



SECTION TABLE OF CONTENTS

GENERAL REQUIREMENTS

SECTION 01100

GENERAL

PART 1	GENERAL
1.1	PRECONSTRUCTION CONFERENCE
1.1.1	Conference
1.1.2	Submittals
1.1.3	Construction Quality Control Report
1.1.4	Letter of Record
1.2	PROGRESS CHARTS
1.2.1	Periodic Progress Charts
1.2.2	Progress Chart (ENG Form 2454)
1.2.3	Preparation of Progress Chart
1.2.4	Modifications
1.3	CERTIFICATES OF COMPLIANCE
1.4	CONSOLIDATED REPORT (OMITTED)
1.5	ENVIRONMENTAL PROTECTION
1.5.1	Environmental Protection
1.5.2	Environmental Litigation
1.5.3	Work in Quarantined Area
1.6	DAMAGE TO WORK
1.7	PHYSICAL CONDITIONS AND DATA
1.7.1	General
1.7.2	Physical Conditions
1.7.3	Weather Conditions
1.7.4	Transportation Facilities
1.7.5	Tides
1.7.6	Location and Access
1.7.7	Condition of Site
1.7.8	Records
1.8	TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
PART 2	PRODUCTS (Not Applicable)
PART 3	EXECUTION (Not Applicable)

GENERAL REQUIREMENTS

SECTION 01100

PART 1 GENERAL

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 Conference

A Preconstruction Conference will be arranged by the Contracting Officer's Representative after award of contract and before commencement of work. The Contracting Officer's Representative will notify the Contractor of the time and date set for the meeting. At this conference, the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

1.1.2 Submittals

The Contractor shall bring to this conference the following items in completed form:

- (a) Minimum Basic Outline for Accident Prevention Program (including Diving Plan if required) (See ATTACHMENTS)
- (b) Emergency Response Procedures including employee certificates for current First Aid and CPR training
- (c) Letter signed by an officer of the company designating the full-time job superintendent and his qualifications
- (d) Quality Control Plan
- (e) List of Subcontractors - Including written statement that no first tier subs are presently debarred or suspended from Government work.
- (f) Environmental Protection Plan
- (g) Submit at least two (2) completed Safety Checklists for Mobile Construction Equipment (SAD FORM 1666-R). See ATTACHMENTS. These safety inspection checklists should

include identified safety deficiencies with corrective actions taken while performing work in other Corps of Engineers Districts.

1.1.3 Construction Quality Control Report

The Contracting Officer's Representative will instruct the Contractor in the preparation of the "Construction Quality Control Report", which the Contractor will submit daily.

1.1.4 Letter of Record

A Letter of Record will be written documenting all items discussed at the conference and a copy will be furnished by the Contracting Officer's Representative to all in attendance.

1.2 PROGRESS CHARTS

1.2.1 Periodic Progress Charts

In consonance with the Contract Clause, SCHEDULES FOR CONSTRUCTION CONTRACTS, the Contractor shall be guided by the following requirements and procedures as pertain to submission of an initial and subsequent periodic construction progress charts. These charts as approved and updated shall provide the basis for determination of the amounts of partial payments.

1.2.2 Progress Chart (ENG Form 2454)

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

1.2.3 Preparation of Progress Chart

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

the cost and weighted percentages shown for the major bid item. When quantity variations impact the weighted percentage of a separate item by five percent or more, the Contractor shall revise the contract progress charts to accurately reflect the impact of such variations. The Notice to Proceed (NTP) date and Contract Completion Date shall be indicated on the Progress Chart by a heavy black vertical line at the proper locations.

1.2.4 Modifications

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

1.3 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in one (1) copy unless otherwise specified. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

1.4 CONSOLIDATED REPORT (OMITTED)

1.5 ENVIRONMENTAL PROTECTION REQUIREMENTS

1.5.1 Environmental Protection

It is the responsibility of the Contractor to investigate and comply with all Federal, State, county, and municipal laws concerning pollution of air and water, and for the protection of public and employee health, and for damages to shellfish, fish, and wildlife. The Contractor will provide sufficient safeguards to prevent pollution to the waterways by spillage or waste of paints, fuels, oils, bitumens, calcium chloride, insecticides, herbicides or other similar materials harmful to the health and well being of employees, the public, fish, shellfish, or wildlife. Additionally, all oil and oil cans, buckets, etc. shall be removed from the site and disposed of properly. No oil shall be dumped at the site. Any soil contaminated by oil will be required to be removed from the site at the Contractor's expense. All other trash and discarded materials (such as old mats, cable, etc.) shall be completely removed from the site and disposed of properly. No such material shall be left within the disposal area(s) or the adjacent marsh.

1.5.2 Environmental Litigation

If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the Contract Clause SUSPENSION OF WORK found in Section 0700. 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 provision thereof.

The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect

on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

1.5.3 Work in Quarantined Areas (1968 May OCE)

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

1.6 DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in Section 0700, Contract Clauses, clause entitled PERMITS AND RESPONSIBILITIES. However, if, in the judgement of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood, earthquake, hurricane, or tornado, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor will make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such work, an equitable adjustment pursuant to the Contract Clause, CHANGES will be made as full compensation to the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein provided, damage to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense, regardless of the cause of such damage.

1.7 PHYSICAL CONDITIONS AND DATA

1.7.1 General

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.

