Contracting Officer – Shermeka Showers, email: Shermeka.L.Showers@usace.army.mil
Contract Specialist – Stephanie Mbelu, email: Stephanie.N.Mbelu@usace.army.mil

2. The email should contain your company name and the solicitation number in the subject line.

3. All questions should be submitted via email by date and time TBA.

4. The Bid Opening is currently scheduled for TBA CST. The Contracting Officer and Contract Specialist will begin downloading bids at TBA CST, which is the bid receipt cutoff time. All bids received after TBA CST on TBA will be considered late.

Audio Teleconference Bid Opening Information:

Bid Opening will be held on TBA CST. Please use the following call-in information to attend the meeting:

Toll-Free: TBA

Access Code: TBA

5. Following the conclusion of the bid opening, the Bid Abstract will be uploaded to SAM website under this solicitation, within 24 hours.

6. Bid Bonds (Offer Guarantee) should be submitted electronically with the Bid Package as per the scheduled Bid Opening on Amendment. As per Class Deviation 2020-O0016, Electronic signatures and electronic, mechanically-applied, or printed dates may be used and shall be considered original signatures and dates. In addition, a Corporate Seal is not required, the SF 28 need not be sworn and notarized and a written authorization of the release signed by the surety is acceptable in lieu of the notarized authorization of release by the surety. Original Certified Bonds need not be submitted at time of bid. USACE MVN Contracting Division reserves the right to request the Original Certified Bonds, if deemed necessary to verify their authenticity.

The following deviation clauses now apply, in lieu of the corresponding FAR clauses:

- 52.228-11, Pledges of Assets (DEVIATION 2020-O0016), which removes the requirement for the Standard Form 28 to be sworn and notarized.
- 52.228-15, Performance and Payment Bonds—Construction (DEVIATION 2020- O0016), which removes the requirements for seals on Standard Forms.
- 52.228-16, Performance and Payment Bonds—Other than Construction (DEVIATION 2020-O0016), which removes requirements for seals on Standard Forms.

Section 00600 - Reqs and Certs

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)

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAY 2022)

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

(2) The small business size standard is 30,000,000.00.

(3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce is 500 employees if the acquisition--

(i) Is set aside for small business and has a value above the simplified acquisition threshold;

(ii) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or

(iii) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), the Offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The Offeror shall indicate which option applies by checking one of the following boxes:

() Paragraph (d) applies.

() Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) (1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.203-18, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements--Representation. This provision applies to all solicitations.

(iv) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.

(v) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(vi) 52.204-26, Covered Telecommunications Equipment or Services--Representation. This provision applies to all solicitations.

(vii) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations--Representation.

(viii) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(ix) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(x) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(xi) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xii) 52.219-1, Small Business Program Representations (Basic, Alternates I, and II). This provision applies to solicitations when the contract is for supplies to be delivered or services to be performed in the United States or its outlying areas, or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii).

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(C) The provision with its Alternate II applies to solicitations that will result in a multiple-award contract with more than one NAICS code assigned.

(xiii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract is for supplies to be delivered or services to be performed in the United States or its outlying areas, or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii).

(xiv) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xv) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xvi) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial products or commercial services.

(xvii) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xviii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA-designated items.

(xix) 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation. This provision applies to solicitations that include the clause at 52.204-7.)

(xx) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xxi) 52.225-4, Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225- 3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$92,319, the provision with its Alternate II applies.

(D) If the acquisition value is \$92,319 or more but is less than \$100,000, the provision with its Alternate III applies.

(xxii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xxiii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xxiv) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certification. This provision applies to all solicitations.

(xxv) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

(i) 52.204-17, Ownership or Control of Offeror.

(ii) 52.204-20, Predecessor of Offeror.

(iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

(iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Certification.

(v) 52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Certification.

(vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

(vii) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The Offeror has completed the annual representations and certifications electronically in SAM accessed through <https://www.sam.gov>. After reviewing the SAM information, the Offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change
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Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

(End of provision)

52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (NOV 2021)

The Offeror shall not complete the representation at paragraph (d)(1) of this provision if the Offeror has represented that it "does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument" in paragraph (c)(1) in the provision at 52.204-26, Covered Telecommunications Equipment or Services-- Representation, or in paragraph (v)(2)(i) of the provision at 52.212-3, Offeror Representations and Certifications- Commercial Products and Commercial Services. The Offeror shall not complete the representation in paragraph (d)(2) of this provision if the Offeror has represented that it "does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services" in paragraph (c)(2) of the provision at 52.204-26, or in paragraph (v)(2)(ii) of the provision at 52.212-3.

(a) Definitions. As used in this provision-

Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Prohibition.

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Nothing in the prohibition shall be construed to--

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract or extending or renewing a contract with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to--

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for "covered telecommunications equipment or services."

(d) Representations. The Offeror represents that--

(1) It [] will, [] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds "will" in paragraph (d)(1) of this section; and

(2) After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that--

It [] does, [] does not use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds "does" in paragraph (d)(2) of this section.

(e) Disclosures.

(1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded "will" in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment--

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(ii) For covered services--

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded "does" in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment--

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(ii) For covered services--

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the PSC of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(End of provision)

52.204-26 COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES--REPRESENTATION (OCT 2020)

(a) Definitions. As used in this provision, "covered telecommunications equipment or services" and "reasonable inquiry" have the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.

(c) Representations.

(1) The Offeror represents that it [] does, [] does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(2) After conducting a reasonable inquiry for purposes of this representation, the offeror represents that it [] does, [] does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services.

(End of provision)

52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (OCT 2018)

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

Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative Proceedings, Civilian Board of Contract Appeals Proceedings, and Armed Services Board of Contract Appeals Proceedings). This includes administrative proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include agency actions such as contract audits, site visits, corrective plans, or inspection of deliverables.

Federal contracts and grants with total value greater than \$10,000,000 means--

(1) The total value of all current, active contracts and grants, including all priced options; and

(2) The total value of all current, active orders including all priced options under indefinite-delivery, indefinite-quantity, 8(a), or requirements contracts (including task and delivery and multiple-award Schedules).

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The offeror () has () does not have current active Federal contracts and grants with total value greater than \$10,000,000.

(c) If the offeror checked “has” in paragraph (b) of this provision, the offeror represents, by submission of this offer, that the information it has entered in the Federal Awardee Performance and Integrity Information System (FAPIS) is current, accurate, and complete as of the date of submission of this offer with regard to the following information:

(1) Whether the offeror, and/or any of its principals, has or has not, within the last five years, in connection with the award to or performance by the offeror of a Federal contract or grant, been the subject of a proceeding, at the Federal or State level that resulted in any of the following dispositions:

(i) In a criminal proceeding, a conviction.

(ii) In a civil proceeding, a finding of fault and liability that results in the payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more.

(iii) In an administrative proceeding, a finding of fault and liability that results in--

(A) The payment of a monetary fine or penalty of \$5,000 or more; or

(B) The payment of a reimbursement, restitution, or damages in excess of \$100,000.

(iv) In a criminal, civil, or administrative proceeding, a disposition of the matter by consent or compromise with an acknowledgment of fault by the Contractor if the proceeding could have led to any of the outcomes specified in paragraphs (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this provision.

(2) If the offeror has been involved in the last five years in any of the occurrences listed in (c)(1) of this provision, whether the offeror has provided the requested information with regard to each occurrence.

(d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the System for Award Management, which can be accessed via <https://www.sam.gov> (see 52.204-7).

(End of provision)

52.209-12 CERTIFICATION REGARDING TAX MATTERS (OCT 2020)

(a) This provision implements section 523 of Division B of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts.

(b) If the Offeror is proposing a total contract price that will exceed \$5.5 million (including options), the Offeror shall certify that, to the best of its knowledge and belief, it--

(1) Has [] filed all Federal tax returns required during the three years preceding the certification;

(2) Has not [] been convicted of a criminal offense under the Internal Revenue Code of 1986; and

(3) Has not [], more than 90 days prior to certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

(End of provision)

252.203-7005 REPRESENTATION RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (NOV 2011)

(a) Definition. Covered DoD official is defined in the clause at 252.203-7000, Requirements Relating to Compensation of Former DoD Officials.

(b) By submission of this offer, the offeror represents, to the best of its knowledge and belief, that all covered DoD officials employed by or otherwise receiving compensation from the offeror, and who are expected to undertake activities on behalf of the offeror for any resulting contract, are presently in compliance with all post-employment restrictions covered by 18 U.S.C. 207, 41 U.S.C. 2101-2107, and 5 CFR parts 2637 and 2641, including Federal Acquisition Regulation 3.104-2.

(End of provision)

252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAY 2021)

Substitute the following paragraphs (b), (d) and (e) for paragraphs (b) and (d) of the provision at FAR 52.204-8:

(b)(1) If the provision at FAR 52.204-7, System for Award Management, is included in this solicitation, paragraph (e) of this provision applies.

(2) If the provision at FAR 52.204-7, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), the Offeror may choose to use paragraph (e) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The Offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (e) applies.

(ii) Paragraph (e) does not apply and the Offeror has completed the individual representations and certifications in the solicitation.

(d)(1) The following representations or certifications in the SAM database are applicable to this solicitation as indicated:

(i) 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation. Applies to all solicitations.

(ii) 252.216-7008, Economic Price Adjustment--Wage Rates or Material Prices Controlled by a Foreign Government. Applies to solicitations for fixed-price supply and service contracts when the contract is to be performed wholly or in part in a foreign country, and a foreign government controls wage rates or material prices and may during contract performance impose a mandatory change in wages or prices of materials.

(iii) 252.225-7042, Authorization to Perform. Applies to all solicitations when performance will be wholly or in part in a foreign country.

(iv) 252.225-7049, Prohibition on Acquisition of Certain Foreign Commercial Satellite Services--Representations. Applies to solicitations for the acquisition of commercial satellite services.

(v) 252.225-7050, Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism. Applies to all solicitations expected to result in contracts of \$150,000 or more.

(vi) 252.229-7012, Tax Exemptions (Italy)--Representation. Applies to solicitations when contract performance will be in Italy.

(vii) 252.229-7013, Tax Exemptions (Spain)--Representation. Applies to solicitations when contract performance will be in Spain.

(viii) 252.247-7022, Representation of Extent of Transportation by Sea. Applies to all solicitations except those for direct purchase of ocean transportation services or those with an anticipated value at or below the simplified acquisition threshold.

(2) The following representations or certifications in SAM are applicable to this solicitation as indicated by the Contracting Officer: [Contracting Officer check as appropriate.]

___ (i) 252.209-7002, Disclosure of Ownership or Control by a Foreign Government.

___ (ii) 252.225-7000, Buy American--Balance of Payments Program Certificate.

___ (iii) 252.225-7020, Trade Agreements Certificate.

___ Use with Alternate I.

___ (iv) 252.225-7031, Secondary Arab Boycott of Israel.

___ (v) 252.225-7035, Buy American--Free Trade Agreements--Balance of Payments Program Certificate.

___ Use with Alternate I.

___ Use with Alternate II.

___ Use with Alternate III.

___ Use with Alternate IV.

___ Use with Alternate V.

___ (vi) 252.226-7002, Representation for Demonstration Project for Contractors Employing Persons with Disabilities.

___ (vii) 252.232-7015, Performance-Based Payments--Representation.

(e) The Offeror has completed the annual representations and certifications electronically via the SAM website at <https://www.acquisition.gov/>. After reviewing the SAM database information, the Offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in FAR 52.204-8(c) and paragraph (d) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer, and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [Offeror to insert changes, identifying change by provision number, title, date ____]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR/DFARS provision No.	Title	Date	Change

Any changes provided by the Offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications located in the SAM database.

(End of provision)

252.204-7008 COMPLIANCE WITH SAFEGUARDING COVERED DEFENSE INFORMATION CONTROLS (OCT 2016)

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

Controlled technical information, covered contractor information system, covered defense information, cyber incident, information system, and technical information are defined in clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting.

(b) The security requirements required by contract clause 252.204-7012 shall be implemented for all covered defense information on all covered contractor information systems that support the performance of this contract.

(c) For covered contractor information systems that are not part of an information technology service or system operated on behalf of the Government (see 252.204-7012(b)(2))--

(1) By submission of this offer, the Offeror represents that it will implement the security requirements specified by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (see <http://dx.doi.org/10.6028/NIST.SP.800-171>) that are in effect at the time the solicitation is issued or as authorized by the contracting officer not later than December 31, 2017.

(2)(i) If the Offeror proposes to vary from any of the security requirements specified by NIST SP 800-171 that are in effect at the time the solicitation is issued or as authorized by the Contracting Officer, the Offeror shall submit to the Contracting Officer, for consideration by the DoD Chief Information Officer (CIO), a written explanation of—

(A) Why a particular security requirement is not applicable; or

(B) How an alternative but equally effective, security measure is used to compensate for the inability to satisfy a particular requirement and achieve equivalent protection.

(ii) An authorized representative of the DoD CIO will adjudicate offeror requests to vary from NIST SP 800-171 requirements in writing prior to contract award. Any accepted variance from NIST SP 800-171 shall be incorporated into the resulting contract.

(End of provision)

252.204-7016 COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES -- REPRESENTATION (DEC 2019)

(a) Definitions. As used in this provision, covered defense telecommunications equipment or services has the meaning provided in the clause 252.204-7018, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services.

(b) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for "covered defense telecommunications equipment or services".

(c) Representation. The Offeror represents that it does, does not provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(End of provision)

252.204-7017 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES--REPRESENTATION (MAY 2021)

The Offeror is not required to complete the representation in this provision if the Offeror has represented in the provision at 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation, that it “does not provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.”

(a) Definitions. Covered defense telecommunications equipment or services, covered mission, critical technology, and substantial or essential component, as used in this provision, have the meanings given in the 252.204-7018 clause, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services, of this solicitation.

(b) Prohibition. Section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) prohibits agencies from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

(d) Representation. If in its annual representations and certifications in SAM the Offeror has represented in paragraph (c) of the provision at 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation, that it “does” provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument, then the Offeror shall complete the following additional representation:

The Offeror represents that it will will not provide covered defense telecommunications equipment or services as a part of its offered products or services to DoD in the performance of any award resulting from this solicitation.

(e) Disclosures. If the Offeror has represented in paragraph (d) of this provision that it “will provide covered defense telecommunications equipment or services,” the Offeror shall provide the following information as part of the offer:

(1) A description of all covered defense telecommunications equipment and services offered (include brand or manufacturer; product, such as model number, original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable).

(2) An explanation of the proposed use of covered defense telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition referenced in paragraph (b) of this provision.

(3) For services, the entity providing the covered defense telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known).

(4) For equipment, the entity that produced or provided the covered defense telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

252.226-7002 REPRESENTATION FOR DEMONSTRATION PROJECT FOR CONTRACTORS EMPLOYING PERSONS WITH DISABILITIES (DEC 2019)

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

Eligible contractor means a business entity operated on a for-profit or nonprofit basis that--

(1) Employs severely disabled individuals at a rate that averages not less than 33 percent of its total workforce over the 12-month period prior to issuance of the solicitation;

(2) Pays not less than the minimum wage prescribed pursuant to 29 U.S.C. 206 to the employees who are severely disabled individuals; and

(3) Provides, for its employees, health insurance and a retirement plan comparable to those provided for employees by business entities of similar size in its industrial sector or geographic region.

Severely disabled individual means an individual with a disability (as defined in 42 U.S.C. 12102) who has a severe physical or mental impairment that seriously limits one or more functional capacities.

(b) Demonstration Project. This solicitation is issued pursuant to the Demonstration Project for Contractors Employing Persons with Disabilities. The purpose of the Demonstration Project is to provide defense contracting opportunities for entities that employ severely disabled individuals. To be eligible for award, an offeror must be an eligible contractor as defined in paragraph (a) of this provision.

(c) Representation. The offeror represents that it is is not an eligible contractor as defined in paragraph (a) of this provision.

(End of provision)

252.232-7016 NOTICE OF PROGRESS PAYMENTS OR PERFORMANCE-BASED PAYMENTS (APR 2020)

(a) The need for customary progress payments in accordance with subpart 32.5 of the Federal Acquisition Regulation (FAR) or performance-based payments in accordance with FAR subpart 32.10 will not be considered as a handicap or adverse factor in the award of the contract.

(b) This solicitation includes a FAR and Defense Federal Acquisition Regulation Supplement (DFARS) clause for performance-based payments and a FAR clause for progress payments. The resultant contract will include either performance-based payments or progress payments, not both, except as may be authorized on separate orders subject to FAR 32.1003(c).

(1) The performance-based payments clauses will be included in the contract if--

(i) The Offeror has provided positive representation in response to DFARS 252.232-7015, Performance-Based Payments--Representation;

(ii) The Offeror proposes a performance-based payment arrangement in accordance with FAR 52.232-28, Invitation to Propose Performance-Based Payments, including proposed events and timing, event completion criteria, event values, and expected expenditure profile; and

(iii) The Offeror and the Government reach agreement on all aspects of the arrangement.

(2) If performance-based payments clauses are not included in the resultant contract, the progress payments clause included in this solicitation will be included in any resultant contract, modified or altered if necessary in accordance with FAR 52.232-16 and its Alternate I. Even though the progress payments clause is included in the contract, the clause shall be inoperative during any time the contractor's accounting system and controls are determined by the Government to be inadequate for segregation and accumulation of contract costs.

(End of provision)

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUN 2020
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-6	Restrictions On Subcontractor Sales To The Government	JUN 2020
52.203-7	Anti-Kickback Procedures	JUN 2020
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	MAY 2014
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2020
52.203-13	Contractor Code of Business Ethics and Conduct	NOV 2021
52.203-14	Display of Hotline Poster(s)	NOV 2021
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	JUN 2020
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	JAN 2017
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	MAY 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUN 2020
52.204-12	Unique Entity Identifier Maintenance	OCT 2016
52.204-13	System for Award Management Maintenance	OCT 2018
52.204-19	Incorporation by Reference of Representations and Certifications.	DEC 2014
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities	NOV 2021
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment	NOV 2021
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	NOV 2021
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	OCT 2018
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.211-18	Variation in Estimated Quantity	APR 1984
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award-Sealed Bidding-Construction	AUG 1996
52.214-27 (Dev)	Price Reduction for Defective Certified Cost or Pricing Data - Modifications - Sealed Bidding (DEVIATION 2022-O0001)	OCT 2021
52.214-28 Alt I	Subcontractor Certified Cost or Pricing Data--Modifications-- Sealed Bidding (JUN 2020) - Alternate I	AUG 2020
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	SEP 2021
52.219-8	Utilization of Small Business Concerns	OCT 2018
52.219-33	Nonmanufacturer Rule	SEP 2021
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-6	Construction Wage Rate Requirements	AUG 2018
52.222-7	Withholding of Funds	MAY 2014
52.222-8	Payrolls and Basic Records	JUL 2021
52.222-9	Apprentices and Trainees	JUL 2005

52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	MAY 2014
52.222-12	Contract Termination-Debarment	MAY 2014
52.222-13	Compliance With Construction Wage Rate Requirements and Related Regulations	MAY 2014
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	MAY 2014
52.222-21	Prohibition Of Segregated Facilities	APR 2015
52.222-26	Equal Opportunity	SEP 2016
52.222-27	Affirmative Action Compliance Requirements for Construction	APR 2015
52.222-37	Employment Reports on Veterans	JUN 2020
52.222-50	Combating Trafficking in Persons	NOV 2021
52.222-54	Employment Eligibility Verification	MAY 2022
52.222-55	Minimum Wages for Contractor Workers Under Executive Order 14026	JAN 2022
52.222-62	Paid Sick Leave Under Executive Order 13706	JAN 2022
52.223-6	Drug-Free Workplace	MAY 2001
52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	JUN 2020
52.223-19	Compliance with Environmental Management Systems	MAY 2011
52.227-1	Authorization and Consent	JUN 2020
52.227-4	Patent Indemnity-Construction Contracts	DEC 2007
52.228-2	Additional Bond Security	OCT 1997
52.228-11 (Dev)	Individual Surety--Pledge of Assets (DEVIATION 2020-O0016)	FEB 2021
52.228-12	Prospective Subcontractor Requests for Bonds	MAY 2014
52.228-15 (Dev)	Performance and Payment Bonds-Construction. (Deviation 2020-O0016)	JUN 2020
52.229-3	Federal, State And Local Taxes	FEB 2013
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 2014
52.232-18	Availability Of Funds	APR 1984
52.232-23	Assignment Of Claims	MAY 2014
52.232-33	Payment by Electronic Funds Transfer--System for Award Management	OCT 2018
52.232-39	Unenforceability of Unauthorized Obligations	JUN 2013
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	NOV 2021
52.233-1	Disputes	MAY 2014
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
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
52.236-8	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
52.236-14	Availability and Use of Utility Services	APR 1984
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995

52.242-5	Payments to Small Business Subcontractors	JAN 2017
52.242-14	Suspension of Work	APR 1984
52.242-15	Stop-Work Order	AUG 1989
52.243-4	Changes	JUN 2007
52.244-6	Subcontracts for Commercial Products and Commercial Services	JAN 2022
52.246-12	Inspection of Construction	AUG 1996
52.248-3	Value Engineering-Construction	OCT 2020
52.249-10	Default (Fixed-Price Construction)	APR 1984

CLAUSES INCORPORATED BY FULL TEXT

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

The Contractor shall be required to

- (a) Commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed,
- (b) Prosecute the work diligently, and
- (c) Complete the entire work not later than 60 calendar days after the date of receipt by him of notice to proceed. The time stated for completion shall include final cleanup of the premises.

(End of Clause)

NOTE: The term "work" referenced in subparagraph (a) above includes tasks such as submission of submittals, performance of preliminary and/or BD surveys, disposal surveys, dike construction, and does not have to be dredging.

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

- (a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$ 2,610.00 for each calendar day of delay until the work is completed or accepted.
- (b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.214-26 AUDIT AND RECORDS--SEALED BIDDING (JUN 2020)

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

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

- (1) The proposal for the modification;
- (2) The discussions conducted on the proposal(s), including those related to negotiating;
- (3) Pricing of the modification; or
- (4) Performance of the modification.

(c) Comptroller General. In the case of pricing any modification, the Comptroller General of the United States, or an authorized representative, shall have the same rights as specified in paragraph (b) of this clause and also the right to interview any current employee regarding such transactions.

(d) Availability. The Contractor shall make available at its office at all reasonable times the materials described in reproduction, until 3 years after final payment under this contract, or for any other period specified in Subpart 4.7 of the Federal Acquisition Regulation (FAR). FAR Subpart 4.7, Contractor Records Retention, in effect on the date of this contract, is incorporated by reference in its entirety and made a part of this contract.

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement.

(2) Records pertaining to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to the performance of this contract shall be made available until disposition of such appeals, litigation, or claims.

(e) Subcontracts. The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts expected to exceed the threshold for submission of certified cost or pricing data in FAR 15.403-4(a)(1) on the date of subcontract award.

(End of clause)

52.219-14 LIMITATIONS ON SUBCONTRACTING (SEP 2021)

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

(b) Definition. Similarly situated entity, as used in this clause, means a first-tier subcontractor, including an independent contractor, that--

- (1) Has the same small business program status as that which qualified the prime contractor for the award (e.g., for a small business set-aside contract, any small business concern, without regard to its socioeconomic status); and
- (2) Is considered small for the size standard under the North American Industry Classification System (NAICS) code the prime contractor assigned to the subcontract.

(c) Applicability. This clause applies only to--

- (1) Contracts that have been set aside for any of the small business concerns identified in 19.000(a)(3);

- (2) Part or parts of a multiple-award contract that have been set aside for any of the small business concerns identified in 19.000(a)(3);
- (3) Contracts that have been awarded on a sole-source basis in accordance with subparts 19.8, 19.13, 19.14, and 19.15;
- (4) Orders expected to exceed the simplified acquisition threshold and that are--
- (i) Set aside for small business concerns under multiple-award contracts, as described in 8.405-5 and 16.505(b)(2)(i)(F); or
 - (ii) Issued directly to small business concerns under multiple-award contracts as described in 19.504(c)(1)(ii);
- (5) Orders, regardless of dollar value, that are--
- (i) Set aside in accordance with subparts 19.8, 19.13, 19.14, or 19.15 under multiple-award contracts, as described in 8.405-5 and 16.505(b)(2)(i)(F); or
 - (ii) Issued directly to concerns that qualify for the programs described in subparts 19.8, 19.13, 19.14, or 19.15 under multiple-award contracts, as described in 19.504(c)(1)(ii); and
- (6) Contracts using the HUBZone price evaluation preference to award to a HUBZone small business concern unless the concern waived the evaluation preference.
- (d) Independent contractors. An independent contractor shall be considered a subcontractor.
- (e) Limitations on subcontracting. By submission of an offer and execution of a contract, the Contractor agrees that in performance of a contract assigned a North American Industry Classification System (NAICS) code for--
- (1) Services (except construction), it will not pay more than 50 percent of the amount paid by the Government for contract performance to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 50 percent subcontract amount that cannot be exceeded. When a contract includes both services and supplies, the 50 percent limitation shall apply only to the service portion of the contract;
 - (2) Supplies (other than procurement from a nonmanufacturer of such supplies), it will not pay more than 50 percent of the amount paid by the Government for contract performance, excluding the cost of materials, to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 50 percent subcontract amount that cannot be exceeded. When a contract includes both supplies and services, the 50 percent limitation shall apply only to the supply portion of the contract;
 - (3) General construction, it will not pay more than 85 percent of the amount paid by the Government for contract performance, excluding the cost of materials, to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 85 percent subcontract amount that cannot be exceeded; or
 - (4) Construction by special trade contractors, it will not pay more than 75 percent of the amount paid by the Government for contract performance, excluding the cost of materials, to subcontractors that are not similarly situated entities. Any work that a similarly situated entity further subcontracts will count towards the prime contractor's 75 percent subcontract amount that cannot be exceeded.
- (f) The Contractor shall comply with the limitations on subcontracting as follows:
- (1) For contracts, in accordance with paragraphs (c)(1), (2), (3) and (6) of this clause--

[Contracting Officer check as appropriate.]

By the end of the base term of the contract and then by the end of each subsequent option period; or

By the end of the performance period for each order issued under the contract.

(2) For orders, in accordance with paragraphs (c)(4) and (5) of this clause, by the end of the performance period for the order.

(g) A joint venture agrees that, in the performance of the contract, the applicable percentage specified in paragraph (e) of this clause will be performed by the aggregate of the joint venture participants.

(End of clause)

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

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

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

Goals for minority participation for each trade	Goals for female participation for each trade
SMSA (Lafayette) Parish 20.6%	6.9%
Non-SMSA Parish 24.1%	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 St. Mary's Parish.

(End of provision)

52.222-35 EQUAL OPPORTUNITY FOR VETERANS (JUN 2020)

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

"Active duty wartime or campaign badge veteran," "Armed Forces service medal veteran," "disabled veteran," "protected veteran," "qualified disabled veteran," and "recently separated veteran" have the meanings given at Federal Acquisition Regulation (FAR) 22.1301.

(b) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

(c) Subcontracts. The Contractor shall insert the terms of this clause in subcontracts valued at or above the threshold specified in FAR 22.1303(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JUN 2020)

(a) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.

(b) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of the threshold specified in Federal Acquisition Regulation (FAR) 22.1408(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance.

Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

52.225-9 BUY AMERICAN—CONSTRUCTION MATERIALS (NOV 2021)

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

Commercially available off-the-shelf (COTS) item—

(1) Means any item of supply (including construction material) that is--

(i) A commercial product (as defined in paragraph (1) of the definition of "commercial product" at Federal Acquisition Regulation (FAR) 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4) such as agricultural products and petroleum products.

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

Domestic construction material means--

(1) For construction material that does not consist wholly or predominantly of iron or steel or a combination of both-

(i) An unmanufactured construction material mined or produced in the United States; or

(ii) A construction material manufactured in the United States, if--

(A) The cost of its components mined, produced, or manufactured in the United States exceeds 55 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. Components of unknown origin are treated as foreign; or

(B) The construction material is a COTS item; or

(2) For construction material that consists wholly or predominantly of iron or steel or a combination of both, a construction material manufactured in the United States if the cost of foreign iron and steel constitutes less than 5 percent of the cost of all components used in such construction material. The cost of foreign iron and steel includes but is not limited to the cost of foreign iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the construction material and a good faith estimate of the cost of all foreign iron or steel components excluding COTS fasteners. Iron or steel components of unknown origin are treated as foreign. If the construction material contains multiple components, the cost of all the materials used in such construction material is calculated in accordance with the definition of "cost of components".

Fastener means a hardware device that mechanically joins or affixes two or more objects together. Examples of fasteners are nuts, bolts, pins, rivets, nails, clips, and screws.

Foreign construction material means a construction material other than a domestic construction material.

Foreign iron and steel means iron or steel products not produced in the United States. Produced in the United States means that all manufacturing processes of the iron or steel must take place in the United States, from the initial melting stage through the application of coatings, except metallurgical processes involving refinement of steel additives. The origin of the elements of the iron or steel is not relevant to the determination of whether it is domestic or foreign.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components excluding COTS fasteners.

Steel means an alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference.

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the domestic content test of the Buy American statute is waived for construction material that is a COTS item, except that for construction material that consists wholly or predominantly of iron or steel or a combination of both, the domestic content test is applied only to the iron and steel content of the construction materials, excluding COTS fasteners. (See FAR 12.505(a)(2)). 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 information technology that is a commercial product or to the construction materials or components listed by the Government as follows:

___ [Contracting Officer to list applicable excepted materials or indicate "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 20 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 statute 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 statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(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) *\
Item 1:			
Foreign construction material....	_____	_____	_____
Domestic construction material...	_____	_____	_____
Item 2:			
Foreign construction material....	_____	_____	_____
Domestic construction material...	_____	_____	_____

[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued)].

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

(End of clause)

52.225-12 NOTICE OF BUY AMERICAN REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2014)

(a) Definitions. “Commercially available off-the-shelf (COTS) item,” “construction material,” “designated country 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 -- Construction Materials Under Trade Agreements” (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American statute 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 FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American statute 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 statute, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(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, other than designated country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country 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 FAR clause 52.225-11

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 FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material, and the offeror shall be required to furnish such domestic or designated country 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)

52.228-14 IRREVOCABLE LETTER OF CREDIT (NOV 2014)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to 40 U.S.C. chapter 31, subchapter III, Bonds, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d)(1) Only federally insured financial institutions rated investment grade by a commercial rating service shall issue or confirm the ILC.

(2) Unless the financial institution issuing the ILC had letter of credit business of at least \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of at least \$25 million in the past year.

(3) The Offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institutions have the required credit rating as of the date of issuance of the ILC.

(4) The current rating for a financial institution is available through any of the following rating services registered with the U.S. Securities and Exchange Commission (SEC) as a Nationally Recognized Statistical Rating Organization (NRSRO). NRSRO's can be located at the Web site <http://www.sec.gov/answers/nrsro.htm> maintained by the SEC.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _ _ _ _

IRREVOCABLE LETTER OF CREDIT NO. ____

Account party's name ____ _

Account party's address ____ _

For Solicitation No. ____ _ (for reference only)

TO: [____ U.S. Government agency]

[____ U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$ ____ . This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [____ issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on ____ , or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to

either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., ``Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution, if any, otherwise State of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[____ Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

____ [Confirming Financial Institution's Letterhead or Name and Address]

(Date) ____

Our Letter of Credit Advice Number ____

Beneficiary: ____ [U.S. Government agency]

Issuing Financial Institution: ____

Issuing Financial Institution's LC No.: ____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by ____ [name of issuing financial institution] for drawings of up to United States dollars ____ /U.S. \$ ____ and expiring with our close of business on ____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at ____ .

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., "Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) ____

[Name and address of financial institution]

Pay to the order of ____ [Beneficiary Agency] ____ the sum of United States ____ This draft is drawn under Irrevocable Letter of Credit No. ____

____ [Beneficiary Agency]

By: ____

(End of clause)

52.232-16 PROGRESS PAYMENTS (NOV 2021) (DEVIATION 2020-O0010)

The Government will make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts of \$2,500 or more approved by the Contracting Officer, under the following conditions:

(a) Computation of amounts.

(1) Unless the Contractor requests a smaller amount, the Government will compute each progress payment as 90 percent of the Contractor's total costs incurred under this contract whether or not actually paid, plus financing payments to subcontractors (see paragraph (j) of this clause), less the sum of all previous progress payments made by the Government under this contract. The Contracting Officer will consider cost of money that would be allowable under Federal Acquisition Regulation (FAR) 31.205-10 as an incurred cost for progress payment purposes.

(2) The amount of financing and other payments for supplies and services purchased directly for the contract are limited to the amounts that have been paid by cash, check, or other forms of payment, or that are determined due and will be paid to subcontractors—

(i) In accordance with the terms and conditions of a subcontract or invoice; and

(ii) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government.

(3) The Government will exclude accrued costs of Contractor contributions under employee pension plans until actually paid unless-

- (i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and
 - (ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's total costs for progress payments until paid).
- (4) The Contractor shall not include the following in total costs for progress payment purposes in paragraph (a)(1) of this clause:
- (i) Costs that are not reasonable, allocable to this contract, and consistent with sound and generally accepted accounting principles and practices.
 - (ii) Costs incurred by subcontractors or suppliers.
 - (iii) Costs ordinarily capitalized and subject to depreciation or amortization except for the properly depreciated or amortized portion of such costs.
 - (iv) Payments made or amounts payable to subcontractors or suppliers, except for-
 - (A) Completed work, including partial deliveries, to which the Contractor has acquired title; and
 - (B) Work under cost-reimbursement or time-and-material subcontracts to which the Contractor has acquired title.
- (5) The amount of unliquidated progress payments may exceed neither (i) the progress payments made against incomplete work (including allowable unliquidated progress payments to subcontractors) nor (ii) the value, for progress payment purposes, of the incomplete work. Incomplete work shall be considered to be the supplies and services required by this contract, for which delivery and invoicing by the Contractor and acceptance by the Government are incomplete.
- (6) The total amount of progress payments shall not exceed 90 percent of the total contract price.
- (7) If a progress payment or the unliquidated progress payments exceed the amounts permitted by subparagraphs (a)(4) or (a)(5) above, the Contractor shall repay the amount of such excess to the Government on demand.
- (8) Notwithstanding any other terms of the contract, the Contractor agrees not to request progress payments in dollar amounts of less than \$2,500. The Contracting Officer may make exceptions.
- (9) The costs applicable to items delivered, invoiced, and accepted shall not include costs in excess of the contract price of the items.
- (b) Liquidation. Except as provided in the Termination for Convenience of the Government clause, all progress payments shall be liquidated by deducting from any payment under this contract, other than advance or progress payments, the unliquidated progress payments, or 90 percent of the amount invoiced, whichever is less. The Contractor shall repay to the Government any amounts required by a retroactive price reduction, after computing liquidations and payments on past invoices at the reduced prices and adjusting the unliquidated progress payments accordingly. The Government reserves the right to unilaterally change from the ordinary liquidation rate to an alternate rate when deemed appropriate for proper contract financing.
- (c) Reduction or suspension. The Contracting Officer may reduce or suspend progress payments, increase the rate of liquidation, or take a combination of these actions, after finding on substantial evidence any of the following conditions:
- (1) The Contractor failed to comply with any material requirement of this contract (which includes paragraphs (f) and (g) below).
 - (2) Performance of this contract is endangered by the Contractor's (i) failure to make progress or (ii) unsatisfactory financial condition.
 - (3) Inventory allocated to this contract substantially exceeds reasonable requirements.
 - (4) The Contractor is delinquent in payment of the costs of performing this contract in the ordinary course of business.
 - (5) The fair value of the undelivered work is less than the amount of unliquidated progress payments for that work.
 - (6) The Contractor is realizing less profit than that reflected in the establishment of any alternate liquidation rate in paragraph (b) above, and that rate is less than the progress payment rate stated in subparagraph (a)(1) above.
- (d) Title.
- (1) Title to the property described in this paragraph (d) shall vest in the Government. Vestiture shall be immediately upon the date of this contract, for property acquired or produced before that date. Otherwise, vestiture shall occur when the property is or should have been allocable or properly chargeable to this contract.
 - (2) Property, as used in this clause, includes all of the below-described items acquired or produced by the Contractor that are or should be allocable or properly chargeable to this contract under sound and generally accepted accounting principles and practices.
 - (i) Parts, materials, inventories, and work in process;
 - (ii) Special tooling and special test equipment to which the Government is to acquire title;

(iii) Nondurable (i.e., noncapital) tools, jigs, dies, fixtures, molds, patterns, taps, gauges, test equipment, and other similar manufacturing aids, title to which would not be obtained as special tooling under subparagraph (ii) above; and

(iv) Drawings and technical data, to the extent the Contractor or subcontractors are required to deliver them to the Government by other clauses of this contract.

(3) Although title to property is in the Government under this clause, other applicable clauses of this contract, e.g., the termination clauses, shall determine the handling and disposition of the property.

(4) The Contractor may sell any scrap resulting from production under this contract without requesting the Contracting Officer's approval, but the proceeds shall be credited against the costs of performance.

(5) To acquire for its own use or dispose of property to which title is vested in the Government under this clause, the Contractor must obtain the Contracting Officer's advance approval of the action and the terms. The Contractor shall (i) exclude the allocable costs of the property from the costs of contract performance, and (ii) repay to the Government any amount of unliquidated progress payments allocable to the property. Repayment may be by cash or credit memorandum.

(6) When the Contractor completes all of the obligations under this contract, including liquidation of all progress payments, title shall vest in the Contractor for all property (or the proceeds thereof) not—

(i) Delivered to, and accepted by, the Government under this contract; or

(ii) Incorporated in supplies delivered to, and accepted by, the Government under this contract and to which title is vested in the Government under this clause.

(7) The terms of this contract concerning liability for Government-furnished property shall not apply to property to which the Government acquired title solely under this clause.

(e) Risk of loss. Before delivery to and acceptance by the Government, the Contractor shall bear the risk of loss for property, the title to which vests in the Government under this clause, except to the extent the Government expressly assumes the risk. The Contractor shall repay the Government an amount equal to the unliquidated progress payments that are based on costs allocable to property that is lost (see 45.101).

(f) Control of costs and property. The Contractor shall maintain an accounting system and controls adequate for the proper administration of this clause.

(g) Reports, forms, and access to records.

(1) The Contractor shall promptly furnish reports, certificates, financial statements, and other pertinent information (including estimates to complete) reasonably requested by the Contracting Officer for the administration of this clause. Also, the Contractor shall give the Government reasonable opportunity to examine and verify the Contractor's books, records, and accounts.

(2) The Contractor shall furnish estimates to complete that have been developed or updated within six months of the date of the progress payment request. The estimates to complete shall represent the Contractor's best estimate of total costs to complete all remaining contract work required under the contract. The estimates shall include sufficient detail to permit Government verification.

(3) Each Contractor request for progress payment shall:

(i) Be submitted on Standard Form 1443, Contractor's Request for Progress Payment, or the electronic equivalent as required by agency regulations, in accordance with the form instructions and the contract terms; and

(ii) Include any additional supporting documentation requested by the Contracting Officer.

(h) Special terms regarding default. If this contract is terminated under the Default clause, (i) the Contractor shall, on demand, repay to the Government the amount of unliquidated progress payments, and (ii) title shall vest in the Contractor, on full liquidation of progress payments, for all property for which the Government elects not to require delivery under the Default clause. The Government shall be liable for no payment except as provided by the Default clause.

(i) Reservations of rights.

(1) No payment or vesting of title under this clause shall (i) excuse the Contractor from performance of obligations under this contract or (ii) constitute a waiver of any of the rights or remedies of the parties under the contract.

(2) The Government's rights and remedies under this clause (i) shall not be exclusive but rather shall be in addition to any other rights and remedies provided by law or this contract and (ii) shall not be affected by delayed, partial, or omitted exercise of any right, remedy, power, or privilege, nor shall such exercise or any single exercise preclude or impair any further exercise under this clause or the exercise of any other right, power, or privilege of the Government.

(j) Financing payments to subcontractors. The financing payments to subcontractors mentioned in paragraphs (a)(1) and (a)(2) of this clause shall be all financing payments to subcontractors or divisions, if the following conditions are met:

(1) The amounts included are limited to—

(i) The unliquidated remainder of financing payments made; plus

(ii) Any unpaid subcontractor requests for financing payments.

(2) The subcontract or interdivisional order is expected to involve a minimum of approximately 6 months between the beginning of work and the first delivery; or, if the subcontractor is a small business concern, 4 months.

(3) If the financing payments are in the form of progress payments, the terms of the subcontract or interdivisional order concerning progress payments—

(i) Are substantially similar to the terms of this clause for any subcontractor that is a large business concern, or this clause with its Alternate I for any subcontractor that is a small business concern;

(ii) Are at least as favorable to the Government as the terms of this clause;

(iii) Are not more favorable to the subcontractor or division than the terms of this clause are to the Contractor;

(iv) Are in conformance with the requirements of FAR 32.504(e); and

(v) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if—

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(4) If the financing payments are in the form of performance-based payments, the terms of the subcontract or interdivisional order concerning payments—

(i) Are substantially similar to the Performance-Based Payments clause at FAR 52.232-32 and meet the criteria for, and definition of, performance-based payments in FAR Part 32;

(ii) Are in conformance with the requirements of FAR 32.504(f); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if—

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(5) If the financing payments are in the form of commercial product or commercial service financing payments, the terms of the subcontract or interdivisional order concerning payments—

(i) Are constructed in accordance with FAR 32.206(c) and included in a subcontract for a commercial product or commercial service purchase that meets the definition and standards for acquisition of commercial products and commercial services in FAR parts 2 and 12;

(ii) Are in conformance with the requirements of FAR 32.504(g); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if—

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(6) If financing is in the form of progress payments, the progress payment rate in the subcontract is the customary rate used by the contracting agency, depending on whether the subcontractor is or is not a small business concern.