1.7.2 Physical Conditions

The physical conditions indicated on the drawings and in the specifications are the result of site investigations by the U.S. Army Corps of Engineers, Charleston District, Technical Services Division, Construction-Operations Branch, Navigation Section. It is highly recommended that bidders conduct their own investigations and decide for themselves the wetness of the site and character of the materials and the difficulties of performing the work.

1.7.3 Weather Conditions

The areas in which work is to be done under these specifications are usually workable during the entire year; however, tropical storms may require that operations be suspended temporarily. The season for tropical storms is during the period June - November; during such disturbances precaution should be taken to secure all plant and equipment. In addition, heavy saturating rains can occur at any time of the year which will render the site and/or materials too wet for work for extended periods of time.

1.7.4 Transportation Facilities

The Port of Charleston is served by Southern Railway System and Seaboard Coast Line Railroad Company. Marine repair facilities, docking and fueling facilities, provisions, and marine supplies are also available.

1.7.5 Tides

The mean range of tide at Charleston Harbor, South Carolina is 5.2 feet and spring range is 6.1 feet.

1.7.6 Location and Access

Clouter Creek Disposal Area is located on the east bank of the Cooper River, about four (4) miles upstream of the confluence of the Wando and Cooper Rivers, and about seven (7) miles north of Charleston, South Carolina, and is accessible only by water. A fixed concrete pier on the Cooper River side of the South Cell may be used by the Contractor to tie up a work boat or crew boat.

1.7.7 Condition of Site

It is highly recommended that prospective bidders examine the areas of work, prior to submission of bids, in order to determine for themselves the accessibility for transportation of personnel, supplies and equipment and also to familiarize themselves as to the nature and general arrangement of work areas. The Contractor shall obtain any and all right-of-entrys across private lands which he may use.

1.7.8 Records

Field notes, maps, records, and other design data used to formulate the plans and specifications for this work are available for review at the Corps of Engineers, Charleston District Office, Technical Services Division, Construction-Operations Branch, Navigation Section, 69A Hagood Avenue, 2<sup>nd</sup> Floor, Charleston, South Carolina. Bidders can schedule appointments to view these records with Mr. Norman Moebs, phone (843) 329-8136. Copies of historical files other than those which Mr. Moebs has available may be requested under the Freedom of Information Act, attention: Office of Council. These records will be released to the Contractor within ten working days after the receipt of a proper Freedom of Information Act request.

1.8 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989)  
(LOCAL 52.236-4100 ER 415-1-15)

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

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

(b) The following schedules of monthly anticipated adverse weather delays are based on National Oceanic and Atmospheric Administration or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY  
WORK DAYS BASED ON 5-DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
8	6	8	3	6	5	5	6	4	3	4	7

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY  
WORK DAYS BASED ON 6-DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
10	7	10	4	7	6	6	7	5	4	5	8

(c) Upon acknowledgement of the notice to proceed and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph (b) above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled DEFAULT (FIXED-PRICE CONSTRUCTION).

CLOUTER CREEK NORTH CELL  
CHARLESTON, SOUTH CAROLINA

W912HP-04-B-0002

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION TABLE OF CONTENTS

GENERAL REQUIREMENTS

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

PART 1 GENERAL

- 1.1 GENERAL
  - 1.1.1 Correspondence and Electronic Communications
  - 1.1.2 Other Factors
- 1.2 QCS SOFTWARE
- 1.3 SYSTEM REQUIREMENTS
  - 1.3.1 Hardware
  - 1.3.2 Software
- 1.4 RELATED INFORMATION
  - 1.4.1 QCS User Guide
  - 1.4.2 Contractor Quality Control (CQC) Training
- 1.5 CONTRACT DATABASE
- 1.6 DATABASE MAINTENANCE
  - 1.6.1 Administration
    - 1.6.1.1 Contractor Information
    - 1.6.1.2 Subcontractor Information
    - 1.6.1.3 Correspondence
    - 1.6.1.4 Equipment
    - 1.6.1.5 Management Reporting
  - 1.6.2 Finances
    - 1.6.2.1 Pay Activity Data
    - 1.6.2.2 Payment Requests
  - 1.6.3 Quality Control (QC)
    - 1.6.3.1 Daily Contractor Quality Control (CQC) Reports.
    - 1.6.3.2 Deficiency Tracking.
    - 1.6.3.3 Three-Phase Control Meetings
    - 1.6.3.4 Accident/Safety Tracking.
    - 1.6.3.5 Features of Work
    - 1.6.3.6 QC Requirements
  - 1.6.4 Submittal Management
  - 1.6.5 Schedule
  - 1.6.6 Import/Export of Data
- 1.7 IMPLEMENTATION
- 1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM
  - 1.8.1 File Medium
  - 1.8.2 Media Format Labels
  - 1.8.3 File Names
- 1.9 MONTHLY COORDINATION MEETING
- 1.10 NOTIFICATION OF NONCOMPLIANCE

-- End of Section Table of Contents -

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

1.1 GENERAL

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

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

1.1.1 Correspondence and Electronic Communications

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

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Contract Clause, PROJECT SCHEDULE, Section 01330, SUBMITTAL PROCEDURES, and Section 01451, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