(7) Concerning any proceeds received by the Government for property to which title has vested in the Government under the subcontract terms, the parties agree that the proceeds shall be applied to reducing any unliquidated financing payments by the Government to the Contractor under this contract.

(8) If no unliquidated financing payments to the Contractor remain, but there are unliquidated financing payments that the Contractor has made to any subcontractor, the Contractor shall be subrogated to all the rights the Government obtained through the terms required by this clause to be in any subcontract, as if all such rights had been assigned and transferred to the Contractor.

(9) To facilitate small business participation in subcontracting under this contract, the Contractor shall provide financing payments to small business concerns, in conformity with the standards for customary contract financing payments stated in FAR 32.113. The Contractor shall not consider the need for such financing payments as a handicap or adverse factor in the award of subcontracts.

(k) Limitations on undefinitized contract actions. Notwithstanding any other progress payment provisions in this contract, progress payments may not exceed 80 percent of costs incurred on work accomplished under undefinitized contract actions. A contract action is any action resulting in a contract, as defined in subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope

and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes. This limitation shall apply to the costs incurred, as computed in accordance with paragraph (a) of this clause, and shall remain in effect until the contract action is definitized. Costs incurred which are subject to this limitation shall be segregated on Contractor progress payment requests and invoices from those costs eligible for higher progress payment rates. For purposes of progress payment liquidation, as described in paragraph (b) of this clause, progress payments for undefinitized contract actions shall be liquidated at 80 percent of the amount invoiced for work performed under the undefinitized contract action as long as the contract action remains undefinitized. The amount of unliquidated progress payments for undefinitized contract actions shall not exceed 80 percent of the maximum liability of the Government under the undefinitized contract action or such lower limit specified elsewhere in the contract. Separate limits may be specified for separate actions.

(l) Due date. The designated payment office will make progress payments on the 30th day after the designated billing office receives a proper progress payment request. In the event that the Government requires an audit or other review of a specific progress payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date. Progress payments are considered contract financing and are not subject to the interest penalty provisions of the Prompt Payment Act.

(m) Progress payments under indefinite-delivery contracts. The Contractor shall account for and submit progress payment requests under individual orders as if the order constituted a separate contract, unless otherwise specified in this contract.

(End of clause)

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

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

(End of clause)

52.236-4 PHYSICAL DATA (APR 1984)

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) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys.

(b) Weather Conditions. Data on weather conditions may be obtained from the National Weather Service.

(c) Transportation Facilities. Access to the worksite is available via U.S. Highway 90 West to the East and West Calumet Floodgates. By water, it is accessible from the Wax Lake Outlet via the Atchafalaya River and Bayou Teche to the East Calumet structure.

(d) Condition of Channel. Although not an authorized navigation channel, depths within the Wax Lake Outlet channel is generally adequate for the movement of floating plant. However, the Contractor should verify the required dimensions. Cross sections and/or dredging history of the East and West Calumet approach channels are available for inspection at the Corps of Engineers District Office, New Orleans, LA

(e) Channel Traffic. Traffic in the channels consists of tugs, commercial fishing boats, oil field access, and small pleasure craft.

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

(g) Estimates of quantities involved in certain items of work for which bids are being solicited on a lump sum or job basis have been made for the use of the Government. Copies of these quantity estimates may be viewed or obtained by contacting the U.S. Army Engineer District, New Orleans, Corps of Engineers, Attention: Contracting Officer, CEMVN-CT-W, 7400 Leake Ave, New Orleans, Louisiana 70118-3651. It is expressly understood that the accuracy of these estimates is in no way warranted and that the furnishing of this information to a bidder will not relieve him of his responsibility to estimate the quantities involved.

(h) Real time stage hydrograph data of the Atchafalaya River Basin may be obtained from the New Orleans District website at:

<https://www.mvn.usace.army.mil/Missions/Engineering/Stage-and-Hydrologic-Data/Bayou-Teche-Vermillion-River-Basin-Stages/>.

The specific gages are as follows:

- Bayou Teche at West Calumet Floodgate, LA
- Bayou Teche at East Calumet Floodgate, LA

(End of clause)

52.236-16 QUANTITY SURVEYS (APR 1984) - ALTERNATE I (APR 1984)

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

(b) The Contractor shall conduct the original and final surveys and surveys for any periods for which progress payments are requested. All these surveys shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance. The Government shall make such computations as are necessary to determine the quantities of work performed or finally in place. The Contractor shall make the computations based on the surveys for any periods for which progress payments are requested.

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

Contractor shall retain copies of all such material furnished to the Contracting Officer.

(End of clause)

52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(End of clause)

52.243-7 NOTIFICATION OF CHANGES (JAN 2017)

(a) Definitions.

"Contracting Officer," as used in this clause, does not include any representative of the Contracting Officer.

"Specifically authorized representative (SAR)," as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

(b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing, within 7 calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state--

- (1) The date, nature, and circumstances of the conduct regarded as a change;
- (2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;
- (3) The identification of any documents and the substance of any oral communication involved in such conduct;
- (4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;
- (5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including--
 - (i) What line items have been or may be affected by the alleged change;
 - (ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;
 - (iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;
 - (iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

(6) The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance.

(c) Continued performance. Following submission of the notice required by (b) above, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in (b) above, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall countermand any action which exceeds the authority of the SAR.

(d) Government response. The Contracting Officer shall promptly, within 14 calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either--

(1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

(2) Countermand any communication regarded as a change;

(3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

(4) In the event the Contractor's notice information is inadequate to make a decision under (1), (2), or (3) above, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

(e) Equitable adjustments.

(1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made--

(i) In the contract price or delivery schedule or both; and

(ii) In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in (b) and (c) above.

Note: The phrases "contract price" and "cost" wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(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):

www.acquisition.gov

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.203-7000 REQUIREMENTS RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (SEP 2011)

(a) Definition. Covered DoD official, as used in this clause, means an individual that--

(1) Leaves or left DoD service on or after January 28, 2008; and

(2)(i) Participated personally and substantially in an acquisition as defined in 41 U.S.C. 131 with a value in excess of \$10 million, and serves or served--

(A) In an Executive Schedule position under subchapter II of chapter 53 of Title 5, United States Code;

(B) In a position in the Senior Executive Service under subchapter VIII of chapter 53 of Title 5, United States Code; or

(C) In a general or flag officer position compensated at a rate of pay for grade O-7 or above under section 201 of Title 37, United States Code; or

(ii) Serves or served in DoD in one of the following positions: Program manager, deputy program manager, procuring contracting officer, administrative contracting officer, source selection authority, member of the source selection evaluation board, or chief of a financial or technical evaluation team for a contract in an amount in excess of \$10 million.

(b) The Contractor shall not knowingly provide compensation to a covered DoD official within 2 years after the official leaves DoD service, without first determining that the official has sought and received, or has not received after 30 days of seeking, a written opinion from the appropriate DoD ethics counselor regarding the applicability of post-employment restrictions to the activities that the official is expected to undertake on behalf of the Contractor.

(c) Failure by the Contractor to comply with paragraph (b) of this clause may subject the Contractor to rescission of this contract, suspension, or debarment in accordance with 41 U.S.C. 2105(c).

(End of clause)

252.203-7000 REQUIREMENTS RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (SEP 2011)

(a) Definition. Covered DoD official, as used in this clause, means an individual that--

(1) Leaves or left DoD service on or after January 28, 2008; and

(2)(i) Participated personally and substantially in an acquisition as defined in 41 U.S.C. 131 with a value in excess of \$10 million, and serves or served--

(A) In an Executive Schedule position under subchapter II of chapter 53 of Title 5, United States Code;

(B) In a position in the Senior Executive Service under subchapter VIII of chapter 53 of Title 5, United States Code; or

(C) In a general or flag officer position compensated at a rate of pay for grade O-7 or above under section 201 of Title 37, United States Code; or

(ii) Serves or served in DoD in one of the following positions: Program manager, deputy program manager, procuring contracting officer, administrative contracting officer, source selection authority, member of the source selection evaluation board, or chief of a financial or technical evaluation team for a contract in an amount in excess of \$10 million.

(b) The Contractor shall not knowingly provide compensation to a covered DoD official within 2 years after the official leaves DoD service, without first determining that the official has sought and received, or has not received

after 30 days of seeking, a written opinion from the appropriate DoD ethics counselor regarding the applicability of post-employment restrictions to the activities that the official is expected to undertake on behalf of the Contractor.

(c) Failure by the Contractor to comply with paragraph (b) of this clause may subject the Contractor to rescission of this contract, suspension, or debarment in accordance with 41 U.S.C. 2105(c).

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (DEC 2008)

(a) Definitions. As used in this clause—

(1) “Arising out of a contract with the DoD” means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) “Conviction of fraud or any other felony” means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of nolo contendere, for which sentence has been imposed.

(3) “Date of conviction” means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on this contract;

(2) On the board of directors of the Contractor;

(3) As a consultant, agent, or representative for the Contractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of the Contractor with regard to this contract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that the Contractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly--

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

- (1) Suspension or debarment;
 - (2) Cancellation of the contract at no cost to the Government; or
 - (3) Termination of the contract for default.
- (f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—
- (1) The person involved;
 - (2) The nature of the conviction and resultant sentence or punishment imposed;
 - (3) The reasons for the requested waiver; and
 - (4) An explanation of why a waiver is in the interest of national security.
- (g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.
- (h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone 301-937-1542; www.ojp.usdoj.gov/BJA/grant/DPFC.html".

(End of clause)

252.203-7002 REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (SEP 2013)

- (a) The Contractor shall inform its employees in writing, in the predominant native language of the workforce, of contractor employee whistleblower rights and protections under 10 U.S.C. 2409, as described in subpart 203.9 of the Defense Federal Acquisition Regulation Supplement.
- (b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts.

(End of clause)

252.203-7004 DISPLAY OF HOTLINE POSTERS (AUG 2019)

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

United States means the 50 States, the District of Columbia, and outlying areas.

- (b) Display of hotline poster(s).

(1)(i) The Contractor shall display prominently the DoD fraud, waste, and abuse hotline poster prepared by the DoD Office of the Inspector General, in effect at time of contract award, in common work areas within business segments performing work under Department of Defense (DoD) contracts.

(ii) For contracts performed outside the United States, when security concerns can be appropriately demonstrated, the contracting officer may provide the contractor the option to publicize the program to contractor personnel in a manner other than public display of the poster, such as private employee written instructions and briefings.

(2) If the contract is funded, in whole or in part, by Department of Homeland Security (DHS) disaster relief funds and the work is to be performed in the United States, the DHS fraud hotline poster shall be displayed in addition to the DoD hotline poster. If a display of a DHS fraud hotline poster is required, the Contractor may obtain such poster from—

(i) DHS Office of Inspector General/MAIL STOP 0305, Attn: Office of Investigations – Hotline, 245 Murray Lane SW, Washington, DC 20528-0305; or

(ii) Via the internet at https://www.oig.dhs.gov/assets/Hotline/DHS_OIG_Hotline-optimized.jpg.

(c)(1) The DoD hotline poster may be obtained from: Defense Hotline, The Pentagon, Washington, D.C. 20301-1900, or is also available via the internet at <https://www.dodig.mil/Resources/Posters-and-Brochures/>.

(2) If a significant portion of the employee workforce does not speak English, then the poster is to be displayed in the foreign languages that a significant portion of the employees speak.

(3) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the required poster at the website.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed the threshold specified in Defense Federal Acquisition Regulation Supplement 203.1004(b)(2)(ii) on the date of subcontract award, except when the subcontract is for the acquisition of a commercial item.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.204-7004 LEVEL I ANTITERRORISM AWARENESS TRAINING FOR CONTRACTORS (FEB 2019)

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

Military installation means a base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a military department or, in the case of an activity in a foreign country, under the operational control of the Secretary of a military department or the Secretary of Defense (see 10 U.S.C. 2801(c)(4)).

(b) Training. Contractor personnel who require routine physical access to a Federally-controlled facility or military installation shall complete Level I antiterrorism awareness training within 30 days of requiring access and annually thereafter. In accordance with Department of Defense Instruction O-2000.16 Volume 1, DoD Antiterrorism (AT) Program Implementation: DoD AT Standards, Level I antiterrorism awareness training shall be completed--

(1) Through a DoD-sponsored and certified computer or web-based distance learning instruction for Level I antiterrorism awareness; or

(2) Under the instruction of a Level I antiterrorism awareness instructor.

(c) Additional information. Information and guidance pertaining to DoD antiterrorism awareness training is available at <https://jko.jten.mil/> or as otherwise identified in the performance work statement.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts, including subcontracts for commercial items, when subcontractor performance requires routine physical access to a Federally-controlled facility or military installation.

(End of clause)

252.204-7012 SAFEGUARDING COVERED DEFENSE INFORMATION AND CYBER INCIDENT REPORTING (DEC 2019)

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

Adequate security means protective measures that are commensurate with the consequences and probability of loss, misuse, or unauthorized access to, or modification of information.

Compromise means disclosure of information to unauthorized persons, or a violation of the security policy of a system, in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object, or the copying of information to unauthorized media may have occurred.

Contractor attributional/proprietary information means information that identifies the contractor(s), whether directly or indirectly, by the grouping of information that can be traced back to the contractor(s) (e.g., program description, facility locations), personally identifiable information, as well as trade secrets, commercial or financial information, or other commercially sensitive information that is not customarily shared outside of the company.

Controlled technical information means technical information with military or space application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination. Controlled technical information would meet the criteria, if disseminated, for distribution statements B through F using the criteria set forth in DoD Instruction 5230.24, Distribution Statements on Technical Documents. The term does not include information that is lawfully publicly available without restrictions.

Covered contractor information system means an unclassified information system that is owned, or operated by or for, a contractor and that processes, stores, or transmits covered defense information.

Covered defense information means unclassified controlled technical information or other information, as described in the Controlled Unclassified Information (CUI) Registry at <http://www.archives.gov/cui/registry/category-list.html>, that requires safeguarding or dissemination controls pursuant to and consistent with law, regulations, and Governmentwide policies, and is--

(1) Marked or otherwise identified in the contract, task order, or delivery order and provided to the contractor by or on behalf of DoD in support of the performance of the contract; or

(2) Collected, developed, received, transmitted, used, or stored by or on behalf of the contractor in support of the performance of the contract.

Cyber incident means actions taken through the use of computer networks that result in a compromise or an actual or potentially adverse effect on an information system and/or the information residing therein.

Forensic analysis means the practice of gathering, retaining, and analyzing computer-related data for investigative purposes in a manner that maintains the integrity of the data.

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

Malicious software means computer software or firmware intended to perform an unauthorized process that will have adverse impact on the confidentiality, integrity, or availability of an information system. This definition includes a virus, worm, Trojan horse, or other code-based entity that infects a host, as well as spyware and some forms of adware.

Media means physical devices or writing surfaces including, but is not limited to, magnetic tapes, optical disks, magnetic disks, large-scale integration memory chips, and printouts onto which covered defense information is recorded, stored, or printed within a covered contractor information system.

Operationally critical support means supplies or services designated by the Government as critical for airlift, sealift, intermodal transportation services, or logistical support that is essential to the mobilization, deployment, or sustainment of the Armed Forces in a contingency operation.

Rapidly report means within 72 hours of discovery of any cyber incident.

Technical information means technical data or computer software, as those terms are defined in the clause at DFARS 252.227-7013, Rights in Technical Data--Noncommercial Items, regardless of whether or not the clause is incorporated in this solicitation or contract. Examples of technical information include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, technical orders, catalog-item identifications, data sets, studies and analyses and related information, and computer software executable code and source code.

(b) Adequate security. The Contractor shall provide adequate security on all covered contractor information systems. To provide adequate security, the Contractor shall implement, at a minimum, the following information security protections:

(1) For covered contractor information systems that are part of an information technology (IT) service or system operated on behalf of the Government, the following security requirements apply:

(i) Cloud computing services shall be subject to the security requirements specified in the clause 252.239-7010, Cloud Computing Services, of this contract.

(ii) Any other such IT service or system (i.e., other than cloud computing) shall be subject to the security requirements specified elsewhere in this contract.

(2) For covered contractor information systems that are not part of an IT service or system operated on behalf of the Government and therefore are not subject to the security requirement specified at paragraph (b)(1) of this clause, the following security requirements apply:

(i) Except as provided in paragraph (b)(2)(ii) of this clause, the covered contractor information system shall be subject to the security requirements in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (available via the internet at <http://dx.doi.org/10.6028/NIST.SP.800-171>) in effect at the time the solicitation is issued or as authorized by the Contracting Officer.

(ii)(A) The Contractor shall implement NIST SP 800-171, as soon as practical, but not later than December 31, 2017. For all contracts awarded prior to October 1, 2017, the Contractor shall notify the DoD Chief Information Officer (CIO), via email at osd.dibcsia@mail.mil, within 30 days of contract award, of any security requirements specified by NIST SP 800-171 not implemented at the time of contract award.

(B) The Contractor shall submit requests to vary from NIST SP 800-171 in writing to the Contracting Officer, for consideration by the DoD CIO. The Contractor need not implement any security requirement adjudicated by an authorized representative of the DoD CIO to be nonapplicable or to have an alternative, but equally effective, security measure that may be implemented in its place.

(C) If the DoD CIO has previously adjudicated the contractor's requests indicating that a requirement is not applicable or that an alternative security measure is equally effective, a copy of that approval shall be provided to the Contracting Officer when requesting its recognition under this contract.

(D) If the Contractor intends to use an external cloud service provider to store, process, or transmit any covered defense information in performance of this contract, the Contractor shall require and ensure that the cloud service provider meets security requirements equivalent to those established by the Government for the Federal Risk and Authorization Management Program (FedRAMP) Moderate baseline (<https://www.fedramp.gov/resources/documents/>) and that the cloud service provider complies with requirements in paragraphs (c) through (g) of this clause for cyber incident reporting, malicious software, media preservation and protection, access to additional information and equipment necessary for forensic analysis, and cyber incident damage assessment.

(3) Apply other information systems security measures when the Contractor reasonably determines that information systems security measures, in addition to those identified in paragraphs (b)(1) and (2) of this clause, may be required to provide adequate security in a dynamic environment or to accommodate special circumstances (e.g., medical devices) and any individual, isolated, or temporary deficiencies based on an assessed risk or vulnerability. These measures may be addressed in a system security plan.

(c) Cyber incident reporting requirement.

(1) When the Contractor discovers a cyber incident that affects a covered contractor information system or the covered defense information residing therein, or that affects the contractor's ability to perform the requirements of the contract that are designated as operationally critical support and identified in the contract, the Contractor shall--

(i) Conduct a review for evidence of compromise of covered defense information, including, but not limited to, identifying compromised computers, servers, specific data, and user accounts. This review shall also include analyzing covered contractor information system(s) that were part of the cyber incident, as well as other information systems on the Contractor's network(s), that may have been accessed as a result of the incident in order to identify compromised covered defense information, or that affect the Contractor's ability to provide operationally critical support; and

(ii) Rapidly report cyber incidents to DoD at <https://dibnet.dod.mil>.

(2) Cyber incident report. The cyber incident report shall be treated as information created by or for DoD and shall include, at a minimum, the required elements at <https://dibnet.dod.mil>.

(3) Medium assurance certificate requirement. In order to report cyber incidents in accordance with this clause, the Contractor or subcontractor shall have or acquire a DoD-approved medium assurance certificate to report cyber

incidents. For information on obtaining a DoD-approved medium assurance certificate, see <https://public.cyber.mil/eca/>.

(d) Malicious software. When the Contractor or subcontractors discover and isolate malicious software in connection with a reported cyber incident, submit the malicious software to DoD Cyber Crime Center (DC3) in accordance with instructions provided by DC3 or the Contracting Officer. Do not send the malicious software to the Contracting Officer.

(e) Media preservation and protection. When a Contractor discovers a cyber incident has occurred, the Contractor shall preserve and protect images of all known affected information systems identified in paragraph (c)(1)(i) of this clause and all relevant monitoring/packet capture data for at least 90 days from the submission of the cyber incident report to allow DoD to request the media or decline interest.

(f) Access to additional information or equipment necessary for forensic analysis. Upon request by DoD, the Contractor shall provide DoD with access to additional information or equipment that is necessary to conduct a forensic analysis.

(g) Cyber incident damage assessment activities. If DoD elects to conduct a damage assessment, the Contracting Officer will request that the Contractor provide all of the damage assessment information gathered in accordance with paragraph (e) of this clause.

(h) DoD safeguarding and use of contractor attributional/proprietary information. The Government shall protect against the unauthorized use or release of information obtained from the contractor (or derived from information obtained from the contractor) under this clause that includes contractor attributional/proprietary information, including such information submitted in accordance with paragraph (c). To the maximum extent practicable, the Contractor shall identify and mark attributional/proprietary information. In making an authorized release of such information, the Government will implement appropriate procedures to minimize the contractor attributional/proprietary information that is included in such authorized release, seeking to include only that information that is necessary for the authorized purpose(s) for which the information is being released.

(i) Use and release of contractor attributional/proprietary information not created by or for DoD. Information that is obtained from the contractor (or derived from information obtained from the contractor) under this clause that is not created by or for DoD is authorized to be released outside of DoD--

(1) To entities with missions that may be affected by such information;

(2) To entities that may be called upon to assist in the diagnosis, detection, or mitigation of cyber incidents;

(3) To Government entities that conduct counterintelligence or law enforcement investigations;

(4) For national security purposes, including cyber situational awareness and defense purposes (including with Defense Industrial Base (DIB) participants in the program at 32 CFR part 236); or

(5) To a support services contractor ("recipient") that is directly supporting Government activities under a contract that includes the clause at 252.204-7009, Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information.

(j) Use and release of contractor attributional/proprietary information created by or for DoD. Information that is obtained from the contractor (or derived from information obtained from the contractor) under this clause that is created by or for DoD (including the information submitted pursuant to paragraph (c) of this clause) is authorized to be used and released outside of DoD for purposes and activities authorized by paragraph (i) of this clause, and for any other lawful Government purpose or activity, subject to all applicable statutory, regulatory, and policy based restrictions on the Government's use and release of such information.

(k) The Contractor shall conduct activities under this clause in accordance with applicable laws and regulations on the interception, monitoring, access, use, and disclosure of electronic communications and data.

(l) Other safeguarding or reporting requirements. The safeguarding and cyber incident reporting required by this clause in no way abrogates the Contractor's responsibility for other safeguarding or cyber incident reporting pertaining to its unclassified information systems as required by other applicable clauses of this contract, or as a result of other applicable U.S. Government statutory or regulatory requirements.

(m) Subcontracts. The Contractor shall--

(1) Include this clause, including this paragraph (m), in subcontracts, or similar contractual instruments, for operationally critical support, or for which subcontract performance will involve covered defense information, including subcontracts for commercial items, without alteration, except to identify the parties. The Contractor shall determine if the information required for subcontractor performance retains its identity as covered defense information and will require protection under this clause, and, if necessary, consult with the Contracting Officer; and

(2) Require subcontractors to--

(i) Notify the prime Contractor (or next higher-tier subcontractor) when submitting a request to vary from a NIST SP 800-171 security requirement to the Contracting Officer, in accordance with paragraph (b)(2)(ii)(B) of this clause; and

(ii) Provide the incident report number, automatically assigned by DoD, to the prime Contractor (or next higher-tier subcontractor) as soon as practicable, when reporting a cyber incident to DoD as required in paragraph (c) of this clause.

(End of clause)

252.204-7015 NOTICE OF AUTHORIZED DISCLOSURE OF INFORMATION FOR LITIGATION SUPPORT (MAY 2016)

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

Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

Litigation support means administrative, technical, or professional services provided in support of the Government during or in anticipation of litigation.

Litigation support contractor means a contractor (including its experts, technical consultants, subcontractors, and suppliers) providing litigation support under a contract that contains the clause at 252.204-7014, Limitations on the Use or Disclosure of Information by Litigation Support Contractors.

Sensitive information means controlled unclassified information of a commercial, financial, proprietary, or privileged nature. The term includes technical data and computer software, but does not include information that is lawfully, publicly available without restriction.

Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(b) Notice of authorized disclosures. Notwithstanding any other provision of this solicitation or contract, the Government may disclose to a litigation support contractor, for the sole purpose of litigation support activities, any information, including sensitive information, received—

(1) Within or in connection with a quotation or offer; or

(2) In the performance of or in connection with a contract.

(c) Flowdown. Include the substance of this clause, including this paragraph (c), in all subcontracts, including subcontracts for commercial items.

(End of clause)

252.204-7018 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES (JAN 2021)

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

Covered defense telecommunications equipment or services means--

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation, or any subsidiary or affiliate of such entities;

(2) Telecommunications services provided by such entities or using such equipment; or

(3) Telecommunications equipment or services produced or provided by an entity that the Secretary of Defense reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Covered foreign country means--

(1) The People's Republic of China; or

(2) The Russian Federation.

Covered missions means--

(1) The nuclear deterrence mission of DoD, including with respect to nuclear command, control, and communications, integrated tactical warning and attack assessment, and continuity of Government; or

(2) The homeland defense mission of DoD, including with respect to ballistic missile defense.

Critical technology means--

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled--

- (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
- (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. In accordance with section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91), the contractor shall not provide to the Government any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless the covered defense telecommunication equipment or services are covered by a waiver described in Defense Federal Acquisition Regulation Supplement 204.2104.

(c) Procedures. The Contractor shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service, to carry out covered missions, that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

(d) Reporting.

(1) In the event the Contractor identifies covered defense telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, the Contractor shall report at <https://dibnet.dod.mil> the information in paragraph (d)(2) of this clause.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within 3 business days from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 30 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of a covered defense telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

252.204-7020 NIST SP 800-171 DOD ASSESSMENT REQUIREMENTS (MAR 2022)

(a) Definitions.

Basic Assessment means a contractor's self-assessment of the contractor's implementation of NIST SP 800-171 that--

(1) Is based on the Contractor's review of their system security plan(s) associated with covered contractor information system(s);

(2) Is conducted in accordance with the NIST SP 800-171 DoD Assessment Methodology; and

(3) Results in a confidence level of "Low" in the resulting score, because it is a self-generated score.

Covered contractor information system has the meaning given in the clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, of this contract.

High Assessment means an assessment that is conducted by Government personnel using NIST SP 800-171A, Assessing Security Requirements for Controlled Unclassified Information that--

(1) Consists of--

(i) A review of a contractor's Basic Assessment;

(ii) A thorough document review;

(iii) Verification, examination, and demonstration of a Contractor's system security plan to validate that NIST SP 800-171 security requirements have been implemented as described in the contractor's system security plan; and

(iv) Discussions with the contractor to obtain additional information or clarification, as needed; and

(2) Results in a confidence level of "High" in the resulting score.

Medium Assessment means an assessment conducted by the Government that--

(1) Consists of--

(i) A review of a contractor's Basic Assessment;

(ii) A thorough document review; and

(iii) Discussions with the contractor to obtain additional information or clarification, as needed; and

(2) Results in a confidence level of "Medium" in the resulting score.

(b) Applicability. This clause applies to covered contractor information systems that are required to comply with the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, in accordance with Defense Federal Acquisition Regulation System (DFARS) clause at 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting, of this contract.

(c) Requirements. The Contractor shall provide access to its facilities, systems, and personnel necessary for the Government to conduct a Medium or High NIST SP 800-171 DoD Assessment, as described in NIST SP 800-171 DoD Assessment Methodology at <https://www.acq.osd.mil/asda/dpc/cp/cyber/safeguarding.html#nistSP800171>, if necessary.

(d) Procedures. Summary level scores for all assessments will be posted in the Supplier Performance Risk System (SPRS) (<https://www.sprs.csd.disa.mil/>) to provide DoD Components visibility into the summary level scores of strategic assessments.

(1) Basic Assessments. A contractor may submit, via encrypted email, summary level scores of Basic Assessments conducted in accordance with the NIST SP 800-171 DoD Assessment Methodology to webptsmh@navy.mil for posting to SPRS.

(i) The email shall include the following information:

(A) Version of NIST SP 800-171 against which the assessment was conducted.

(B) Organization conducting the assessment (e.g., Contractor self-assessment).

(C) For each system security plan (security requirement 3.12.4) supporting the performance of a DoD contract--

(1) All industry Commercial and Government Entity (CAGE) code(s) associated with the information system(s) addressed by the system security plan; and

(2) A brief description of the system security plan architecture, if more than one plan exists.

(D) Date the assessment was completed.

(E) Summary level score (e.g., 95 out of 110, NOT the individual value for each requirement).

(F) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(ii) If multiple system security plans are addressed in the email described at paragraph (b)(1)(i) of this section, the Contractor shall use the following format for the report:

System security plan	CAGE codes supported by this plan	Brief description of the plan architecture	Date of assessment	Total score	Date score of 110 will be achieved

(2) Medium and High Assessments. DoD will post the following Medium and/or High Assessment summary level scores to SPRS for each system security plan assessed:

(i) The standard assessed (e.g., NIST SP 800-171 Rev 1).

(ii) Organization conducting the assessment, e.g., DCMA, or a specific organization (identified by Department of Defense Activity Address Code (DoDAAC)).

(iii) All industry CAGE code(s) associated with the information system(s) addressed by the system security plan.

(iv) A brief description of the system security plan architecture, if more than one system security plan exists.

(v) Date and level of the assessment, i.e., medium or high.

(vi) Summary level score (e.g., 105 out of 110, not the individual value assigned for each requirement).

(vii) Date that all requirements are expected to be implemented (i.e., a score of 110 is expected to be achieved) based on information gathered from associated plan(s) of action developed in accordance with NIST SP 800-171.

(e) Rebuttals. (1) DoD will provide Medium and High Assessment summary level scores to the Contractor and offer the opportunity for rebuttal and adjudication of assessment summary level scores prior to posting the summary level scores to SPRS (see SPRS User's Guide https://www.sprs.csd.disa.mil/pdf/SPRS_Awardee.pdf).

(2) Upon completion of each assessment, the contractor has 14 business days to provide additional information to demonstrate that they meet any security requirements not observed by the assessment team or to rebut the findings that may be of question.

(f) Accessibility.

(1) Assessment summary level scores posted in SPRS are available to DoD personnel, and are protected, in accordance with the standards set forth in DoD Instruction 5000.79, Defense-wide Sharing and Use of Supplier and Product Performance Information (PI).

(2) Authorized representatives of the Contractor for which the assessment was conducted may access SPRS to view their own summary level scores, in accordance with the SPRS Software User's Guide for Awardees/Contractors available at https://www.sprs.csd.disa.mil/pdf/SPRS_Awardee.pdf.

(3) A High NIST SP 800-171 DoD Assessment may result in documentation in addition to that listed in this clause. DoD will retain and protect any such documentation as "Controlled Unclassified Information (CUI)" and intended for internal DoD use only. The information will be protected against unauthorized use and release, including through the exercise of applicable exemptions under the Freedom of Information Act (e.g., Exemption 4 covers trade secrets and commercial or financial information obtained from a contractor that is privileged or confidential).

(g) Subcontracts.

(1) The Contractor shall insert the substance of this clause, including this paragraph (g), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items (excluding COTS items).

(2) The Contractor shall not award a subcontract or other contractual instrument, that is subject to the implementation of NIST SP 800-171 security requirements, in accordance with DFARS clause 252.204-7012 of this contract, unless the subcontractor has completed, within the last 3 years, at least a Basic NIST SP 800-171 DoD Assessment, as described in <https://www.acq.osd.mil/asda/dpc/cp/cyber/safeguarding.html#nistSP800171>, for all covered contractor information systems relevant to its offer that are not part of an information technology service or system operated on behalf of the Government.

(3) If a subcontractor does not have summary level scores of a current NIST SP 800-171 DoD Assessment (i.e., not more than 3 years old unless a lesser time is specified in the solicitation) posted in SPRS, the subcontractor may conduct and submit a Basic Assessment, in accordance with the NIST SP 800-171 DoD Assessment Methodology, to webpmsmh@navy.mil for posting to SPRS along with the information required by paragraph (d) of this clause.

(End of clause)

252.222-7006 RESTRICTIONS ON THE USE OF MANDATORY ARBITRATION AGREEMENTS (DEC 2010)

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

Covered subcontractor means any entity that has a subcontract valued in excess of \$1 million, except a subcontract for the acquisition of commercial items, including commercially available off-the-shelf items.

Subcontract means any contract, as defined in Federal Acquisition Regulation subpart 2.1, to furnish supplies or services for performance of this contract or a higher-tier subcontract thereunder.

(b) The Contractor--

(1) Agrees not to--

(i) Enter into any agreement with any of its employees or independent contractors that requires, as a condition of employment, that the employee or independent contractor agree to resolve through arbitration--

(A) Any claim under title VII of the Civil Rights Act of 1964; or

(B) Any tort related to or arising out of sexual assault or harassment, including assault and battery, intentional infliction of emotional distress, false imprisonment, or negligent hiring, supervision, or retention; or

(ii) Take any action to enforce any provision of an existing agreement with an employee or independent contractor that mandates that the employee or independent contractor resolve through arbitration--

(A) Any claim under title VII of the Civil Rights Act of 1964; or

(B) Any tort related to or arising out of sexual assault or harassment, including assault and battery, intentional infliction of emotional distress, false imprisonment, or negligent hiring, supervision, or retention; and

(2) Certifies, by signature of the contract, that it requires each covered subcontractor to agree not to enter into, and not to take any action to enforce, any provision of any existing agreements, as described in paragraph (b)(1) of this clause, with respect to any employee or independent contractor performing work related to such subcontract.

(c) The prohibitions of this clause do not apply with respect to a contractor's or subcontractor's agreements with employees or independent contractors that may not be enforced in a court of the United States.

(d) The Secretary of Defense may waive the applicability of the restrictions of paragraph (b) of this clause in accordance with Defense Federal Acquisition Regulation Supplement 222.7404.

(End of clause)

252.223-7999 ENSURING ADEQUATE COVID-19 SAFETY PROTOCOLS FOR FEDERAL CONTRACTORS (DEVIATION 2021-O0009) (OCT 2021)

(a) Definition. As used in this clause –

United States or its outlying areas means—

- (1) The fifty States;
- (2) The District of Columbia;
- (3) The commonwealths of Puerto Rico and the Northern Mariana Islands;
- (4) The territories of American Samoa, Guam, and the United States Virgin Islands; and
- (5) The minor outlying islands of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Navassa Island, Palmyra Atoll, and Wake Atoll.

(b) Authority. This clause implements Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors, dated September 9, 2021 (published in the Federal Register on September 14, 2021, 86 FR 50985).

(c) Compliance. The Contractor shall comply with all guidance, including guidance conveyed through Frequently Asked Questions, as amended during the performance of this contract, for contractor or subcontractor workplace locations published by the Safer Federal Workforce Task Force (Task Force Guidance) at <https://www.saferfederalworkforce.gov/contractors/>.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts at any tier that exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation 2.101 on the date of subcontract award, and are for services, including construction, performed in whole or in part within the United States or its outlying areas.

(End of clause)

252.232-7004 DOD PROGRESS PAYMENT RATES (MAR 2020) (DEVIATION 2020-O0010)

If the Contractor is a small business concern, the Progress Payments clause of this contract is modified to change each mention of the progress payment rate and liquidation rate (excepting paragraph (k), Limitations on Undefined Contract Actions) to 95 percent.

(End of clause)

252.232-7010 LEVIES ON CONTRACT PAYMENTS (DEC 2006)

(a) 26 U.S.C. 6331(h) authorizes the Internal Revenue Service (IRS) to continuously levy up to 100 percent of contract payments, up to the amount of tax debt.

(b) When a levy is imposed on a payment under this contract and the Contractor believes that the levy may result in an inability to perform the contract, the Contractor shall promptly notify the Procuring Contracting Officer in writing, with a copy to the Administrative Contracting Officer, and shall provide--

- (1) The total dollar amount of the levy;

(2) A statement that the Contractor believes that the levy may result in an inability to perform the contract, including rationale and adequate supporting documentation; and

(3) Advice as to whether the inability to perform may adversely affect national security, including rationale and adequate supporting documentation.

(c) DoD shall promptly review the Contractor's assessment, and the Procuring Contracting Officer shall provide a written notification to the Contractor including--

(1) A statement as to whether DoD agrees that the levy may result in an inability to perform the contract; and

(2)(i) If the levy may result in an inability to perform the contract and the lack of performance will adversely affect national security, the total amount of the monies collected that should be returned to the Contractor; or

(ii) If the levy may result in an inability to perform the contract but will not impact national security, a recommendation that the Contractor promptly notify the IRS to attempt to resolve the tax situation.

(d) Any DoD determination under this clause is not subject to appeal under the Contract Disputes Act.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

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

(b) The Contractor shall--

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

(c) In general--

- (1) Large-scale drawings shall govern small-scale drawings; and
 - (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.
- (d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

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

<u>Title</u>	<u>File</u>	<u>Drawing No.</u>
Bayou Teche, East and West	H-16-48575	G-01 thru G-02
Calumet Floodgates, Approach Channels, Maintenance Dredging, St. Mary Parish, Louisiana		C-01 thru C-03

(End of clause)

252.236-7002 OBSTRUCTION OF NAVIGABLE WATERWAYS. (DEC 1991)

(a) The Contractor shall --

- (1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;
- (2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and
- (3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may --

- (1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

- (2) Deduct the cost of removal from any monies due or to become due to the Contractor; or
- (3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et. seq.).

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

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

- (1) Sixty percent (60%) of the lump sum price upon completion of the contractor's mobilization at the work site.
- (2) The remaining forty percent (40%) upon completion of demobilization.

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

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

- (i) Actual mobilization costs at completion of mobilization;
- (ii) Actual demobilization costs at completion of demobilization; and
- (iii) The remainder of this item in the final payment under this contract.

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

Note: The term "lump sum" is synonymous with the unit of measure "job," as stated on the bid schedules and throughout the specifications.

(End of Clause)

252.242-7006 ACCOUNTING SYSTEM ADMINISTRATION (FEB 2012)

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

(1) Acceptable accounting system means a system that complies with the system criteria in paragraph (c) of this clause to provide reasonable assurance that--

- (i) Applicable laws and regulations are complied with;
- (ii) The accounting system and cost data are reliable;
- (iii) Risk of misallocations and mischarges are minimized; and
- (iv) Contract allocations and charges are consistent with billing procedures.

U.S. Department of Labor

Wage and Hour Division
Washington, D.C. 20210

Response to SF-308 Request for Davis-Bacon Project Wage Determination

Project Wage Decision Number: 2022-LA-0028 12783 308 09/08/2022

State: Louisiana

County: Statewide

Construction Type: Dredging

Agency: U.S. Army Corps of Engineers

Contract Number: W912P822B0061

Project Name: Bayou Teche, East and West Calumet Floodgates, Approach Channels,
Maintenance Dredging, St. Mary Parish, Louisiana

Description of Work (as clarified):

The work consists of the removal of shoal material from within the Wax Lake Outlet approach channels to the East and West Calumet Floodgates, and satisfactory disposal of dredged material into the Wax Lake Outlet channel beyond the -35' contour. No dike work will be necessary for this project.

W912P822B0061

Date of Decision: 09/08//2022

Expires: 03/08/2023

Modification Number: N/A

Classification	Hourly Rate	Fringe Benefits
Derrick Operator	\$15.00	\$0.00
Dozer Operator	\$15.00	\$0.00
Dredge 16" " and Over		
Deckhand	\$15.00	\$0.00

Dredge Tender Operator	\$15.00	\$0.00
Fireman	\$15.00	\$0.00
First Assistant Engineer	\$15.00	\$0.00
Leverman	\$15.00	\$0.00
Oiler	\$15.00	\$0.00
Second Assistant Engineer	\$15.00	\$0.00
Shoreman	\$15.00	\$0.00
Third Assistant Engineer	\$15.00	\$0.00
Truck Driver	\$15.00	\$0.00
Welder	\$15.00	\$0.00
Dredge Under 16" "		
Deckhand	\$15.00	\$0.00
Dredge Tender Operator	\$15.00	\$0.00
Leverman	\$15.00	\$0.00
Oiler	\$15.00	\$0.00
Welder	\$15.00	\$0.00
Hydraulic Dredging		
First Cook	\$15.00	\$0.00
Handyman	\$15.00	\$0.00
Janitor, Cabin Person	\$15.00	\$0.00
Second Cook	\$15.00	\$0.00

Marsh Buggy, Dragline, Oiler.	\$15.00	\$0.00
Marsh Buggy, Dragline, Operator	\$15.00	\$0.00
Self-Propelled Hopper Dredge, Drag		
Tender	\$15.00	\$3.45+a

- a. FOOTNOTE: Fourteen paid vacation days and eight paid holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day provided the employee has one year of service.

This wage determination is specifically for the project listed above. It cannot be used for any other purpose including contracts and or project.

Further, in the event the above referenced contract is subject to Executive Order (EO) 14026 and the approved conformed hourly wage rate (not including any fringe benefits) is less than the EO minimum wage, you are required to comply with the minimum wage requirements of EO 14026, codified at 29 CFR Part 10. Please note that this EO 14026 applies to contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). See <https://www.dol.gov/agencies/whd/government-contracts/eo14026> for additional information regarding EO 14026, including coverage and minimum wage requirements.

If you have any questions and or additional comments, please do not hesitate to contact me at thomas.rhontia@dol.gov.

Approved by:

RhonTia Thomas-Johnson
 Chief
 Branch of Construction Wage Determinations
 202-693-0087
Thomas.rhontia@dol.gov

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SECTION 01100 - GENERAL PROVISIONS

1. DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in the Contract Clause in Section 00700 entitled, "*PERMITS AND RESPONSIBILITIES (FAR 52.236-7)*". However, if, in the judgment of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood, earthquake, hurricane, or tornado which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor shall make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit price or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there is no contract unit or lump sum prices applicable to any part of such work, an equitable adjustment shall be made pursuant to the Contract Clause in Section 00700 entitled, "*CHANGES (FAR 52.243-4)*". Except as herein provided; damage to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense, regardless of the cause of such damage.