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

updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

### 1.3 SYSTEM REQUIREMENTS

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

#### 1.3.1 Hardware

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

#### 1.3.2 Software

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

### 1.4 RELATED INFORMATION

#### 1.4.1 QCS User Guide

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

#### 1.4.2 Contractor Quality Control (CQC) Training

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

### 1.5 CONTRACT DATABASE

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

1.6 DATABASE MAINTENANCE

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

1.6.1 Administration

1.6.1.1 Contractor Information

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

1.6.1.2 Subcontractor Information

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

1.6.1.3 Correspondence

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

1.6.1.4 Equipment

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

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports

are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

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

1.6.2.2 Payment Requests

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

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01451, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

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

be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

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

1.6.3.3 Three-Phase Control Meetings

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

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

1.6.3.5 Features of Work

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

1.6.3.6 QC Requirements

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

1.6.4 Submittal Management

The Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form

4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts", or Section 01320A, PROJECT SCHEDULE, as applicable. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01320A PROJECT SCHEDULE). The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION

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

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

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

1.8.1 File Medium

The Contractor shall submit required data on an approved media format, CD-ROMs may be used. Approved media format shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.2 Media format Labels

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

1.8.3 File Names

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

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected non-compliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

-- End of Section 01312 --

SECTION TABLE OF CONTENTS

GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

PART 1	GENERAL
1.1	SUBMITTAL CLASSIFICATION
1.1.1	Government Approval
1.1.2	Information Only
1.2	APPROVED SUBMITTALS
1.3	DISAPPROVED SUBMITTALS
1.4	WITHHOLDING OF PAYMENT
PART 2	PRODUCTS (Not Applicable)
PART 3	EXECUTION
3.1	GENERAL
3.2	SUBMITTAL REGISTER (ENG. FORM 4288)
3.3	SCHEDULING
3.4	TRANSMITTAL FORM (ENG. FORM 4025)
3.5	SUBMITTAL PROCEDURE
3.5.1	Procedures
3.5.2	Deviations
3.5.3	Reproduction Requirements
3.6	CONTROL OF SUBMITTALS
3.7	GOVERNMENT APPROVED SUBMITTALS
3.8	INFORMATION ONLY SUBMITTALS
3.9	STAMPS

-- End of Section Table of Contents --

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL CLASSIFICATION

Submittals are classified as follows.

1.1.1 Government Approved (GA)

Governmental approval (GA) is required for methods, schedules, 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, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, they are considered to be "shop drawings".

1.1.2 Information Only (FIO)

All submittals not requiring Government approval will be for information only (FIO). They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.2 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's Quality Control requirements of this contract is responsible for the 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 given consideration unless accompanied by an explanation as to why a substitution is necessary.

1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected

submittal in the form and number of copies as specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, notice as required under the Contract Clause, CHANGES shall be given promptly to the Contracting Officer.

1.4 WITHHOLDING OF PAYMENT

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

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 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 Contracting Officer may request submittals in addition to those listed 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 used in the contract drawings. Submittals shall be made in the respective number of copies and to the addresses set forth below. 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; environmental reports; and reports and forms required by the technical provision and other such required submittals. Submittals requiring Government approval shall be scheduled (30 days minimum) 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 manufacturers Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG Form 4288)

ATTACHMENTS includes one set of ENG Forms 4288, listing each item of equipment and material for which submittals are required by the specifications. Columns "C" thru "O" have been completed by the Government. The Contractor shall complete columns "A", "B", and "P" thru "U" and return three (3) completed copies to the Contracting Officer for approval within 14 calendar days after Notice to Proceed and prior to submitting any ENG. Form 4025 for approval. The ENG. Form 4288 shall include dates for submittal, approval and delivery of procurement items. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. This register and the progress schedules shall be coordinated. After initial approval of the Contractor's submittal register, the Contractor shall submit one (1) copy of a revised and/or updated submittal register, as part of the monthly request for payment to the Resident Engineer. This register and the progress schedules shall be coordinated.

3.3 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 on the register for review and approval. No delays, damages, or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG Form 4025)

ATTACHMENTS includes a sample of Transmittal Form, ENG Form 4025, which shall be used for submitting both Government-approved and information-only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor by the Government. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Three (3) copies of the transmittal form shall be prepared by the Contractor. The three (3) copies will accompany the required Government- approved and information-

only submittals. The transmittal forms shall be numbered consecutively and the resubmittals, if any, shall be suffixed alphabetically, e.g., transmittal No. 10, first resubmittal No. 10-A, second resubmittal No. 10-B, etc. The alphabetical suffixing system for resubmittals described in the preceding sentence shall be used in lieu of that given in paragraph 2 on the reverse side of ENG Form 4025. All pertinent information required by the transmittal form shall be supplied. Each transmittal shall be limited to one specification section and in no instance shall a transmittal include requirements of more than one section. A separate transmittal form shall be used for transmitting welder's certification and welding procedure qualifications. Transmittals including work of more than one section or lacking specification paragraph numbers or other data will be returned without action and required to be corrected and resubmitted. Transmittal of any data by the Contractor not required to be submitted shall be returned without action. ENG Form 4025 will not be used to transmit such items as the Accident Prevention Plan, Enviromental Plan, Progress Charts, etc. Submittals for these type plans shall be as indicated in the appropriate specification paragraph. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

### 3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

#### 3.5.1 Procedures

The Contractor shall submit to the Resident Engineer three (3) copies of all shop drawings and information submittals, unless specified otherwise in the specifications. These data shall be submitted sufficiently in advance of the particular work for which they are a part, to allow time for review prior to incorporation into the work, but shall be submitted not later than 90 calendar days after receipt of Notice to Proceed, unless otherwise specified or notified by the Contracting Officer. The drawings, plans, and data shall be complete and shall contain all required detailed information. The Contractor shall identify each separate sheet of drawings and equipment data and each item of descriptive literature with the contract number and their respective transmittal number. Included on the drawings and data sheets shall be an identification of materials (by specification number or otherwise) to be used for the items

shown thereon. Testing of equipment shall not be performed until all required submittals are approved.