2. SAFETY PROVISIONS

The safety provisions as specified herein refer to the EM 385-1-1. The most current edition of the EM 385-1-1 can be found at the following link:

http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf

Use of appropriate safety equipment is mandatory and not limited to hard hats, safety vests, and safety-toed boots. Any personnel not wearing proper personal protective equipment (PPE) shall be removed from the jobsite until PPE compliance has been established. The Contractor is responsible for daily clean up and complete restoration of the area once the contract is complete.

(a) Mishap Reporting and Investigation. Accidents shall be investigated and reports completed by the immediate supervisor of the employee(s) involved and reported to the Contracting Officer or his/her representative within one (1) working day after the accident occurs. All data reported must be complete, timely and accurate. A follow-up report shall be submitted when the estimated lost time days differs from the actual lost time days.

(b) Accident Prevention Plan (APP). See the Contract Clause in Section 00700 entitled, "*ACCIDENT PREVENTION (FAR 52.236-13)*". Within 15 days after receipt of Notice of Award of the contract, and at least seven (7) days prior to the pre-work conference, an electronic copy of the Accident Prevention Plan shall be

submitted to the Contracting Officer for review and acceptance. The plan shall be prepared in the following format.

(1) Executed CESO Form A-02, Accident Prevention Plan Checklist (the “fillable form” can be obtained from:

<http://www.usace.army.mil/Portals/2/docs/Safety/EM%20385-1-1,%202014%20Sections/Checklists/CESO%20Checklist%20A-02%20Accident%20Prevention%20Plan.pdf>).

(2) Activity Hazard Analysis (AHA) Form, Figure 1-2 in Section 1 “Program Management” of EM 385-1-1 (Attached at the end of this section). The Contractor shall address each of the elements/sub-elements in the outline contained in Appendix A of EM 385-1-1 in the order that they are provided in the manual. If an item is not applicable because of the nature of the work to be performed, the Contractor shall state this exception and provide a justification

(3) A copy of company policy statement regarding accident prevention.

(4) When marine plant and equipment are in use under a contract, the method of fuel oil transfer shall be included on MVN Form 385-10, Fuel Oil Transfer, (attached at the end of this section). (Refer to 33 CFR 156).

The Contractor shall not commence physical work at the site until the Contracting Officer, or his/her authorized representative has accepted the Accident Prevention Plan. The Contractor may submit its Accident Prevention Plan only for the first phase of construction provided that it is accompanied by an outline of the remaining phases of construction. All remaining phases shall be submitted and accepted prior to the beginning of work in each phase. Also refer to Section 1 of EM 385-1-1.

(c) Comprehensive Hazard Communication Program. The Contractor shall develop, implement, and maintain at the workplace a written, Comprehensive Hazard Communication Program (see Section 06.B.01 of EM 385-1-1) that includes identification of potential hazards as prescribed in 29 CFR Part 1910.1200 and/or 1926.59, effects of exposure and control measures to be used for chemical products and physical agents that may be encountered during the performance of work on this contract, provisions for container labeling, Safety Data Sheets, and employee training program, and other criteria in accordance with 29 CFR Part 1910.1200 and/or 1926.59. Training shall include communication methods and systems to be used (i.e., voice, hand signals, radios or other means), and training in the use and understanding of safety data sheets and chemical product hazard warning labels. Prior to bringing hazardous substances, as defined in 29 CFR 1910.1200 and/or 1926.59, onto the job site, a copy of the Hazard Communication Program and the Safety Data Sheets of each substance shall be submitted to the Contracting Officer and made available to

the Contractor's employees as part of its Accident Prevention Plan. A site map shall be attached to the inventory showing where the inventoried hazardous substances are stored. The inventory list and site map shall be updated monthly to assure accuracy. The Contractor shall note that "Safety Data Sheets (SDS) has replaced Material Safety Data Sheets (MSDS)" referenced in Section 06.B.01 of EM 385-1-1 meeting the criteria of the new OSHA globally harmonized system.

(d) Daily Inspections. The Contractor shall perform daily safety inspections and record them on the forms approved by the Contracting Officer. Reports of daily inspections shall be maintained at the jobsite in accordance with Section 01 45 04.00 10, "CONTRACTOR QUALITY CONTROL". The reports shall be records of the daily inspections and resulting actions. Each report shall include, as a minimum, the following:

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

(e) Safety Sign. The Contractor shall furnish, erect, and maintain a safety sign at the site where indicated by the Contracting Officer. The sign shall conform to the requirements of this paragraph and the drawing included at the end of this section. The lettering shall be black, the safety circle and cross green, and the background white. When placed on a floating plant, the sign may be half size. The sign shall be erected as soon as practicable, but not later than 15 calendar days after the date established for commencement of work. The data required shall be current. The sign coordinator is Timothy Lacoste@ 504.862.2663.

(f) Ground Fault Protection. Electrical equipment used on this contract shall be equipped with ground fault circuit interrupters in accordance with EM 385-1-1, Section 11.D.05.

(g) Means of Escape for Personnel Quartered, or Working on Floating Plant. Two (2) means of escape shall be provided for assembly, sleeping, and messing areas on floating plants. For areas involving 10 or more persons, both means of egress shall be through standard size doors opening to different exit routes. Where nine (9) or fewer persons are involved, one (1) of the means of escape may be a window (minimum dimensions 24 inches by 36 inches) which leads to a different exit route. Refer to Section 19 of EM 385-1-1.

(h) Emergency Alarms and Signals.

(1) Alarms. Emergency alarms shall be installed and maintained on all floating plant requiring a crew where it is possible for either a passenger or crewman to be out of sight or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby batteries on trickle charge that will automatically furnish the required energy during an electrical-system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be heard distinctly at any point above the usual background noise. All signaling devices shall be so interconnected that actuation can occur from at least one (1) strategic point on each deck.

(2) Signals.

(a) Fire Alarm Signals. The general fire alarm signal shall be in accordance with paragraph 46 CFR Ch. I; Subpart E.109.503 of the Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels, Sub-Chapter I & Ia.

(b) Abandon Ship Signals. The signal for abandon ship shall be in accordance with paragraph 109.503(b) of the reference cited in paragraph (a) above.

(c) Man-Overboard Signal. Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

(i) Hurricane Plan. A detailed plan for protection and evacuation of personnel and plant in the event of an impending hurricane or storm is required as an enclosure to the Contractor's Accident Prevention Plan. This plan shall be submitted to the Contracting Officer, or his/her representative, for review prior to the preconstruction conference. No separate measurement or payment will be made for the Hurricane Plan. Payment for all work associated with the Hurricane Plan, and providing the equipment required for the duration specified, shall be distributed amongst the existing bid items. The plan shall include at least the following:

(1) The time each phase of the plan will be put in effect. The time shall be the number of hours remaining for the storm to reach the worksite if it continues at the predicted speed and direction.

(2) The safe harbor for personnel and plant specifically identified.

(3) The name of the boat(s) which will be used to move the plant, its type, capacity, speed, and availability. If the boat to be used has not yet been

identified, the Contractor shall indicate (a) if the vessel will come from his own resources or from an outside source, (b) the type of boat proposed, and (c) horsepower that would be needed. Upon verifying the boat to be used, the Contractor will amend the Hurricane Plan to document the boat name and the applicable information initially requested (type, capacity, speed, and availability). Finalization of this plan shall be completed prior to mobilization of the dredge to the availability.

(4) The estimated time necessary to move the plant to the safe harbor after movement is started.

(5) An on-site review of the Hurricane Plan shall be conducted on June 1st, start of the Hurricane season, by the Contractor's supervisory personnel and the Government Inspector. This review should be documented on both the QA and QC reports.

(j) Hazardous Energy Protection. The Contractor shall develop, implement and maintain at the workplace, a written Control of Hazardous Energy (Lockout/Tagout) System. Refer to Section 12 of EM 385-1-1.

(k) Drills. The Contractor shall conduct its drills in accordance with EM 385-1-1, Section 19.A.04e.

(l) Equipment Operator Authorization. The Contractor shall submit a list of designated personnel qualified and authorized to operate machinery and mechanized equipment in accordance with Section 16 of EM 385-1-1.

(m) Dive Plan. The Contractor shall submit a dive plan in accordance with Section 30 of EM 385-1-1.

(n) Radiation. If a production meter that uses nuclear materials is being used aboard the dredge, the Contractor shall perform following requirements. The production meter nuclear device system designer and installer shall be qualified in these fields of expertise by the Nuclear Regulatory Commission (NRC). The Contractor shall obtain licensing and training as required by the NRC for these personnel aboard the dredge for the use of those components of the production meter containing or are affected by the nuclear source. The Contractor shall implement a nuclear device awareness program as required by the NRC for all personnel aboard the dredge not directly involved in the activities of the nuclear device. The Contractor shall submit a nuclear device safety plan to the Government within 24 hours after receipt of Notice to Proceed by the Contractor. While a nuclear device is present aboard the dredge, the Contractor shall strictly adhere to all applicable NRC rules and regulations.

(o) Crane/Derrick and Dragline Certification. The Contractor shall submit a copy of the certification and performance test in accordance with Section 16 of EM-385-1-1.

(p) Safety Management Program. If the Contractor is a currently accepted participant in the Dredging Contractors of America (DCA)/United States Army Corps of Engineers (USACE) Dredging Safety Management Program (DSMP), as determined by the DCA/USACE Joint Committee, and holds a current valid Certificate of Compliance for both the Contractor Program and the Dredge(s) to be used to perform the work required under this contract, the Contractor may, in lieu of the submission of an Accident Prevention Plan (APP):

(1) make available for review, upon request, the Contractor's current Safety Management System (SMS) documentation,

(2) submit to the Contracting Officer the current valid Company Certificate of Compliance for its SMS,

(3) submit the current dredge(s) Certificate of Compliance based on third party audit, and

(4) submit for review and acceptance, site-specific addenda to the SMS as specified in the solicitation.

(r) SSHO Staffing

a. Dredging contracts may include several project sites; this contract will require a minimum of one (1) full time SSHO assigned per project site. The SSHO may have collateral duties in specific conditions as listed below.

b. Example of one dredging project site is reflected in each of the following:

1) a mechanical dredge, tug(s) and scow(s), scow route, and material placement site; or

2) a hydraulic pipeline dredge, attendant plant, and material placement site; or,

3) a hopper dredge (include land-base material placement site – if applicable.)

c. Individual dredging project sites with a work force of less than eight (8) employees, the SSHO may be a collateral duty, with the same responsibilities of a full time SSHO.

d. Hopper dredges with USCG – Documented crews may designate an officer as a collateral – duty SSHO instead of having a full-time SSHO if the officer meets the SSHO training and experience requirements.

(s) SSHO Requirements

a. In addition to requirements stated elsewhere in this specification, the SSHO, or his/her alternate, shall be present at the project site at all times when work is being performed. The SSHO shall have full mobility and reasonable and timely access to all work operations. The SSHO shall be a full time, dedicated position. The SSHO shall report to senior project (or corporate) officials.

b. The SSHO shall inspect all work areas and operations during initial set-up and at least monthly observe and provide personal oversight on each shift during dredging operations for projects with many work sites, more often for those with less work sites.

c. For projects with multiple shifts or when SSHO is temporarily off-site, an Alternate SSHO will be assigned to insure SSHO coverage for the project at all times work activities are conducted. The Alternate SSHO shall meet the same requirements and assume the responsibilities of the project SSHO. The Alternate SSH position may be a collateral duty.

d. If the SSHO is off-site for a period longer than 24 hours, a qualified replacement SSHO shall be provided and shall fulfill the same roles and responsibilities as the primary/initial SSHO.

(t) Designated Representative (DR) Requirements.

a. Designated Representatives (DR) are collateral duty safety personnel, with safety duties in addition to their full-time occupation, and support and supplement the SSHO efforts in managing, implementing and enforcing the Contractor's Safety and Health Program. DRs shall be individual (s) with work oversight responsibilities, such as masters, mates, fill foremen, and superintendents. DRs should not be positions requiring continuous mechanical or equipment operations, such as equipment operators.

b. A DR shall be appointed for all remote work locations more than 45 minutes travel time from the SSHO's duty location, typically including dredged material placement sites, towing and scow operations, and other operations.

c. The DRs shall perform safety program tasks as designated by the SSHO and report safety findings to the SSHO/Alternate SSHO. The SSHO shall document results of safety findings and provide information for inclusion in the CQC reports to the Government Representative.

(u) Safety Personnel Training Requirements.

a. The SSHO, as a minimum, shall produce a copy of their instructor-signed OSHA 30 hour training card (or course completion if within 90 days of having completed the training and card has not yet been issued). This signifies that they will have completed:

(1) The 30-hour OSHA General Industry safety class (may be web-based training if the student is able to directly ask questions of the instructor by chat or phone) or

(2) The 30-hour OSHA Construction Industry safety class (may be web-based training if the student is able to directly ask questions of the instructor by chat/phone), or

(3) As an equivalent, formal construction or industry safety and health training covering the subjects of the OSHA 30-hour course and EM 385-1-1 (see Appendix A, paragraph 3.d.(3)) applicable to the work to be performed and given by qualified instructors - may be web-base training if the student is able to directly ask questions of the instructor by chat/phone). SSHO's shall maintain competency through having taken 8 hours of documented formal, on-line, or self-study safety and health related coursework every year. Examples of continuing education activities that meet this requirement are: writing an article, teaching a class, reading/writing professional articles, attendance/participation in professional societies/meetings, etc.

b. SSHOs shall maintain competency through having taken 8 hours of documented formal, on-line, or self-study safety and health related coursework every year. Examples of continuing education activities that meet this requirement are: writing an article, teaching a class, reading/writing professional articles, attendance/participation in professional societies/meetings, etc.

c. The SSHO, Alternate SSHO, and Designated Representatives shall have a minimum of three (3) years continuous experience within the past five (5) years in supervising/managing dredging, marine or land-based construction, work managing safety programs or processes, or conducting hazard analyses and developing controls in activities or environments with similar hazards. This is in lieu of the construction experience required by paragraph 01.A.17, EM 385-1-1.

(v) Regulatory Requirements. In addition to the detailed requirements included in the provisions of this contract and the requirements as defined within EM 385-1-1, the Contractor shall comply with all pertinent 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.

3. SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his/her operations in accordance with U. S. Coast Guard regulations governing lights and day signals to be displayed, as set forth in Commandant, U. S. Coast Guard Instruction M16672.2C, Navigation Rules, International - Inland (COMDTINST M16672); 33 CFR 81, Appendix A (International); and 33 CFR 84 through 33 CFR 90 (Inland) as applicable.

4. CONTINUITY OF WORK

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

5. INSPECTION

(a) The presence of the Inspector shall not relieve the Contractor of the responsibility for the proper execution of the work in accordance with the specifications. The Contractor shall furnish on the request of the Contracting Officer or any inspector:

(1) The use of such boats, boatmen, laborers and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the work.

(2) Suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the disposal areas.

(b) When the Contractor elects not to work on weekends, holidays or nights, notice shall be given to the Contracting Officer at least 24 hours in advance thereof. Adequate lighting for safe operations and thorough inspection of night operations shall be provided by the Contractor at his/her expense.

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

6. ACCOMMODATIONS AND MEALS FOR INSPECTORS

(a) The Contractor shall furnish regularly to inspectors on board the dredge or other craft upon which they are employed a suitable separate room approximately 150 square feet in size for a Corps of Engineers field office. The room shall be fully equipped and maintained to the satisfaction of the Contracting Officer; it shall be properly heated, ventilated, air conditioned, and lighted, shall have sufficient electrical outlets with power surge protection to power a laptop computer and printer, shall have a desk which can be locked, and a drafting table measuring at least four (4) feet by six (6) feet, a comfortable chair for each inspector, washing conveniences and daily janitorial services. Should the Contractor have a photocopy machine on the jobsite, the Contractor may allow the use of his own in lieu of providing a separate machine for use by the Government inspector. The entire cost to the Contractor for furnishing, equipping and maintaining the foregoing accommodations shall be included in the contract price. If the Contractor fails to meet these requirements, the facilities referred to above will be secured by the Contracting Officer, and the cost thereof will be deducted from payments to the Contractor.

(b) If the Contractor maintains on this work an establishment for the subsistence of his/her own employees, he/she shall, when required, furnish to inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of quality satisfactory to the Contracting Officer. All meals shall be available for purchase, by the Government's inspectors and agents, at the cost not to exceed \$3.25 per person for each meal.

7. RADIO AND TELEPHONE COMMUNICATIONS

The Contractor shall furnish and maintain the following radio and telephone equipment throughout the period of the contract. Final approval of the plant will not be made until this equipment is installed and in good working order:

a. Maritime Radio Transceiver. The Contractor shall furnish and maintain throughout the contract, one FM ship's radio transceiver with power not in excess of 25 watts, and at least 15 watts output on the maritime frequencies of 156.800 Channel 16 and 156.375 (Channel 67 MHz 16F3 emission, with a tolerance of plus or minus 5 kHz deviation at 100 percent modulation for communication concerning navigation in the vicinity of the floating plant. The radio shall be operated in accordance with FCC rules and regulations.

b. Radio Equipment for Additional Floating Plant. In the event that the Contractor should have two (2) plants operating simultaneously under this contract, the above-specified radio equipment shall be furnished and maintained on both floating plants. The radio transceivers provided for hereinabove shall be continuously monitored by qualified Contractor persons operating the floating plants.

c. Facsimile and Cellular Telephone. The Contractor shall also furnish and maintain a cellular telephone and facsimile throughout the period of the contract. Final approval of the plant will not be made until this equipment is installed and in good working order. Facsimile and cellular phone service shall be available to Government personnel for conducting official Government business 24 hours per day, seven (7) days per week.

d. Measurement and Payment. No separate measurement or payment will be made for furnishing and maintaining radio and telephone equipment as specified herein. All costs for furnishing and maintaining radio and telephone equipment shall be distributed throughout the existing bid items.

8. SEAWORTHINESS CERTIFICATION

EM 385-1-1, Section 19.A.01.b. All dredges and quarter boats not subject to USCG inspection and certification or not having a current American Bureau of Shipping (ABS) classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or Society of Accredited Marine Surveyors (SAMS) and having at least five (5) years' experience in commercial marine plant and equipment. All other plant shall be inspected annually by a qualified person. The inspection shall be documented, and a copy of the most recent inspection report shall be posted in a public area on board the vessel and a copy shall be furnished to the designated authority upon request. The inspection shall be appropriate for the intended use of the plant and shall, as a minimum, evaluate structural integrity and compliance with NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft.

9. ENVIRONMENTAL LITIGATION

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

(b) If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined above, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier and required by the

terms of this contract. If the order is not due in any part to acts or omissions of the Contractor (or a Subcontractor at any tier) other than as required by this contract, such suspension, delay, or interruption shall be as if ordered by the Contracting Officer under the Contract Clause in Section 00700 entitled, "*SUSPENSION OF WORK (FAR 52.242-14)*". The period of such suspension, delay or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

10. STATE TAXES

(a) The bid submitted in response to this Invitation shall not include any amount whatever for payment of any of the following taxes, fees or charges:

(1) The Louisiana "Severance Tax" imposed by LSA R.S. 47:631 and made applicable to the dredging of fill material from rivers and bodies of water within the State of Louisiana by the Severance Tax Regulations promulgated by the Collector of Revenue dated 31 March 1968.

(2) Any amounts claimed by the Louisiana Department of Wildlife and Fisheries for the privilege of removing fill from the water bottoms of the State of Louisiana.

(b) If the Contractor is required to pay or bear the burden of any tax, fee or charge described in paragraphs (a)(1) and/or (a)(2) above, the contract prices shall be increased by that amount which the Contractor is required to pay to the State of Louisiana; provided, however, that no increase in contract price shall be made for any liability the Contractor may incur as a result of his fault or negligence or his failure to follow the instructions of the Contracting Officer.

(c) The Contractor shall promptly notify the Contracting Officer of all matters pertaining to taxes, fees, or charges as described herein which reasonably may be expected to affect the contract price and shall at all times follow the directions and instructions of the Contracting Officer in regard to the payment of such taxes, fees, or charges.

(d) Before any increase in contract price becomes effective in accordance with the provisions of this clause, the Contractor shall warrant in writing that no amount of such taxes, fees or charges was included in the contract price as a contingency reserve or otherwise.

11. UTILITIES AND IMPROVEMENTS

a. Mooring vessels to pile dikes, navigation lights, or other federally owned structures is a violation of the River and Harbor Act of 1899 (33 USC 408).

Violations may subject the owner(s) of illegally moored vessel(s) to a fine over and above the cost of any damage(s) caused by the illegal mooring(s).

b. There are no known utilities within the limits of the work, such as pipes, communication lines, power lines, etc., that would interfere with construction.

c. Any unidentified pipes or structures, which may be found within the limits of the work during the course of construction, shall not be disturbed nor shall construction or excavation be performed at these locations unless and until approved by the Contracting Officer.

12. FUEL CONSUMPTION REPORTING REQUIREMENTS

On the first day of each month, the Contractor shall furnish, to the Government Inspector, a report of the quantities of fuel consumed during the previous month in execution of the work covered by the contract. The quantities reported shall include fuel consumed by the Contractor and all of his/her subcontractors for the main plant and all support plant during the preceding month. This information may be consolidated and shall be included in the Report of Operations-Pipelines, Dipper or Bucket Dredges, ENG Form 4267; or in the Report of Operations-Hopper Dredges, ENG Form No. 27A (costs), as applicable.

13. RIGHTS-OF-ENTRY

(a) The rights of entry required for the work to be constructed under this contract, have been obtained by the Government and are provided without cost to the Contractor. The Contractor shall make its own investigations to determine the conditions, restrictions, and difficulties which may be encountered in the transportation of equipment and material to and from the work site. The proposed work, including rights-of-entry required to complete it, is in compliance with all applicable Federal and state environmental laws and regulations. Upon completion of the Contractor's work, rights-of-entry furnished by the Government shall be returned to its original condition prior to construction unless otherwise noted.

(b) If the Contractor proposes a deviation from the Government furnished rights-of-entry for his convenience, the Contractor shall notify the Contracting Officer or its representative in writing. Contractor shall not provide any permanent rights-of-entry for the project. The Contractor is cautioned that any deviation to the Government furnished rights-of-entry is subject to all applicable Federal and state environmental laws and regulations. Compliance with these environmental laws and regulations may require additional National Environmental Policy Act (NEPA) documents, cultural resources surveys, coordination with the Louisiana State Historical Preservation Officer, water quality certification, modification of the Federal consistency determination, etc. The Government is ultimately responsible for environmental compliance; therefore, the Government will

determine the additional environmental coordination and documentation necessary for a proposed deviation to the Government furnished rights-of-entry. For any environmental investigations the Government is to perform on areas outside of Government furnished rights-of-entry, the Contractor shall provide sufficient rights of entry to the Government. The Contracting Officer will advise the Contractor of the additional environmental coordination and documentation that must be completed. The Government shall be responsible for any additional environmental compliance; however, the Contractor may conduct specific tasks identified by the Government. The Government will offer advice and assistance to the Contractor in conducting these tasks. Depending on the environmental impact of the proposed deviation, obtaining the coordination and documentation may not be approved or could take as much as 180 calendar days for approval by the Government. The Government must review, approve and ensure distribution of all environmental compliance documentation and ensure all comments on the same have been resolved before any utilization of any areas outside of the Government furnished rights-of-entry. The Contractor shall reimburse the Government for actual expenses incurred for assistance in completing or attempting to complete additional environmental coordination and documentation, which expenses will not exceed one hundred thousand (\$100,000.00) dollars. There is no guarantee that environmental compliance will be obtained; therefore, the Contractor shall assume all risks and liabilities associated with pursuing a deviation. Any delays resulting from the deviation and/or the environmental coordination and documentation shall not be made the basis of any Contractor claim for increase in the contract cost and/or increase in contract time. Deviations will be at Contractor's sole risk and liability, including, but not limited to, such liabilities associated with items such as hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et. seq.), and at no cost to the Government. Government assistance in obtaining additional environmental clearances does not relieve the Contractor of responsibility for complying with other Federal, state or local licenses and permits.

14. ACCESS PLAN

The Contractor shall submit an Access Plan to be reviewed and approved by the Contracting Officer to include, as a minimum, the following:

- (a) Layout drawings showing the location of all equipment, office structures, toilets, and storage areas for materials.
- (b) Show mobilization and demobilization routing and locations of large equipment, such as draglines, cranes, etc. while on the jobsite.
- (c) Show waterway channels or canals used to mobilize and demobilize equipment and materials and show access routes and docking areas of all marine equipment with respect to the jobsite.

15. CONTRACT COORDINATION

The Contractor shall assist the Government with available on-site plant and manpower in monitoring the water quality aspects of the dredging and disposal operations. This assistance shall consist of, but not be limited to, furnishing boat transportation, temporary storage of samples, etc.

16. CONTRACTOR'S RESPONSIBILITY

The Contractor shall ensure that all its employees strictly comply with all laws that may apply to operations under this contract. The Contractor assumes full responsibility for the safety of its employees, plant, and materials and for any damage or injury done by or to them from any source or cause, except damage caused by acts of the Government, its officers, agents or employees. Such damages will be the responsibility of the Government in accordance with applicable Federal laws. The terms "officer", "agent", and "employee" of the Government do not include persons in the employment of the Contractor and whose services have been furnished to the Government.

17. MOBILIZATION OF ATTENDANT PLANT

Pursuant to the Contract Clause in Section 00700 entitled, "*COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (FAR 52.211-10)*", mobilization of all attendant plant, if required, shall be concurrent with dredge mobilization. Failure to timely mobilize such auxiliary/attendant plant may result in one (1) or more of the following actions by the Contracting Officer: reasonable suspension (without Government cost) of work until required plant is provided; formulation of credit to offset deficient plant; imposition of liquidated damages for late overall completion of the contract after excusable delays, if any. The Government's rights under any other Contract Clause are preserved.

18. SUPERVISION

At all times during performance of this contract and until the work is completed and accepted by the Government, the Contractor shall have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor. Inspectors appointed by the Contracting Officer will enforce strict compliance with the terms of the contract. The inspectors will keep a record of the work done, but neither the presence nor absence of inspectors shall relieve the Contractor of responsibility for the proper execution of the work in accordance with the contract and directives issued by the Contracting Officer.

19. PRE-BID SITE VISIT

Prior to the submission of any bids, all bidders are highly encouraged to visit the project site location to become familiar with the project requirements. Failure to visit

the project site will not disqualify a bid; however, the bidder is required to comply with the terms and conditions of any resultant contract by reason of such failure. In no event will a failure to inspect the site constitute grounds for a claim after contract award.

20. WORK IN THE VICINITY OF OTHER GOVERNMENT CONTRACTORS

The Contractor shall coordinate his/her operations, through the Contracting Officer's Representative, with any other Government Contractors who may be working in the vicinity. The contractor shall coordinate his staging operations, access routes, and construction requirements with any contractor currently performing work in the general vicinity. Any disputes or disagreements arising from area use shall be brought to the attention of the Contracting Officer, who will then make a determination for operational procedures. Determinations made by the Contracting Officer shall be binding on all parties concerned.

21. SECURITY REQUIREMENTS

(a) Suspicious Activity Reporting Training (e.g. iWATCH, CorpsWatch, or See Something, Say Something). The Contractor will not have access to the CORPS network. This is an unclassified contract and the Contractor will not have access to critical information. The Contractor and all associated sub-contractors shall receive locally developed training provided by the New Orleans District Security Office on the Local Suspicious Activity Reporting Program. This training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity relating to the project manager, security representative or law enforcement entity. The Contractor shall provide local background checks to New Orleans District Security Office before performing work. Point of contact is Joseph Ricchiazz, 504.862.2953. This training shall be completed within 30 calendar days of contract award and within 30 calendar days of new employees commencing performance. The results of this training shall be reported to the COR within 5 calendar days after the completion of the training.

(b) Pre-Screen Candidates Using E-Verify Program. The Contractor shall prescreen Candidates using the E-verify Program (<https://www.uscis.gov/e-verify>) website to meet the established employment eligibility requirements. The Contractor shall ensure that the Candidate has two valid forms of Government issued identification prior to enrollment to ensure the correct information is entered into the E-verify system. An initial list of verified/eligible Candidates shall be provided to the COR no later than 3 business days after the initial contract award. When contracts are with individuals, the individuals shall complete a Form I-9, Employment Eligibility Verification, with the designated Government representative. The completed Form I-9 shall be provided to the Contracting Officer and shall become part of the official contract file.

22. REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract and the requirements as defined within USACE EM 385-1-1, the Contractor shall comply with all pertinent 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.

23. CONTRACTOR PERFORMANCE EVALUATIONS – CONSTRUCTION

In accordance with the provisions of Subpart 36.201 (Evaluation of Contractor Performance) of the Federal Acquisition Regulation (FAR), construction contractor's performance shall be evaluated throughout the performance of the contract. The United States Army Corps of Engineers (USACE) follows the procedures outlined in Engineering Regulation 415-1-17 to fulfill this FAR requirement. For construction contracts awarded at or above \$700,000.00, the USACE will evaluate contractor's performance and prepare a performance report using the Contractor Performance Assessment Reporting (CPARS), which is now a web-based system. After an evaluation (interim or final) is written up by the USACE, the Contractor will have the ability to access, review and comment on the evaluation for a period of 30 days. Accessing and using CPARS requires specific software, called PKI certification, which is installed on the user's computer. The certification is a Department of Defense requirement and was implemented to provide security in electronic transactions. The certification software could cost approximately \$110 - \$125 per certificate per year and is purchased from an External Certificate Authorities (ECA) vendor. Current information about the PKI certification process and for contacting vendors can be found on the web site: <http://www.cpars.gov>. If the Contractor wishes to participate in the performance evaluation process, access to CPARS and PKI certification is the sole responsibility of the Contractor.

24. STATE PERMITS

Pursuant to the Contract Clause in Section 00700, entitled PERMITS AND RESPONSIBILITIES (FAR 52.236-7), the Contractor is required, prior to commencing work, to contact the State Land Office, or its representative, at (225) 342-4575, to notify the Office when work will commence on the State owned seashore, State lands, and/or State water bottoms.

25. EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

(a) This clause does not apply to terminations.

(b) Allowable costs 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 Engineering Pamphlet (EP) 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region III. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

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

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

NOTE1: Costs for repairs or overhauling are not allowed.

NOTE 2: A copy of the "EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE" for Region III can be obtained from the following website:

https://www.publications.usace.army.mil/Portals/76/Users/182/86/2486/EP%201110-1-8_RV1-12.pdf?ver=x6psY-gBPGg5dSOqQdjEMg%3d%3d

ACCIDENT PREVENTION PLAN
FUEL OIL TRANSFER -- FLOATING PLANT
 U.S. Army Engineer District, New Orleans
 EM 385-1-1, Section 19.A.06

1) Contractor	2) Contract Name & Number	3) Date	
4) Officer in Charge of Fuel Transfer	4a) Name of Vessel	4b) Fuel to be Transferred	
5) Name of Vessel	5a) Names of Qualified Tankermen	5b) Type of Certification and expiration date	
6) Name of Vessel	6a) Type of fill nozzle or connection on Vessel	6b) Location of fill pipes openings	6c) Location of vents openings
7) Type, number, and size of fire fighting equipment to be available during fuel transfer operations.			
8) Sequential steps to be followed when taking on fuel.			
_____ Contractor's Signature	_____ Date	_____ C.O. or C.O.R. Signature	_____ Date

Activity Hazard Analysis (AHA)

Activity/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)					
Project Location:	Risk Assessment Code (RAC) Matrix					
Contract Number:	Severity	Probability				
Date Prepared:		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
Reviewed by (Name/Title):	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L
Notes: (Field Notes, Review Comments, etc.)		Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)				
		"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.			RAC Chart	
		"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible			E = Extremely High Risk	
		Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.			H = High Risk	
		M = Moderate Risk		L = Low Risk		
Job Steps	Hazards	Controls			RAC	
Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)		Inspection Requirements			

Below are two samples of the construction project identification sign showing how this panel is adaptable for use to identify either military (top), or civil works projects (bottom). The graphic format for this 4' x 6' sign panel follows the legend guidelines and layout as specified below. The large

4' x 4' section of the panel on the right is to be white with black legend. The 2' x 4' section of the sign on the left with the full Corps signature (reverse version) is to be screen printed Communications Red on the white background.

This sign is to be placed with the Safety Performance Sign shown on the following

page. Mounting and fabrication details are provided on page 16.4.

Special applications or situations not covered in these guidelines should be referred to the District/Division sign coordinator.

Legend Group 1: One- to two-line description of Corps relationship to project.
Color: White
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

Legend Group 2: Division or District Name (optional). Placed below 10.5" Reverse Signature (6" Castle).
Color: White
Typeface: 1.25" Helvetica Regular

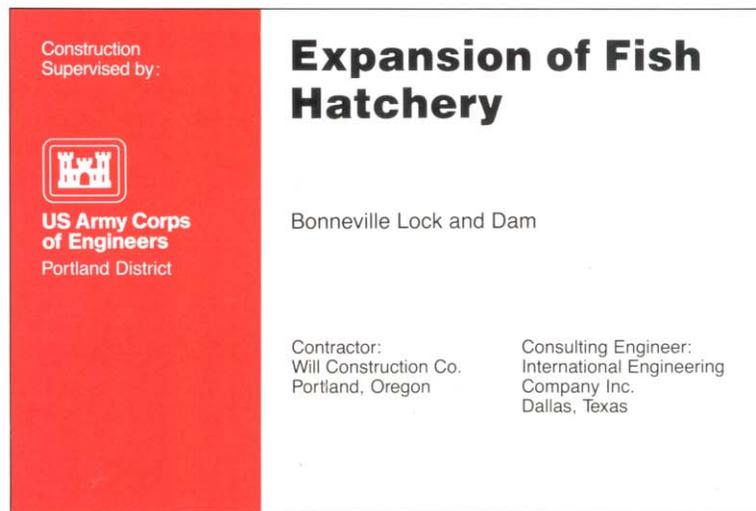
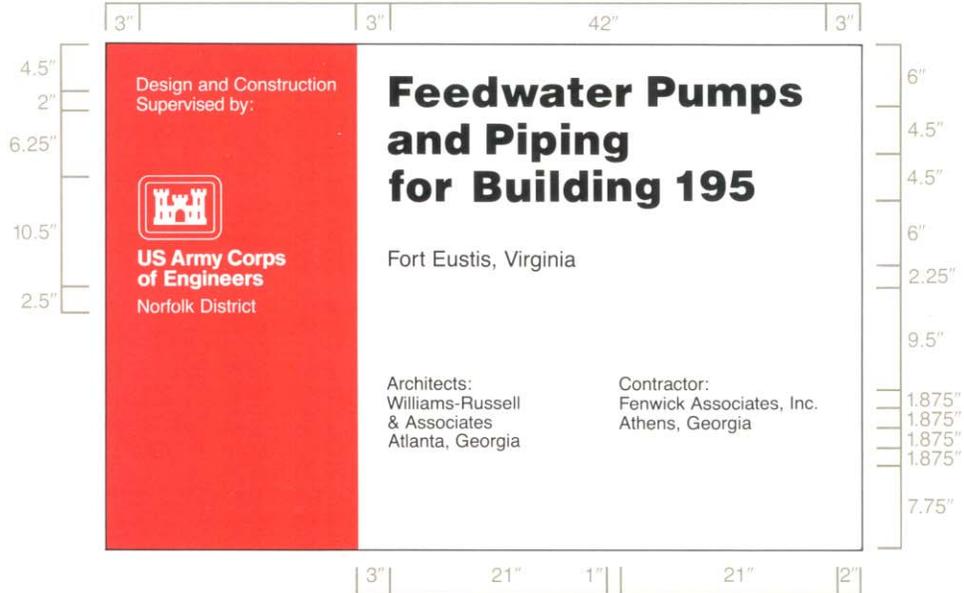
Legend Group 3: One- to three-line project title legend describes the work being done under this contract.
Color: Black
Typeface: 3" Helvetica Bold
Maximum line length: 42"

Legend Group 4: One- to two-line identification of project or facility (civil works) or name of sponsoring department (military).
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Cross-align the first line of Legend Group 4 with the first line of the Corps Signature (US Army Corps) as shown.

Legend Groups 5a-b: One- to five-line identification of prime contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state. Use of Legend Group 5 is optional.
Color: Black
Typeface: 1.25" Helvetica Regular
Maximum line length: 21"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-01	various	4" x 6"	4" x 4"	HDO-3	48"	WH-RD/BK

Each contractor's safety record is to be posted on Corps managed or supervised construction projects and mounted with the construction project identification sign specified on page 16.2.

The graphic format, color, size and typefaces used on the sign are to be reproduced exactly as specified below. The title

with First Aid logo in the top section of the sign, and the performance record captions are standard for all signs of this type. Legend Groups 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown.

Safety record numbers are mounted on individual metal plates and are screw-mounted to the background to allow for

daily revisions to posted safety performance record.

Special applications or situations not covered in these guidelines should be referred to the District/Division sign coordinator.

Legend Group 1: Standard two-line title "Safety is a Job Requirement", with (8" od.) Safety Green First Aid logo. Color: To match PMS 347 Typeface: 3" Helvetica Bold Color: Black

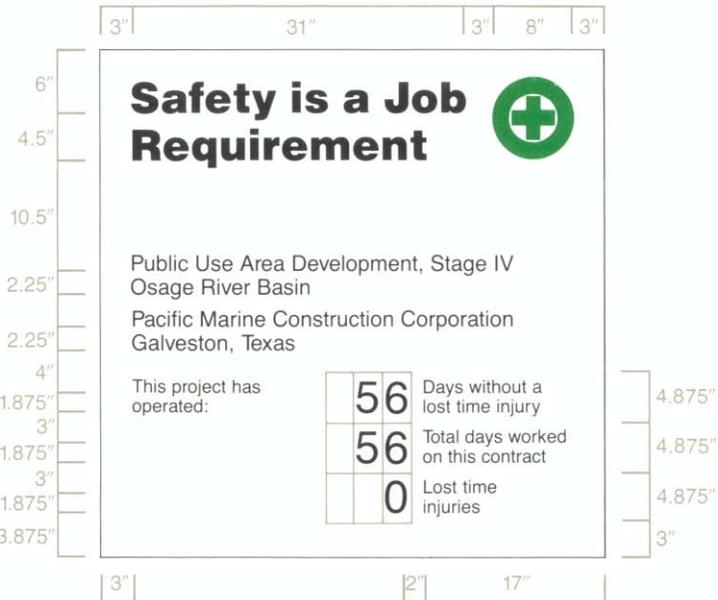
Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project. Color: Black Typeface: 1.5" Helvetica Regular Maximum line length: 42"

Legend Group 3: One- to two-line identification: name of prime contractor and city, state address. Color: Black Typeface: 1.5" Helvetica Regular Maximum line length: 42"

Legend Group 4: Standard safety record captions as shown. Color: Black Typeface: 1.25" Helvetica Regular

Replaceable numbers are to be mounted on white .060 aluminum plates and screw-mounted to background. Color: Black Typeface: 3" Helvetica Regular Plate size: 2.5" x .5"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4" x 4"	4" x 4"	HDO-3	48"	WH/BK-GR



All Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the contracting officer and shall conform to the size, format, and typographic standards shown on

pages 16.2-3. Detailed specifications for HDO plywood panel preparation are provided in Appendix B.

For additional information on the proper method to prepare sign panel graphics, contact the District sign coordinator.

Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign legend orders.

The sign panels are to be fabricated from .75" High Density Overlay Plywood. Panel preparation to follow HDO specifications provided in Appendix B.

Sign graphics to be prepared on a white non-reflective vinyl film with positionable adhesive backing.

All graphics except for the Communications Red background with Corps signature on the project sign are to be die-cut or computer-cut non-reflective vinyl, pre-spaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown on pages 16.2-3.

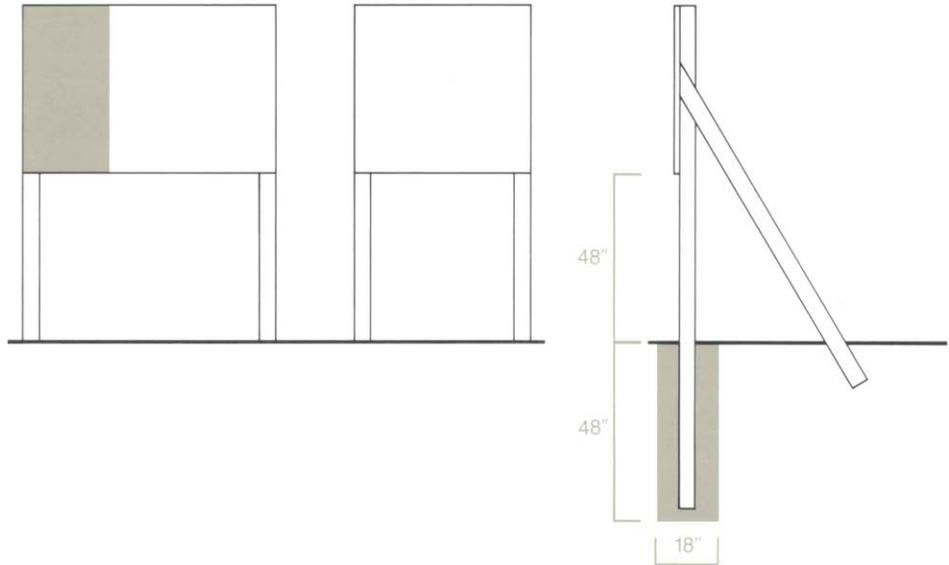
The 2' x 4' Communications Red panel (to match PMS-032) with full Corps signature (reverse version) is to be screen printed on the white background. Identification of the District or Division may be applied under the signature with white cut vinyl letters prepared to Corps standards. Large scale reproduction artwork for the signature is provided on page 4.8 (photographically enlarge from 6.875" to 10.5").

Drill and insert six (6) .375" T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

Sign uprights to be structural grade 4" x 4" treated Douglas Fir or Southern Yellow Pine, No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4" x .375").

Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation as shown.



Construction Project Sign
Legend Group 1: Corps Relationship

1. _____
2. _____

Legend Group 2: Division/District Name

1. _____
2. _____

Legend Group 3: Project Title

1. _____
2. _____
3. _____

Legend Group 4: Facility Name

1. _____
2. _____

Legend Group 5a: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Legend Group 5b: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Safety Performance Sign
Legend Group 1: Project Title

1. _____
2. _____

Legend Group 2: Contractor/A&E

1. _____
2. _____

	3"	31"	3"	8"	3"															
6"	<h1>Safety is a Job Requirement</h1>  <p>Gap Closures at Pump Station #3, Interim Protection Plan, Phase 1</p> <p>U.D.H. Builders, Inc. Baton Rouge, Louisiana</p> <p>This project started <table border="1"><tr><td></td><td>3</td></tr></table> <table border="1"><tr><td></td><td>5</td></tr></table> <table border="1"><tr><td>0</td><td>4</td></tr></table></p> <p>Date since last Lost time accident <table border="1"><tr><td></td><td></td></tr></table> <table border="1"><tr><td></td><td></td></tr></table> <table border="1"><tr><td></td><td></td></tr></table></p> <p>Total lost time injuries <table border="1"><tr><td></td><td>0</td></tr></table></p>						3		5	0	4								0	
						3														
						5														
0						4														
						0														
4.5"																				
10.5"																				
2.25"																				
3"																				
2.25"																				
3"																				
4.875"	4.875"																			
4.875"	4.875"																			
5"	4.5"																			
	3"																			
	3"	21"	24"																	

Example

(NOT TO SCALE)

.75"	0	0	0
3"	5	0	4
.75"	0	0	0
	2.5"	1.25"	2.5"

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CONSTRUCTION PROGRESS SCHEDULES

PART 1 GENERAL

1.1 1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for scheduling of all procurement and construction activities, and all costs associated therewith shall be included in the applicable contract unit or job prices contained in the Bidding Schedule.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Schedule; G, CD

SD-07 Certificates

Monthly Updates

1.3 ACCEPTANCE

Prior to the start of work, prepare and submit to the Contracting Officer for acceptance a construction schedule in the form of a Bar Chart Schedule in accordance with the terms in Contract Clause FAR 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS, except as modified in this contract. The acceptance of a Baseline Construction Schedule is a condition precedent to:

- a. The Contractor starting work on the demolition or construction stage(s) of the contract.
- b. Processing Contractor's invoice(s) for construction activities/items of work.
- c. Review of any schedule updates.

Submittal of the Baseline Schedule, and subsequent schedule updates, is understood to be the Contractor's certification that the submitted schedule meets all of the requirements of the Contract Documents, represents the Contractor's plan on how the work will be accomplished, and accurately reflects the work that has been accomplished and how it was sequenced (as-built logic).

1.4 SCHEDULE FORMAT

1.4.1 Bar Chart Schedule

The Bar Chart must, as a minimum, show work activities, submittals,

Government review periods, material/equipment delivery, utility outages, on-site construction, inspection, testing, and closeout activities. The Bar Chart must be time scaled and generated using an electronic spreadsheet program.

1.4.2 Schedule Submittals and Procedures

Submit Bar Chart Schedules and updates in hard copy and on electronic media that is acceptable to the Contracting Officer. Submit an electronic back-up of the project schedule in an import format compatible with the Government's scheduling program.

1.5 SCHEDULE MONTHLY UPDATES

Update the Construction Schedule at monthly intervals or when the schedule has been revised. The updated schedule must be kept current, reflecting actual activity progress and plan for completing the remaining work. Submit copies of purchase orders and confirmation of delivery dates as directed by the Contracting Officer.

a. Narrative Report: Provide with schedule updates. Identify and justify;

- (1) Progress made in each area of the project
- (2) Critical Path
- (3) Date/time constraint(s), other than those required by the contract
- (4) Changes in the following; added or deleted activities, original and remaining durations for activities that have not started, logic, milestones, planned sequence of operations, and critical path
- (5) Status of Contract Completion Date and interim milestones;
- (6) Current and anticipated delays (describe cause of delay and corrective actions(s) and mitigation measures to minimize);
- (7) Description of current and future schedule problem areas.

Each entry in the narrative report must cite the respective Activity ID and Activity Description, the date and reason for the change, and description of the change.

1.6 3-WEEK LOOK AHEAD SCHEDULE

Prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the Construction Schedule. Key the work plans to activity numbers when a NAS is required and update each week to show the planned work for the current and following two-week period. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. The detail work plans shall be bar chart type schedules, maintained separately from the Construction Schedule on an electronic spreadsheet program and printed on 8-1/2 by 11 inch sheets as directed by the Contracting Officer's representative. Activities must not exceed 5 working days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the work. Deliver three hard copies and one electronic file of the 3-Week Look Ahead Schedule

to the Contracting Officer's representative no later than 8 a.m. each
Monday, and review during the weekly CQC Coordination or Production Meeting.

1.7 CORRESPONDENCE AND TEST REPORTS:

All correspondence (e.g., letters, Requests for Information (RFIs),
e-mails, meeting minute items, Production and QC Daily Reports, material
delivery tickets, photographs) must reference Schedule Activities that are
being addressed. All test reports (e.g., concrete, soil compaction, weld,
pressure) must reference Schedule Activities that are being addressed.

1.8 ADDITIONAL SCHEDULING REQUIREMENTS

Any references to additional scheduling requirements, including systems to
be inspected, tested and commissioned, that are located throughout the
remainder of the Contract Documents, are subject to all requirements of
this section.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

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PART 2 PRODUCTS

PART 3 EXECUTION

-- End of Section Table of Contents --

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for submittal requirements as specified herein. Payment for the work covered under this section shall be distributed throughout the existing bid items. Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.2 DEFINITIONS

1.2.1 Submittal Descriptions (SD)

Submittals requirements are specified in the technical sections. Submittals are identified by SD numbers and titles as follows.

SD-01 Preconstruction Submittals

- Certificates of insurance.
- Surety bonds.
- List of proposed subcontractors.
- List of proposed products.
- Construction Progress Schedule.
- Submittal register.
- Schedule of prices.
- Health and safety plan.
- Work plan.
- Quality control plan.
- Environmental protection plan.
- Traffic Control Plan.

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.

Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-05 Design Data

Design calculations, mix designs, analyses or other data pertaining to a part of work.

SD-07 Certificates

Statements printed on the manufacturer's letterhead and signed by

responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a manufacturer, supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

Text of posted operating instructions.

SD-09 Manufacturer's Field Reports

Documentation of the testing and verification actions taken by manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and must state the test results; and indicate whether the material, product, or system has passed or failed the test.

Factory test reports.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

1.2.2 Approving Authority

Office or designated person authorized to approve submittal.

1.2.3 Work

As used in this section, on-site and off-site construction required by contract documents, including labor necessary to produce submittals, construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction.

1.3 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 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Submittal Register; G

1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.4.1 Government Approved

Governmental 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 in Section 00700 entitled, SPECIFICATIONS AND DRAWING FOR CONSTRUCTION (FAR 52.236-21), they are considered to be "shop drawings." Any reference to Government approval by the Contracting Officer (CO) includes the approving authority of the CO, the Administrative Contracting Officer (ACO), or the Contracting Officer's Representative (COR).

1.4.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.5 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.6 DISAPPROVED SUBMITTALS

The Contractor shall respond to all concerns expressed by the Contracting Officer and promptly make any corrections necessary to address those concerns. The Contractor shall 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 in Section 00700 entitled, CHANGES (FAR 52.243-4), shall be given promptly to the Contracting Officer.

1.7 GENERAL

The Contractor shall submit all items listed on the Submittal Register (ENG Form 4288) or specified in the other sections of these specifications. The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC)

representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Safety Data Sheets (SDS) and in compliance with existing laws and regulations.

1.8 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 submittal register 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 01 45 00.15 10 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM). 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.

1.9 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 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.

1.10 TRANSMITTAL FORM (ENG FORM 4025)

The 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. 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 contract specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item. In order to expedite review of submittals, an electronic copy of all submittals shall be sent to the Contracting Officer's Representative along with the hard copies. Each submittal shall be submitted in electronic (.pdf) form. Electronic files shall be .pdf, .dgn, .docx, or other format acceptable to the Contracting Officer's Representative.

1.11 SUBMITTAL PROCEDURES

Submittals shall be made as follows:

1.11.1 Procedures

Procedures for submittals will be stipulated by the Contracting Officer at the preconstruction conference.

1.11.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.12 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".

1.13 GOVERNMENT APPROVED SUBMITTALS

All submittals shall be received through RMS, including any attachments. Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. The Contractor shall provide at least one (1) hard copy to the Government Inspector of all submittals. This copy will be retained by the Contracting Officer. If the Contractor requires the return of any hard copies for their records, these copies shall be provided in addition to the one (1) Government copy at the time of submittal.

1.14 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. The Contractor shall also submit electronic copies (i.e., .pdf files) of all submittals to expedite the review and approval process.

1.15 STAMPS

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

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

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION
E&W Calumet Floodgates

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	GOVT CLASSIFICATION REVIEW	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		DATE OF ACTION	MAILED TO CONTR/ DATE RCD FRM APPR AUTH
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01 32 16.00 20	SD-01 Preconstruction Submittals														
			Construction Schedule	1.3	G CD												
			SD-07 Certificates														
			Monthly Updates	1.5													
		01 33 00	SD-01 Preconstruction Submittals														
			Submittal Register	1.7	G												
		01 45 04.00 10	SD-01 Preconstruction Submittals														
			Contractor Quality Control Plan	3.2	G CD												
		01 57 20.01 12	SD-01 Preconstruction Submittals														
			Environment Pollution Control Plan	1.5.1	G CD												
		01 78 03.00 10	SD-02 Shop Drawings														
			'As-Built' Drawings	1.3.1	G DO												
		02 21 10.00 12	SD-01 Preconstruction Submittals														
			Verification of Survey Equipment	1.7.2													
			SD-02 Shop Drawings														
			Preliminary Field Surveys		G ED												
			SD-05 Design Data														
			Compiled Survey Data		G ED												
			'Before and After' Dredging Cross Sections	3.1.3													
			'Before and After' Dredging Cross Sections	3.1.5													
			SD-09 Manufacturer's Field Reports														
			Calibration checks	3.1.1	G CD												

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION
E&W Calumet Floodgates

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVIEW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY					REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		MAILED TO CONTR/ DATE RCD FRM APPR AUTH
		35 20 23.00 12	SD-01 Preconstruction Submittals														
			Plan of Operation		G EDC												
			Disposal of Dredged Material Plan	3.3.1	G EDC												
			Access Plan	1.5.4	G EDC												
			Construction Schedule	1.5.3	G CD												
			SD-11 Closeout Submittals														
			Report of Operations		G EDC												
		35 20 23.33	SD-01 Preconstruction Submittals														
			Dredge Plant Instrumentation		G OM												
			Plan Revisions														
			SD-07 Certificates														
			Letter of National Dredging Quality Management Program Certification		G EDC												

U.S. Army Corps of Engineers (USACE) TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE For use of this form, see ER 415-1-10; the proponent agency is CECW-CE.	DATE	TRANSMITTAL NO.
---	------	-----------------

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
-----	-------	--------------	--

SPECIFICATION SEC. NO. <i>(Cover only one section with each transmittal)</i>	PROJECT TITLE AND LOCATION	THIS TRANSMITTAL IS FOR: <i>(Check one)</i> <input type="checkbox"/> FIO <input type="checkbox"/> GA <input type="checkbox"/> DA <input type="checkbox"/> CR <input type="checkbox"/> DA/CR <input type="checkbox"/> DA/GA
--	----------------------------	---

ITEM NO. <small>(See Note 3)</small>	DESCRIPTION OF SUBMITTAL ITEM <small>(Type size, model number/etc.)</small>	SUBMITTAL TYPE CODE <small>(See Note 8)</small>	NO. OF COPIES	CONTRACT DOCUMENT REFERENCE		CONTRACTOR REVIEW CODE	VARIATION <small>Enter "Y" if requesting a variation (See Note 6)</small>	USACE ACTION CODE <small>(Note 9)</small>
				SPEC. PARA. NO.	DRAWING SHEET NO.			
a.	b.	c.	d.	e.	f.	g.	h.	i.

REMARKS	I certify that the above submitted items had been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.		
	<table style="width:100%; border: none;"> <tr> <td style="width: 50%; border: none;">NAME OF CONTRACTOR</td> <td style="width: 50%; border: none;">SIGNATURE OF CONTRACTOR</td> </tr> </table>	NAME OF CONTRACTOR	SIGNATURE OF CONTRACTOR
NAME OF CONTRACTOR	SIGNATURE OF CONTRACTOR		

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED <i>(List by item No.)</i>	NAME AND TITLE OF APPROVING AUTHORITY	SIGNATURE OF APPROVING AUTHORITY	DATE
---	---------------------------------------	----------------------------------	------

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each Transmittal shall be numbered consecutively. The Transmittal Number typically includes two parts separated by a dash (-). The first part is the specification section number. The second part is a sequential number for the submittals under that spec section. If the Transmittal is a resubmittal, then add a decimal point to the end of the original Transmittal Number and begin numbering the resubmittal packages sequentially after the decimal.
3. The "Item No." for each entry on this form will be the same "Item No." as indicated on ENG FORM 4288-R.
4. Submittals requiring expeditious handling will be submitted on a separate ENG Form 4025-R.
5. Items transmitted on each transmittal form will be from the same specification section. Do not combine submittal information from different specification sections in a single transmittal.
6. If the data submitted are intentionally in variance with the contract requirements, indicate a variation in column h, and enter a statement in the Remarks block describing the detailed reason for the variation.
7. ENG Form 4025-R is self-transmitting - a letter of transmittal is not required.
8. When submittal items are transmitted, indicate the "Submittal Type" (*SD-01 through SD-11*) in column c of Section I.
Submittal types are the following:
SD-01 - Preconstruction SD-02 - Shop Drawings SD-03 - Product Data SD-04 - Samples SD-05 - Design Data SD-06 - Test Reports
SD-07 - Certificates SD-08 - Manufacturer's Instructions SD-09 - Manufacturer's Field Reports SD-10 - O&M Data SD-11 - Closeout
9. For each submittal item, the Contractor will assign Submittal Action Codes in column g of Section I. The U.S. Army Corps of Engineers approving authority will assign Submittal Action Codes in column i of Section I. The Submittal Action Codes are:

A -- Approved as submitted.	F -- Receipt acknowledged.
B -- Approved, except as noted on drawings. Resubmission not required.	X -- Receipt acknowledged, does not comply with contract requirements, as noted.
C -- Approved, except as noted on drawings. Refer to attached comments. Resubmission required.	G -- Other action required (<i>Specify</i>)
D -- Will be returned by separate correspondence.	K -- Government concurs with intermediate design. (<i>For D-B contracts</i>)
E -- Disapproved. Refer to attached comments.	R -- Design submittal is acceptable for release for construction. (<i>For D-B contracts</i>)
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract.

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SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

1.2 ORDERING INFORMATION

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SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

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RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

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- 1.2 REFERENCES
- 1.3 CONTRACT ADMINISTRATION
 - 1.3.1 Correspondence and Electronic Communications
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- 1.4 RMS SOFTWARE
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 - 1.7.2 Finances
 - 1.7.2.1 Pay Activity Data
 - 1.7.2.2 Payment Requests
 - 1.7.3 Quality Control (QC)
 - 1.7.3.1 Quality Control (QC) Reports
 - 1.7.3.2 Deficiency Tracking
 - 1.7.3.3 Three-Phase Control Meetings
 - 1.7.3.4 Labor and Equipment Hours
 - 1.7.3.5 Accident/Safety Reporting
 - 1.7.3.6 Definable Features of Work
 - 1.7.3.7 Activity Hazard Analysis
 - 1.7.4 Submittal Management
 - 1.7.5 Schedule
 - 1.7.6 Closeout
- 1.8 IMPLEMENTATION
- 1.9 NOTIFICATION OF NONCOMPLIANCE

PART 2 PRODUCTS

PART 3 EXECUTION

-- End of Section Table of Contents --

SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

PART 1 GENERAL

1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for resident management system requirements as specified herein. Payment for the work covered under this section shall be distributed throughout the existing bid items.

1.2 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements Manual

RMS CM Guide (2021) Resident Management System (RMS) User Manual For Contractors

1.3 CONTRACT ADMINISTRATION

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Contractor accesses the system using the Contractor Mode (RMS CM) module. The term RMS will be used in the remainder of this section for both RMS and RMS CM. The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. The Contractor accesses RMS to record, maintain, input, track, and electronically share information with the Government throughout the contract period in the following areas:

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

For assistance in providing contract-required data to the Government, the Contractor is directed to the following website for guidance:
https://rms.usace.army.mil/datafiles/rms_qcs_manuals/qcs_manual_2_38.pdf

1.3.1 Correspondence and Electronic Communications

For ease and speed of communications, exchange correspondence and other documents in electronic format to the maximum extent feasible. Some correspondence, including pay requests and payrolls, are also to be provided in paper format with original signatures. Paper documents will

govern, in the event of discrepancy with the electronic version.

1.3.2 Other Factors

Other portions of this document have a direct relationship to the reporting accomplished through RMS. Particular attention is directed to Contract Clause, 52.236-15 "SCHEDULES FOR CONSTRUCTION CONTRACTS"; Contract Clause, 52.232-27 "PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS"; Contract Clause, 52.232-5 "PAYMENTS UNDER FIXED-PRICED CONSTRUCTION CONTRACTS"; Section 01 33 00 SUBMITTAL PROCEDURES; and Section 01 45 04.00 10 CONTRACTOR QUALITY CONTROL.

1.4 RMS SOFTWARE

RMS is a Windows-based program that can be run on a Windows-based PC meeting the requirements as specified in paragraph SYSTEM REQUIREMENTS. Download, install and be able to utilize the latest version of the RMS software within 7 calendar days of receipt of the Notice to Proceed. RMS software, user manuals (RMS CM Guide), access and installation instructions, program updates and training information are available from the RMS website (<https://rms.usace.army.mil/datafiles/rmsdocwebsite/default.html>). The Government and the Contractor will have different access authorities to the same contract database through RMS. The common database will be updated automatically each time a user finalizes an entry or change.

1.5 SYSTEM REQUIREMENTS

The following is the recommended system configuration to run the Contractor Mode RMS for full utilization of all features for all types and sizes of contracts. Smaller, less complicated, projects may not require the configuration levels described below. Required configuration also noted below.

Minimum RMS System Requirements	
Hardware	
Windows-based PC	1.7 GHz i3; AMD A6 3650 GHz or higher processor (REQUIRED)
RAM	8 GB
Hard drive disk	100 GB space for sole use by RMS system
Monitor	Screen resolution 1366 x 768
Mouse or other pointing device	
Windows compatible printer	Laser printer must have 4 MB+ of RAM
Connection to the Internet	minimum 10 Mbs per user
Software	

Minimum RMS System Requirements	
MS Windows	Windows 10 Windows 8 64-bit (RMS requires a 64-bit OS) or newer (REQUIRED)
Word Processing software	Viewer for MS Word 2013, MS Excel 2013 or newer (REQUIRED)
E-mail	MAPI compatible (REQUIRED)
Virus protection software	Regularly upgraded with all issued Manufacturer's updates and is able to detect most zero day viruses (REQUIRED)

1.6 CONTRACT DATABASE - GOVERNMENT

The Government will enter the basic contract award data in RMS prior to granting the Contractor access. The Government entries into RMS will generally be related to submittal reviews, correspondence status, and Quality Assurance(QA) comments, as well as other miscellaneous administrative information.

1.7 CONTRACT DATABASE - CONTRACTOR

Contractor entries into RMS establish, maintain, and update data throughout the duration of the contract. Contractor entries generally include prime and subcontractor information, daily reports, submittals, RFI's, schedule updates and payment requests. RMS includes the ability to import attachments and export reports in many of the modules, including submittals. The contractor responsibilities for entries in RMS typically include the following items:

1.7.1 Administration

1.7.1.1 Contractor Information

Enter all current Contractor administrative data and information into RMS within 7 calendar days of receiving access to the contract in RMS. This includes, but is not limited to, Contractor's name, address, telephone numbers, management staff, and other required items.

1.7.1.2 Subcontractor Information

Enter all missing subcontractor administrative data and information into RMS CM within 7 calendar days of receiving access to the contract in RMS or within 7 calendar days of the signing of the subcontractor agreement for agreements signed at a later date. This includes name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed.

1.7.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters are numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with

"C" or "RFP".

1.7.1.4 Equipment

Enter and maintain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.7.1.5 Reports

Track the status of the project utilizing the reports available in RMS. The value of these reports is reflective of the quality of the data input. These reports include the Progress Payment Request worksheet, Quality Control (QC) comments, Submittal Register Status, and Three-Phase Control worksheets.

1.7.1.6 Request For Information (RFI)

Create and track all Requests For Information (RFI) in the RMS Administration Module for Government review and response.

1.7.2 Finances

1.7.2.1 Pay Activity Data

Develop and enter a list of pay activities in conjunction with the project schedule. The sum of pay activities equals the total contract amount, including modifications. Each pay activity must be assigned to a Contract Line Item Number (CLIN). The sum of the activities assigned to a CLIN equals the amount of each CLIN.

1.7.2.2 Payment Requests

Prepare all progress payment requests using RMS. Update the work completed under the contract at least monthly, measured as percent or as specific quantities. After the update, generate a payment request and prompt payment certification using RMS. Submit the signed prompt payment certification and payment request as well as supporting data either electronically or by hard copy. Unless waived by the Contracting Officer, a signed paper copy of the approved payment certification and request is also required and will govern in the event of discrepancy with the electronic version.

1.7.3 Quality Control (QC)

Enter and track implementation of the 3-phase QC Control System, QC testing, transferred and installed property and warranties in RMS. Prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements in RMS. Maintain all data on a daily basis. Insure that RMS reflects all quality control methods, tests and actions contained within the Contractor Quality Control (CQC) Plan and Government review comments of same within 7 calendar days of Government acceptance of the CQC Plan.

1.7.3.1 Quality Control (QC) Reports

The Contractor's Quality Control (QC) Daily Report in RMS is the official report. The Contractor can use other supplemental formats to record QC data, but information from any supplemental formats are to be consolidated

and entered into the RMS QC Daily Report. Any supplemental information may be entered into RMS as an attachment to the report. QC Daily Reports must be finalized and signed in RMS within 24 hours after the date covered by the report. Provide the Government a printed signed copy of the QC Daily Report, unless waived by the Contracting Officer.

1.7.3.2 Deficiency Tracking

Use the QC Daily Report Module to enter and track deficiencies. Deficiencies identified and entered into RMS by the Contractor or the Government will be sequentially numbered with a QC or QA prefix for tracking purposes. Enter each deficiency into RMS the same day that the deficiency is identified. Monitor, track and resolve all QC and QA entered deficiencies. A deficiency is not considered to be corrected until the Government indicates concurrence in RMS.

1.7.3.3 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS. Worksheets for the three-phase control meetings are generated within RMS.

1.7.3.4 Labor and Equipment Hours

Enter labor and equipment exposure hours on a daily basis. Roll up the labor and equipment exposure data into a monthly exposure report.

1.7.3.5 Accident/Safety Reporting

Both the Contractor and the Government enter safety related comments in RMS as a deficiency. The Contractor will monitor, track and show resolution for safety issues in the QC Daily Report area of the RMS QC Module. In addition, follow all reporting requirements for accidents and incidents as required in EM 385-1-1 and as required by any other applicable Federal, State or local agencies.

1.7.3.6 Definable Features of Work

Enter each feature of work, as defined in the approved CQC Plan, into the RMS QC Module. A feature of work may be associated with a single or multiple pay activities, however a pay activity is only to be linked to a single feature of work.

1.7.3.7 Activity Hazard Analysis

Import activity hazard analysis electronic document files into the RMS QC Module utilizing the document package manager.

1.7.4 Submittal Management

Enter all current submittal register data and information into RMS within 7 calendar days of receiving access to the contract in RMS. The information shown on the submittal register following the specification section 01 33 00 SUBMITTAL PROCEDURES will already be entered into the RMS database when access is granted. Group electronic submittal documents into transmittal packages to send to the Government, except very large electronic files, samples, spare parts, mock ups, color boards, or where hard copies are specifically required. Track transmittals and update the submittal register in RMS on a daily basis throughout the duration of the contract. Submit

hard copies of all submittals unless waived by the Contracting Officer.

1.7.5 Schedule

Enter and update the contract project schedule in RMS by either manually entering all schedule data or by importing the Standard Data Exchange Format (SDEF) file, based on the requirements in Section 01 32 16.10 12 CONSTRUCTION PROGRESS SCHEDULES.

1.7.6 Closeout

Closeout documents, processes and forms are managed and tracked in RMS by both the Contractor and the Government. Ensure that all closeout documents are entered, completed and documented within RMS.

1.8 IMPLEMENTATION

Use of RMS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS system. RMS is an integral part of the Contractor's required management of quality control.

1.9 NOTIFICATION OF NONCOMPLIANCE

Take corrective action within 7 calendar days after receipt of notice of RMS non-compliance by the Contracting Officer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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CONTRACTOR QUALITY CONTROL

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- 1.2 SUBMITTALS
- 1.3 ELECTRONIC TEST REPORT DATA

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PART 3 EXECUTION

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- 3.2 CONTRACTOR QUALITY CONTROL (CQC) PLAN
 - 3.2.1 Content of the CQC Plan
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 - 3.2.3 Notification of Changes
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SECTION 01 45 04.00 10

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for providing and maintaining an effective Contractor Quality Control program, and all costs associated therewith shall be included in the applicable contract unit or job prices contained in the Bidding Schedule.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation. 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 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Contractor Quality Control Plan; G, CD

1.3 ELECTRONIC TEST REPORT DATA

As part of the Contractor's Quality Control Program, his/her selected QC laboratory shall provide electronic transmission of the test report data in the prescribed formats with the original hard copy test report data to the Government. The New Orleans District Construction Control Manual (NODCC Manual) specifies the minimum number of tests to be performed, and includes forms which shall be used to report the number of tests to be performed, and includes forms which shall be used to report the test data. The technical specification sections may include testing and/or frequency requirements other than those listed in the NODCC manual. A copy of the NODCC Manual is attached at the end of this section. Test results shall be emailed to mvn-cd-q-testresults@usace.army.mil and to the Government Project Engineer. In addition, all test results shall be uploaded to the Resident Management System Contractor Mode (RMS CM).

PART 2 PRODUCTS

Not Used.

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 in Section 00700, entitled "INSPECTION OF CONSTRUCTION" (FAR 52.246-12). 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 and Quality Control Manager 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 CONTRACTOR QUALITY CONTROL (CQC) PLAN

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice of award, the Contractor Quality Control Plan proposed to implement the requirements of the Contract Clause in Section 00700, entitled "INSPECTION OF CONSTRUCTION" (FAR 52.246-12). 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. A sample CQC Plan is attached at the end of the section.

3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01 33 00 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 approved by the Contracting Officer shall be used.)

- 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/her 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 14 calendar days prior to the Coordination Meeting. During the Coordination 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 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, shop 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 (full time) experience in related equivalent 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 may not have any other duties than quality control, and that when the alternate is activated, he shall also have no other duties other than quality control.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the following areas: civil, environmental, and submittals clerk. These individuals may be employees of the prime or subcontractor; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan. A single person may cover more than one area provided that they are qualified to perform QC activities in each designated field of expertise and if his/her workload allows.

Experience Matrix

Area	Qualifications
a. Civil	Graduate Civil Engineer or

Experience Matrix

Area	Qualifications
b. Environmental	Construction Manager with 2 years experience in the type of work being performed on this project or technician with 5 yrs related experience
c. Submittals	Graduate Environmental Engineer with three (3) years experience
	Submittal Clerk with 1 yr experience

3.4.4 Additional Requirement

In addition to the above experience and education requirements the CQC System Manager, and his/her alternate, shall have completed the course entitled "Construction Quality Management for Contractors" within the past 3 years. This course is periodically offered at the New Orleans District and other Corps of Engineers districts.

3.4.5 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 01 33 00 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
- b. A review of the contract drawings.

- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government Quality Assurance personnel shall be notified at least 48 hours in advance of beginning the preparatory control phase. The Contractor shall submit a written agenda of the topics to be discussed at the preparatory meeting on the day prior to the meeting date. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), Government Quality Assurance personnel, and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

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

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the

safety plan and activity hazard analysis. Review the activity analysis with each worker.

- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

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

3.6.4 Additional Preparatory and Initial Phases

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

3.7 COMPLETION INSPECTION

3.7.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the Contract Clause in Section 00700, entitled "COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (FAR 52.211-10)" or stated elsewhere in the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.7.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the [facility] [structure] [work] is complete [and ready to be occupied]. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner.

These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.7.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at this inspection. Additional Government personnel including, but not limited to, those from the New Orleans District, Mississippi Valley Division, and local interest may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Contract Clause in Section 00700 entitled, "Inspection Of Construction" (FAR 52.246-12).

3.8 DOCUMENTATION

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

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 12 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 for guidance in preparing the CQC Plan are 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.

-- End of Section --



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

Construction Control Manual

**Sampling & Testing Construction Materials
Reporting Test Results**

**CEMVN CD 415-Q-11
14 March 2016**



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
7400 LEAKE AVENUE
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CEMVDN-CD

Pamphlet
Number CEMVN-CD-415-Q-11

14 March 2016

Construction

CONSTRUCTION CONTROL MANUAL

1. Purpose. This manual describes the means and methods for the Contractor Quality Control (QC) and Government Quality Assurance (QA) testing of some of the more common construction materials incorporated into New Orleans District projects. Information is given on sampling, the test required, testing frequency, reporting requirements, and database maintenance. This manual only describes a minimum testing program on a limited number of common construction materials and the specifications may require additional tests that demonstrate compliance with the contract documents.

2. Applicability. This manual applies to all New Orleans District elements having responsibility for the design and construction of assigned projects.

3. Scope of the Manual. This manual is intended to guide the Quality Control and Quality Assurance process and provide for the construction of a project whose quality and durability is a direct reflection of the Contractor's and the Government's efforts in meeting the project's goals and objectives. If there is a conflict between this manual and the technical specification sections, the most stringent requirements shall govern.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS

Number CEMVN-CD-415-Q-11

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Chapter 1 Introduction

1. General:

This manual describes the means and methods for the Contractor Quality Control and Government Quality Assurance testing of construction materials incorporated into the New Orleans District (CEMVN) projects. Information is given on sampling, the test required, testing frequency, reporting requirements, and database maintenance. This manual only describes a minimum testing program on a limited number of common construction materials and the specifications may require additional tests that demonstrate compliance with the contract documents. If there is a conflict between this manual and the technical specification sections, the most stringent requirements shall govern. The most recent version of this manual at the time of contract solicitation will supplement the construction material control requirements for a specific contract unless noted otherwise.

The Contractor shall only use those laboratories, including his own that have been validated by an inspection or audit performed by the USACE Materials Testing Center, Vicksburg, MS.

2. Definitions:

- a. **Quality Management System.** Quality management is defined as all control, inspection, and other assurance activities instituted to achieve the product quality established by the contract plans and specifications.
- b. **Contractor Quality Control.** Contractor Quality Control (QC) is that part of the system by which the Contractor regulates, tests and inspects their own, suppliers, and sub-Contractors procedures, equipment, materials, and personnel so that the completed product will comply with the requirements of the project's contract documents.
- c. **Government Quality Assurance.** Government Quality Assurance (QA) is that part of the system by which the Government verifies or assures that the Contractor's Quality Control system is performing properly and the completed product conforms to the contract documents. The number of QC test observed by QA personnel should be generally related to the consistency in QC and QA test results.

3. Responsibility, Compilation, and Submittal of Test Results:

- a. The Contractor is responsible for complying with the contract documents in the performance of all required tests and the preparation, submittal, and maintenance of those test reports outlined in this manual and the contract specifications. The test results from QC and QA testing shall be compiled separately as outlined in this manual.
- b. The Contractors' QC Laboratory shall appoint a Registered Professional Civil Engineer to certify QC inspections and test results prior to the start of work. The certification shall state that the tests and observations were performed by or under the direct supervision of the Registered Professional Civil Engineer and that the results are representative of the

materials and conditions being certified by the tests. The certification shall be submitted within two weeks after final inspections and testing is complete. The certification shall be submitted to USACE for the referenced project in accordance with the New Orleans Construction Control Manual, Appendix A. Failure to submit certifications as stated may result in nonpayment for related work performed and disapproval of the QC test facility for this contract.

- c. Acceptance of the Contractors' QC 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 to the QC Plan and operations including removal of personnel and QC Laboratory, as necessary, to obtain the quality specified.
- d. All test results will be entered into the CEMVN Quality Assurance Control Center (QACC) construction material testing database as described in Appendix A by the QC laboratory performing the testing. Test results will be entered into the testing database within 48 hours from sampling. Payment for any material placed, as well as for any subsequent construction, will not be made until test results are entered into the database and analyzed by Quality Assurance personnel. The Contractor shall maintain a hard copy of the materials testing log, test reports and control charts at the Contractor's field office. These records will be available at all times for review by Government personnel. The original test report will be distributed to the Administrative Contracting Officer (ACO) within 48 of completion of the test. This original test report (supporting documentation) submission is in addition to any required electronic submission.
- e. Any tests not conforming to the contract documents will be immediately reported to the Administrative Contracting Officer along with the recommended corrective action to bring the work into complete compliance with the specifications. The Administrative Contracting Officer may designate additional re-sampling or retesting to verify the work represented by the failing test. This testing is at the Contractor's expense.
- f. Reference to standard test methods and testing procedures for sampling and testing of common construction materials are given in each chapter of this manual. Additional testing may also be required in the contract documents.
- g. Laboratory Facilities. For work that involves aggregates, concrete, masonry, rock or soil the QC Laboratory shall, at its own expense, obtain and maintain validation as an approved testing laboratory by the Materials Testing Center (MTC) of the Engineering Research and Development Center (ERDC). This shall be done in accordance with ER 1110-1- 8100 and ER 1110-1-261. Appendix B further describes this requirement. Refer to Chapter 4 for welding laboratories.

For work that involves vibration, steel, steel reinforcing bars, coatings inspections and other specialized construction material testing and inspection the QC Laboratory shall maintain personnel, procedures and equipment that meet applicable industry standards.

- h. Field sampling and testing locations shall be recorded using Latitude/Longitude coordinates reported in decimal degree format to the millionth decimal and be surveyed using techniques to achieve ± 10 feet accuracy.
Report Form input example: 29.934003, -90.133745

Chapter 2 Soils

1. Scope:

This chapter specifies methods and procedures for the Contractor Quality Control (QC) and Government Quality Assurance (QA) testing of materials used, but not limited to, compacted levee embankments, compacted berms, un-compacted berms, ramps, and structural backfill. The Government will also perform checks, and assurance testing of control testing required by the Contractor.

2. Samples:

Samples shall be collected and secured in accordance applicable ASTM testing procedures.

3. Testing Personnel:

The individuals who inspect, monitor, sample and test Embankment construction as required in this specification shall meet the following minimum criteria of certification and/or documented experience. Work experience shall be related to the field for which the inspector is being qualified and may be obtained by working either for an inspection/testing agency or engineering firm as a technician, inspector or engineer.

- Current NICET Level II certification in Geotechnical Engineering technology/construction, or
- Current ICC Soils Special Inspector with one year related experience, or
- Geologist-in-Training with one year related experience, or
- Engineer Intern with one year related experience, or
- Registered Geologist, or
- Registered Professional Engineer.

The Contractors' QC laboratory shall submit certification and/or documentation to provide evidence of qualification. The appointed Registered Professional Civil Engineer, identified in Chapter 1, Section 3.b to certify inspections and test results, remains responsible for compliance of all inspection and testing activities.

All Laboratory facilities, personnel and equipment used to test soils as required in this specification shall be part of a Laboratory that has been validated by the USACE Materials Testing Center, Vicksburg, MS.

4. Typical Test Requirements:

Testing and reporting shall be performed in accordance with the latest American Society of Testing and Materials (ASTM) Standard, as indicated in Table 2-1.

**Table 2-1
ASTM References**

Gradation	
ASTM C 117	Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing
ASTM C 136	Sieve Analysis of Fine and Course Aggregates
ASTM D 1140	Amount of Material in Soils Finer than No. 200 (75- μ m) Sieve
ASTM D 6913	Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
Moisture Content	
ASTM D 2216	Laboratory Determination of Water, (Moisture) Content of Soil and Rock by Mass (Method B)
ASTM D 4643	Determination of Water (Moisture) Content of Soil by Microwave Method
Moisture/Density Relationship	
ASTM D 698	Laboratory Compaction Characteristics of Soil Using Standard Efforts (12,400ft lbs/ft ³ (6000KN))
ASTM D 1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2,700 kN-m/m ³))
Field Density	
ASTM D 1556	Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 6938	In-Place Density and Water Content of Soil and Soil-Aggregate Nuclear Methods (Shallow Depth)
Materials Classification	
ASTM D 2487	Classification of Soils for Engineering Purposes
ASTM D 4318	Liquid Limit (One-Point Method B), Plastic Limit, and Plasticity Index of Soils
Organic Content	
ASTM D 2974	Moisture, Ash, and Organic Matter of Peat and Other Organic Soils (Method C)
Unconfined Compressive Strength	
ASTM D 1633	Compressive Strength of Molded Soil-Cement Cylinders
ASTM D 2166	Unconfined Compressive Strength of Cohesive Soil

5. Sampling and Testing of Compacted Fill:

This sampling and testing shall be in accordance with the standard procedures referred to in this manual. The minimum number of QC tests to be performed shall be as indicated in Table 2-2. The Government will also perform checks, and assurance testing of the other control testing required by the Contractor.

**Table 2-2
Type of Tests and Frequency of Testing
Compacted Embankments and Berms, Ramps, and Structural Backfill Material**

Property	Form	Minimum Frequency	Standard
Nuclear Field Density	MVNQS11	One test per 1,500 cubic yards of compacted fill placed per lift, but not less than one density test per 500 linear feet per lift. A lift placed on any one side of an existing embankment will be considered as a separate lift. At least one test shall be performed in any shift that compacted fill is placed.	ASTM D 1556 or ASTM D 6938
Nuclear Field Density Relative Density	MVNQS12	Used to record test results from testing uncohesive material. One density test per lift per 150 linear feet of the base course. Isolated repairs (less than 150 linear feet) must have at least one density test per isolated area per lift.	ASTM D 6938
Sand Cone Field Density	MVNQS03	One test to be obtained for every ten (10) Nuclear Field Density locations to verify Nuclear Field Density.	ASTM D 1556
Compaction Control Curve	MVNQS02	Control Compaction Curves shall be established in accordance with ASTM D 698 - Laboratory Compaction Characteristics of Soil Using Standard Effort. A Compaction Control Curve will be required for each type of material from each source or a minimum of one Compaction Control Curve every 25,000 cubic yards of compacted fill placement. Where construction operations result in the blending of material, two representative Compaction Control Curves will be required for each resulting blend of material. The samples collected for the resultant blended material shall be collected from separate locations. If the borrow or source of fill material changes, new Compaction Control Curves shall be performed. Material test samples for Compaction Control Curve shall be prepared by air-dry, rewet, and cured.	ASTM D 698
One-Point Proctor Verification	MVNQS02	One test to be obtained for every five (5) field density locations.	ASTM D 698 (modified)
Moisture Content	MVNQS11	One test at each field density test location.	ASTM D 2216 or ASTM D 4643
Organic Content	MVNQS07	One test at each field density test location.	ASTM D 2974 (Method C)
Materials Classification	MVNQS06	One test obtained for each Control Compaction Curve and one test for each field density test. Determine Atterberg Limits (LL One-Point Method B), minus #200 and Sand Content.	ASTM D 2487 ASTM D 1140 ASTM D 4318
Unconfined Compressive (UC) Strength	MVNQS05	For Deep Soil Mixing (DSM) QC operations a minimum of three percent of the DSM columns per site will be drilled and three UC strength samples collected and tested at each test column.	ASTM D 2166 ASTM D 1633

6. Sampling and Testing of Un-Compacted Berm Material:

This sampling and testing shall be in accordance with the standard procedures referred to in this manual. The minimum number of QC tests to be performed shall be as indicated in Table 2-3. The Government will also perform check and assurance testing of the other control testing required by the Contractor.

**Table 2-3
Type of Tests and Frequency of Testing
Un-Compacted Berm Material**

Property	Form	Frequency	Standard
Organic Content	MVNQS07	One test at materials classification test location.	ASTM D 2974 (Method C)
Materials Classification	MVNQS06	One test per 3,000 cubic yards of un-compacted fill placed, but not less than one test per 1,000 linear feet of un-compacted fill placed. At least one test shall be performed in any shift that un-compacted fill is placed. Determine Atterberg Limits (LL One-Point Method B), minus #200 and Sand Content.	ASTM D 2487 ASTM D 1140 ASTM D 4318

7. Compilation of Test Data for Submittal:

The results of the test and inspections shall be recorded in the MVN database as directed in Appendix. Samples of the reporting forms and instruction for each form are provided on the MVN SharePoint site; **Test Form Examples** and are described as follows. The latest forms should be referenced on the MVN SharePoint site and described in Appendices. All data is to be submitted electronically **within 24 hours of completion of the tests by the laboratory performing the testing.**

- a. **MVNQS01** Sieve Analysis – ASTM C 117, ASTM C 136 and ASTM D 1140. This form is to be used in reporting the material finer than No 200 sieve and a sieve analysis of coarse grain material.
- b. **MVNQS02** (Compaction Control Curve) ASTM D 698. This form is to be used in reporting the determination of the optimum moisture content and the maximum dry density. The moisture-density curve shall be plotted based on a minimum of five compaction test specimens. A one-point Proctor test – ASTM D 698 (modified, Figure 2-2) shall be obtained for every five (5) field density test locations, and reported with same. The soil One-Point proctor result obtained from the in-place density test location will serve as the basis for determining the applicable compaction control curve.