### 3.5.2 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.

### 3.5.3 Reproduction Requirements

The submittal of contract drawings or reproduced portions of contract drawings as shop drawings will not be acceptable. Submittals on thermofax or other instant copy reproduction methods that are subject to fading will not be acceptable.

### 3.6 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".

### 3.7 GOVERNMENT APPROVED (GA) SUBMITTALS

Upon completion of review of submittals requiring Government approval (GA), the submittals will be identified as having received approval by being so stamped and dated. Two (2) copies of the submittal will be retained by the Contracting Officer and one (1) copy will be returned to the Contractor.

### 3.8 INFORMATION ONLY (FIO) SUBMITTALS

Normally submittals for information only (FIO) 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 and will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material is incorporated in the work. This does not relieve the Contractor of the requirement to furnish samples for testing by the Government

laboratory or check testing by the Government in those instances where the technical specifications so prescribe.

3.9 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 sheet(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

SECTION TABLE OF CONTENTS

GENERAL REQUIREMENTS

SECTION 01351

SAFETY REQUIREMENTS

PART 1	GENERAL
1.1	PAYMENT
PART 2	PRODUCTS (Not Applicable)
PART 3	EXECUTION
3.1	GENERAL
3.1.1	Compliance with Safety Requirements
3.1.1.1	Revisions to Safety Manual, EM 385-1-1
3.1.2	Accident Prevention Plan
3.1.2.1	Hazardous Weather Plan
3.1.3	Safety Program Conference
3.2	ACTIVITY HAZARD ANALYSIS
3.3	SAFETY MEETINGS
3.4	SAFETY PROGRAM STAFF REQUIREMENTS
3.5	FIRE EXTINGUISHER - MOBILE CONSTRUCTION EQUIPMENT
3.6	SAFETY INSPECTION
3.6.1	Contractor Safety Inspection
3.7	EMERGENCY RESPONSE PROCEDURES
3.7.1	Emergency Response Procedures
3.7.2	Communications
3.7.3	Telephone Numbers, Call Signs and Instructions
3.7.4	First Aid and CPR Requirements
3.7.5	Submittal
3.7.6	Machinery and Mechanized Equipment Checklist
3.7.7	Welding Equipment

-- End of Section Table of Contents --

SECTION 01351

SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 PAYMENT

Separate payment will not be made for providing and maintaining an effective Safety Program, and all associated costs therewith shall be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

3.1.1 Compliance With Safety Requirements

In accordance with the Contract Clause, ACCIDENT PREVENTION, the Contractor will insure that all pertinent provisions of the Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, 03 November 2003 (copies available upon request) and current revisions thereto (see next paragraph), the latest OSHA standards, and applicable Coast Guard safety regulations, as well as requirements listed in these specifications are complied with by all personnel within the area of operations.

3.1.1.1 Revisions to Safety Manual, EM 385-1-1

The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the effective date of this solicitation. EM 385-1-1 and its changes are available at <http://www.hq.usace.army.mil> (at the HQ homepage, select Safety and Occupational Health).

3.1.2 Accident Prevention Plan

Prior to commencement of work, the Contractor shall submit, in writing, his proposal for Accident Prevention, using the format "Minimum Basic Outline For Accident Prevention Program" found in ATTACHMENTS.

### 3.1.2.1 Hazardous Weather Plan

Where employees, plant, or equipment may be endangered by hurricanes, storms or floods, plans shall be made for removing or securing plant and evacuation of personnel in emergencies. This plan shall be in accordance with Corps of Engineers Safety Manual (EM 385-1-1) and shall be submitted with the Accident Prevention Plan for review and approval.

### 3.1.3 Safety Program Conference

Prior to commencement of work, the Contractor shall meet in conference with representatives of the Contracting Officer to discuss and develop mutual understanding relative to administration of overall safety program.

## 3.2 ACTIVITY HAZARD ANALYSIS

Prior to the commencement of each major phase of construction, the Contractor will have available for review a written analysis of the activity hazards for the subject phase of construction under this contract. An example is mobilization, clearing and grubbing, chain saw operations, earthwork, trenching and pipeline installation, powerline hazards, spillway riser fabrication, heavy equipment operations, etc. This analysis will be prepared using the form "Activity Hazard Analysis" shown in ATTACHMENTS. The final form shall reflect the mutual understanding between the Contractor and Government representative of the potential hazards involved and the controls to be employed.

The Activity Hazard Analysis shall be reviewed with all supervisors and employees prior to performing the work and this review recorded in the QC report. This analysis shall be submitted attached to the Contractor's "Construction Quality Control Report".

## 3.3 SAFETY MEETINGS

Regularly scheduled safety meetings shall be held once a month for supervisors and at least one safety meeting shall be conducted weekly by supervisors for all employees. An outline report, "Report of Weekly Safety Meeting" (SAC Form 253), is shown in ATTACHMENTS, and shall be completed and submitted to the designated authority.

## 3.4 SAFETY PROGRAM STAFF REQUIREMENTS

Safety is the responsibility of each and every Contractor employee associated with this contract. The Contractor

Quality Control System Manager will be responsible for enforcing the Safety Program.

3.5 FIRE EXTINGUISHER - MOBILE CONSTRUCTION EQUIPMENT

In compliance with Item 36 required SAD Form 1666-R, it is specifically required to provide a fire extinguisher with a minimum extinguisher rating of 20-B:C, which is equivalent to a 10-15 pound dry chemical extinguisher, compatible to the hazard involved--combustible, flammable liquids and materials used in areas remote to other fire extinguisher equipment.

3.6 SAFETY INSPECTION

3.6.1 Contractor Safety Inspection

Prior to the commencement of work, the Contractor will conduct an independent safety inspection of his entire operation. This inspection will be conducted to insure and demonstrate that:

(a) He has identified and abated all known safety hazards, and is providing his employees a place of employment which is free from recognized hazards.

(b) His employees will not be required to work in surroundings or under conditions which are unsafe, or dangerous to their life or health.

(c) He is committed to accident prevention by initiating and maintaining a safety and health program which will comply with Corps of Engineers Safety and Health Requirements Manual, U.S. Coast Guard requirements, OSHA Standards, and any other safety requirements the Contracting Officer may deem necessary throughout the life of this contract.

3.7 EMERGENCY RESPONSE PROCEDURES

3.7.1 Emergency Response Procedures

The Contractor will be responsible for developing and testing his written Emergency Response Procedures to insure total rapid response for rescue and evacuation of injured employees.

3.7.2 Communications

Radio or **cellular phone** communications shall be established, readily available to the employees and tested to insure rapid response by properly equipped emergency vehicle, helicopter or mobile first aid unit.

3.7.3 Telephone Numbers, Call Signs and Instructions

Emergency telephone numbers or radio call signs and reporting instructions for ambulance, helicopter, physician, hospital, fire department, police, etc. shall be posted in all vehicles and equipment operating at the jobsite.

3.7.4 First Aid and CPR Requirements

At least two employees on each shift and each separate work area shall be certified to administer First Aid and CPR.

3.7.5 Submittal

The Contractor's written Emergency Response Procedures including employee current First Aid and CPR Certification shall be submitted attached to the Accident Prevention Plan. Work will not proceed until the plan has been reviewed and approved by the Government, and Contractor's emergency procedures are tested to insure rapid response in the field.

3.7.6 Machinery and Mechanized Equipment Checklist

In accordance with 16.A.01 of EM 385-1-1, all machinery and mechanized equipment, will be checked out as it arrives on the job, using the format shown on SAD Form 1666-R, "Safety Checklist for Mobile Construction Equipment" found in ATTACHMENTS.

3.7.7 Welding Equipment

All oxyacetylene or other fuel gas-oxygen combination used in cutting or welding equipment shall have reverse-flow check valves between torch and regulator.

-- End of Section --

SECTION TABLE OF CONTENTS

GENERAL REQUIREMENTS

SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1	GENERAL
1.1	PAYMENT
PART 2	PRODUCTS (Not Applicable)
PART 3	EXECUTION
3.1	GENERAL
3.2	QUALITY CONTROL PLAN
3.2.1	General
3.2.2	Content of CQC Plan
3.2.3	Acceptance of Plan
3.2.4	Notification of Changes
3.3	COORDINATION MEETING
3.4	QUALITY CONTROL ORGANIZATION
3.4.1	CQC System Manager
3.4.2	CQC Organizational Staffing
3.4.2.1	CQC Staff Requirements
3.4.2.2	CQC System Manager Requirements
3.4.2.3	Supplemental Personnel
3.4.3	Organizational Changes
3.5	SUBMITTALS
3.6	CONTROL
3.6.1	Preparatory Phase
3.6.2	Initial Phase
3.6.3	Follow-up Phase
3.6.4	Additional Preparatory and Initial Phases
3.7	INSPECTIONS AND TESTS
3.8	COMPLETION INSPECTION
3.9	DOCUMENTATION
3.10	SAMPLE FORMS
3.11	NOTIFICATION OF NONCOMPLIANCE

SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause, INSPECTION OF CONSTRUCTION. The quality control system shall consist of plans, procedures, and organization necessary to assure compliance with all of the requirements of the contract drawings and specifications. The system shall cover all construction operations, shall be keyed to the proposed construction sequence, and shall include but not be limited to the following:

(1) Excavation:

- staying within specified borrow area
- monitoring vertical limits of excavation
- monitoring suitability of material for dike construction and segregation/disposal of unsuitable material

(2) (OMITTED)

(3) Placement of fill:

- count and document load counts and location of placement daily on Daily Report
- monitor and document lift thickness
- compaction requirements: monitor and record number of passes of compaction equipment