- c. **MVNQS03** (Field Density Sand Cone Method) ASTM D 1556. This form is to be used in reporting the determination of the degree of compaction and moisture content. Contract specifications shall govern the required compaction effort.
- d. **MVNQS05** (Unconfined Compressive Strength) ASTM D 2166. This form is to be used to report the compressive strength of an intact, remolded or reconstituted cohesive soil, using a strain-controlled application of the axial load. Contract specifications shall govern the acceptable strength requirements.
- e. **MVNQS06** (Unified Soil Classification System) ASTM D 2487. This form is to be used to report the determination of the liquid limit (One-point Method B), plastic limit, plasticity index, % sand content and % fines. MVNQS01 Sieve Analysis – ASTM C 117 and ASTM C 136 is to be used to report the results of gradation tests of the material if a granular material is specified. The final soil classification in accordance with ASTM D 2487 shall be stated on the same forms. Contract specifications shall govern the acceptable Atterberg limits, gradation limits, and material classification. If the Nuclear Method (ASTM D 6938) is used for field density determinations, the soil sample utilized for material classification shall come from within a radius of 12 inches of the center of the in-place density test site. The soil classification obtained from in-place density test location will serve as a basis for determining the applicable compaction control curves.
- f. **MVNQS07** (Moisture, Ash, and Organic Content Determination) ASTM D 2974 (Method C). This form is to be used in reporting the determination of the organic content of the material. Determination of organic content shall be performed in accordance with ASTM D 2974; Method C. Contract specifications shall govern the acceptable limits of organic content.
- g. **MVNQS09** (Moisture Content Determination) ASTM D 2216, ASTM D 4643 and ASTM D 6938. This form is to be used in reporting the determination of the moisture content of the in-place material when ASTM D 2216, ASTM D 4643 or ASTM D 6938 is the test method utilized. This form is not to be used when performing Field Density Test Nuclear Method with Moisture Content Determination. Contract specifications shall govern the acceptable limits of moisture content.
- h. **MVNQS11** (Field Density Test Nuclear Method). This form is to be used in reporting the determination of the degree of compaction and moisture content by oven, microwave or nuclear gage. Contract specifications shall govern the required compaction effort and moisture range. If the nuclear method is selected for field density testing, the Sand-Cone Method shall be used to confirm the accuracy of the Nuclear Method. This shall be accomplished by performing an initial comparison test of the two methods when a nuclear gage is brought on-site for the first time. If the Nuclear Method wet density is within 3 percent of the Sand Cone Method, no correction of the Nuclear Method wet density will be required and the testing may continue with the Nuclear Method. The Nuclear Method wet density shall be verified throughout the project at a rate of one Sand-Cone test for every ten nuclear tests per nuclear gage thereafter. If the variance at any time between the Nuclear Method and the Sand Cone Method exceeds 3 percent, testing

with the Nuclear Method shall stop until the Contractor provides a Root Cause Analysis and five consecutive comparison tests are performed as evidence that Corrective Actions will provide results within 3 percent. For comparison purposes, the nuclear and sand-cone wet densities should represent the same layer thickness within the testing area selected. When a nuclear density result is in doubt, the sand-cone density test shall be used for acceptance.

- i. **MVNQS12** (Field Density (Relative Density) Nuclear Method). This form is to be used in reporting the determination of the Relative degree of compaction as determined based on relationship of the Minimum Dry density and Maximum Dry density. Contract specifications shall govern the required Relative Density.

8. Soil Electronic Conductivity (EC) and Total Soluble Salt Analysis:

The following test method shall be used for determining the Total Soluble Salt (Total Salinity) of Embankment soils. This method shall be followed when testing embankment soil salinity levels. Sampling of materials shall be performed by a USACE Validated Laboratory.

- A. **Sampling;** Sampling shall consist of one 12,500 gram composite sample per 1,000 linear feet per lift. A Composite soil sample is defined as 5 separate representative 2,500 gram samples taken randomly at relatively evenly spaced intervals within the 1,000 linear foot. A lift on any one side of the levee will be considered one lift. The locations of the samples shall be as directed by the Contracting Officer. When a composite soil sample is collected, it should be handled in accordance with ASTM D 4220, Group B Standard Practices for Preserving and Transporting Soil Samples.

As directed by the Contracting Officer, when samples are to be split for replicate testing, the entire composite sample shall be processed over a No. 4 (4.75 mm) sieve by the contractors QC laboratory. The material passing the No. 4 sieve shall be thoroughly mixed and split in accordance with ASTM C 702 Standard Practice for Reducing Samples of Aggregate to Testing Size.

- B. **Sample Preparation;** Composite soil samples passing a No. 4 sieve are to be thoroughly remixed and reduced to a minimum 200 g sample for testing in accordance with ASTM C 702 Standard Practice for Reducing Samples of Aggregate to Testing Size.

The reduced composite soil sample is air dried at a temperature not to exceed 140° F for a minimum of 18 hours. After the sample is air dried, process and collect material passing No. 10 (2 mm) sieve. Material retained on the No. 10 sieve will be discarded.

- C. **Procedure;** (EC 1:2 preparation) To determine soil EC, collect a representative 20 gram sample from the sieved air-dried material and mix with 40 mL deionized water in a 125 mL Erlenmeyer flask.

The container is sealed and the mixture is either agitated for 1 hour in a mechanical shaker or mixed by hand every 30 minutes for 3 hours.

The mixture is filtered through a Whatman 42 filter paper. EC (dS/m) of the filtrate is determined immediately using a standard conductivity meter. Follow manufacture's direction for standard conductivity meter operations and temperature corrections.

- D. Reporting; The directly-measured EC 1:2 is converted to Saturated Extract-Equivalent EC (EC_e) by multiplying by a factor of 2. (Southern Cooperative Series Bulletin No. 419 ISBN# 1581614195 January, 2014)

Total soluble salts (TSS) concentration in ppm (mg/L) is calculated by multiplying EC_e (dS/m) by 640 for EC readings <5.0 dS/m or by 800 for EC readings >5.0 dS/m. (Rhoades, 1996)

The report shall include at a minimum;

1. All sample identifications documented during sampling that at a minimum include, sample date, received date, test/sample number, location of composite sample (GPS, station, lift, , elevation, offset)
2. USCS visual description
3. Make/Model and Serial # of conductivity meter
4. Notes should include any deviations from this test method.
5. The Soil Electronic Conductivity (EC) shall be reported in decisiemens per metre (dS/m).
6. Total Soluble Salt shall be reported as Total Salinity in parts per million (ppm).

9. Field and Laboratory Determination of Non-Soil Volume for Levee Fill:

- A. The field excavation testing shall be performed by excavating a 10' wide x 10' long and to a depth of the lift thickness for each lift that is in question. The volume of the excavation shall be verified using the end area method through measuring the dimensions of the excavation with the use of survey equipment at each corner of the hole. A difference of +/- 10% of the theoretical excavation is allowed. The Contractor shall bring all material excavated to the lab in sealed airtight containers. All excavations shall be completely backfilled by the Contractor within 72 hours of inspection unless directed otherwise by the COR. All backfill shall be in accordance with the existing contract documents, especially EMBANKMENT.
- B. The unit weight of the soil shall be determined by ASTM D 6938 Field Density – Nuclear Method, ASTM D 1556 Field Density – Sand Cone Method, or ASTM D 698 Compaction Characteristics of Soil. All material testing shall be performed by a Corps validated lab.
- C. Once all the excavated material is delivered to a Corps validated lab, any clay pieces adhering to the non-soil pieces that can be removed by hand without damaging the non-soil piece shall be removed.
- D. All non-soil pieces shall be weighed in their existing conditions immediately prior to testing (wet weight as excavated). If all non-soil pieces do not fit in the Measure Box, then the non-soil pieces may be split into smaller sampling sizes for testing purposes and the cumulative volume reported.

E. Sturdy Measure Box containers shall be used for the non-soil volume determination processes. The minimum volume of the Measure Box is 0.8 cubic feet. This volume dimension is a minimum and may be enlarged if desired. The weight of the empty containers shall be determined using a calibrated scale and with the weight recorded to the nearest 0.1 lb. The container shall be filled in two layers with silica sand. The first layer of sand shall be densified by use of a Shake Table and vibrated such that the Silica sand achieves its maximum density. The second layer of silica sand shall be added and vibrated, with additional sand added as needed to “top off” the container as the sand achieves a greater density. The weight of the container filled with densified Silica sand shall be recorded to the nearest 0.1 lb using a calibrated scale. Determine the weight of the measure container plus sand three times to determine the average value. The maximum unit weight of the silica sand is the weight of the measure plus sand minus the weight of the measure divided by the known volume of the container and reported to the nearest 0.1 lb/ft³.

F. The volume of the non-soil shall be determined by the following USACE MVN developed procedure, Non-Soil Volume Determination.

- 1) **Volume and Weight Determination of Measures (annual):** The volume of the Measure Box shall be determined and verified on an annual basis by the water filled method as specified in ASTM C29/C29M paragraph 8 and recorded to the nearest 0.1 ft³.
- 2) **Density Sand:** Obtain silica sand also known as US Silica Sand. Verify that the quality of the silica or “Silica” sand meets the requirements specified in ASTM D1556 paragraph 6.2. The sand can be re-used, but it should be cleaned to comply with the previously referenced standard by sieving and/or rinsing, and oven drying prior to reuse.
- 3) **Determining Densified Sand within a Measure Box:** Before any tests determining non-soil volume content, a calibration test shall be run each day that testing is to be performed, to determine the standard weight of the sand in the Measure Box as discussed in section E. The three repeated determinations of densified sand weight per unit volume shall be within 2.0 pcf of each other.

A Measure Box shall be used to determine the densified sand and will be based upon use of a Shake Table and placement within layers. Clean and dry silica sand is placed loosely within each layer using a large scoop or the edge of a bucket by flowing and distributing the sand evenly across the surface area. The Shake Table is then to be used. The number and duration of vibrations will be determined as noted in the following trial. These times are approximate and should be modified by each laboratory to fit the Shake Table being used to achieve a consistent sand weight per unit volume.

MEASURE BOX – (1) Position measure over a large catch pan for collecting excess sand. Place loose Silica sand in one layer (half height of measure); (2) Using the Shake Table, vibrate the sand for 4-8 seconds; (3) Place loose silica sand in a second layer (full height of measure); (4) Vibrate the sand for 4-8 seconds. The sand should consolidate below the top rim of the measure; (5) Place additional (excess) sand above the top of the measure. It should appear to overflow. Vibrate for the sand for an additional 3-4 seconds. It is desired to have excess sand above the top of the rim after vibration of about 1/8 inch; (6) Using a straight metal bar, strike off the excess sand, leaving the sand flush with the top rim of the measure; (7) Weigh the measure and densified sand recorded to the nearest 0.1 lb; (8) Determine the weight per unit volume of the measure by subtracting the weight of the measure plus sand minus the weight of the measure then dividing by the known volume of the container and report to the nearest 0.1 lb/ft³; (9) Repeat steps 1 thru 8 for a total of three determinations of densified sand weight per unit volume, and calculate the average weight per unit volume to the nearest 0.1 lb/ft³.

- 4) **Standard Wood or Metal for Verification (annual):** Eight pieces of wood or metal, labeled A thru G, measuring 5 inches by 1 inch by 2 inches are to be used to verify the volume determination by the densified sand method as detailed in 5) below. Determine the weight and linearly measured volume of the eight standard pieces of wood or metal to verify the calculated non-soil content from the use of densified silica sand within Measure Boxes of known volume.
- 5) **Non-soil Verification (annual):** Wood or metal pieces measured in Step 4) above will be used in each measure by densifying sand and four wood or metal pieces in each layer, for a total of eight wood or metal pieces within each measure. The same procedures outlined in Step 4) above are used to place and densify the sand and wood or metal within the measures. The wood or metal is placed within each layer with at least ½ inch of loose sand beneath and around the wood or metal pieces. The weight of the densified sand, measure, and wood or metal is used to determine the density and subsequent volume of the wood or metal. The calculated volumes shall be compared to the known volumes of the wood or metal pieces to see if any change in shaking time or sand type is needed. If the calculated and known volumes are within +/- 2% of each other, the test verification is successful. See below for the step by step procedures for this:

MEASURE BOX - (1) Determine the volume and weight of the measure as noted in Step 1) above; (2) Determine the average densified sand weight per unit volume as noted in Step 3) above; (3) Determine volume and weight of pre-cut pieces of wood or metal as noted in Step 4) above; (4) Densify wood or metal in layers following the similar method noted in Step 3) above; (5) Determine the densified sand and wood or metal weight in the unit measure; (6) Calculate the volume of wood or metal as shown below:

- (a) Volume of Measure Box (ft³)
- (b) Weight of Measure Box (lb)

- (c) Average weight per unit volume of densified sand (lb/ft³)
- (d) Wood or metal Pieces total weight (lb)
- (e) Wood or metal Pieces total volume (ft³)
- (f) Average determined densified sand, wood or metal, & measure weight (lb)
- (g) Densified sand only weight (no wood or metal) = (c) x (a)
- (h) Densified sand only weight (with wood or metal) = (f) – (b) – (d)
- (i) Volume of wood or metal (from densified sand test) = [(g) – (h)] / (c)
- (j) % actual volume wood or metal = 100 x (e) / (a)
- (k) % tested volume wood or metal = 100 x (i) / (a)

- 6) **Non-soil Volume Determination:** Determination of non-soil volume for a test sample is as follows. Determine the wet weight of the sample prior to placement into the loose sand layers. Cleaned non-soil pieces from a sample are placed in one of the tested measures above by following procedures as outlined in Step 3). The non-soil pieces are placed within each layer of loose sand with at least ½ inch of loose sand beneath and around the various non-soil pieces. The non-soil piece may be cut to fit into the measure but care should be used to ensure that all pieces of the sample are measured. The weight of the combined densified sand, measure, and non-soil shall be recorded to the nearest 0.1 lb. To determine the density and subsequent volume of the non-soil pieces, see calculations below.

MEASURE BOX - (1) Determine the volume and weight of the measure as noted in Step 1) above; (2) Determine the average densified sand weight per unit volume as noted in Step 3) above; (3) Determine weight of sample pieces of non-soil; (4) Densify non-soil pieces in layers following the similar method noted in Step 3) above; Determine the densified sand and non-soil pieces weight in the unit measure; (5) Calculate the volume of non-soil pieces as shown below:

- (a) Volume of Measure Box (ft³)
- (b) Weight of Measure Box (lb)
- (c) Average weight per unit volume of densified sand (lb/ft³)
- (d) Weight of Sample Non-soil Pieces (lb)
- (e) Determined densified sand, non-soil pieces, & measure weight (lb)
- (f) Densified sand only weight (no non-soil pieces) = (c) x (a)
- (g) Densified sand only weight (with non-soil pieces) = (e) – (b) – (d)
- (h) Volume of non-soil pieces (from densified sand test) = [(f) – (g)] / (c)
- (i) Volume of excavation (ft³)
- (j) % tested volume non-soil pieces = 100 x (h) / (i)

- 7) **Documentation:** As a minimum, calibrations of Measure Boxes should be documented annually on the Unit Weight Measure Volume Determination Record. The Densified Sand unit weight shall be documented on the Densified Sand Calibration Record. Test records for samples shall be documented on the Non-soil pieces Volume Determination Record. Contact MVN-CD-Q for latest test forms.

G. The percent volume determined in Step 6) (j) above shall be compared versus the acceptable value listed in the specifications. If the test shows the percent volume is greater than the acceptable value, the Contractor shall follow the corrective actions as noted in the contract specifications.

10. Additional Testing:

In addition to the above frequency of tests, additional tests may be required as follows:

- a. Where the Administrative Contracting Officer (ACO) or Contracting Officer's Representative (COR) has reason to doubt the adequacy of the compaction, moisture content, or organic content control.
- b. Where the Contractor is concentrating fill operations over a relatively small area.
- c. When embankment materials change substantially, the Administrative Contracting Officer or Contracting Officer's Representative (COR) may direct additional testing.
- d. Where special compaction procedures are being used.
- e. When the contract specifications require additional testing.
- f. When areas are found not meeting the specified in-place density, Atterberg limits, moisture content, and/or in-place organic content requirements; the Contractor shall retest, at no additional costs to the Government, after corrective measures have been applied.

Chapter 3 Concrete

1. Scope:

This chapter specifies methods and procedures for the Contractor Quality Control (QC) and Government Quality Assurance (QA) methods and procedures for the testing of fresh concrete and concrete aggregate. The Government will also perform checks, and assurance testing of control testing required by the Contractor.

2. Samples:

Fresh concrete samples shall be secured in accordance with ASTM C 172. Concrete aggregates shall be sampled in accordance with ASTM D 75. Sampling locations shall be randomly selected.

3. Testing Personnel:

The individuals who inspect, monitor, sample and test Concrete construction as required in this specification shall meet the following minimum criteria of certification and/or documented experience. Work experience shall be related to the field for which the inspector is being qualified and may be obtained by working either for an inspection/testing agency or engineering firm as a technician, inspector or engineer.

- Current ICC Reinforced Concrete Certificate with 1 year related experience, or
- ACI Concrete Construction Special Inspector Certificate, or
- Engineer Intern with one year related experience, or
- Registered Professional Engineer.

The individuals who perform testing of concrete or the constituents of concrete as required in this specification shall have an applicable and current ACI certification for testing being performed; ACI Concrete Strength Testing, ACI Concrete Laboratory Testing – Level 1, ACI Aggregate Testing Technician – Level 1, ACI Concrete Field Grade I.

The Contractors' QC laboratory shall submit certification and/or documentation to provide evidence of qualification. The appointed Registered Professional Civil Engineer, identified in Chapter 1, Section 3.b to certify inspections and test results, remains responsible for compliance of all inspection and testing activities.

All Laboratory facilities, personnel and equipment used to test soils as required in this specification shall be part of a Laboratory that has been validated by the USACE Materials Testing Center, Vicksburg, MS.

4. Typical Test Requirements:

Test requirements specified in the contracts documents may be more stringent than those listed below in Tables 3-2, 3-3 and 3-4. All test results will be entered into the MVN material testing database as described in Appendices by the laboratory performing the testing. Acceptable test values are contained in the contract documents.

The laboratory performing the tests shall be validated by the Materials Testing Center, Vicksburg, MS. and conform to ASTM C 1077.

**Table 3-1
ASTM References**

Concrete Lab Testing	
ASTM C 33	Specification for Concrete Aggregates
ASTM C 39	Compressive Strength of Cylindrical Concrete Specimens
ASTM C 117	Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing
ASTM C 136	Sieve Analysis of Fine and Course Aggregates
ASTM C 511	Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes
ASTM C 566	Total Evaporable Moisture Content of Aggregate by Drying
ASTM C 617	Capping Cylindrical Concrete Specimens
ASTM C 702	Reducing Samples of Aggregate to Testing Size
ASTM C 1231	Practice for Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
CRD-C 104	Calculation of Fineness Modulus of Aggregate
Concrete Field Testing	
ASTM C 31	Making and Curing Concrete Test Specimens in the Field
ASTM C 138	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C 143	Slump of Hydraulic-Cement Concrete
ASTM C 172	Sampling Freshly Mixed Concrete
ASTM C 173	Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C 231	Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C 1064	Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM D 75	Sampling Aggregates

5. Compilation of Test Data for Submittal:

The results of the test and inspections shall be recorded in the MVN database as directed in Appendix. Samples of the reporting forms and instruction for each form are provided on the MVN SharePoint site; **Test Form Examples** and are described as follows. The latest forms should be referenced on the MVN SharePoint site and described in Appendices. All data is to be submitted electronically **within 24 hours of completion of the tests by the laboratory performing the testing.**

- a. **MVNQC01** (Concrete Compression Test Data – ASTM C 39). This form is to be used in reporting the results of laboratory concrete compression testing. Contract specifications shall govern the required concrete compressive strength.
- b. **MVNQC02** (Concrete Field Data). This form is to be used in reporting the data collected by the laboratory while monitoring and testing concrete during placement. Contract specifications shall govern the required concrete properties during placement.
- c. **LMN FORM 853-R** (Concrete Compression Test Specimen Data). This form is to be filled out and provided to the QA laboratory for each set of cylinders delivered. This form should be filled out with information documented during concrete placement. The information on this form should match the information provided on the associated MVNQC01 and MVNQC02 test forms. The Order number on this form shall match the Batch Ticket number on the associated concrete supplier batch ticket, the MVNQC01 and the MVNQC02 test form for sample tracking purposes. The form also serves as a bill of lading for the delivered concrete samples.

**Table 3-2
Test Requirements
AGGREGATE, FINE**

Property	Method	Frequency	Remarks
Deleterious Substances	ASTM C 33	1 per week	
Fineness Modulus	CRD-C 104	1 per shift per batch plant when concrete plant is operating	Calculation based on gradation test results
Gradation	ASTM C 117 ASTM C 136	1 per shift per batch plant when concrete plant is operating.	Tests selected randomly.
Moisture Content	ASTM C 566	If moisture meter is working properly, 2 per week to verify If moisture meter is not working, 4 every 8 hours of mixing plant operation Additional tests if slump is out of control or variability is excessive	Tests selected randomly for each aggregate size.
Sampling Method	ASTM D 75	As specified for the individual material property.	

**Table 3-3
Test Requirements
AGGREGATE, COURSE**

Property	Method	Frequency	Remarks
Deleterious Substances	ASTM C 33	1 per week per batch plant, or as directed by COR	
Gradation	ASTM C 117 ASTM C 136	1 per shift per batch plant when concrete plant is operating	Tests selected randomly.
Moisture Content	ASTM C 566	If moisture meter is working properly, 2 per week to verify If moisture meter is not working, 4 every 8 hours of mixing plant operation Additional tests if slump is out of control or variability is excessive	Tests selected randomly for each aggregate size.
Sampling Method	ASTM D 75	As specified for the individual material property.	

Table 3-4
Test Requirements
FRESH CONCRETE

Property	Form	Method	Frequency	Remarks
Compression Cylinders (Quality Assurance)	MVNQC01 MVN 835	ASTM C 31 ASTM C 39	To be molded by the Contractor Quality Control Laboratory and tested by the Quality Assurance Laboratory. Mold one set of cylinders per 8 hour shift or for every 150 cubic yards placed.	Quality Assurance Cylinders shall be molded from the same sample of concrete that the Quality Control cylinders are molded.
Compression Cylinders (Quality Control)	MVNQC01 MVNQC02	ASTM C 31 ASTM C 39	To be molded and tested by the Contractor Quality Control Laboratory. Mold one set of cylinders per 8 hour shift or for every 150 cubic yards placed.	On randomly selected batches for each separate concrete mix produced. Cylinders used shall conform to paragraph 6.1 of ASTM C 31. Initial Cure in accordance with paragraph 10.1.2 of ASTM C 31.
			As a minimum; A set of test specimens for concrete with a 28-day specified strength shall consist of two cylinders to be tested at 7 days and two 6-inch by 12-inch cylinders or three 4-inch by 8-inch cylinders at 28 days. A set of test specimens for concrete with a 56-day or 90-day specified strength shall consist of two cylinders to be tested at 7 days, two 6-inch by 12-inch cylinders or three 4-inch by 8-inch cylinders at 28 days and two 6-inch by 12-inch cylinders or three 4-inch by 8-inch cylinders at 90 days.	
			Additional sets when mix proportions change or low strengths are detected.	
Compression Cylinders (QC- for putting concrete into service or other purposes indicated in paragraph 4.3 of ASTM C 31)	MVNQC01 MVNQC02	ASTM C 31 ASTM C 39	1 set of multiple pairs of QC cylinders per item to be evaluated.	Cylinders used shall conform to paragraph 6.1 of ASTM C 31. Initial Cure in accordance with paragraph 10.1.2 of ASTM C 31. Cylinders to be field cured shall conform to 10.2 of ASTM C 31.
Air Content Slump Temperature	MVNQC01 MVNQC02	ASTM C 231 ASTM C 143 ASTM C 1064	1 every time concrete cylinders are molded	On randomly selected batches for each separate concrete mix produced
			Plus 2 additional during each 8 hours of concrete production	
			Additional tests if workability variation is excessive.	

Chapter 4 Welding Inspection

1. Scope:

This chapter specifies methods and procedures for the Contractor Quality Control (QC) weld inspection for Group 1 and Group 2 carbon steels as defined by AWS D1.1, Table 3.1 and their ASTM A709 counterparts. Welding of sheet metal, reinforcement bars, castings, stainless steel, aluminum and other non ferrous metals are not included in this document and should reference the appropriate AWS or ASME Code. An approved schedule of welding procedures (WPS) is required before fabrication commences (Section 05 50 03.00 12). The Government will also perform checks, and assurance testing of control testing required by the Contractor.

2. Definitions:

- a. **Fracture Critical Welds.** Fracture critical members or member component welds as defined by ER 1110-2-8157 are tension members or tension components of bending members (including those subject to reversal of stress), the failure of which would be expected to result in collapse of the hydraulic steel structure. The designation “FCM” shall mean fracture critical member or member component. Members and components that are not subject to tensile stress under any condition of live load shall not be defined as fracture critical. FCMs, in general, are dewatering components (needle girders, bulkheads, needles), lifting eyes, or other tension members. This includes any members welded to these members as cracks could propagate to these members and cause failures also. These welds should either be shown on the drawings or called out in the specifications. Tubular welds are not applicable to AWS D1.5. AWS D1.5, Section 12 is the applicable code for these welds.
- b. **Other Welds.** These welds are the remaining welds that are not considered Fracture Critical Welds. AWS D1.1 is the applicable code for these welds.

3. Testing Personnel:

- a. **Visual Inspection.** Visual inspection shall be performed by Certified Welding Inspectors (CWI) that are qualified and certified in accordance with the provisions of AWS QC1. Verification of documentation may be obtained from the AWS web site. Note: Certification number is required for this verification.
- b. **Nondestructive Testing Technicians.** All ASNT Level III personnel shall be qualified in accordance with ASNT CP-189. Only individuals qualified for NDT Level II or individuals qualified for Level I and working under the direct supervision of a Level II shall perform nondestructive testing. Level I and Level II personnel shall be qualified in accordance with either ASNT CP-189 or ASNT SNT-TC-1A. Level III NDT Inspectors shall possess a currently valid ASNT Level III certificate in each of the processes they are qualifying inspectors to. Copies of the certifications, including the Level III NDT Technician that certified the Level I and Level II Technicians shall be included in the submittals. Verification of Level III documentation may be obtained from the ASNT web site. Note: Either Certification number or name is required for this verification.

4. Visual Inspection Requirements:

Visual inspection of welds shall conform to the requirements of AWS D1.1, Section 6, or AWS D1.5, Section 12, as applicable.

5. Nondestructive Testing Requirements:

- a. **Ultrasonic Testing.** Ultrasonic testing of welds shall conform to the requirements of AWS D1.1, Section 6, Part F or AWS D1.5, Subsection 12.16, as applicable.
- b. **Radiographic Testing.** Radiographic testing of welds shall conform to the requirements of AWS D1.1, Section 6, Part E or AWS D1.5, Subsection 12.16, as applicable. Only film types designated as “fine grain” or “extra fine” shall be employed.
- c. **Magnetic Particle, Liquid Penetrant Testing.** Magnetic particle and liquid penetrant testing of welds shall conform to the applicable provisions of ASTM E 709 or AWS D1.5 Subsection 12.16, as applicable and in addition all magnetic particle testing of welds shall be made using the Wet Contrasting Black on White Method.

6. Acceptance Criteria:

- a. **Visual, Magnetic Particle and Liquid Penetrant Testing.** Welds shall be unacceptable if shown to have defects prohibited by AWS D 1.1/D 1.1M, Section 6, Part C. Visual, magnetic particle and liquid penetrant testing acceptance criteria shall be for the applicable criteria for either “Cyclically Loaded Nontubular Connections” or “Tubular Connections” per AWS D 1.1/D 1.1M, Table 6.1. Fracture critical welds shall be unacceptable if shown to have defects prohibited by AWS D 1.5/D 1.5M, Section 12. All welds shall be assumed in tension for the acceptance criteria for visual and the appropriate nondestructive testing method.
- b. **Ultrasonic Testing.** Ultrasonic acceptance criteria shall be the applicable criteria for either “Cyclically Loaded Nontubular Connections” or “Tubular Connections, Class R”. Fracture critical welds shall be unacceptable if shown to have defects prohibited by AWS D 1.5/D 1.5M, Section 12. All welds shall be assumed in tension for the acceptance criteria for visual and the appropriate nondestructive testing method.
- c. **Radiographic Testing.** Radiographic acceptance criteria shall be the applicable criteria for either “Cyclically Loaded Nontubular Connections (Tensile Stress)” or “Tubular Connections”. Fracture critical welds shall be unacceptable if shown to have defects prohibited by AWS D 1.5/D 1.5M, Section 12. All welds shall be assumed in tension for the acceptance criteria for visual and the appropriate nondestructive testing method.

7. Frequency of Testing:

The frequency specified is the minimum required. The design engineer shall determine the required frequency and include this information in the specifications and/or drawings. The design engineer shall also specify the locations of radiographic testing.

- a. **Visual Inspection.** All welds shall be visually inspected by a CWI to insure compliance with the requirements of the applicable AWS Welding Code. Prior to any welding, a CWI shall visually inspect the preparation of material for welding to assure compliance with the applicable AWS Code (D1.1 or D1.5) and approved WPS. The CWI shall also perform VT inspection throughout the welding process to assure compliance with the applicable AWS Code (D1.1 or D1.5) and approved WPS. All completed welds shall be cleaned free of oxide, flux, scale, or other foreign matter before inspection.
- b. **Full Penetration Welds.** Full penetration welds shall be examined by the Contractor using ultrasonic testing (UT) procedures described above. In addition to the full penetration welds specified for testing, a randomly chosen twenty-five percent (25%) of the remaining full penetration welds shall be ultrasonically tested to ensure the quality of the procedure and process. The random testing shall include a representative sample of welds from all welders and each of the processes each welder used. The random testing shall be spread throughout the project.
- c. **Full Penetration Butt Splice Welds.** All full penetration butt splices shall be examined using ultrasonic testing (UT) and radiographic testing (RT) procedures described above. These welds shall be defined in the specification or noted on the drawings.
- d. **Fillet Welds and Partial Penetration Groove Welds.** Fillet welds and partial penetration groove welds shall be examined by the Contractor using magnetic particle testing (MT) procedures described above. In addition to the fillet and partial penetration welds specified for testing, a randomly chosen twenty-five percent (25%) of the remaining fillet and partial penetration welds shall be magnetic particle tested to ensure the quality of the procedure and process. The random testing shall include a representative sample of welds from all welders and each of the processes each welder used. The random testing shall be spread throughout the project.

8. Compilation of Test Data for Submittal:

The results of the test and inspections shall be recorded in the MVN database as directed in Appendix. Samples of the reporting forms and instruction for each form are provided on the MVN SharePoint site; **Test Form Examples** and are described as follows. The latest forms should be referenced on the MVN SharePoint site and described in Appendices. All data is to be submitted electronically **within 24 hours of completion of the tests by the laboratory performing the testing.**

- a. **MVNQW06** (Combined Weld Examinations). This form is to be used in reporting the inspection and testing of welded steel connections. Contract specifications shall govern the required compaction effort. The results shall be submitted electronically within 24 hours of the test.

Appendix A – Test Form Management

1. Report Numbering:

Each soil sample (location) is identified with a unique Test ID created by concatenating the Report No and Test No.

All soil sample locations will be reported on test forms with the same Report No and Test No throughout entire range of tests performed on that sample location. This is particularly important when reporting tests that contain 1 test per test form such as MVNQS03 (Sand Cone tests) and MVNQS02 (Compaction-Moisture Density Relationship).

It is also necessary to give the same Report No and Test No to each sample location for test form MVNQS06 (Unified Soil Classification System), MVNQS07 (Organic Content), and MVNQS10 (Field Density-Nuclear) which allow for entry of up to 5 soil samples. The soil tests included in a suite of tests allows for entry of 5 samples.

Examples of all forms are available on the SharePoint site for review.

2. Naming the Test Form Files:

Each file shall be named using the following convention:

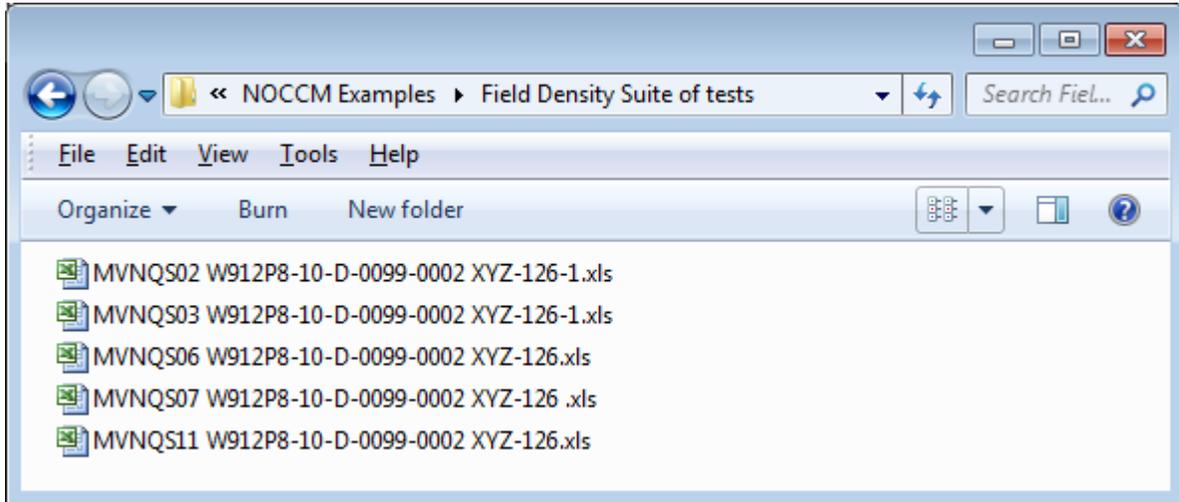
[Test Form Name][USACE Contract No][Report No][Test No (if necessary)]

Each part of the filename should be separated by a single space only, not a dash or other delimiter. Details of each portion of the filename convention are given below.

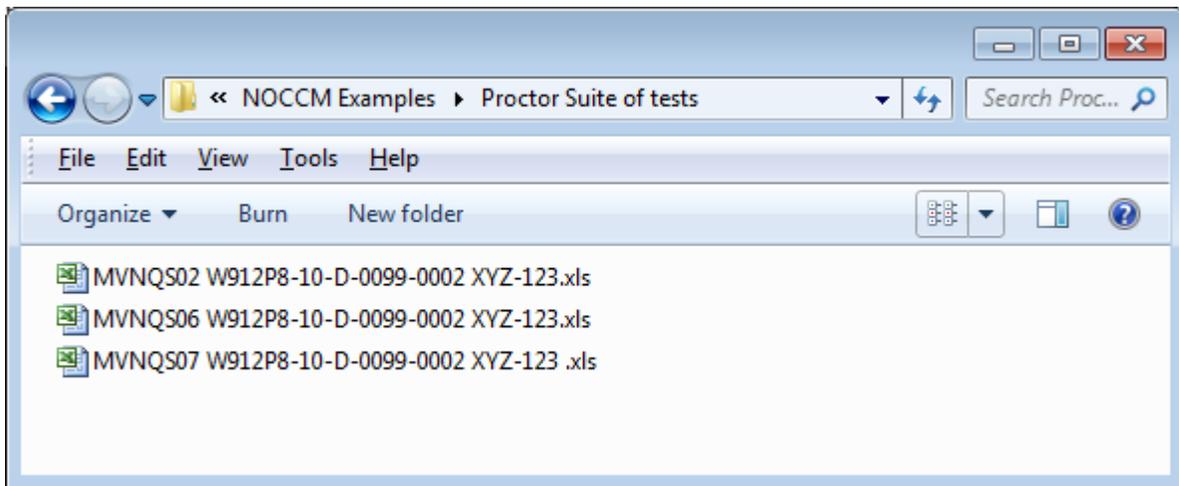
- **[Test Form Name]** is the name of the template MVNQ(C, S or W)##, for example MVNQS02. The variable letter are related to the type of test; C is for concrete, S is for soil and W is for Welds.
- **[USACE Contract No]** is the construction contract number. This must be the complete contract number including the task order if applicable. The contract numbers that contain a C or Z do not have task order numbers, whereas all contracts that contain a D have a task order number.
- **[Report number]** will be dependant on the labs report number system.
- **[Test No]** is only included in filename when necessary. This is applicable for tests reported 1 per form, as in the case of the exception listed below.

The exception to naming convention is dealing with forms that contain 1 test per test form such as MVNQS03 (Sand Cone tests), MVNQS02 (Compaction-Moisture Density Relationship) and MVNQS01 (Sieve Analysis). For these 3 Test Form types the file name will end with the Test No. The Test No is determined by the lab but should be unique to each soil sample and field location per Report No. See the Examples below for illustration of this.

Below is an example of file names for a suite of soil tests including 5 samples locations reported on a MVNQS11 (Field Density Nuclear) form, a MVNQS07 (Organic Content) form, a MVNQS06 (Unified Soil Classification System) form and a MVNQS03 (Field Density Sand Cone) form. These files are also the files included as example test forms on the SharePoint site. In this example The Report No is XYZ-126.



Below is another example for proctor data containing a MVNQS02 (Compaction-Moisture Density Relationship) test form, a MVNQS06 (Unified Soil Classification System) form and a MVNQS07 (Organic Content) form.



3. Submitting Test Forms:

All forms are to be submitted electronically **within 24 hours of completion of the tests by the laboratory performing the testing**. This is necessary since contract specifications require laboratory results to confirm compliance or failure before Contractor construction work can continue. Delays in submitting test results may result in construction delays that are to be avoided. Supporting documentation for tests should be submitted in PDF format with the same file naming convention. This completes the documentation record of data transfer to all parties.

4. How to Access USACE QACC SharePoint Site

In order to access the MVN Quality Assurance Control Center (QACC) SharePoint site each user must have an account. If a user does not have an account contact the MVN-CD Branch to receive a **USACE External Network Access Request** form. Once your account has been established you will have access to the QACC SharePoint site that contains MVNQ Test Form Templates, a QA Wiki, a QA Discussion area, a Shared Documents library, a Discrepancy Report library, and a library where completed test forms are to be uploaded; **Test Form**. The following is contact information for MVN-CD.

MVN-CD Phone; (504) 862-2235
MVN-CD Email; CEMVN-CD@Usace.Army.Mil
MVN-CD Public Webpage; <http://www.mvn.usace.army.mil/About/Offices/Construction.aspx>
MVN QACC SharePoint; <https://partners.usace.army.mil/sites/MVN/QACC/default.aspx>

5. Uploading test forms.

The exact procedure for uploading test forms to the MVN Quality Assurance Control Center (QACC) SharePoint is dependent on the computer system the user is using. Once an account has been established MVN-CD can assist each user individually by introducing the QACC system and going through the processes needed to upload test files and supporting documents. If at any point a user has questions please contact the MVN-CD-Q Branch for assistance.

Important notes before beginning the upload process; The QACC SharePoint site does have restrictions on characters (delimiters) that can be used for a file name. The following characters are not accepted by the QACC SharePoint site; \ / : * ? " < > | # { } % ~ &. If these characters are used, the QACC SharePoint site may lock up or give an error that indicates 'a nonexistent file'. If this occurs remove the delimiters used in the file name, upload the files again and verify that all files upload because this will stop the upload process for all the files. If it is determined that certain files did not upload repeat the upload process.

The second note is that the QACC SharePoint site will time out and requires logging back in after an extended time of inactivity. The QACC SharePoint site will not indicate it timed out until attempting to perform a function on the site. The site will return to the Log in screen. If this happens, the function previously being performed may not have been performed completely.

6. Revisions and Special Naming Considerations:

When resubmitting files with revisions, the same filename is to be used if possible. If a file is to be submitted to the QACC SharePoint site it is not necessary to include a revision indication in the file name, such as R1 or R2 in the filename. The test form revision should be judicated in the appropriate revision field on the form. The QACC SharePoint site does allow files to be uploaded to the **Test Form** library when the same file name exists. In general, the idea is to keep the filename as simple as possible and the same throughout the submittal and revision process. Do not add unnecessary details to the filename.

If more information is needed, see the Wiki or Discussion board on the MVN Quality Assurance Control Center (QACC) SharePoint. The QA managers are also available if there are other questions.

Appendix B - Material Testing Laboratory Requirements

1. Purpose:

All construction material testing laboratories used in support of the Contractor's Quality Control (QC) testing and the Government's Quality Assurance (QA) testing must receive validation by the Material Testing Center (MTC), Engineering and Research Development Center (ERDC), in Vicksburg Mississippi. This includes all Contractor and government on-site laboratories or commercial laboratories used either for QC or QA testing.

2. Applicability:

This procedure applies to all projects being managed by the New Orleans District for which testing of construction materials is conducted

3. References:

[ASTM E 329-06a, Agencies Engaged in the Construction Inspection and/or Testing](#)

[ER 1110-1-261 \(28 April 99\), Quality Assurance of Laboratory Testing Procedures](#)

[ER 1110-1-8100 \(31 Dec 97\), Laboratory Investigations and Testing](#)

Corps of Engineers Validated Laboratories;

Engineering Research and Development Center - Material Testing Center

<http://www.erd.c.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/9254/Article/476661/materials-testing-center.aspx>

New Orleans Construction Division Operating Manual (CDOM), 1 March 2002

4. Responsibilities:

The Administrative Contracting Officer (ACO) / Contracting Officer's Representative (COR) is responsible for ensuring that all testing laboratories used for QC or QA testing are on the electronic validated list for the tests to be performed and for requesting that New Orleans District coordinate as necessary to pursue validation of a desired laboratory.

5. Procedures:

After award, the Contractor submits a QC Plan which delineates the scope of the testing program and identifies the testing laboratory (s) proposed specific tests. Contract specific Quality Assurance Plans will include requirements for QA verification testing by a Corps validated laboratory.