- and area covered; density tests
  - achieving required grade and cross section
  - side slopes as specified
  - monitor and document any dike settlement
  - horizontal control
- (4) Spillways, Piping and Miscellaneous  
Hardware/Material
- any damage repaired
  - all materials in compliance with specified requirements
  - all welding continuous and complies with weld types shown on contract plans
  - all broken or bent riser channels repaired/straightened
  - all metal "Near-White" blast-cleaned prior to coating
  - coating adhesion in all areas and coating thicknesses within specified tolerances
- (5) Spillway Installation:
- riser sections mate flush
- (6) Walkway Installation:
- all materials meet specified requirements
  - all construction is in compliance with contract drawings
- (7) Grassing
- soil test every 1000 feet
  - surface preparation in accordance with specifications
  - materials comply with specifications
  - coverage rates tested and verified
  - complete coverage of areas required to be grassed
- (8) Topographic Surveys
- all surveys submitted to meet third order standards
  - all surveys and as-built drawings to be reviewed and verified to ensure compliance with contract plans

- all surveying instruments adjusted to maintain required precision
  - certification by Registered Land Surveyor on all survey work performed
- (9) Submittals:
- review all submittals annotating any deviation from contract plans and specifications with explanation why the deviation is needed
- (10) Safety and Occupational Health:
- Conduct daily safety inspections of the work site and document findings
  - Review Activity Hazard Analysis with employees in the field
  - Conduct Weekly Toolbox safety meetings and document
  - Implement Accident Prevention Plan through all phases of the work
  - Enforce all safety requirements
  - Develop and test Emergency Response Procedures and post copy in each vehicle and piece of equipment
  - Inspect and maintain all equipment in safe operating condition
  - Ensure employees are provided with and wear Personal Protective Equipment appropriate for the hazards
  - Provide safety indoctrination/training for all employees
  - Submit OSHA Form 200 for the previous three years
  - Maintain log of safety deficiencies with abatement dates
- (11) Miscellaneous Subsidiary Items:
- environmental protection
  - assure compliance with all contract provisions and notify COE Field Quality Assurance Representative of any deviations

The Contractor shall use the Contractor Quality Control System (QCS) module to record, maintain, and submit

information in accordance with Section 01312, QUALITY CONTROL SYSTEM.

### 3.2 QUALITY CONTROL PLAN

#### 3.2.1 General

The Contractor shall furnish for review by the Government, not later than the Preconstruction Conference, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause, INSPECTION OF CONSTRUCTION. The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

#### 3.2.2 Content of the CQC Plan

The CQC Plan shall provide for sufficient inspection of all items of work, including that of his subcontractors, to ensure conformance to applicable specifications and drawings with respect to the materials, workmanship, construction finish, functional performance, and identification. The CQC Plan shall specifically include the surveillance required in TECHNICAL PROVISIONS of the contract specifications. This document shall include, as a minimum:

(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 Manager or someone higher in the Contractor's organization. Project manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.

(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 will also be furnished to the Government.

(d) Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, to ensure conformance to applicable specifications and drawings with respect to the materials, workmanship, construction finish, functional performance, and identification. These procedures shall be in accordance with Section 01330, SUBMITTAL PROCEDURES.

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

(f) Procedures for tracking preparatory, initial, and follow-up control phases and control, and verification, including documentation.

(g) Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will 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 and has separate control requirements. It could be identified by different trades or disciplines, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

(j) This plan shall include name of employee responsible for overall supervision of accident prevention activities, applicable safety requirements in work methods, and method for inspecting the work to insure that safety measures and instructions are actually applied.

### 3.2.3 Acceptance of Plan

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

### 3.2.4 Notification of Changes

After acceptance of the CQC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven (7) calendar days prior to 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 operations, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Contracting Officer's Representative and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, inspections, administration of the system, 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 CQC System Manager

The Contractor shall identify an individual within his organization at the worksite who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. This CQC System Manager shall be on the site at all times during construction and will be employed by the Contractor, except as noted in the following. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the System Manager's absence. Period of absence may not exceed one week at any one time, and not more than 30 workdays during a calendar year. The requirements for the alternate will be the same as for the designated CQC Manager.

#### 3.4.2 CQC Organizational Staffing

The Contractor shall provide a CQC staff which shall be at the worksite at all times during progress, with complete authority to take any action necessary to ensure compliance with the contract.

##### 3.4.2.1 CQC Staff Requirements

These minimum requirements will not necessarily assure an adequate staff to meet the CQC requirements at all times during construction. The actual strength of the CQC staff may vary during any specific work period to cover the needs of the work period. When necessary for a proper CQC organization, the Contractor will add additional staff at no additional cost to the Government. This listing of minimum staff in no way relieves the Contractor of meeting the basic requirements of quality construction in accordance with contract requirements. All CQC staff members shall be subject to acceptance by the Contracting Officer.

##### 3.4.2.2 CQC System Manager Requirements

The CQC System Manager shall be an experienced construction person with a minimum of 5 years management experience in related work. The CQC System Manager shall be responsible for CQC and as part of that responsibility shall insure that the Safety Program is in strict compliance with the contract requirements. For this project, the CQC System Manager shall be assigned no other duties. In addition to the above experience and educational requirements the CQC System

Manager shall have completed the course entitled "**Construction Quality Management For Contractors**". This course is periodically offered at Charleston District as well as at other Corps district offices, in cooperation with the ABC and ACG (Contact Tom Tullis at 843-329-8128 for information).

#### 3.4.2.3 Supplemental Personnel

These personnel shall assist and report to the CQC System Manager. Each person will be responsible for assuring the construction complies with the contract requirements for their area of specialization. These individuals shall: be employed by the prime Contractor, unless waived in writing by the Contracting Officer; be responsible only 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 to ensure contract compliance. The supplemental staff shall be maintained under the direction of the CQC System Manager to perform all CQC activities. The staff must be of sufficient size to ensure adequate CQC coverage of all work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned CQC responsibilities and must be allowed sufficient time to carry out these responsibilities. The CQC plan will clearly state the duties and responsibilities of each staff member.

#### 3.4.3 Organizational Changes

The Contractor shall obtain Contracting Officer's acceptance before replacing any member of the CQC staff. Requests shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

#### 3.5 SUBMITTALS

Submittals shall be made as specified in Section 01300, SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals 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 subcontractors, complies with the requirements of the

contract. The controls shall be adequate to cover all construction operations and will be keyed to the proposed construction sequence. The controls shall include at least three phases of control to be conducted by the CQC System Manager for all definable features of work, as follows:

### 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work and 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) A check to assure that provisions 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 constructing the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that phase 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) The Government shall be notified at least 72 hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by

separate minutes prepared by the CQC System Manager and attached to the daily Quality Control 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 preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

(b) Verification of 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 sample panels is 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 on-site, or any time acceptable specified quality standards are not being met.

### 3.6.3 Follow-up Phase

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, 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 or conceal non-conforming work.

#### 3.6.4 Additional Preparatory and Initial Phases

As determined by the Government, additional preparatory and initial phases may 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, on-site production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

#### 3.7 INSPECTIONS AND TESTS

Except for tests specifically noted to be made by the Government, the Contractor shall be responsible to make such inspections and tests as may be necessary to assure compliance with all requirements of the various sections of these specifications. All costs connected with and incidental to the sampling, inspections, testing and preparations of reports pertaining thereto shall be borne by the Contractor. Daily reports of all inspections and test, and remedial action taken when required, shall be submitted to the Contracting Officer.

#### 3.8 COMPLETION INSPECTION

At the completion of all work or any increment thereof established by a completion time stated in the Section 00800, Special Contract Requirements, COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK, or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and 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 and so notify the Government. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.9 DOCUMENTATION

The Contractor shall prepare and maintain daily records of all quality control operations and activities, identified safety and occupational health deficiencies and corrective measures, inspections, and tests performed, including work of subcontractors. Identified safety and occupational health deficiencies and corrective measures shall be recorded in the Construction Quality Control Report daily. In addition to the daily report, the Contractor shall prepare a monthly report using the Quality Control Report Form for each month or partial month's work. The monthly report shall be submitted on or before the seventh of each month, consolidating the previous month's work. Upon the completion of the job and before final payment is made to the Contractor, the Contractor shall submit a job report for CQC consolidating the monthly reports using the Quality Control Report Form. Documentation shall include factual evidence that required quality control activities and/or tests have been performed, including but not limited to the following information:

- (a) Contractor/subcontractor and their area of responsibility.
- (b) Operating plant/equipment with hours worked, idle, or down for repair.
- (c) Work performed each day, giving location, description, and by whom.
- (d) Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List 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 reviewed, with contract reference, by whom, and action taken.
- (g) Off-site 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.

(k) These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered.

These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 48 hours after the date(s) 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 seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

### 3.10 SAMPLE FORMS

Sample forms are included in ATTACHMENTS located at the back of these specifications.

### 3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, 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 --

SECTION TABLE OF CONTENTS

SITE WORK

SECTION 02245

DIKE CONSTRUCTION

PART 1	GENERAL
1.1	WORK COVERED BY CONTRACT PRICE
1.2	SUBMITTALS
PART 2	PRODUCTS (Not Applicable)
PART 3	EXECUTION
3.1	INSPECTION
3.2	ORDER OF WORK
3.3	PLANT
3.4	CLEARING
3.4.1	General
3.4.2	Impacts
3.5	DIKE CONSTRUCTION
3.5.1	General
3.5.2	Materials
3.5.2.1	Excavation of Materials
3.5.2.2	Definition of Dewatered Dredged Material
3.5.2.3	Temporary Haul Roads
3.5.2.4	Equipment Operation
3.5.2.5	Drying of Materials
3.5.2.6	Ditching and Drainage Operations
3.5.2.7	Borrow Plan
3.5.2.8	Capping of Sandy Fill Material
3.5.3	Compaction
3.5.3.1	Testing
3.5.3.1.1	Records
3.5.3.1.2	Laboratory Control
3.5.3.1.3	Field Control
3.5.3.1.4	Number and Locations of Tests
3.5.3.1.5	Documentation
3.5.4	Crowns and Grades
3.5.5	Final Surface

SECTION TABLE OF CONTENTS

SITE WORK

SECTION 02245

DIKE CONSTRUCTION

3.6	SPILLWAY SYSTEMS	
3.6.1	General	
3.6.2	OMITTED	
3.6.2.1	OMITTED	
3.6.2.2	OMITTED	
3.6.2.3	OMITTED	
3.6.2.4	OMITTED	
3.6.2.5	Damage	
3.6.3	Materials	
3.6.3.1	Spillways	
3.6.3.1.1	Steel	
3.6.3.1.2	Coating System	
3.6.3.1.2.1	Paint	
3.6.3.1.2.2	Application Equipment	
3.6.3.1.2.3	Weather Conditions	
3.6.3.1.2.4	Surface Temperature/Shading	
3.6.3.1.2.5	Color	
3.6.3.1.2.6	Thickness	
3.6.3.1.2.7	Manufacturer's Recommendations	
3.6.3.2	OMITTED	
3.6.3.3	OMITTED	
3.6.3.4	Hardware	
3.6.3.5	Bituminous Mastic	
3.6.3.6	Wood Materials	
3.6.3.6.1	Stoplogs	
3.6.3.7	OMITTED	
3.6.3.8	OMITTED	
3.6.3.9	OMITTED	
3.6.3.10	OMITTED	