The Administrative Contracting Officer (ACO) / Contracting Officer's Representative (COR) will ensure that the QC laboratory is independent of the QA laboratory and will work with the Contractor if necessary to select another laboratory for QC or QA testing. The QC plan will

reflect the selected laboratories. If the laboratory proposed by the Contractor is not a currently validated lab, then the Administrative Contracting Officer (ACO) / Contracting Officer's Representative (COR) will notify the Contractor and request an inspection of the selected laboratory coordinated by MVN-CD-Q in accordance with the procedures described in Construction Division's Operating Manual (CDOM). For planning purposes, the validation process may require a period of six months to complete.

Briefly, the MTC validation process is described as follows:

Validation of a laboratory may consist of either (1) an inspection of the laboratory and their processes or (2) an audit of inspection reports and other documentation furnished by other validating agencies or organizations.

MTC will perform inspections in accordance with ASTM E 329 and applicable tests in ER 1110-2-1906 or tests required by project specifications.

The MTC may validate a laboratory if it has been accredited by the Concrete and Cement Reference Laboratory (CCRL) or AASHTO Materials Reference Laboratory (AMRL) within the past two years using ASTM E 329. Inspection by the MTC may be required after auditing if one or more of the critical testing procedures required in the project specifications were not included in the CCRL or AMRL inspection report or if there is any question that the laboratory may not be able to provide the required services for the specified tests.

More information about the validation process is available at the following:

Phone; (601) 634-3123

Email; MTC-info@usace.army.mil

Public Website;

<http://www.erdc.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/9254/Article/476661/materials-testing-center.aspx>

6. Records:

Records demonstrating laboratory validation will be maintained by MTC web site for the most current laboratory listing.

Appendix C - Filling Out Test Form Templates

1. Test Form Templates:

The latest Construction Material Testing report forms are located at the following locations:

Navigate to the **MVNQ Test Form Template** library to download the most up to date forms.

<https://partners.usace.army.mil/sites/MVN/QACC/TFT/Forms/AllItems.aspx>

For access to the Extranet SharePoint site, follow procedures in Appendix A or contact the MVN Construction Division Quality Branch. Once access is granted, reference the Extranet SharePoint site to download the latest test form templates in the MVNQ Test Form Template library, as they are periodically updated and/or revised. Failure to submit the latest version of the test form template will prevent data from being loaded into the QACC database. The rejected form will be required to be resubmitted on the proper test form template.

The Test Form Examples library on the SharePoint site provides guidelines for completing several of the test form templates. Further information, definition and updates can be found in the MVNQTERMS documents and the QACC Wiki located on the Extranet SharePoint site.

On all forms, the Sample Date is defined as the date the test was performed in the field and not the date the sample was tested in the lab. Please use the Remarks section on each form for any comments that pertain to the tests performed. Comments may include items such as: meet specs, meet specs of xx% (for different types of material, say embankment is 90% compaction and trench is only 85%), in-situ material, failing tests reported to John Smith, etc. There is no such thing as too much detail or information.

This reporting and submittal system is to be used for all Corps of Engineers work in the MVN division.

2. MVNQ Terms Document:

The MVNQ Terms document located on the Extranet SharePoint site provides a list of terms that are referenced directly from the MVNQ Test Forms. This document will define the terms used on the MVNQ Test Forms, and in some cases, provide examples of the information needed in associated cells. If there is a term that is not provided, an error or a term that is not defined clearly please contact a QA Manager.

C-1 List of Forms

Form Name	Procedure(s)	Form ID
<u>Soil Testing Forms</u>		
#200 Wash and Sieve Analysis	ASTM C 117- C136	MVNQS01
Lab Compaction of Soil Standard Effort	ASTM D 698	MVNQS02
Density by Sand Cone	ASTM D 1556	MVNQS03
Unconfined Compression Strength	ASTM D 2166	MVNQS05
Classification of Soils – USCS	ASTM D 2487	MVNQS06
Moisture, Ash and Organic Matter of Soils	ASTM D 2974	MVNQS07
Moisture Content Determination	ASTM D 2216-4643	MVNQS09
In-place Density and Moisture of Soils	ASTM D 6938	MVNQS11
Field Density (Relative Density) - Nuclear Method	ASTM D 6938	MVNQS12
<u>Concrete Forms</u>		
Concrete Compression Test	CCT	MVNQC01
Concrete Field Test	CFD	MVNQC02
<u>Welding Forms</u>		
Welds – LIQUID		MVNQW06
Welds - MAGNETIC		MVNQW06
Welds - RADIO		MVNQW06
Welds - UT		MVNQW06
Welds - VISUAL		MVNQW06

Contractor Quality Control

attachments

...follow this page....

CONTRACTOR QUALITY CONTROL PLAN

Contract No. W912P8-__-__-__

Project Name: _____

Contractor: _____

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8.0 Quality Control Program

9.0 Forms

1.0 COMPANY POLICY

_____ Construction, Corp. considers quality control to be an inherent safeguard to ensure quality work and to guarantee that all work is done according to the contract documents in a professional manner. Noncompliance with plans and specifications must be detected promptly, and proper action taken to assure that this policy is a viable tool in monitoring the work.

2.0 PLAN PURPOSE

It is the intent of this Quality Control Plan (QCP) to establish and explain how this construction corporation plans to organize, control, and review all activities according to the plans and specifications provided by the U. S. Army Corps of Engineers with regard to quality for the above reference project. The plans primary purposes are to provide for the level of construction quality required by strict accordance with the plans and specifications.

3.0 QUALITY CONTROL ORGANIZATION

3.1 CQC System Manager

The CQC System Manager (CQCM) has front line responsibility for quality control. He will become thoroughly familiar with all aspects of the project and ultimately inspect all work to ensure quality is being maintained by all craftsmen, vendors and subcontractors. The CQCM is ultimately responsible for inspecting, documenting, and reporting to the contracting officer all aspects of the work described and detailed in the plans and specifications. He is responsible for implementing and enforcing the Quality Control Plan. His duties include, but are not limited to:

- a. Implementation of the 3-phase control system for all definable features of work.
- b. Day-to-day inspection of the work.
- c. Daily on site documentation
- d. Ensure that all in-place work meets or exceeds all minimum standards set forth in the plans and specifications.
- e. Detect discrepancies or problems on site and immediately bring the same to

the attention of the Contracting Officer's Representative, as should be necessary.

f. Preparation and review of submittals and certification of submittals prior to submission.

g. Maintain document control.

h. Maintain As-built conditions.

i. Interface with the owner and outside agencies as required.

The CQCM proposed for this project is _____. See section 4.0 for a copy of his resume'.

3.2 CQC System Manager Alternate

The CQC system manager alternate will assume responsibilities for all aspects of quality control as required by our Quality Control Plan and the Contract Documents should the CQCM not be able to perform his duties. The CQC system manager alternate for this project is _____.

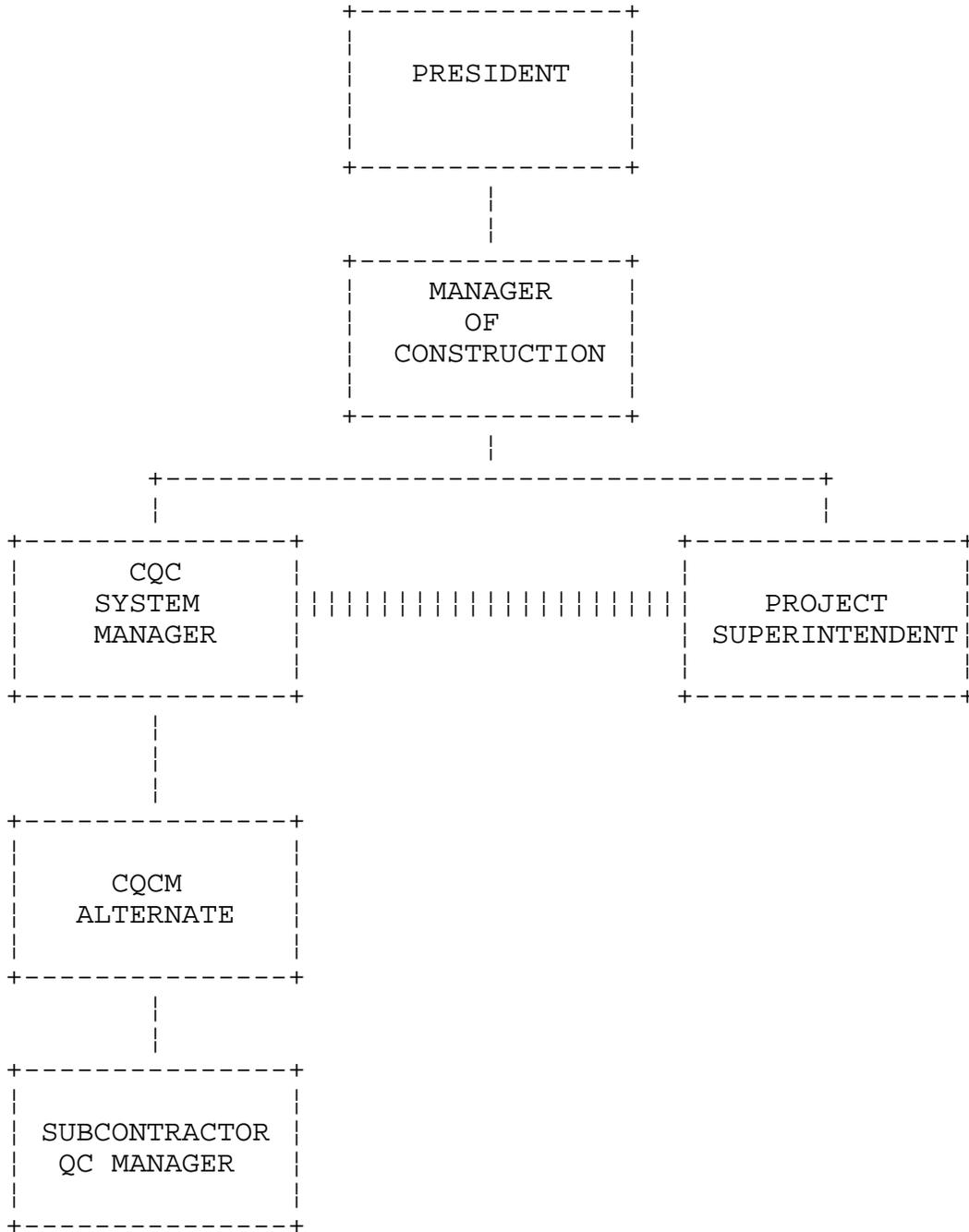
3.3 Manager of Construction

The Manager of Construction for this corporation is based in the home office in _____ and has a major responsibility for quality control through a supervisory role of the CQCM. The Manager of Construction will at all times keep the field forces focused on the company's commitment to quality in all phases of the work. The Manager of Construction will make routine visits to the site of work. The Manager of Construction for this company is _____.

4.0 RESUME OF PERSONNEL

Attached are resumes of all personnel in the above described organization. The Contracting Officer's approval will be requested before any staff changes occur, if they should become necessary.

**QUALITY CONTROL
ORGANIZATIONAL CHART
CONTRACT NO. W912P8-__-__-_____**



4.1 Resume' of _____, CQC System Manager

Personal Data and Education

Date of Birth:
Residence:
Graduate of:
Completed courses in:

Professional Experience

4.2 Resume' of _____, CQCM Alternate

Personal Data and Education

Date of Birth:
Residence:
Graduate of:
Completed courses in:

Professional Experience

4.3 Resume' of _____, Manager of Construction

Personal Data and Education

Date of Birth:
Residence:
Graduate of:
Completed courses in:

Professional Experience

5.0 DESIGNATION OF CQC SYSTEMS MANAGER

(Contractor)

Date

Mr. _____

(Mailing Address)

SUBJECT: Contract No. W912P8-__-__-____
(Project Name)

Mr. _____:

This letter is to designate you as the Contract Quality Control Systems Manager for the subject project. In this capacity, you will be responsible for all aspects of quality control as required by our Quality Control Plan and the Contract Documents. You have complete authority to implement these programs including authorization to stop work which fails to comply with the requirements of the Contract Documents.

Sincerely,

_____, President

6.0 DESIGNATION OF CQC SYSTEM MANAGER ATERNATE

(Contractor)

Date

Mr. _____

(Mailing Address)

SUBJECT: Contract No. W912P8-__-__-_____
(Project Name)

Mr. _____

This letter is to designate you as the Quality Control System Manager Alternate for the subject project. Should for any reason Mr. _____ not be able to perform his duties as CQCM, you will assume responsibility for all aspects of quality control as required by our Quality Control Plan and Contract Documents. To enable you to fulfill this responsibility, you have complete authority to implement these programs including authorization to stop work which fails to comply with the requirements of the Contract Documents.

Sincerely,

_____, President

7.0 PROCEDURES

7.1 Scheduling and Managing Submittals.

The CQCM will be the submittal manager. The CQCM has full authority to act for the firm in all submittal matters. His responsibilities include scheduling, review, updating and any submittals required from subcontractors.

Within 7 days of the Notice to Proceed, the CQCM will complete the submittal register contained in Section 01300 and submit to the Contracting Officer 4 copies for approval. Contractor schedule dates will be coordinated with the progress schedule and shall reflect 30-day minimum period for review and approval.

The CQCM will review the submittal register a minimum of every 10 days. The submittal register will be utilized to plan and monitor submittal progress so as to ensure timely approval of methods/materials prior to their scheduled need times. The submittal register will be available for inspection by the Contracting Officer at all times. An updated submittal register will be forwarded to the CO at 60-day intervals or as requested.

The CQCM will review the submittal register during preparatory phase of quality control to ensure that all submittals for the ensuing feature of work are approved and will take action to correct any deficiencies in submittal requirements.

All submittals required by the specifications or as needed for approval of deviation will be submitted by the CQCM in original and 4 copies utilizing ENG form 4025 in accordance with submittal register schedule dates or sooner. Prior to submittal, all shop drawings, data, samples, certifications, and test reports will be reviewed by the CQCM to ensure compliance with the contract requirements. Corrections and revisions will be requested where necessary.

7.2 Control Testing

7.2.1 Test List - A listing of all tests indicated in the contract specifications and additional tests as needed to establish quality control will be incorporated in the Contractor Quality Control Program found in section 8.0 of this plan. This listing will include the name of the test, specification para. number, feature of work tested, responsible person, and frequency.

7.2.2 Testing Facilities - The proposed testing lab for use on this project is:

_____ Testing Laboratories
PO Box _____
_____, LA _____

If required, a resume' of _____ facilities and personnel qualifications will be furnished to the Contracting Officer.

7.2.3 Test Records - All testing activities will be recorded on the CQC report, indicating the name of the test performed, specification paragraph reference, and

location performed. Results of the tests will be recorded on the daily CQC report or attachments. Actual test reports will be furnished promptly to the Contracting Officer as directed by the specifications.

7.3 Inspection

7.3.1 Materials - The CQCM will inspect all material/equipment deliveries for: (1) compliance with approved submittals, (2) damage, (3) correct dimensions and quantities, and (4) required labeling and documentation. The Contracting Officer will be notified of any materials/equipment failing to meet requirements. A record of inspection will be noted in the CQC report and any necessary corrective action will be initiated. Proper storage will be checked.

7.3.2 Off-Site Inspection - The CQCM will inspect manufacturing facilities and material sources as specifically directed by the specifications. Additional inspections will be conducted as necessary to ensure compliance with the specifications. The CQCM will record off-site surveillance activities in the CQC report. Where instances of noncompliance are observed, corrective action will be initiated.

7.3.3 On-Site Inspection - Each craftsman will be charged with the responsibility of performing his or her work in a workman like manner and continually striving for the highest degree of quality. Only craftsman who exhibit an ability to perform and desire to achieve quality will be employed.

The CQCM will routinely and continually inspect the work for compliance with contract documents. His duties, as outlined in 3.1 above, are for the purpose of maintaining and documenting the work as required to achieve a high degree of quality.

The Contract Quality Control Program outlined in paragraph 8.0 of this plan will provide an outline for the CQCM with regard to all definable features of the work. The CQCM's inspection of these work features will be accomplished through implementation of the 3-phase control procedure outline in para 7.4.

7.3.4 Completion Inspection - After completion of all work, the CQCM will conduct a completion inspection of all work features. A punchlist will be developed to identify all items which are not in compliance with the specifications and drawings. The CQCM will establish a date by which each deficiency will be corrected and note such date on the punchlist. A follow-up inspection will be conducted to verify completion of all punchlist items. The completion inspection and any resulting corrective action will be accomplished within the contract performance period. The Contracting Officer will be notified upon completion of the punchlist and corrective work. The punchlist will be made part of the Quality Control documentation by attachment to the CQC report.

7.4 Control Procedures

A 3-phase control system shall be implemented by the Quality Control staff to ensure that construction, including subcontractors and suppliers, complies with the requirements of the contract documents. This system of management will address each definable feature of work beginning with early planning stage requirements and ending with the finished work. Each phase will allow the opportunity to prevent problems and deficiencies and ensure that the accident prevention program is implemented. The 3 control phases are outlined in para 7.4.1 thru 7.4.3.

7.4.1 Preparatory Phase - This phase will be performed prior to beginning work on each definable feature of work. This phase will be conducted at a meeting involving the CQCM/Project Superintendent, QA personnel, and the foreman involved in the particular work feature. The Contracting Officer will be notified 48 hours in advance of the preparatory phase. This phase will include:

- a. A review of the applicable section of the specifications and contract drawings. (review specs)
- b. A review of the submittal register to ensure that all required submittals are submitted and approved. Take corrective action when necessary. Submittal data will be discussed to acquaint all team members with technical aspects and points particular to the work feature. (review submittals)
- c. A check to ensure that materials and equipment are in compliance with approved submittals and specifications. Verify that required materials/equipment are on hand and properly stored. (check material)
- d. Verify that preliminary work is completed.
- e. Review control testing requirements and verify that testing facilities are approved. Verify that necessary provisions are made for testing. (review testing)
- f. A consensus will be reached on planned construction procedures and the required level of quality expected from the CQCM in order to meet contract specifications. (set standards)
- g. Review appropriate Activity Hazard Analysis to assure safety requirements are met. The CQCM will inspect all equipment to ensure that minimum requirements for safety provisions in accordance with EM 385-1-1 and applicable regulations are met. (safety check)
- h. The above described activities will be documented on the COE form

"Preparatory Phase Checklist". This form will be attached to the CQC report and furnished to the Contracting Officer. Problems and deficiencies apparent during the preparatory phase and corrective action initiated will be noted in this report.

7.4.2 Initial Phase - This phase is performed once a representative portion of work has taken place for each definable feature of work and will be conducted at a meeting involving the CQCM/Project Superintendent and foreman involved in the particular work feature. The Contracting Officer will be notified 48 hours in advance of this phase. Initial phase will include:

- a. A check to ensure that preliminary work is completed.
- b. Verify that materials/equipment and construction procedures are in compliance with the contract documents.
- c. Review control testing requirements.
- d. Set standards of quality required to meet contract specifications.
- e. Review the Activity Hazard Analysis to ensure safety requirements are met. Check equipment for safety provisions.

f. The above described activities will be documented on the COE form "Initial Phase Checklist". This form will be attached to the CQC report and furnished to the Contracting Officer. Problems and deficiencies apparent during the initial phase and corrective actions initiated will be noted in this report. The initial phase will be repeated any time the CQCM feels that quality standards and safety requirements must be reinforced.

7.4.3 Follow-Up Phase - This phase is accomplished through the daily inspections by the CQCM, also through performance of the required control testing. Follow-up phase efforts will ensure a continuation of quality and safety standards established during preparatory and initial phases until completion of the work feature. The CQCM's follow-up phase activities, including deficiencies noted, corrective action taken, and control testing results will be recorded in the daily CQC report.

7.5 Reporting and Documentation

The CQCM will maintain records of all quality control activities including documentation of control testing and inspection, and maintain integrity of the contract documents through use of the following described forms and procedures. Additional reports will be formulated or added as needed.

7.5.1 Daily Record - The CQCM will utilize the COE furnished forms titled "*Contractor Quality Control CQC Form*" to record daily control activities and resources used, work performed, and other data indicated on this form. The original and two copies will be furnished to the Contracting Officer within 12 hours of the reporting date. The CQCM will maintain copies for his files. Test reports will be included in the CQC report.

7.5.2 Control Phase Checklists - The CQCM will utilize the COE furnished forms entitled "*Preparatory Phase Checklist*" and "*Initial Phase Checklist*" to document these control phase activities. Original and two copies will be attached to the CQC report for the date on which the control phase is completed. A log will be posted at the jobsite office in chart form to record the dates on which preparatory and initial phases were completed for each definable feature of work so as to allow easy verification of control activities.

7.5.3 Tracking Construction Deficiencies - The form for tracking construction deficiencies is the Deficiency Report (DR). A DR can be issued by the CQCM/Project Superintendent or Manager of Construction. All DR's shall be kept and updated by the CQCM. The DR log will be available for inspection by the Contracting Officer. See attached forms for the example of a DR.

The DR tracking log will be in chart form and bound in a log book maintained on site. See attached example of the deficiency report tracking log. The DR log book is available for inspection by the Contracting Officer at all times.

A construction deficiency for the purposes of this plan is defined as:

1. An occurrence in which defective work or work lacking some essential part has been covered or is otherwise left as complete.
2. Products are furnished to the site or incorporated into the work which do not meet the conditions of the contract documents.
3. Inspection points or contract requirements affecting quality of the work that have not been met. Minor defects in work on which construction is underway is not to be considered a Construction Deficiency.

7.5.4 Contract Document Control - The CQCM will maintain a record in log form of the most up-to-date documents issued for construction and adjustments. No contract documents will be replaced or revised without receipt of a modification or direction from the Contracting Officer. The CQCM will maintain As-Built contract drawings.

7.6 Changes to the CQC Plan - Periodically, and at least once weekly, the CQCM

will review the CQC plan with the possible need for changes in mind. During the course of work on this contract, it is reasonable to expect the need for some changes to arise. When they do, the QC Manager will incorporate these changes in the form of written amendments and copies will be furnished to the Contracting Officer.

8.0 QUALITY CONTROL PROGRAM

(Sample only, this is done for each definable feature of work)

**Q. C. ACTIVITIES & TESTING REQUIREMENTS
FOR DEFINABLE FEATURES OF WORK**

CONTRACT W912P8-__-__-_____

**Definable Feature: Cast In-Place Structural Concrete
Section 03301**

Definable Feature		Submittal	Quality Control Activities		
Description	Spec. Para.	Req'd	Description of Observation Procedure or Test Required	Freq.	Remarks
Concrete - Grout, Water	03301-15.1.4.1 03301-15.5.1.6	Submittal Register	Grout certificate, equipment & method used, & source of mixing & curing water	Once prior to placement	
Concrete - Finishing Formed Surfaces	03301-12.2	QC Report	Visually inspect all finishing is started within 24 hours of form removal, tie rod holes & defective concrete voids and honeycombs are filled properly, smooth surface	After each placement	
Concrete - Fine Aggregate	03301-15.2.1.1	QC Report	Sieve analysis and fineness modulus determination	At least once each delivery	Testing by _____ Laboratory
Concrete - Coarse Aggregate	03301-15.2.2	QC Report	Sieve Analysis	At least once each delivery	Testing by _____ Laboratory
Concrete - Moisture Test	03301-15.2.2.2	QC Report	Test for moisture content for each size coarse aggregate	At least once each delivery	Testing by _____ Laboratory
Concrete - Mixer Uniformity	C03301-15.2.12	QC Report	Uniformity of concrete determined in accordance with ASTM C 94.	Prior to concrete placement & 1/ 6 mo	

**Q. C. ACTIVITIES & TESTING REQUIREMENTS
FOR DEFINABLE FEATURES OF WORK**

CONTRACT W912P8-__-__-_____

Definable Feature: Cast In-Place Structural Concrete
Section 03301

Definable Feature		Submittal	Quality Control Activities		
Description	Spec. Para.	Req'd	Description of Observation Procedure or Test Required	Freq.	Remarks
Concrete	03301-5.3	Submittal Register	Submit batch plant details, mixer details, conveying methods and equipment, placing, joint clean-up, curing, and weather requirements	once 14 days prior to placement	
Concrete	03301-3.1.1	Submittal Register	Submit 500 lb sample of aggregate to Waterway Experiment Station for testing if an approved supplier is not used	Once prior to concrete placement	
Concrete	03301-5.1.1	Submittal Register	Submit concrete mixture proportion	Once	
Concrete - Materials	03301-5.1.2	Submittal Register	Submit cement cert. of compliance	Once	Testing by supplier or _____ Lab
	03301-5.1.5		Submit sieve analysis for aggregates		
	03301-5.2.3		Submit air-entraining agent cert. of compliance		
	03301-5.2.5		Submit curing compound cert. of compliance		

**Q. C. ACTIVITIES & TESTING REQUIREMENTS
FOR DEFINABLE FEATURES OF WORK
CONTRACT W912P8-__-__-_____**

**Definable Feature: Cast In-Place Structural Concrete
Section 03301**

Definable Feature		Submittal	Quality Control Activities		
Description	Spec. Para.	Req'd	Description of Observation Procedure or Test Required	Freq.	Remarks
Concrete - Placement Preparations	03301-15.2.7	QC Report & LMV Form 1246	Visually & Measure as needed, prior to placement, foundations, const. joints, forms, embedded items, etc., to verify that concrete placement OK	Prior to placement	
Concrete - Air Content	03301-15.2.6.1	QC Report	Test Concrete for air content	Twice per day	Use _____ Laboratory
Concrete - Slump	03301-15.2.5.2	QC Report	Test Concrete slump	Twice per day	Use _____ Laboratory
Concrete - Placement	03301-15.2.8	QC Report	Visually inspect placement operations to verify proper equipment, methods, time interval, temp., yardage placed, & placement method	Each Placement	
Concrete - Curing	03301-13.2,4	QC Report	Inspect all surfaces subject to moist curing & impervious sheet curing	At least once/day	Including weekend/hol.
Concrete - Curing	03301-13.3	QC Report	Assure that curing compound is mixed properly, & meets minimum pressure and coverage requirements	After removal of forms	Measure & visual
Concrete - Vibration	03301-15.2.9	QC Report	Test frequency and amplitude of vibrator	Prior to 1st use & 1/month	

9.0 FORMS

CONTRACTOR QUALITY CONTROL (CQC) FORM

Contractor's Name

Daily Report No: _____ Date: _____

Contract No: W912P8-__-__-_____

Project Title and Location: _____

Weather: _____ Rain: ____in. Temp: ____Min. ____ Max.

1. Contractor/Subcontractors and Area of Responsibility:

NUMBER	TRADE	HOURS	EMPLOYER	LOCATION/DESCRIPTION

2. Operating Plant of Equipment. (Not hand tools)

PLANT/ EQUIPMENT	DATE OF ARRIVAL/ DEPARTURE	LEASED/ OWNED L OR O	DATE OF SAFETY CHECK	HOURS USED	HOURS IDLE	HOURS REPAIR

CQC REPORT FORM (CONT'D)

7. Submittals Reviewed:

(a) Submittal No.	(b) Spec/Plan Reference	(c) By Whom	(d) Action

8. Off-site surveillance activities, including action taken:

9. Job Safety: (Report violations; Corrective instructions given, taken.)

10. Environmental Protection: (Report violations; Corrective instructions given, taken.)

11. Remarks: (Instructions received or given. Conflicts in Plans and/or Specifications.)

Contractor's Verification: On behalf of the contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the plans and specifications, to the best of my knowledge, except as noted above.

Authorized CQC System Manager

Date

PREPARATORY PHASE CHECKLIST FORM

Contract No.: W912P8-__-____

Date: _____

Definable Feature:

Government Representative Notified 48 Hours in Advance

Yes____ No ____

I. Personnel Present:

Name	Position	Company/Government

(List Additional Personnel on reverse side)

II. Submittals

1. Review Submittals and/or submittal log 4288. Have all submittals been approved? Yes____ No____

If No, what items have not been submitted?

a.

b.

c.

2. Are all materials on hand? Yes____ No____

If No, what items are missing?

a.

b.

c.

PREPARATORY PHASE CHECKLIST FORM (CONT'D)

3. Check approved submittals against delivered material. (This should be done as material arrives.) Comments:

III. Material storage

Are materials stored properly? Yes___ No___
If No, what action will be taken?

IV. Specifications:

1. Review each paragraph of specifications.

2. Discuss procedure for accomplishing the work. (Include labor and equipment to be used)

3. Clarify any differences from specifications.

V. Preliminary Work - Ensure preliminary work is correct.

If not, what action will be taken?

PREPARATORY PHASE CHECKLIST FORM (CONT'D)

VI. Testing

1. Identify test to be performed, frequency and by whom.

2. When required?

3. Where required?

4. Review Testing Plan.

VII. Safety

1. Review applicable portion of COE EM 385-1-1.

2. Activity Hazard Analysis Approved? Yes___ No___

3. All equipment checked and checklists recorded? Yes___ No___
If not, what action will be taken?

VIII. Corps of Engineers comments during meeting.

CQC Representative

INITIAL PHASE CHECKLIST FORM

Contract No.: W912P8-__-__-____

Date: _____

Definable Feature:

Government Representative Notified 48 Hours in advance Yes___ No___

I. Personnel Present:

Name	Position	Company/Government

(List Additional Personnel on Reverse Side)

II. Is work in full compliance with plans, specifications and submittals. Are procedures and quality control measures being used acceptable.

INITIAL PHASE CHECKLIST FORM (CONT'D)

III. Preliminary work. Ensure preliminary work is complete and correct. If not, what action will be taken?

IV. Establish Level of Workmanship.

1. Where is work located?

2. Quantity of work performed?

3. Is a sample panel required? Yes___ No___

4. Will the initial work be considered as a sample? Yes___ No___

V. Are standards of acceptance mutually agreed upon? Resolve any differences.

VI. Check Safety.

Review job condition using COE EM 385-1-1 and job hazard analysis. Comments:

CQC Representative

DEFICIENCY REPORT

Contract No.: W912P8-__-__-__

DCR NO.: _____

Project Name: _____

Contractor: _____

Description of Deficiency:

Sketch Attached: Yes ___ No ___

Issued By: _____ Date: _____

Approved and Logged By: _____ Date: _____
CQCM

~~~~~  
Planned Corrective Action:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CO or Representative: \_\_\_\_\_ Date: \_\_\_\_\_

CQCM: \_\_\_\_\_ Date: \_\_\_\_\_

Corrective Action Implemented: \_\_\_\_\_ Date: \_\_\_\_\_  
Project Super.

Corrective Action Inspected: \_\_\_\_\_ Date: \_\_\_\_\_  
CQCM



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-- End of Section Table of Contents --

SECTION 01 57 20.01 12

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during and as the result of construction operations under this contract except for those measures set forth in other provisions of these specifications. For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to man; or degrade the utility of the environment for esthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise, solid waste-management and management of radiant energy and radioactive materials, as well as other pollutants.

1.2 MEASUREMENT AND PAYMENT

1.2.1 Environmental Protection

No separate measurement or payment will be made for environmental protection including protection of fish and wildlife. Payment for the work covered under this section shall be distributed throughout the existing bid items.

1.2.2 Non-Regulated Waste

No separate measurement or payment will be made for the work associated with and the disposal of non-regulated debris not specifically covered elsewhere. Payment for the work associated with the disposal of non-regulated debris not specifically covered elsewhere shall be distributed throughout the existing bid items.

1.2.3 Hazardous/Regulated Waste

If the Contractor uncovers an existing hazardous/regulated waste not Contractor generated, not shown on the drawings, and not specified herein, the Contractor shall notify the Contracting Officer's Representative immediately. Payment for handling, removal, transportation and disposal of hazardous and/or regulated solid wastes not Contractor generated, not shown on the drawings, and not specified herein will be made as an equitable adjustment in contract price under the Contract Clause in Section 00700, entitled "CHANGES (FAR 52.243-4)."

1.3 APPLICABLE REGULATIONS

In order to prevent, and to provide for abatement and control of any environmental pollution arising from construction activities in the performance of this contract, the Contractor and his/her subcontractors shall comply with all applicable Federal, State, and Local laws, and

regulations concerning environmental pollution control and abatement.

#### 1.4 SUBMITTALS

Government approval is required for this submittal. The 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 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environment Pollution Control Plan; G, CD

#### 1.5 QUALITY CONTROL

##### 1.5.1 General

The Contractor shall establish and maintain quality control for environmental protection to assure compliance with contract specifications and maintain records of his quality control for all construction operations including but not limited to the following:

- (1) Submit plan of Environment Pollution Control Plan.
- (2) Procure applicable Federal, State, and Local regulations on pollution control.
- (3) Air Pollution - Checks made on dust, smoke, noise.
- (4) Water Pollution - Checks made on disposal of water, oil, etc.
- (5) Land Pollution - Checks made on disposal of materials, restoration of temporary construction sites, etc.
- (6) Training course for employees.

##### 1.5.2 Reporting

The original and two (2) copies of these records, as well as the records of corrective action taken, shall be furnished the Government daily. Format of report shall be as prescribed in Section 01 45 04.00 10 CONTRACTOR QUALITY CONTROL.

#### 1.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any non-compliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his/her authorized representative at the site of the work, shall be deemed sufficient for the purpose. 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 any such stop orders shall be made the subject of a claim for extension of time or for excess cost of damages by the Contractor.

#### 1.7 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be

the responsibility of the Contractor.

#### 1.8 IMPLEMENTATION

Within 10 days after receipt of Notice of Award, the Contractor shall:

(1) Submit, in writing, proposals for environmental pollution control, disposal of debris, and an Environmental Protection plan. Provide 1 copy each to the Contracting Officer and 1 copy to OD-T; Attention Mr. Jeffrey Corbino for review prior to approval of the document by the Contracting Officer.

(2) Upon review and approval of requirements above, the Contractor shall meet with representatives of the Contracting Officer to develop mutual understandings relative to compliance with these provisions and administration of the environmental pollution control program and Environmental Protection Plan.

#### 1.9 REFERENCES

##### U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA ESA (1973) Endangered Species Act

EPA MMPA (1972) Marine Mammal Protection Act

##### U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 153.203 Procedure for the Notice of Discharge

#### 1.10 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

The Contractor is advised that deviations from the drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, alternate access routes, etc.) could result in the requirement for the Government to reanalyze the project from an environmental standpoint. Deviations from the construction methods and procedures indicated by the plans and specifications, which may have an environmental impact will require an extended review, processing, and approval time by the Government. 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.

#### PART 2 PRODUCTS

Not used.

#### PART 3 EXECUTION

##### 3.1 PROTECTION OF LAND RESOURCES

###### 3.1.1 General

The land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the appearance of the project. The Contractor shall confine his/her

construction activities to areas defined by the plans and/or specifications. The following additional requirements are intended to supplement and clarify the requirements of the Contract Clauses in Section 00700, entitled "PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (FAR 52.236-9)", "OPERATIONS AND STORAGE AREAS (FAR 52.236-10)", and "CLEANING UP (FAR 52.236-12)."

### 3.1.2 Prevention Of Landscape Defacement

The Contractor shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without the approval of the Contracting Officer. Felling of trees shall be performed in such a manner as to avoid damage to trees to be left standing. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's operations or equipment; he/she shall protect adequately such trees. All monuments and markers shall be protected before beginning operations near them. Any trees or other landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the Contractor's expense. Trees that are scarred shall be immediately painted with an acceptable tree wound paint. Any trees which are damaged beyond restoration shall be removed and disposed of as directed by the Contracting Officer.

### 3.1.3 Temporary Excavation And Embankments

If the Contractor proposes to construct temporary roads or embankments and excavation for plant and/or work areas, he shall obtain approval of the Contracting Officer prior to start of such temporary work.

### 3.1.4 Post-Construction Cleanup Or Obliteration

The Contractor shall obliterate all signs of temporary construction facilities such as work areas, structures, foundations of temporary structures, and stockpiles of excess or waste materials upon completion of construction. The Contractor will be required to restore the construction area to near natural conditions which will permit the growth of vegetation.

### 3.1.5 Recording And Preserving Historical And Archeological Finds

All items having any apparent historical or archeological interests which are discovered in the course of any construction activities shall be carefully preserved. The Contractor shall leave the archeological find undisturbed and shall immediately report the find to the Contracting Officer so that the proper authorities may be notified.

## 3.2 PROTECTION OF WATER RESOURCES

### 3.2.1 Contamination Of Water

The Contractor shall not pollute lakes, ditches, rivers, bayous, canals, groundwater, waterways, or reservoirs with fuels, oils, bitumen, calcium chloride, insecticides, herbicides, or other similar materials harmful to fish, shellfish, or wildlife, or materials which may be a detriment to outdoor recreation.

### 3.2.2 Disposal Of Materials

The methods and locations of disposal of materials, wastes, effluent, trash, garbage, oil, grease, chemicals, etc., within the right-of-way

limits shall be such that harmful debris will not enter lakes, ditches, rivers, bayous, canals, groundwater, waterways, or reservoirs by erosion, and thus prevent the use of the area for recreation or present a hazard to wildlife.

### 3.2.3 Fuel and Lubricants

Storage, fueling, and lubrication of equipment and motor vehicles must be conducted in a manner that affords the maximum protection against spill and evaporation. Manage and store fuel, lubricants, and oil in accordance with all Federal, State, and local laws and regulations. Used lubricants and used oil to be discarded must be stored in marked corrosion-resistant containers and recycled or disposed in accordance with State and local laws and regulations.

## 3.3 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to prevent any interference or disturbance to fish and wildlife. The Contractor will not be permitted to alter water flows or otherwise disturb native habitat adjacent to the project area which are critical to fish or wildlife.

### 3.3.1 Manatees

The West Indian manatee may be present in the project vicinity. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees in the area, and the need to avoid collisions with these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, which are protected under the EPA ESA and the EPA MMPA. The Contractor will be responsible for any manatee harmed, harassed, or killed as a result of construction activities not conducted in accordance with these specifications.

#### 3.3.1.1 Special Operating Conditions When Manatees Are Present

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

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

(3) If siltation barriers are used, they shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment.

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

### 3.3.1.2 Manatee Sighting Reports

Any sightings of manatees, or collisions with a manatee, shall be reported immediately to the Corps of Engineers. The point of contact within the Corps of Engineers will be the USACE Environmental Manager, Mr. Jeffrey Corbino, phone (504)862-1958 or email to jeffrey.m.corbino@usace.army.mil. In addition, collisions with, injury to, or sightings of manatees should be immediately reported to the U.S. Fish and Wildlife Service's Louisiana Ecological Services Office (337)291-3100 and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225)765-2821. Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

### 3.3.2 Gulf Sturgeon

#### 3.3.2.1 Bucket Dredge Protection Measures for Gulf Sturgeons

The Contractor should induce Gulf Sturgeon to leave the immediate work area prior to any bucket dredging work regardless of water depth. The bucket will be dropped into the water and retrieved empty one (1) time. After the bucket has been dropped and retrieved, a one (1) minute no work period must be observed. During this no dredging period, personnel should carefully observe the work area in an effort to visually detect Gulf Sturgeon. This exercise shall also be conducted prior to each initiation of rock placement. If Gulf Sturgeon are sighted, no work should be initiated until the sturgeon have left the work area. If the water turbidity makes such visual sighting impossible, work may proceed after the one (1) minute no work period has elapsed. If more than fifteen minutes elapses with no work, then the empty bucket drop/retrieval process shall be performed again prior to re-initiating work efforts. In the event a Gulf Sturgeon is incidentally taken or injured/killed by construction activities, it shall be immediately reported to CEMVN. The point of contact within the Corps of Engineers will be Jeffrey Corbino, (504) 862-1958, Email: jeffrey.m.corbino@usace.army.mil.

#### 3.3.2.2 Cutterhead Dredge Protection Measures for Gulf Sturgeons

To the maximum extent practicable, the Contractor shall ensure that:

When lowering the ladder, the pumping rate should be reduced to the slowest speed feasible while the cutterhead is being lowered to the channel bottom.

The cutterhead remains completely buried in the channel bottom during

dredging operation.

If pumping water through the cutterhead is deemed necessary to dislodge material, or to clean the pumps, the pumping rate should be reduced to the lowest rate feasible while raising the ladder until the cutterhead is at least at mid-depth at which point the pumping rate can then be increased.

#### 3.4 JANITOR SERVICES

The Contractor shall furnish daily janitorial services for all the offices, shops, or other facilities being used by the Contractor or Government employees, whether existing or Contractor furnished, and perform any required maintenance of the facilities and grounds during the life of the contract. Toilet facilities shall be kept clean and sanitary at all times. Services shall be performed at such a time and in such a manner to least interfere with the operations but will be accomplished only when the buildings are in daily use. Services shall be accomplished to the satisfaction of the Contracting Officer. The Contractor shall also provide daily trash collection and cleanup of the buildings and adjacent outside areas, and shall dispose of all discarded debris in a manner approved by the Contracting Officer.

#### 3.5 DISPOSAL OF NON-REGULATED DEBRIS AND OTHER WASTE

All debris and other wastes resulting from construction operations on this contract shall be disposed of by removal from the site.

#### 3.6 DISPOSAL OF REGULATED SOLID WASTES

If any hazardous or regulated solid wastes will be generated as a result of the Contractor's operations, the Contractor shall submit a plan that details the proper handling, removal, transportation and disposal of such wastes. The plan shall identify what types of hazardous and/or regulated solid wastes will be generated and shall list the hazards involved with each waste. All waste generated on-site by the Contractor must be properly identified within 30 days of generation. No regulated wastes shall be allowed to accumulate on-site for more than 90 days. If the Contractor discovers or comes into contact with any hazardous chemicals or other materials other than those addressed in this specification, the Contractor shall immediately notify the Contracting Officer (CO) who will make a determination as to the course of action.

#### 3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES

During the life of this contract the Contractor shall maintain all facilities constructed for pollution control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. Early in the construction period the Contractor shall conduct a training course that will emphasize all phases of environmental protection.

#### 3.8 REPORTING OF POLLUTION SPILLS

In the event that an oil spill or chemical release occurs during the performance of this contract, the Contractor is required to contact the National Response Center, telephone number 1-800-424-8802 as soon as possible, or if telephone communication is not possible, the nearest U.S.

Coast Guard office may be contacted by radio to report the spill, ( 33 CFR 153.203). The Contractor shall comply with any instructions from the responding agency concerning containment and/or cleanup of the spill. In addition, if an oil spill or chemical release were to occur within the subject right-of-way, the contractor must contact USACE environmental point of contact within 24 hours of release.

### 3.9 ENDANGERED SPECIES PROTECTION

The Contractor shall instruct all Contractor personnel associated with the project of the potential presence of sea turtles and the need to avoid contact with these animals. All Contractor personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing sea turtles, which are protected under the EPA ESA. When NMFS - approved sea turtle observers are on board the dredge, the Contractor may choose to have the sea turtle observers provide educational information to all dredge personnel on sea turtles. To minimize the potential of intercepting sea turtles, every effort shall be made to minimize pump operation while the dragheads are suspended in the water column. The Contractor shall be held responsible for any turtle harmed, harassed, or killed as a result of dredging activities not conducted in accordance with these specifications.

### 3.10 TRAINING OF CONTRACTOR PERSONNEL

The Contractor shall train his/her personnel in environmental protection and pollution control. Conduct environmental protection/pollution control meetings for personnel prior to commencing construction activities. Conduct additional meetings for new personnel and when site conditions change. Include in the training and meeting agenda:

- a. methods of detecting and avoiding pollution
- b. familiarization with statutory and contractual pollution standards
- c. installation and care of devices, vegetation covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control
- d. anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants
- e. recognition and protection of archaeological sites, artifacts, and wetlands

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SECTION 01 78 03.00 10

CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for providing Closeout Submittals, including "As-Built" drawings required under this section. All costs associated therewith shall be included in the applicable contract unit or job prices contained in the Bidding Schedule.

1.2 SUBMITTALS

Government approval is required for the submittal specified herein. The 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 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

"As-Built" Drawings; G, DO

The Contractor shall submit full-scale drawings showing final "As-Built" conditions of the project. The final (red-lined) "As-Built" drawings shall consist of 3 sets (an original and two color copies) and 3 electronic (.PDF) copies on CD-R of the approved working as-builts.

1.3 PROJECT RECORD DOCUMENTS

1.3.1 "As-Built" Drawings

This paragraph covers "As-Built" drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working "As-Built" drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final "As-Built" drawings.

1.3.1.1 Government Furnished Materials

The Contractor will be furnished "as-designed" drawings in Bentley OpenRoads Designer format compatible with a Windows XP operating system. The electronic files will be supplied on compact disc, read-only memory (CD-ROM). The plan drawings provided shall be the basis for resulting "As-Built" sheet scale, coverage and layout. If the Contractor submits a CADD project master overview file, it does not eliminate the need for the specific individual plates matching the scale and coverage as those provided in the Government furnished CD-ROM.

1.3.1.2 Working "As-Built" and Final "As-Built" Drawings

The Contractor shall revise 4 full size 22"x34" sets of paper drawings by

red-line process to show the "As-Built" conditions during the prosecution of the project. These working "As-Built" marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. The working "As-Built" marked prints and final "As-Built" drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final "As-Built" drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the "As-Built" drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final "As-Built" drawings shall show, but shall not be limited to, the following information:

- a. All information shown on the contract drawings and a record of all completed work, deviations, modifications, or changes from those drawings, however minor, which may have been incorporated into the work.
- b. After dredging channel sections and acceptance profiles.
- c. Gross and net yards dredged distinguished by dates of dredging and reach of channel dredged.
- d. Disposal locations used, including gross yardage placed by site.
- e. Period of disposal placement for each disposal site utilized.
- f. Vertical control utilized including any applicable conversions.
- g. Utility locations as verified by owners, including station, C/L XY-coordinate, and minimum elevation.
- h. Channel markers, bouys, daymarkers, etc. surveyed during required preliminary survey efforts.
- i. Changes or modifications which result from the final inspection.
- j. Modifications shall be shown in accordance with the following procedures.
  - (1) Directions in the modification for posting descriptive changes shall be followed.
  - (2) A Modification Triangle shall be placed at the location of each deletion.
  - (3) For new details or sections which are added to a drawing, a Modification Triangle shall be placed by the detail or section title.
  - (4) For minor changes, a Modification Triangle shall be placed by the area changed on the drawing (each location).
  - (5) For major changes to a drawing, a Modification Triangle shall be placed by the title of the affected plan, section, or detail at

each location.

(6) The Modification Triangle size shall be 1/2 inch on a side unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

#### 1.3.1.3 Drawing Preparation

a. Each various feature of work performed shall be distinguishable by color coding and/or symbology. The As-Built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

b. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. The Contractor is allowed to use a red line markup system to produce hard copy A-Built. This will require scanning of the documents to create .pdf drawings for submittal. If additions and corrections to the contract drawings are accomplished using CADD files, the Contractor shall be responsible for providing all program files and hardware necessary to prepare final As-Built drawings. The Contracting Officer will review final As-Built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

#### 1.3.1.4 Qualifications of CADD personnel

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings if required, or prepare additional new drawings.

#### 1.3.1.5 Computer Aided Design and Drafting (CADD) Drawings

a. CADD colors shall be the "base" colors of red, green, and blue. Color code for changes shall be as follows.

(1) Deletions (red) - Deleted graphic items (lines) shall be colored red with red lettering in notes and leaders

(2) Additions (Green) - Added items shall be drawn in green with green lettering in notes and leaders

(3) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes shall be in blue.

b. The Contract Drawing files shall be in Microstation (DGN) format, properly geo-referenced, and renamed in a manner related to the contract

number (i.e., 98-C-10.DGN) as instructed in the Pre-Construction conference. Marked-up changes shall be made only to those renamed files. All changes shall be made on the layer/level as the original item. There shall be no deletions of existing lines; existing lines shall be over struck in red. Additions shall be in green with line weights the same as the drawing. Special notes shall be in blue on layer "?-ANNO-NOTE" where "?" represents the discipline designator (for example; "C" for Civil, "E" for electrical, "S" for Structural, etc.).

c. Within twenty (20) days after Government approval of all of the working as-built drawings, the Contractor shall prepare the final CADD as-built drawings and submit two (2) sets of hard-copy prints of these drawings for Government review and approval. The Government will promptly return one (1) set of prints annotated with any necessary corrections. Within 10 days the Contractor shall revise the CADD files accordingly at no additional cost and submit the final as-built drawing package for the entire project. The submittal shall consist of one (1) set of electronic files on 4 3/4" compact disc, read-only memory (CD-ROM), three (3) sets of hard-copy prints and one (1) set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or an adjustment necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CADD system.

#### 1.3.1.6 Final "As-Built" Drawings

a. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. All other contract drawings shall be marked either "AS-Built" drawing denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

b. In lieu of revising contract cross section drawings to depict before and after conditions, the Contractor is allowed to submit electronically plotted cross sections depicting before and after dredging cross sections overlaid with the required dredge template. The submission shall be in pdf format, such that each individual cross section is paged and scaled to 8.5" x 11" paper.

c. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final "As-Built" drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final "As-Built" drawings shall be accomplished before final payment is made to the Contractor.

PART 2 PRODUCTS (NOT USED)

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SURVEYS

PART 1 GENERAL

1.1 SCOPE

The work provided for herein consists of furnishing all plant, labor, equipment, and materials, and performing all operations necessary for surveying as specified herein and as indicated on the contract drawings.

1.2 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for surveys. The cost of the work covered under this section shall be included in the contract unit price for "Dredging".

1.3 REFERENCES

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 1110-2-1003 (2013) Hydrographic Surveying

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 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Verification of Survey Equipment

SD-02 Shop Drawings

Preliminary Field Surveys; G, CD

Preliminary Field Surveys; G, ED

"Before and after" dredging cross sections

SD-05 Design Data

Compiled Survey Data; G, ED

All survey data shall be collected, recorded and processed. The Contractor shall furnish the required data on compact disk (CD) containing ASCII character set.

"Before and After" Dredging Cross Sections

SD-09 Manufacturer's Field Reports

Calibration checks; G,CD

Calibration checks shall be run at the beginning and completion of each day's survey or portion thereof. Results shall be furnished daily to the Contracting Officer's Representative.

1.5 QUALITY CONTROL

The Contractor shall establish and maintain quality control for the work specified in this section to assure compliance with the contract requirements and maintain records of his quality control for all surveying including but not limited to the following:

(1) Layouts and Surveys. Daily log of layout and surveys consisting of type and location using Contractor furnished control system as stated in the Contract Clause in Section 00700, entitled "LAYOUT OF WORK (FAR 52.236-17)."

(2) Reporting. The original and two copies of these reports and tests as well as the records of corrective action taken shall be furnished the Government daily. The report shall include a record of times and dates surveys were run, the horizontal control stations used and their coordinates, the vertical control points used and their elevations, and weather conditions. Format of report shall be as prescribed in Section 01 45 04.00 10 CONTRACTOR QUALITY CONTROL.

1.6 PROFESSIONAL CERTIFICATION

All surveys shall be performed in the presence of the Contracting Officer's Representative. All surveys shall be performed under the direction of and certified by a Professional Land Surveyor currently licensed by a state of the United States. In addition, the surveyor shall document at least three years of experience in hydrographic surveying of navigable channels and possess a current hydrographic certification from the American Congress for Surveying and Mapping (ACSM).

1.7 SURVEY EQUIPMENT

1.7.1 Survey Boat

The survey boat shall be capable of providing a stable platform for the effective operation of the sounding equipment described below. The launch or tender shall be Coast Guard certified, radar equipped, be capable of maneuvering to permit surveying within the tolerance specified and shall contain an enclosed cabin. The survey boat shall be used solely for surveying and shall not be used for providing the inspector's (Government agent's) transportation, unless in the case of mechanical malfunction of Government transportation. No smoking shall be allowed inside the cabin and operator's space while occupied by Government personnel. "No Smoking" signs shall be posted. The survey boat shall be equipped with the following as a minimum:

(a) An electronic positioning system, as described in paragraph entitled "Positioning Equipment";

(b) Air conditioning and heating sufficient for the equipment and personnel for the enclosed cabin;

(c) VHF radio for ship-to-ship communications, as described in Section 35 20 23.00 12 DREDGING, paragraph "RADIO AND TELEPHONE COMMUNICATIONS"

(d) A recording depth-sounder as described in the herein paragraph entitled "Fathometer"

#### 1.7.2 Verification of Survey Equipmentt

The Contractor shall submit to the Contracting Officer's representative for review and approval a breakdown of the various components of the survey system to be used in obtaining required contract survey data. The breakdown shall include a description of the proposed survey vessel (size, features, motor configuration, etc.) as well as brand name, specifications, certifications, proposed settings, proposed calibration checks, and other relevant information for the positioning system and fathometer to be used.

#### 1.7.3 Fathometer

##### 1.7.3.1 General

All survey soundings shall be taken with a precision, high resolution (0.1 ft.) fathometer. The acoustic ping rate shall be, at minimum, 10 soundings per second. To limit signal attenuation in areas of unconsolidated bottom sediments, the acoustic frequency utilized shall be within the range of 24-28 KHz and Low Frequency Low Pulse Width shall be in accordance with the manufacturers recommended settings for unconsolidated bottom sediments in shallow water depths (i.e., 0 to 150 feet). If a dual frequency fathometer is utilized, then the low frequency shall be within the 24-28 KHz range. At minimum, the equipment shall be capable of recording depths of water ranging from 3 feet under the transducer face(s) to a maximum of 60 feet. At this maximum depth, the sounding accuracy must be 0.5 ft. (28 KHz transducer). Acoustic returns shall be recorded on thermal chart paper by a fixed, high-resolution printing element (no stylus). A digital fathometer may be used instead of paper charts as directed by the Contracting Officer's Representative, but the Contractor must still be capable of producing paper charts unless otherwise directed by the Contracting Officer's Representative. The paper chart scaling shall be in English units, no greater than 0-60 ft. full-scale and graduated in 1 ft. increments with numeric depth annotations at the 0, 10, 20, 30, 40, 50, 60 ft. chart levels. The instrument shall, at minimum, be capable of adjusting transmit power, receiver sensitivity and time-varied gain settings and of inputting the correct speed-of-sound, vessel draft and tide values. During the surveying of run lines, the fathometer shall be capable of annotating periodic event marks on the paper chart as directed by other surveying system components (positioning, controlling software) and be capable of transmitting each event sounding back to these system components for horizontal position tagging and data storage. The surveyor shall print the control parameter settings on the chart paper at start of all surveys and when any control settings are changed and "before and after" all bar check. Prior to the Contractor taking "before dredging" surveys, control parameter settings shall be turned into the Government Inspector for review to insure the settings meet the surveying parameters.

##### 1.7.3.2 Calibration

Hydrographic fathometer calibrations shall be performed at the survey site by methods described in EM 1110-2-1003, chapters 9-7 thru 9-10 and at a frequency listed in table 9-6 for navigation and dredging support surveys

with soft bottom materials. The acoustic traces of the bar or ball check calibrations shall be captured on the fathometer paper chart at the 10, 20 and 30 ft. depths or as directed by the Government Representative) along with a notation indicating the site location (i.e. station, lat/long, x, y), the date and time. When a velocity meter probe is utilized, the average speed-of-sound reading for the entire water column and the location, date and time of the probe sounding must also be noted on the fathometer paper chart. All calibration and soundings shall be made in the presence and to the satisfaction of the Contracting Officer's representative at the job site.

#### 1.7.3.3 Low Frequency Signal Parameters

The Low Frequency Pulse Width range of cycles (i.e. 1 to 10) used shall not produce signal lengths less than 35 microseconds or greater than 125 microseconds. For example, using an Odom MKIII 24 kHz transducer with a LF Pulse Width Setting of 2, will result in a 83.3 microsecond long signal. 2 cycles (i.e. LF Pulse Width Setting =  $2 / 24,000 \text{ Hz} = 83.3 \text{ microseconds}$ )

#### 1.7.4 Lead Line

Lead lines used for soundings shall consist of a seven (7)-pound lead having a six (6)-inch mushroom shaped bottom attached to a low stretch line graduated in 0.1-foot increments. Level rods, if used for soundings, shall have a six (6)-inch diameter plate attached to the bottom. Methodology to obtain additional conventional survey requirements shall be approved by the Contracting Officer's Representative.

#### 1.7.5 Positioning Equipment

##### 1.7.5.1 Electronic Surveys

Positioning equipment for electronic surveys shall be capable of achieving the required accuracy stated in paragraph "Positioning Surveys." Initial calibration and subsequent checks shall be in accordance with the manufacturer's instructions as required in paragraph "General".

##### 1.7.5.2 Data

The data obtained from the electronic control system (paragraph "Positioning Surveys") and the echo depth sounding instrument shall be collected, recorded and processed. Soundings shall be taken to the nearest 0.1-foot and X & Y coordinates of the location should be to the nearest foot. The applicable gage shall be read to the nearest 0.1 foot prior to and after each day's survey. More frequent readings will be required when directed by the Government Inspector. From the processed data, the Contractor shall provide certain survey information taken for the purpose of computing the total amount of work to be paid for. The Contractor shall furnish the required Compiled Survey Data on 3-1/2 inch IBM compatible diskettes containing ASCII character set. The information received should be free of errors and in the following format: (a) The X-coordinate in feet of a recognized Louisiana Lambert grid system, (b) the Y-coordinate in feet of same recognized Louisiana grid system, (c) the sounding, and (d) remarks such as the station number (i.e. 1+00), CL (for centerline), ES (for end of station), EJ (for end of file), and direction of survey (either "L" for + or "R" for -, followed by Station No., i.e. L 30+00). The time and date the cross section was taken and the gage reading applicable to the section shall also be included. The electronically recorded data files, along with a hard copy of the track plotter surveys, plotted on the chart to show

compliance with alignment, shall be presented to the Government Representative on site no later than 2 days after the survey is taken. Under no circumstances shall the information be edited for the purpose of eliminating incorrect soundings. The Contractor shall provide a separate file listing all incorrect soundings to be eliminated. Additional format requirements for these files will be discussed, and sample formatted files will be made available, at the pre-work coordination meeting. The beginning station for each file shall be the repeated ending station from the previous file (i.e., Sta. 820+00 to 840+00, Sta. 840+00 to 860+00, etc.). The format for survey file(s) to be submitted to the Government will be discussed and sample sheets will be given at the Prework Coordination Meeting.

## PART 2 PRODUCTS

Not used.

## PART 3 EXECUTION

### 3.1 COMMENCEMENT, PROSECUTION, AND COMPLETION

#### 3.1.1 General

Surveys for all fixed stations shall be performed in accordance with Class 1 Third Order accuracy as defined by the National Oceanic and Atmospheric administration in "Classification, Standards of Accuracy, and General Specifications of Geodetic control Surveys." Prior to initiating positioning surveys using electronic survey equipment, a calibration test of the electronic measuring device shall be performed according to the manufacturer's instructions in the presence of the Contracting Officer's Representative. Calibration checks shall be run at the beginning and completion of each day's survey or portion thereof. Results shall be furnished daily to the Contracting Officer's Representative. All electronic surveys shall be tied to a fixed station. The station may be a Government furnished point or a temporary point established by the Contractor and approved by the Contracting Officer's Representative. Should the electronic measuring device fail to indicate the known distance within the factory defined error range for the device, the device shall not be used for determining survey positions.

#### 3.1.2 Positioning Surveys

These surveys shall be controlled using electronic surveying equipment. Information and data to reestablish the Government baseline, or to establish the relationship between the electronic control system and the Government baseline and the channel centerline will be furnished by the Government upon request. The electronic positioning fixed stations (antenna locations) shall be located at points that will give the greatest amount of accuracy to the dredge and survey boats using the equipment. The coordinates of the fixed stations shall be tied to the Government baseline and shall be made available to the Government upon request. A positional tolerance of +/-5-feet will be permitted for surveys performed using electronic positioning equipment installed on the dredge and/or survey boats.

#### 3.1.3 "Before and After" Dredging Cross Sections

(1) "Before and after" dredging cross sections of the channel shall be taken at approximately 50-foot intervals along the channel between

stations 0+00 and 7+00 of each respective approach channel. The soundings shall be made with a depth-sounding instrument described in paragraph "Fathometer". Distances between soundings on each cross section shall not exceed 15-feet on an azimuth from the baseline normal to the centerline of the cut. Soundings obtained from the depth sounder rolls shall be picked from the top of the true bottom line. Reflected lines (fluff lines) from lighter sedimentary materials shall be disregarded. Soundings shall be chosen to the nearest 0.1-foot. The depth sounder rolls shall be furnished to the Government. Data shall also be furnished to the Government in a structured ASCII format on magnetic media.

(2) The Contractor shall prepare a layout of the "before" dredging cross sections for review and approved by the Contracting Officer. This layout shall also be used in performing the required after dredging surveys.

(3) The actual location of each sounding taken on each "before and after" dredging cross section range shall be provided. This information shall be in the form of printout tabulation giving the actual distance of the soundings from the baseline on an azimuth normal to the centerline of the cut. Soundings shall be to the nearest 0.1-foot referred to the water surface. This information shall also be plotted on a printout sheet, along with a section showing the required dredging dimensions. The time and date taken shall be shown and the gage reading applicable to the survey shall be shown. The applicable gage shall be read to the nearest 0.1-foot prior to and after each day's survey. More frequent readings may be required when directed by the Contracting Officer's Representative. In addition, a plan view shall also be plotted on a printout sheet showing the actual location of each sounding taken on each "before" dredging cross section range. The time and date shall also be shown.

#### 3.1.4 After Dredging Profiles

Upon completion of dredging in an acceptance reach, as specified in Section 35 20 23.00 12 DREDGING, paragraph "Acceptance Reach," continuous profiles shall be taken from Station 0+00 west approach channel to 0+00 east approach channel, including the Wax Lake outlet crossing. The depth sounding instrument used to make the "before and after" dredging cross sections shall be used to make the after dredging profiles. No substitutions will be permitted unless approved by the Contracting Officer. Distances between soundings on each profile shall not exceed 20-feet. Controlled profiles of the channel shall be made along the channel centerline and one (1) at each outside bottom edge of the cut. The Government reserves the right to direct additional soundings to be taken along ranges normal to the above defined acceptance profiles.

#### 3.1.5 Survey Data

Each field book shall be given an identification number, which shall be noted on each page of the book. The information shown in the field notes shall meet the requirements of the Contracting Officer's Representative. The Contractor shall promptly plot the before and after" dredging cross sections on a scale of 1-inch = 50-foot horizontally and 1-inch = 5-foot vertically. The original field book and notes shall be submitted to the Government Inspector within three (3) days of the completion of surveys. Survey data of before and after" cross sections of the disposal areas shall be submitted within three (3) days of completion of each survey. Plotted

cross sections, profiles, and duplicate notes shall be kept at the jobsite at all times and made available to the Contracting Officer's Representative as required. One (1) copy of all plotted "Before and After" dredging cross sections shall be kept in the lever-room at all times.

-- End of Section --

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DIVISION 31 - EARTHWORK

SECTION 31 11 13.00 12

CLEARING AND SNAGGING

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- 3.1 GENERAL REQUIREMENTS
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  - 3.3.4 Vegetation
- 3.4 DISPOSAL OF DEBRIS

-- End of Section Table of Contents --

SECTION 31 11 13.00 12

CLEARING AND SNAGGING

PART 1 GENERAL

1.1 SCOPE

The work provided for herein consists of furnishing all plant, labor, materials, and equipment and performing all operations necessary for the removal of all snags and clearing of trees within the limits specified herein and shown on the drawings. Removal of snags and tree clearing is required for access along the channel and disposal sites within the limits specified herein and as shown on the drawings.

1.2 MEASUREMENT AND PAYMENT

No measurement will be made for clearing and snagging. Payment will be made at the contract job price for "Clearing and Snagging". Price and payment shall constitute full compensation for furnishing all plant, labor, material and equipment and performing all operations necessary for clearing and snagging, including removal and disposal; and other work incidental thereto; as specified herein and as shown on the drawings.

1.3 QUALITY CONTROL

The Contractor shall establish and maintain quality control for clearing and snagging operations to assure compliance with contract requirements, and maintain records of his/her quality control for all construction operations including but not limited to the following:

- (1) Clearing. Station to station limits measured along the centerline of the channel; percentage of area complete; type of materials.
- (2) Snagging. Station to station limits, transverse snagging limits from applicable centerline; percentage of area complete; type of materials.
- (3) Disposition of Cleared and Snagged Materials. Method and location of disposition; damage to timber or improvements which are not to be cleared.

The original and two copies of these records of inspections and tests, as well as the records of corrective action taken, shall be furnished the Government daily. Format of the report shall be as prescribed in Section 01 45 04.00 10, "CONTRACTOR QUALITY CONTROL".

PART 2 PRODUCTS

Not Used

### PART 3 EXECUTION

#### 3.1 GENERAL REQUIREMENTS

All clearing and snagging work shall be performed from within the limits as shown on the contract drawings. Clearing and snagging shall be performed at all locations where above water vegetated shoal is within the limits of the approach channels. Any material or tree limbs within the limits of dredging shall be removed.

#### 3.2 UTILITY INVESTIGATIONS

The Contractor shall investigate each clearing and snagging reach for utilities and private intrusions (drainage pipes) to avoid impacts. The Contractor shall protect all existing utility lines that are indicated on the drawings. The Contractor shall notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility line. The Contractor shall be responsible for the repairs of damage to existing utility lines during construction operations that are indicated or made known to Contractor prior to the start of clearing and snagging operations.

#### 3.3 CLEARING AND SNAGGING

##### 3.3.1 General

Clearing and snagging, unless otherwise specified, shall consist of the complete removal above the ground surface of all vegetation, trees, stumps, down timber snags, and similar debris within the limits specified on the contract drawings.

##### 3.3.2 Merchantable Timber

Merchantable timber, except Cypress trees, remaining within the areas to be cleared on or after the date of award of this contract may be disposed of as the Contractor sees fit, as long as such merchantable timber is either removed from the right-of-way indicated on the drawings, or is satisfactorily disposed of in accordance with paragraph "DISPOSAL OF DEBRIS".

##### 3.3.3 Trees

Trees shall be felled in such a manner as to avoid damage to trees to be left standing, existing structures, installations, and to those under construction. All trees and stumps to be removed through clearing and snagging operations shall be removed from within the banks of the approach channels and placed beyond the 35 foot contour of Wax Lake Outlet as shown on the drawings. Trees to be removed for access to the approach channels shall be placed beyond the 35 foot contour of Wax Lake Outlet.

##### 3.3.4 Vegetation

Vegetation to be removed shall consist of grass, bushes, and weeds. The limits of removal shall encompass the entirety of the isolated shoals within the approach channels even if they are beyond the limits of dredging.

#### 3.4 DISPOSAL OF DEBRIS

All nonsalable debris resulting from clearing and snagging operations shall

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be placed beyond the 35 foot contour of Wax Lake Outlet as shown on the drawings. Burning of debris is not allowed. Chipping of vegetative debris to reduce surface area is recommended but not required.

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DIVISION 35 - WATERWAY AND MARINE CONSTRUCTION

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  - 1.2.3 Quantity Computations
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- 1.4 SUBMITTALS
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3.3.5 Work In The Vicinity Of Other Government Contractors

-- End of Section Table of Contents --

SECTION 35 20 23.00 12

DREDGING

PART 1 GENERAL

1.1 SCOPE

The work provided for herein consists of furnishing all plant, labor, materials, and equipment and performing all operations necessary for the removal of all materials to the required dimensions as shown on the contract drawings, satisfactory disposal thereof, and all operations incidental thereto.

1.2 MEASUREMENT

1.2.1 Quantity Surveys

A survey of the sites for dredging shall be made in accordance with the provisions of Section 02 21 10.00 12 SURVEYS and all measurements to determine dredging quantities will be based on the "before dredging" cross sections described therein. The elevations shown thereon shall be verified or corrected by the "before dredging" surveys. Determinations of quantities to be paid for in the area specified, after having once been made, will not be reopened.

1.2.2 After Dredging Profiles

Should the acceptance profiles and/or soundings described in Section 02 21 10.00 12 SURVEYS, paragraph "After Dredging Profiles", disclose any lack of the required dimensions, the Contractor shall redredge the area at no additional expense to the Government. After redredging, the required dimensions shall be verified by rerunning the profiles. Redredging shall be performed until the acceptance profiles and/or soundings show that the required dimensions have been obtained.

1.2.3 Quantity Computations

The quantity of dredged material removed and to be paid for will be measured by the cubic yard by computing the volume along the centerline between the "before-dredging" cross sections and the required dimensions as shown on the contract drawings using the average end area method. No allowance will be made for excessive dredging except as provided in paragraph "Excessive Dredging". In order for the Government to make dredging volume computations, the Contractor shall furnish the track plotter charts and the "before and after" dredging data described in Section 02 21 10.00 12 SURVEYS, paragraph "Before and After Dredging Cross Sections".

1.2.4 Acceptance Reach

For the purpose of acceptance, the completed work will be accepted as a whole upon completion of dredging over the full bottom width of the required dimensions specified on the contract drawings. All after dredging cross-section data for that shall be submitted as one (1) file.

#### 1.2.5 Timely Performance Of Quantity Surveys

"Before-dredging" quantity surveys shall be made in advance of dredging operations but not more than two (2) weeks prior to commencement of work unless an exception is granted by the Contracting Officer. Acceptance profiles shall be made not more than two (2) weeks after completion of work in any acceptance reach or other unit of work as prescribed in the General Provision entitled FINAL EXAMINATION AND ACCEPTANCE. Deviations from this limiting time element may be necessary because of unusual job conditions or adverse weather. "Before and after" dredging survey data shall be plotted and submitted to the Government within three (3) calendar days after the surveys are taken.

#### 1.2.6 Progress Payments

Monthly progress payments will be made based on quantities determined using "before dredging" surveys taken in accordance with Section 00700 Contract Clause entitled "QUANTITY SURVEYS (FAR 52.236-16)" and Section 02 21 10.00 12, "SURVEYS"; provided the after dredging surveys and any additional soundings that may be directed indicate that the Contractor has met the required dimensions and acceptance reach length.

#### 1.2.7 Radio And Telephone Communication Equipment

No separate measurement and payment will be made for furnishing and maintaining radio and telephone communication equipment.

### 1.3 PAYMENT

#### 1.3.1 Mobilization And Demobilization

An item to cover the cost of initial mobilization and final demobilization of the Contractor's plant and equipment under this contract is included and will be paid for as stipulated in the Contract Clause in Section 00700, entitled "PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DFARS 252.236-7004)."

#### 1.3.2 Dredging

Payment for dredging will be made at the contract unit price per cubic yard for "Dredging". Price and payment shall constitute full compensation for furnishing all plant, labor and materials and performing all work for surveying, including any additional soundings that may be directed, excavation, disposal of materials, furnishing crewboat fully operated, furnishing survey vessel(s) as required in Section 02 21 10.00 12 SURVEYS, pollution control, furnishing and maintaining radio and telephone communications equipment, and all operations incidental thereto.

### 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. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Plan of Operation; G,EDC

No pipeline crossings were identified within the limits of dredging, should a pipeline be located post contract award, submit a Plan of Operation at each pipeline and utility crossing. (See Paragraph WORKING IN THE VICINITY OF STRUCTURES)

Disposal of Dredged Material Plan; G, EDC

Submit a disposal of dredging material plan in Government furnished disposal areas no later than seven (7) days prior to commencement of the work. (See Paragraph DISPOSAL OF DREDGE MATERIAL)

Access Plan; G, EDC

See subparagraph "Access Plan" of Paragraph "QUALITY CONTROL", and Section 01100 GENERAL PROVISIONS, entitled ACCESS PLAN.

Construction Schedule; G, CD

See subparagraph "Construction Schedule" of paragraph "QUALITY CONTROL", and Section 00700 Paragraph SCHEDULES FOR CONSTRUCTION CONTRACTS (FAR 52.236-15 - APR 1984).

SD-11 Closeout Submittals

Report of Operations; G, EDC

(See subparagraph "Report Of Operations" of paragraph "QUALITY CONTROL")

## 1.5 QUALITY CONTROL

The Contractor shall establish and maintain quality control for dredging operations to assure compliance with contract requirements and maintain records of his/her quality control for all dredging operations including but not limited to the following:

- (1) Dredging. Visual classification of material; limits of dredging as to bottom grades and widths; side slopes; alignment of channel as to distance from baseline.
- (2) Dredged Material Disposal. Limits of dredged material as deposited in a disposal area, and location. Surveillance and location of the dredge discharge outlet and distance from the channel centerline.

### 1.5.1 Quality Control Reports

The original and two copies of these reports and tests, as well as the records of corrective action taken, shall be furnished the Government daily. Format of this report shall be as prescribed in Section 01 45 04.00 10 CONTRACTOR QUALITY CONTROL.

### 1.5.2 Report Of Operations

- (1) The Contractor shall prepare and submit a Report of Operations (MVN Form 4267) for each dredge working. This report shall be submitted on a daily basis and not in groups, e.g. several daily reports packaged together at one time. A sample of MVN Form 4267 is

included at the end of this section.

(2) The Contractor shall also prepare a report of operations for each month or partial month's work on MVN Form 322 (Work Sheet for Preparing Consolidated MVN Form 4267). The monthly report shall be submitted on or before the 7th of each month, consolidating the previous month's work. MVN Form 322 can be computer generated and shall be approved by the Contracting Officer's Representative on site. A sample of MVN Form 322 is attached at the end of this section.

(3) All required reports shall be made available in electronic format. The Contractor shall distribute one (1) copy of each report to each of the following:

(a) U.S Army Engineer District, New Orleans  
Lafayette Area Office  
ATTN: Mr. John Page, CEMVN-CD-LA  
646 Cajundome Blvd., Suite 301  
Lafayette, LA 70506

(b) Government Inspector

(4) One (1) copy of each Report of Operations shall be maintained by the Contractor on the dredge(s).

(5) Upon completion of work a comprehensive compilation of all prepared reports shall be supplied on CD ROM, grouped by report type, and organized chronologically to CEMVN-ED-L, ATTN: Tyler Miller. Submittals shall include one (1) PDF file of all form 4267 in chronological order with the form 322(s) combined into one (1) file.

(6) Further instructions on the preparation of the reports will be furnished at the Preconstruction Conference.

#### 1.5.3 Construction Schedule

The Contractor shall submit a practicable Construction Schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work. The requirement is specified and further detailed in the Section 00700 Contract Clause (FAR 52.236-15) "SCHEDULES FOR CONSTRUCTION CONTRACTS", and Section 01 32 16.00 20 CONSTRUCTION PROGRESS SCHEDULES.

#### 1.5.4 Access Plan

The Contractor shall submit an Access Plan to be reviewed and approved by the Contracting Officer. The requirement is specified and further detailed in the Section 01100 GENERAL PROVISIONS, entitled ACCESS PLAN.

#### 1.6 RADIO AND TELEPHONE COMMUNICATIONS

##### 1.6.1 Maritime Radio Transceiver

The Contractor shall furnish and maintain throughout the contract, one FM ship's radio transceiver with power not in excess of 25 watts, and at least 15 watts output on the maritime frequencies of 156.800 (Channel 16) and 156.375 (Channel 67) MHz 16F3 emission, with a tolerance of plus or minus 5 kHz deviation at 100 percent modulation for communication concerning

navigation in the vicinity of the dredge. The radio shall be operated in accordance with FCC rules and regulations.

#### 1.6.2 Cellular Telephone and Internet

The Contractor shall provide at least one (1) cellular telephone aboard the dredge. Cellular phone service shall be available to Government personnel for conducting official Government business 24 hours per day, seven (7) days per week. In the event that more than one (1) dredge is assigned to contract, there must be one (1) cellular phone per dredge. The Contractor shall also provide high speed internet service and associated equipment must be capable of providing adequate connection to allow the inspectors to import/export files through RMS (shall provide a minimum download speed of 10 Mbps and a minimum upload speed of 1.5 Mbps for the sole use of the Inspectors). The Contractor must field verify that the service provider chosen has adequate continuous coverage at the construction site. The Contractor shall be responsible for the installation, maintenance of and the monthly service fees necessary to provide continuous cellular telephone and high speed Internet service for the duration of the contract. Final approval of the plant will not be made until the equipment is installed and in good working order.

#### 1.7 PLANT

##### 1.7.1 General Requirements

The Contractor shall keep on the job the necessary dredge equipment and attendant plant to meet the requirements of the work. The dredge equipment and attendant plant shall be in satisfactory operating condition and capable of safely and efficiently performing the work as set forth in specifications and shall be subject to inspection by the Contracting Officer's representative at all times.

##### 1.7.2 Capacity

No reduction in the capacity of the dredge equipment and attendant plant employed to execute the work shall be made except by written permission of the Contracting Officer. The measure of the "Capacity of the Dredge and Attendant Plant" shall be its actual performance on the work to which these specifications apply.

##### 1.7.3 Inspectors (Government Agents) Transportation

The Contractor shall furnish, throughout the contract period, for the exclusive use of the Government: a motorboat, minimum 18 foot in length, with enclosed cabin, a minimum of a 50 horsepower motor and equipped with safety equipment as required by EM 385-1-1. The Contractor shall also furnish fuel, oil, and maintenance of the motorboat throughout the contract period. The Contractor shall assume full responsibility for the storage and security of the motorboat when not in use by the Government employees. There shall be no separate payment for these items and the cost shall be distributed throughout the existing bid items. Equipment which fails to perform because of insufficient power or other mechanical deficiencies or due to inexperienced operators shall be replaced, or the operator replaced, as the case may be, within 12 hours after the Contractor is directed to do so by the Contracting Officer's Representative. No smoking shall be allowed inside the cabin and operator's space while occupied by Government personnel. No Smoking signs shall be posted.

## 1.8 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements  
Manual

## PART 2 PRODUCTS

Not Used.

## PART 3 EXECUTION

### 3.1 DREDGING

#### 3.1.1 General

Dredging shall consist of the removal and satisfactory disposal of all material encountered to achieve the design section shown on the contract drawings and as specified herein. In areas adjacent to the floodgates, the elevation of the riprap in some locations may preclude dredging to the required dimensions. The Contractor shall complete dredging as near the riprap as practicable in these locations.

#### 3.1.2 Channel Dimensions

The channel shall be dredged to the required dimensions shown on the contract drawings. A box cut will be permitted. The extent of required dredging and control of the box cut is illustrated in the Box Cut detail attached to the end of this section.

#### 3.1.3 Excessive Dredging

Excessive dredging is defined to be any dredging which is in excess of the required dimensions, as shown on the contract drawings. Any material removed in excess of the required dimensions will not be measured for payment. The Contractor is responsible for damages caused by excessive dredging.

#### 3.1.4 Slides

In the event sliding occurs in any part of any excavation after its completion but prior to its acceptance, the Contractor shall remove such portions of the slide as the Contracting Officer may direct. In the event, the slide is caused through the fault of the Contractor as determined by the Contracting Officer, the slide shall be removed by the Contractor at no additional expense to the Government. In the event the slide is not due to the fault of the Contractor, payment for removal will be included in the contract unit price for "Dredging."

#### 3.1.5 Character Of Materials

The material to be removed within the required dimensions specified consists of shoaling that has occurred since the channel was last dredged

and insitu material. Sand, silt, clay, shell, logs, stumps, snags, debris, and other obstructions may be encountered. Due to the extended period since channel was last dredged as shown below, the Contractor shall expect channel debris and should visit site of the work before submitting a bid. Bidders are expected to examine the site of the work and, after investigation, decide for themselves the character of the materials. The last maintenance dredging performed over the limits of work, was completed on 31 October 2014.

### 3.2 WORKING IN THE VICINITY OF STRUCTURES

The Contractor shall exercise caution when working in the vicinity of structures and utilities adjacent to the channel or disposal areas. Repair of any damage resulting from excessive or improper excavation in the bottom or on the side slopes of the channel shall be the responsibility of the Contractor. Where dredging to obtain the required dimensions might endanger any structure, the Contracting Officer, upon request, may reduce the required excavation in the vicinity of such structure. No pipeline crossings were identified within the limits of dredging, should a pipeline be located post contract award, the Contractor shall submit for approval by the Contracting Officer a detailed Plan of Operation at each pipeline or utility crossing.

### 3.3 DISPOSAL OF DREDGED MATERIAL

#### 3.3.1 Disposal Areas

The dredged material shall be transported and deposited in the disposal areas provided by the Government as shown on the contract drawings and as specified herein. In no case, where open water disposal is used, shall the excavated material be discharged closer to the channel than the channelward limit of the disposal area as shown on the contract drawings. All material dredged shall be placed beyond the -35' MLG contour within the Wax Lake Outlet. The disposal site shall be monitored to assure that existing bottom depths within the Outlet do not exceed this elevation as a result of dredged material placement. The Contractor shall submit to the Contracting Officer for review a Disposal of Dredged Material Plan for disposal of dredged material a minimum of seven (7) days prior to commencement of the work. This is to insure that the retention of material is maximized.

#### 3.3.2 Prevention Of Damage

The dredged material shall be transported and deposited in such a manner as to insure that no damage will occur to structures or other existing topo features, to be marked by the Contractor with conspicuous buoys or stakes.

#### 3.3.3 Deposition In Non-Approved Areas

Any material that is deposited elsewhere than in disposal areas shown on the contract drawings or approved Contractor furnished disposal areas may be required to be removed and deposited in approved areas at no additional expense to the Government. Should the Contractor refuse, or delay compliance with the above requirement, such material may be removed by the Contracting Officer, and the cost of such removal may be deducted from any money due or to become due the Contractor.

#### 3.3.4 Protection Of Government Monuments, Markers, Or Towers

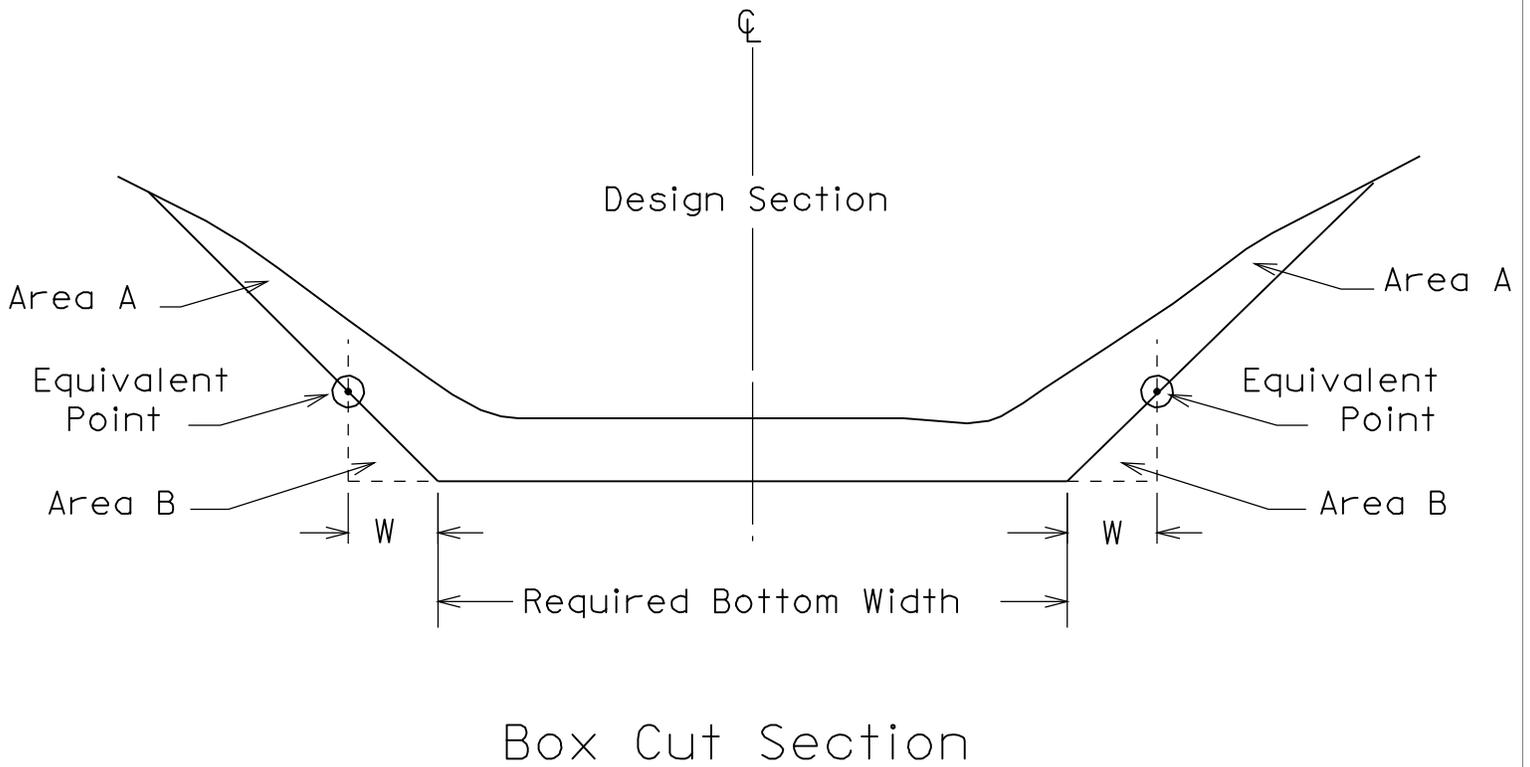
No dredged material shall be deposited on or near any Government monuments,

markers, or towers such that they may become covered or destroyed. At no time shall dredging plant be anchored, moored, or attached to any Government pilings or towers along the route of work. Benchmarks in the disposal areas shall be protected by ring levees, and if material seeps through the levee, the benchmark shall be uncovered without disturbance and exposed for use.

### 3.3.5 Work In The Vicinity Of Other Government Contractors

The Contractor shall coordinate his/her operations, through the Contracting Officer's Representative, with any other Government Contractors who may be working in the vicinity (i.e. locks, control structures, revetment, jetty repairs, and dike construction, etc.).

-- End of Section --



**Definitions:**

Equivalent Point - That point on each side slope where the area above the point (Area A) equals the area below the point (Area B)

W - That additional width on each side of the required bottom width, that is determined by the location of the equivalent point, necessary to make Area A = Area B



| REPORT OF OPERATIONS -- PIPELINE, DIPPER OR BUCKET DREDGES |                                      |                 |                        |                                                         |                                                                                                               |                      |                                      |                                     |                                              | REPORTS CONTROL SYMBOL<br>ENG CW-0-13 |                |  |
|------------------------------------------------------------|--------------------------------------|-----------------|------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------|-------------------------------------|----------------------------------------------|---------------------------------------|----------------|--|
| THRU:                                                      |                                      |                 | TO:                    |                                                         |                                                                                                               | FROM:                |                                      |                                     | REPORT NO.                                   |                                       |                |  |
| CHARACTER OF REPORT                                        | [ ]                                  | MAINTENANCE     | [ ]                    | NEW WORK                                                | [ ]                                                                                                           | DAILY                | [ ]                                  | COMPLETION                          | [ ]                                          | ANNUAL                                | DATE OR PERIOD |  |
| DREDGE                                                     | NAME AND TYPE                        |                 |                        |                                                         | SIZE →                                                                                                        | PIPELINE             | inch dia. disch.                     | DREDGE ADVANCE MECHANISM            |                                              | DIPPER OR BUCKET                      |                |  |
|                                                            | HORSEPOWER OF →                      | DREDGE PUMP     |                        |                                                         | SUCTION PIPE JET                                                                                              |                      | CUTTER OR BUCKET                     |                                     | PROPULSION                                   |                                       |                |  |
|                                                            | NUMBER OF CREWMEMBERS                | DREDGE          | SHORE                  | OTHER                                                   | TOTAL                                                                                                         | WORK SCHEDULE →      |                                      | SHIFTS PER DAY                      | DAYS PER WEEK                                |                                       |                |  |
| PROJECT AND ASSIGNMENT                                     |                                      |                 |                        |                                                         | AUTH. DIMENSIONS →                                                                                            | WIDTH                | DEPTH                                | OVERDEPTH                           |                                              |                                       |                |  |
|                                                            | LOCATION (INCLUDE STATIONS NUMBERS)  | >               |                        |                                                         | WIDTH OF SWING                                                                                                | RANGES - RT, CL, LT  |                                      |                                     |                                              |                                       |                |  |
|                                                            | C/L STATIONS                         | >               |                        |                                                         | WIDTH OF SWING                                                                                                | RANGES - RT, CL, LT  |                                      |                                     |                                              |                                       |                |  |
| CHARACTER OF MATERIAL                                      | ABSOLUTE DENSITY                     |                 | IN PLACE DENSITY       |                                                         | VOIDS RATIO                                                                                                   |                      |                                      |                                     |                                              |                                       |                |  |
|                                                            | GMS/liter                            |                 | GMS/liter              |                                                         | GRAIN SIZE                                                                                                    |                      | GEOLOGICAL CLASSIFICATION            |                                     | TYPE                                         |                                       |                |  |
|                                                            | MM                                   |                 | MM                     |                                                         | MM                                                                                                            |                      | TYPE                                 |                                     | TYPE                                         |                                       |                |  |
| CONTRACT OR ORDER NUMBER                                   | NUMBER                               |                 |                        |                                                         | <input type="checkbox"/> CONTRACTOR                                                                           |                      | <input type="checkbox"/> HIRED LABOR |                                     | TOTAL NUMBER OF DAYS ON WHICH WORK WAS DONE: |                                       |                |  |
| CHANNEL CONDITION                                          | AVERAGE DEPTH →                      | BEFORE DREDGING | AFTER DREDGING         |                                                         | MINIMUM SOUNDING →                                                                                            | BEFORE DREDGING      | AFTER DREDGING                       |                                     |                                              |                                       |                |  |
|                                                            | RIVER STAGE                          | MINIMUM         | TIME                   | MAXIMUM                                                 | TIME                                                                                                          | GAGE LOCATION        |                                      |                                     |                                              |                                       |                |  |
| WEATHER CONDITION                                          | (clear, cloudy, rain, snow, and fog) |                 |                        |                                                         |                                                                                                               | VISIBILITY           |                                      | WIND (maximum velocity & direction) |                                              |                                       |                |  |
|                                                            |                                      |                 |                        |                                                         |                                                                                                               | miles                |                                      |                                     |                                              |                                       |                |  |
| WORK PERFORMED                                             |                                      |                 |                        |                                                         |                                                                                                               | DISTRIBUTION OF TIME |                                      |                                     |                                              |                                       |                |  |
| ITEM                                                       | UNIT                                 | QUANTITY        |                        | EFFECTIVE WORKING TIME (chargeable to cost of work)     |                                                                                                               |                      |                                      | AMOUNT                              |                                              |                                       |                |  |
| AVERAGE WIDTH OF CUT (SWING)                               | FEET                                 |                 |                        | PUMPING OR DREDGING                                     |                                                                                                               |                      |                                      |                                     |                                              |                                       |                |  |
| TOTAL ADVANCE THIS PERIOD                                  | FEET                                 |                 |                        | PCT. OF EFFECTIVE TIME                                  |                                                                                                               |                      |                                      |                                     |                                              |                                       |                |  |
| TOTAL ADV. PREVIOUS TO THIS PERIOD                         | FEET                                 |                 |                        | BOOSTER (in line):                                      |                                                                                                               |                      |                                      |                                     |                                              |                                       |                |  |
| TOTAL ADVANCE TO DATE                                      | FEET                                 |                 |                        | NON-EFFECTIVE WORKING TIME (chargeable to cost of work) |                                                                                                               |                      |                                      | NO. OF TIMES                        |                                              | AMOUNT                                |                |  |
| TOTAL LENGTH OF DISCHARGE PIPE: *SEE REVERSE SIDE          |                                      |                 |                        | HANDLING PIPE LINES                                     |                                                                                                               |                      |                                      | HPL                                 |                                              |                                       |                |  |
| AVERAGE LIFT                                               | FEET                                 |                 |                        | HANDLING ANCHOR LINES                                   |                                                                                                               |                      |                                      | HAL                                 |                                              |                                       |                |  |
| AVERAGE PUMP SPEED                                         | R.P.M.                               |                 |                        | CLEARING PUMP AND PIPE LINE                             |                                                                                                               |                      |                                      | CPPL                                |                                              |                                       |                |  |
| AVERAGE GROSS CY'S DREDGED / PER PUMP HRS.                 | CY/HR                                |                 |                        | CLEARING CUTTER OR SUCTION HEAD                         |                                                                                                               |                      |                                      | CCSH                                |                                              |                                       |                |  |
| SCOWS LOADED                                               | NUMBER                               |                 |                        | WAITING FOR SCOWS                                       |                                                                                                               |                      |                                      | WFS                                 |                                              |                                       |                |  |
| AVERAGE LOAD PER SCOW                                      | CY                                   |                 |                        | TO AND FROM WHARF OR ANCHORAGE                          |                                                                                                               |                      |                                      | TFWA                                |                                              |                                       |                |  |
| CUBIC YARDS REMOVED                                        |                                      |                 |                        | CHANGING LOCATION OF PLANT ON JOB                       |                                                                                                               |                      |                                      | CLPJ                                |                                              |                                       |                |  |
| AMOUNT DREDGED THIS PERIOD:                                |                                      |                 |                        | LOSS DUE TO OPPOSING NATURAL ELEMENTS                   |                                                                                                               |                      |                                      | LDNE                                |                                              |                                       |                |  |
| (1) CREDITED (pay place)                                   |                                      |                 |                        |                                                         | LOSS DUE TO PASSING VESSELS                                                                                   |                      |                                      |                                     | WVP                                          |                                       |                |  |
| (2) GROSS (computed amount)                                |                                      |                 |                        |                                                         | SHORE LINE AND SHORE WORK                                                                                     |                      |                                      |                                     | SLSW                                         |                                       |                |  |
| AMOUNT PREVIOUSLY REPORTED:                                |                                      |                 |                        | WAITING FOR BOOSTER                                     |                                                                                                               |                      |                                      | WFB                                 |                                              |                                       |                |  |
| (1) CREDITED (pay place)                                   |                                      |                 |                        |                                                         | MINOR OPER. REPAIRS (explain in remarks)                                                                      |                      |                                      |                                     | MOR                                          |                                       |                |  |
| (2) GROSS (computed amount)                                |                                      |                 |                        |                                                         | WAITING FOR ATTENDANT PLANT                                                                                   |                      |                                      |                                     | WAP                                          |                                       |                |  |
| TOTAL AMOUNT DREDGED TO DATE:                              |                                      |                 |                        | PREPARATION AND MAKING UP TOW                           |                                                                                                               |                      |                                      | PMUT                                |                                              |                                       |                |  |
| (1) CREDITED (pay place)                                   |                                      |                 |                        |                                                         | TRANSFERRING PLANT BETWEEN WORKS                                                                              |                      |                                      |                                     | TPBW                                         |                                       |                |  |
| (2) GROSS (computed amount)                                |                                      |                 |                        |                                                         | LAY TIME OFF SHIFT AND SATURDAYS                                                                              |                      |                                      |                                     | LTOSS                                        |                                       |                |  |
| ATTENDANT PLANT                                            |                                      |                 |                        | SUNDAYS AND HOLIDAYS                                    |                                                                                                               |                      |                                      | SH                                  |                                              |                                       |                |  |
|                                                            |                                      |                 |                        | FIRE DRILL                                              |                                                                                                               |                      |                                      | FD                                  |                                              |                                       |                |  |
| ITEM                                                       | NAME OR NUMBER                       |                 | HOURS                  |                                                         | MISCELLANEOUS (explain in remarks)                                                                            |                      |                                      |                                     | MISC                                         |                                       |                |  |
| DREDGE                                                     |                                      |                 |                        |                                                         | TOTAL NON-EFFECTIVE WORKING TIME                                                                              |                      |                                      |                                     |                                              |                                       |                |  |
| TENDER #1                                                  |                                      |                 |                        |                                                         | PCT. OF NON-EFFECTIVE TIME                                                                                    |                      |                                      |                                     |                                              |                                       |                |  |
| TENDER #2                                                  |                                      |                 |                        |                                                         | TOTAL EFFECTIVE AND NON-EFFECTIVE TIME (chargeable to cost of work)                                           |                      |                                      |                                     |                                              |                                       |                |  |
| SKIFF                                                      |                                      |                 |                        |                                                         | PCT OF TOTAL TIME IN PERIOD                                                                                   |                      |                                      |                                     |                                              |                                       |                |  |
| CREW                                                       |                                      |                 |                        |                                                         | LOST TIME (not chargeable to cost of work)                                                                    |                      |                                      |                                     |                                              |                                       |                |  |
| SURVEY                                                     |                                      |                 |                        |                                                         | MAJOR REPAIRS AND ALTERATIONS                                                                                 |                      |                                      |                                     |                                              |                                       |                |  |
| BARGES                                                     |                                      |                 |                        |                                                         | CESSATION                                                                                                     |                      |                                      |                                     |                                              |                                       |                |  |
| CRANE BARGE                                                |                                      |                 |                        |                                                         | COLLISIONS                                                                                                    |                      |                                      |                                     |                                              |                                       |                |  |
| IDLER BARGE                                                |                                      |                 |                        |                                                         | MISCELLANEOUS (explain in remarks)                                                                            |                      |                                      |                                     |                                              |                                       |                |  |
| CUTTER-TYPE                                                |                                      |                 |                        |                                                         | TOTAL LOST TIME                                                                                               |                      |                                      |                                     |                                              |                                       |                |  |
| SPUD LENGTH                                                |                                      |                 |                        |                                                         | PERCENTAGE OF TOTAL TIME                                                                                      |                      |                                      |                                     |                                              |                                       |                |  |
| NUMBER OF INSPECTIONS                                      | BY DISTRICT PERSONNEL                |                 | BY DIV & OCE PERSONNEL |                                                         | HAS ANYTHING DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM? (If "YES", explain under remarks on back) |                      |                                      |                                     | NO                                           |                                       |                |  |
| CONTRACT USE ONLY                                          |                                      |                 |                        |                                                         |                                                                                                               |                      |                                      |                                     | TOTAL TIME IN PERIOD                         |                                       |                |  |
|                                                            |                                      |                 |                        |                                                         |                                                                                                               |                      |                                      |                                     |                                              | 00:00                                 |                |  |



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SECTION 35 20 23.33

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the US Army Corps of Engineers (USACE) National Dredging Quality Management Program (DQM) to monitor the dredge's status at all times during the contract duration and manage data history. This performance-based specification section identifies the minimum required output as well as the precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "Submittal Procedures":

SD-01, Preconstruction Submittals

Dredge Plant Instrumentation Plan Revisions; G, OM

SD-07, Certificates

Letter of National Dredging Quality Management Program Certification; G, EDC

1.3 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the installation, operation, and maintenance of the DQM-certified system as specified herein for the duration of the dredging operations. All costs in connection therewith shall be considered a subsidiary obligation of the Contractor and shall be included in the applicable contract price for "Dredging - E&W Calumet Floodgates".

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor shall have a current certification from the DQM Program for the cutter/suction head hydraulic dredge instrumentation system to be used under this contract. Standard Operating Procedures (SOP) and criteria for certification are presented on the DQM website at <https://dqm.usace.army.mil>.

1.5 DREDGE PLANT INSTRUMENTATION PLAN (DPIP)

The Contractor shall have a digital copy of the Dredge Plant Instrumentation Plan (DPIP) on file with the DQM Support Center. While working on site, the Contractor shall also maintain on the dredge a copy of

the DPIP, which is easily accessible to Government personnel at all times. This document shall accurately describe the sensors used, the configuration of the system, how sensor data will be collected, how quality control on the data will be performed, and how the sensors/data-reporting equipment will be calibrated and repaired if it fails. A description of the computed dredge-specific data and how the sensor data will be transmitted to the DQM database shall also be included. Prior to the start of work, the Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan subsequent to its original submission. Requirements and a template for the DPIP are available on the DQM website at <https://dqm.usace.army.mil>.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 REQUIREMENTS FOR REPORTED DATA

The Contractor shall provide, operate, and maintain all hardware and software to meet these specifications. The Contractor shall also be responsible for the replacement, repair, and calibration of the sensors and other necessary data acquisition equipment needed to supply the required data.

The procedure to complete a repair shall be documented and completed as soon as practical. If repair is not possible within two business days of any sensor failure, a plan and timeline to complete the repair shall be submitted. Upon completion of a repair, replacement, installation, modification, or calibration, the Contractor shall notify the Contracting Officer's Representative (COR). The COR may request recalibration of the sensors or other hardware components at any time during the contract as deemed necessary.

The Contractor shall keep a log of sensor repair, replacement, installation, modification, and calibration in the dredge's onboard copy of the DPIP. The log shall contain a three-year history of sensor maintenance, including the time of the sensor failures (and subsequent repairs), the time and results of sensor calibrations, the time of sensor replacements, and the time that backup sensor systems were initiated to provide the required data. It shall also contain the name of the person responsible for the sensor work.

Sensors installed shall be capable of collecting parameters within the specified accuracies and resolutions indicated in the following subparagraphs and transmit these parameters to the DQM database. All data shall be transmitted in JSON message bundles. Each bundle can contain multiple message types. Sensor data shall be transmitted as work event messages, and data which relates to the operational state of the dredge or its sensors shall be transmitted as state event messages. See paragraph entitled "Parameter Transmission to the Web Service".

3.1.1 Message Bundle Data

Every message bundle shall contain descriptive data that relates the message to a given dredge plant and date/time. The start of a message bundle shall be identified by the tag "DQM\_data".

### 3.1.1.1 Messages

Messages contain operational data that populates the DQM database for a dredge plant. A message shall consist of an event type and its associated data (as defined in paragraph entitled "Dredge Events"), a date/time stamp indicating when the event occurred or started, and a comment providing clarification or metadata about the situation. There are multiple event types, but they all fall into one of two categories - work events and state events.

#### 3.1.1.1.1 Message Time

In a work event message, message time is the date and time that the data is collected from the sensors; in a state event message, message time is the date and time that the state event begins. The message time shall be reported to the nearest second and referenced to Coordinated Universal Time (UTC) time based on a 24-hour format (YYYY-MM-DD HH:MM:SS). In order to ensure accuracy and reliability, the time stamp shall be synchronized to UTC format from an accurate, unchangeable source (for example, a GPS National Marine Electronics Association [NMEA] datastring). Message time shall be identified by the tag "msg\_time".

#### 3.1.1.1.2 Comment

Comments concerning the work event or state event messages being transmitted provide descriptive information that relates to the data. An example of a comment for work event data is information about a sensor issue; an example of a comment for state event data is a description of operations. A comment shall be identified by the introductory tag "comment", and the comment shall consist of no more than 250 characters.

### 3.1.1.2 Dredge Events - Work Event

There are two types of dredge event messages - work event messages and state event messages. Work event messages contain data that are instantaneously collected or calculated from sensors and are logged as a series of events. Work events are triggered by a time interval change (as described in paragraph entitled "Work Event Messages"). All work event messages shall be initiated by the header tag "work\_event".

#### 3.1.1.2.1 Vertical Correction

The variation of the water level from the vertical datum for the river stage or tidal gage described in the state events shall be obtained using appropriate equipment to give the water level with an accuracy of +/- 0.1 ft. Vertical correction values above project datum described in the dredging specification shall be entered with a positive sign and those below with a negative sign. The tag for vertical correction shall be "vert\_correction".

#### 3.1.1.2.2 Cutter/Suction Head Location and Movement

The X, Y, and Z components of the cutter/suction head location shall be monitored. Additional calculations made from the observed values determine the rates of movement to track the progress of the dredge.

##### 3.1.1.2.2.1 Cutter/Suction Head Horizontal Position

The forwardmost point of the cutter/suction head shall be obtained using a

positioning system operating with a minimum accuracy level of 3-10 feet horizontal Circular Error Probable (CEP). It shall be reported as Latitude/Longitude WGS 84 in decimal degrees with West Longitude and South Latitude values reported as negative. Position values shall be identified by the tags "ch\_latitude" and "ch\_longitude".

#### 3.1.1.2.2.2 Cutter/Suction Invert Depth

Cutter/suction invert depth is the depth of the invert of the suction mouth relative to the surface of the water. Instrumentation shall be capable of reporting to an accuracy of +/- 0.5 foot and a resolution to the nearest 0.1 foot with no tidal adjustments. Minimum accuracies are conditional to relatively calm water. The tag "ch\_depth" shall be used to identify the cutter/suction head depth.

#### 3.1.1.2.2.3 Cutter/Suction Head Heading

The cutter/suction head heading is the angle of the centerline of the cutter/suction head and dredge ladder measured relative to true north. All headings shall be provided using industry-standard equipment. The heading shall be accurate to within 5 degrees and reported to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention. The tag "ch\_heading" shall be used to identify the cutter/suction head heading.

#### 3.1.1.2.3 Dredge Activity

Dredge activity shall be monitored using a combination of the following parameters.

##### 3.1.1.2.3.1 Slurry Velocity

A flow-metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry velocity to the nearest 0.01 fps with an accuracy of plus 0.1 fps. If the manufacturer does not specify a frequency of recalibration, calibration shall be conducted prior to the commencement of work. The slurry velocity shall be measured for the same pipeline inside diameter as that used for the slurry density measurement. The tag "slurry\_velocity" shall be associated with this value.

##### 3.1.1.2.3.2 Slurry Density

A density-metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry density to the nearest 0.01 g/cc. It is understood that the accuracy of this sensor can vary based on several factors, including the type of material, the magnitude of the cut, and the length of time since calibration. If the manufacturer does not specify a frequency of recalibration, calibration shall be conducted prior to the commencement of work. Continuous monitoring of this sensor ensures that drift and other factors inherent in the dredging process can be accounted for in monitoring dredge activity. The tag "slurry\_density" shall be associated with this value.

##### 3.1.1.2.3.3 Pump RPM

The pump rpm is the number of revolutions per minute measured for the slurry pump shaft. The shaft revolution rate (rev/min) shall be measured with the highest level of accuracy that is standard on the vessel's operational displays either at the bridge or in the engine room. This value

shall be identified by the tag "rpm".

#### 3.1.1.2.3.4 Pump Vacuum

The vacuum pressure of the dredge pump(s) (inches of mercury) shall be measured as near to the eye as practicable in the pump's suction pipe with the highest level of accuracy that is standard on the vessel's operational displays either at the leverman's controls or in the engine room. Vacuum pressure shall be identified by the tag "vacuum".

#### 3.1.1.2.3.5 Pump Outlet Pressure

The pump outlet pressure shall be measured in the discharge line on the pump side of the flap valve in terms of pounds per square inch (psi) on a gauge. Pump outlet pressure shall be identified by the tag "outlet\_psi".

#### 3.1.1.2.4 Outfall Information (Open Water/Spill Barge Disposal)

The X and Y position of the terminal end of the outfall pipe shall be monitored continuously and the position reported as part of the work event string.

#### 3.1.1.2.4.1 Discharge Horizontal Position

The horizontal position of the outfall end of the discharge pipe shall be obtained using a positioning system operating with a minimum accuracy level of 3-10 feet horizontal Circular Error Probable (CEP). It shall be reported as Latitude/Longitude WGS 84 in decimal degrees with West Longitude and South Latitude values being reported as negative. Position values shall be identified by the tags "outfall\_latitude" and "outfall\_longitude".

#### 3.1.1.3 Dredge Events - State Event

There are two types of dredge event messages - work event messages and state event messages. State event messages provide information about the current state of the dredge equipment or operations. They are created and sent only when a state changes. Since state events often cannot be collected in real time, state events are tagged with a date time stamp (referenced to Coordinated Universal Time [UTC]) that indicates when the state change happened relative to the work event message tag. This data is considered to be "true" until another state event tag is received. Each type of state event message shall be indicated by a specific header tag as enumerated in the following subparagraphs. State events can be transmitted along with work event message bundles directly by the contractor using the indicated format, or they can be entered on the "State" tab in the DQM-provided software.

#### 3.1.1.3.1 Message Time

The state event time is the date and time that the event starts. The leverman's time shall be entered to the nearest second as local time and automatically converted to and reported in UTC based on a 24-hour format (YYYY-MM-DD HH:MM:SS). Message time shall be identified by the tag "msg\_time".

#### 3.1.1.3.2 Contract Event

Information concerning the contract under which dredging is being performed shall be reported at the start and completion of each contract using the

header tag "contract\_event".

#### 3.1.1.3.2.1 Contract Number

The USACE-assigned contract number for the project shall be reported using the tag "contract\_number".

#### 3.1.1.3.2.2 Contract Start and End

The start and end of a contract shall be reported using the tag "event\_type" with the appropriate value of "start" or "end".

#### 3.1.1.3.3 Tide Station/River Stage Gage Event

Properties associated with the vertical correction (see paragraph entitled "Vertical Correction") for the tide station/river stage gage shall be grouped together under the header tag "station\_event". This information shall be sent at the start of the contract and each time the dredge has moved enough to change the station being used.

#### 3.1.1.3.3.1 Station Name

The station name is a concise name defining the tide station/river stage gage begin referred to. It shall be introduced by the tag "station\_name", and it shall consist of a descriptor of no more than 25 characters.

#### 3.1.1.3.3.4 Length of Pipe Event

The leverman's estimate of the length of pipe downflow from the dredge pump, measured to the nearest whole foot, shall be reported under the header tag "pipe\_length\_event". This information shall be sent at the start of the contract and at the completion of each 24-hour period ending at midnight local time.

#### 3.1.1.3.4.1 Floating Pipe

The total length of floating pipe shall be reported with the tag "length\_floating".

#### 3.1.1.3.4.2 Submerged Pipe

The total length of floating pipe shall be reported with the tag "length\_submerged".

#### 3.1.1.3.5 Dredge Advance

The dredge advance, the total forward progress of the dredge relative to the centerline of the cut, shall be measured to the nearest whole foot and cumulatively calculated over a 24-hour period from midnight to midnight local time. It shall be identified by the tag "advance\_daily". The msg\_time associated with this tag shall be reported as the first timestamp of the following 24-hour period (based on the local time) rather than as midnight of the day for which the value was calculated, and it shall be reported in Greenwich Mean Time (GMT). The type of dredge advance mechanism shall be recorded, (i.e. spud carriage, walking spud or is moving on wires).

#### 3.1.1.3.6 Outfall Information

The X and Y position of the terminal end of the outfall pipe shall be

monitored and sent at the start of the contract and thereafter according to the following table. Discharge Heading and Pipe Elevation may be omitted if the dredge is not discharging into an upland disposal site. For beach nourishment, the horizontal X and Y position of the outfall shall be sent at the start of the contract and at the completion of each 24-hour period ending at midnight local time.

| Discharge Location | Horizontal Position   | Discharge Pipe Elevation | Discharge Outfall Heading |
|--------------------|-----------------------|--------------------------|---------------------------|
| Open Water         | Continuous Work Event | N/A                      | N/A                       |
| Scow               | Upon Change           | N/A                      | N/A                       |
| Beach              | Every 24 Hours        | N/A                      | N/A                       |
| Upland             | Upon Change           | Upon Change              | Upon Change               |

#### 3.1.1.3.6.1 Discharge Location

Information on where the slurry is being discharged shall be reported with the tag "outfall\_location". Acceptable values include "upland", "open water", "beach", and "scow".

#### 3.1.1.3.6.2 Discharge Horizontal Position

The horizontal position of the outfall end of the discharge pipe shall be obtained using a positioning system operating with a minimum accuracy level of 3-10 feet horizontal Circular Error Probable (CEP). It shall be reported as Latitude/Longitude WGS 84 in decimal degrees with West Longitude and South Latitude values being reported as negative. Position values shall be identified by the tags "outfall\_latitude" and "outfall\_longitude".

#### 3.1.1.3.6.3 Discharge Outfall Heading

The discharge outfall heading is the angle relative to true north measured from the centerline of the pipe in the direction of discharge. All headings shall be provided using industry-standard equipment. They shall be accurate to within 5 degrees and reported to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention. The discharge heading shall be identified by the tag "outfall\_heading".

#### 3.1.1.3.6.4 Discharge Pipe Elevation

The discharge pipe elevation is the height of the outfall measured in feet and tenths of a foot relative to the project datum. The required accuracy is contingent upon contract requirements. The tag "outfall\_elevation" shall be used to identify this elevation.

#### 3.1.1.3.7 Non-effective Work Event

Delays and dredge downtime shall be reported at the conclusion of the event. The reason for the non-effective work time shall be submitted under the header tag "non\_eff\_event" within 24 hours of the event.

### 3.1.1.3.7.1 Non-effective Work Interval

The start and end times for the non-effective work event shall be reported using the tags "msg\_start\_time" and "msg\_end\_time".

### 3.1.1.3.7.2 Dredge Function Code

The dredge operator indication of production delays, as listed on Form 4267, shall be transmitted at the end of the non-effective interval. Dredge function event messages shall be identified by the tag "function\_code" and shall consist of one of the following standardized entries to indicate the operation:

|      |                               |
|------|-------------------------------|
| AGV  | Assisting Grounded Vessels    |
| CCH  | Change Cutterhead             |
| CCSH | Clear Cutter Suction          |
| CLPJ | Change Location Bar           |
| COLL | Collision                     |
| CPPL | Clear Pump Pipeline           |
| CPR  | Change Impeller               |
| DR   | Dike Repair                   |
| FBD  | Fire Boat Drills              |
| HPL  | Handling Pipe Line            |
| HSL  | Handling Swing Line           |
| HSP  | Handling Shore Pipe           |
| LDNE | Loss Due to Natural Elements  |
| LDPV | Loss Due to Passing Vessel    |
| LNL  | Transfer to New Location      |
| MISC | Miscellaneous                 |
| MOB  | Mobilization & Demobilization |
| MSC  | Miscellaneous/Non-pay         |
| OC   | Out of Commission             |
| OR   | Operating Repairs             |
| P    | Preparation                   |
| PREP | Preparation & Making Up Tow   |
| RPL  | Repair Pipeline               |
| SB   | Sounding & Buoying            |
| SBT  | Stand-By Time as Directed     |
| SH   | Sundays-Holidays              |
| TFS  | Taking on Fuel & Supplies     |
| TOW  | Time on Tow                   |
| WAP  | Waiting Attendant Plant       |

### 3.1.1.3.7.3 Additional Comments

The "comment" tag shall be used to provide additional explanation for the noted delays or downtimes. For example, when the code "LDPV" (Loss Due to Passing Vessel) is indicated, the name of the vessel and the number of tows shall be listed with the "comment" tag.

## 3.2 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

The Contractor's DQM system shall be capable of collecting and transmitting information to the DQM onboard computer. The applicable parameters from paragraph entitled "Requirements for Reported Data" shall be recorded as events locally and continuously transmitted to the DQM database anytime an Internet connection is available. The dredge shall be equipped with a DQM computer system consisting of a computer, monitor, keyboard, mouse, data modem, Universal Power Supply (UPS), and network hub. The computer system

shall be a standalone system, exclusive to the DQM monitoring system, and shall have USACE DQM software installed on it. If a hardware problem occurs, or if a part of the system is physically damaged, then the Contractor shall be responsible for repairing it within two business days of the determination of the condition or submitting a plan and timeline to the DQM Data Acquisition and Analysis Team for repair if the repair will take more than two business days.

### 3.2.1 Computer Requirements

The Contractor shall provide a dedicated onboard computer for use by the Dredging Quality Management system. This computer shall run the USACE DQM software and receive data from the Contractor's data-reporting interface. This computer must meet or exceed the following performance specifications:

|                  |                                                                                                                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------|
| CPU              | Intel or AMD processor with a (non-overclocked) clock speed of at least 1.8 gigahertz (GHz)                           |
| Hard drive       | 250 gigabytes (GB); internal                                                                                          |
| RAM              | 4 gigabytes (GB)                                                                                                      |
| Ethernet adapter | 10 or 100 megabit (Mbit) internal network card with an RJ 45 connector                                                |
| Video adapter    | Must support a resolution of 1024x768 at 16-bit color depth                                                           |
| Keyboard         | Standard 101-key keyboard                                                                                             |
| Mouse            | Standard 2-button mouse                                                                                               |
| Monitor          | Must support a resolution of 1024x768 at 16-bit color depth                                                           |
| Ports            | 2 free serial ports with standard 9-pin connectors; 1 free USB port                                                   |
| Other hardware   | Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; one spare cable |

The Contractor shall install a fully licensed copy of Windows 7 Professional Operating System on the computer specified above. The Contractor shall also install any necessary manufacturer-provided drivers for the installed hardware.

This computer shall be located and oriented to allow data entry and data viewing as well as to provide access to data ports for connection of external hardware.

### 3.2.2 Software

The DQM computer's primary function is to transmit data to the DQM shoreside database. No other software which conflicts with this function shall be installed on it. The DQM computer shall also have the USACE-provided Dredging Quality Management Onboard Software (DQMOBS) installed on it by DQM personnel.

### 3.2.3 UPS

The Contractor shall supply an Uninterruptible Power Supply (UPS) for the

computer and networking equipment. It shall interface with the DQM computer to communicate UPS status, and it shall provide backup power at 1 kVA for a minimum of 10 minutes. The Contractor shall ensure that sufficient power outlets are available to run all specified equipment.

#### 3.2.4 Internet Access

The Contractor shall maintain an Internet connection capable of transmitting real-time data to the DQM server as well as enough additional bandwidth to clear historically queued data when a connection is re-established. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsend data shall be queued and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data transmission to the DQM web service. The hardware and software shall be configured to allow the DQM Support Center remote access to this computer, and the telemetry system shall be capable of meeting these minimum reporting requirements in all operating conditions.

In areas with an unreliable Internet connection and at the Contracting Officers discretion, it may be required to manually download the data on a daily basis using the protocol for retrieving and submitting backup files provided by the DQM Support Center. This method of data transmission should be used only if Internet connectivity is unavailable at the dredging site, and it should be considered a temporary measure. If data must be manually downloaded, it shall be submitted to the DQM Data Acquisition and Analysis Team within 48 hours of the date it was collected.

#### 3.2.5 Data Routing Requirements

Onboard sensors continually monitor dredge conditions, operations, and efficiency and route this information to the shipboard dredge-specific system (DSS) computer to assist in guiding dredge operations. Portions of this Contractor-collected information, as described in this specification, shall be routed to the DQM computer on a real-time basis. Standard sensor data shall be sent to the DQM computer via an RS-232 serial interface with a baud rate of 9600 or 19200 bps. The serial interface shall be configured as 8 bits, no parity, and no flow control

Information regarding changes in the state of the dredge shall be digitally logged and transmitted as close to the time of the occurrence as possible. These events can either be included in a separate message bundle going to the DQM onboard computer, or they can be entered on the "State" tab in the DQM Pipeline Software

### 3.3 DREDGE MONITORING DATA

#### 3.3.1 General

Onboard sensors continuously collect dredging data in support of the dredge Contractor's operations. Portions of this Contractor-collected information, as described in this specification, and calculations based on them shall be stored and transmitted to the DQM database on a near real-time basis. Additionally, information regarding the state of the dredge shall be digitally logged and transmitted.

### 3.3.2 Data Measurement Frequency

The frequency of data transmission is dependent on the type of message being sent. Work Event messages contain data that are instantaneously collected or calculated from sensors and are logged as a series of events. State event messages are activated by a change in the dredge state.

#### 3.3.2.1 Work Event Messages

Data shall be logged as a series of events. Each event shall consist of a dataset containing dredge information (as defined in paragraph entitled "Requirements for Reported Data"). Each set of measurements (for example, time and position) shall be considered an event, and there shall be a 6-12 second interval between work events. This interval shall remain consistent across event types for the dredge plant.

A standard data string shall be recorded within one second of an event trigger with the time stamp and all parameters reflecting when the event happened.

#### 3.3.2.2 State Event Messages

A set of descriptive information (event name, time, description, comment) shall be considered a state event. These events shall be recorded within 24 hours of a change in state with the time stamp reflecting when the event happened.

#### 3.3.3 Parameter Transmission to the Web Service

The data shall be formatted as JSON (JavaScript Object Notation, as defined at <http://www.json.org>) strings of arbitrary length. These JSON strings represent a hierarchical data structure consisting of a message bundle which may contain 0-3 automatic data messages and any number of manual data messages.

A tag/parameter is reported only when it contains a value. No "Null" value strings shall be included in a message bundle.

```
*****  
Message bundle  
*****  
  
{  
  "DQM_Data": {  
    "messages": [  
      {  
        "work_event": {  
          "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
          "vert_correction": <floating point 100th decimal place>,  
          "ch_latitude": <decimal to 6 decimal places>,  
          "ch_longitude": <decimal to 6 decimal places>,  
          "ch_depth": <floating point 100th decimal place>,  
          "ch_heading": <integer value 000-359>,  
          "slurry_velocity": <floating point 100th decimal place>,  
          "slurry_density": <floating point 100th decimal place>,  
          "pump_rpm": <integer>,  
          "vacuum": <floating point 100th decimal place>,  
          "outlet_psi": <floating point 100th decimal place>,  
          "comment": <string>},  
      ]  
    }  
  }  
}
```

```
    }  
  },  
  {  
    "contract_event": {  
      "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "contract_number": <string>,  
      "event_type": <string - "start" or "end">,  
      "comment": <string>  
    }  
  },  
  {  
    "station_event": {  
      "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "station_name": <string>,  
      "comment": <string>  
    }  
  },  
  {  
    "pipe_length_event": {  
      "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "length_floating": <integer>,  
      "length_submerged": <integer>,  
      "length_land": <integer>,  
      "comment": <string>  
    }  
  },  
  {  
    "booster_pump_event": {  
      "msg_time": <24-hour UTC time YYYY-MM-DDHH:MM:SS>,  
      "booster_total": <integer>,  
      "comment": <string>  
    }  
  },  
  {  
    "advance_Event": {  
      "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "advance_daily": <integer>,  
      "comment": <string>  
    }  
  },  
  {  
    "outfall_position": {  
      "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "outfall_location": <string-"upland", "beach", "scow", "open  
water">  
      "outfall_latitude": <decimal to 6 decimal places>,  
      "outfall_longitude": <decimal to 6 decimal places>,  
      "outfall_heading": <integer value 000-359>,  
      "outfall_elevation": <floating point 10th decimal place>,  
      "comment": <string>  
    }  
  },  
  {  
    "non_eff_event": {  
      "msg_start_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "msg_end_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
      "function_code": <string - 1 to 4 characters>,  
      "comment": <string>  
    }  
  }  
}
```

```
}  
}  
]  
}  
}
```

### 3.3.4 Contractor Data Backup

The Contractor shall maintain an archive of all data sent to the DQM computer during the dredging contract. The COR may require, at no increase in the contract price, that the Contractor provide a copy of these data covering specified time periods. The data shall be provided in the same JSON format as would have been transmitted to the DQM computer. There shall be no line breaks between the parameters, and each record string shall be on separate line. The naming convention for the files shall be <dredgename>\_<StartYYYYMMddhhmmss>\_<EndYYYYMMddhhmmss>.txt. Data submission shall be via a storage medium acceptable to the COR.

At the end of the dredging contact, the Contractor shall call the National DQM Support Center prior to discarding the data to ensure that it has been appropriately archived. The Contractor shall record the following information in a separate section at the end of the dredge's onboard copy of the DPIP:

- Person who called the National DQM Support Center
- Date of the call
- DQM representative who gave permission to discard the data

On the same day that the call is made, but prior to discarding the data, the Contractor shall submit a "Data Appropriately Archived" email to the local USACE District's COR with the above information and cc: the DQM Support Center representative who granted the permission. In addition to the above information, the following shall also be included in the email:

- Project name and contract number
- Dredge start and end dates
- Name of the dredge

### 3.4 PERFORMANCE REQUIREMENTS

The Contractor's National Dredging Quality Management Program's data transmission shall be fully operational at the start of dredging operations. To meet contract requirements for operability, the Contractor's system shall provide an accurate data string return and be compliant with hardware requirements. Data string return is defined as the number of quality records within an event or state tag sent by the contractor's system to the DQM database. Quality data strings are considered to be those providing accurate values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within two business days, or a plan and timeline for repair shall be submitted to the DQM Data Acquisition and Analysis Team if the repair will take more than two business days. Failure by the Contractor to report quality data within the specified time window for dredge measurements as stated in the specifications (see paragraphs entitled "Internet Access", "Data Measurement Frequency" and "Parameter Transmission to the Web Service") will result in withholding of up to 10% of the contract progress payment in accordance to the 00700 Contract Clause entitled PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS, FAR 52.232-5.

### 3.5 QUALITY ASSURANCE CHECKS

Quality assurance (QA) checks are a part of the DQM dredge certification procedure. They are required prior to the commencement of dredging and, at the discretion of the COR, periodically throughout the duration of the contract. The SOP and criteria for QA checks are presented on the DQM website at

<https://www.sam.usace.army.mil/Missions/Spatial-Data-Branch/Dredging-Quality-Management/>

### 3.6 CONTRACTOR QUALITY CONTROL

The Contractor shall designate a quality control systems manager (QCSM), who shall develop and maintain daily procedures to ensure quality control (QC) of the dredge's DQM system. These methods shall include the procedure by which data being collected is checked against known values, and verification that the telemetry is functioning. These procedures shall be outlined in the DPIP and submitted prior to the Notice to Proceed. In the event a Contractor Quality Control (CQC) Report is required, daily annotations shall be made in the Daily CQC Report, documenting all actions taken on each day of work, including all deficiencies found and the corrective actions taken.

### 3.7 LIST OF ITEMS PROVIDED BY THE CONTRACTOR

- DPIP Paragraph entitled "DREDGE PLANT INSTRUMENTATION PLAN (DPIP) "
- DQM System Paragraph entitled "NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS"
- Dredge Data Paragraph entitled "DREDGE MONITORING DATA"

-- End of Section --