SECTION TABLE OF CONTENTS

SITE WORK

SECTION 02245

DIKING

3.6.4	Fabrication and Installation
3.6.4.1	General
3.6.4.2	Welding
3.6.4.3	Fabrication Before Coating
3.6.4.4	Fit
3.6.4.5	Repairs to Coating
3.6.4.6	OMITTED
3.6.5	Submittals
3.6.6	Acceptance
3.7	SURFACE DRAINAGE
3.7.1	Positive Drainage
3.7.2	Interior Drainage Ditches
3.7.3	Perimeter Ditches
3.7.4	Backfill of Ditches
3.7.5	Fill Around Spillways
3.7.6	Approval
3.7.7	Clearing of Spillways
3.8	GRASSING
3.8.1	General
3.8.2	Permanent Vegetative Cover
3.8.3	Soil Tests
3.8.4	Ground Preparation
3.8.5	Fertilizer and Limestone
3.8.6	Seeding Mixtures and Rates
3.8.6.1	Certification
3.8.6.2	Seeding Mixture No. 1
3.8.6.3	Seeding Mixture No. 2
3.8.7	Seed Planting
3.8.8	Turf Establishment/Final Acceptance
3.8.9	Submittals

SECTION TABLE OF CONTENTS

SITE WORK

SECTION 02245

DIKE CONSTRUCTION

3.9	MEASUREMENT AND PAYMENT
3.10	HORIZONTAL CONTROL, DATUM AND BENCH MARKS
3.11	SURVEYS
3.11.1	General
3.11.2	As-Built Topographic Survey
3.11.3	Plotting Requirements
3.11.4	Government-Furnished Materials
3.11.5	Deliverables
3.11.6	Documentation
3.11.7	Survey Personnel
3.11.8	Verification
3.12	FINAL EXAMINATION AND ACCEPTANCE
3.12.1	Final Acceptance
3.12.2	Final Acceptance of Dikes/Inspection for Acceptance
3.12.3	Acceptance Sections
3.13	UTILITY VEHICLE FOR GOVERNMENT USE

-- End of Section Table of Contents --

SECTION 02245

DIKE CONSTRUCTION

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT PRICE

The work covered by this section consists of furnishing all plant, equipment, labor, transportation, supplies and materials, and performing all operations in connection with construction and/or repair of dikes, berms, ramps, and drainage ditches, installation and/or repair of spillway systems, and appurtenant items as shown on the drawings and in accordance with these specifications.

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. All submittals shall be in accordance with Section 01330, SUBMITTAL PROCEDURES. See Form 4288, Submittal Register, in ATTACHMENTS.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 INSPECTION

All work will be conducted under the general direction of the Contracting Officer and shall be subject to full-time inspection by his appointed Government Representative to insure strict compliance with the terms of the contract. The presence of Government Representative shall not relieve the Contractor of responsibility for proper execution of the work in accordance with the specifications.

3.2 ORDER OF WORK

First Order of Work shall be Bid Item 0002, Site Work, to include any additional necessary drainage work (such as cleaning-out and deepening existing drainage ditches, and construction of additional new drainage ditches to drain borrow area (see SURFACE DRAINAGE paragraph)), clearing, and preparation of borrow materials, construction of haul roads,

etc. As soon as work under Bid Item 0002 has provided sufficient diking materials suitable for hauling and placement, work under Bid Item 0003, Raise Dikes and Berms, may commence in accordance with approved Borrow Plan (see paragraph 3.5.2.7).

For work under Bid Item 0003, Raise Dikes and Berms, the work shall be staged construction as follows: first order of work shall be construction and completion of all stability berms (i.e. berms for entire project shall be constructed first prior to raising any central portion of the dike above the height of the adjacent berm) and the last order of work shall be the construction of the central portion of the dike to the required grade and slopes as indicated on the contract drawings. Order of remaining work items shall be at the Contractor's discretion.

### 3.3 PLANT

The Contractor agrees to keep on the job sufficient plant to meet the requirements of the work. The plant shall be in satisfactory operating condition and capable of safely and efficiently performing the work as set forth in these specifications. Inspection of equipment listed in "Plant and Equipment Schedule" shall be made prior to commencement of work in order to determine if it is satisfactory so as to meet the requirements of work. The plant shall be subject to inspection by the Contracting Officer and the U.S. Coast Guard (where applicable) at all times. The plant listed on the Plant and Equipment Schedule, ENG Form 1619-R, is the minimum which the Contractor agrees to place and maintain on the job unless otherwise determined by the Contracting Officer, and its listing thereon is not to be construed as an agreement on the part of the Government that it is adequate for the performance of the work.

### 3.4 CLEARING.

#### 3.4.1 General

All areas of construction activity (borrow or fill) shown on the drawings shall be cleared of roots, trees, brush and other vegetation. This includes the entire borrow area, dikes, slopes, ramps and berms. Interior areas not used for borrow shall be cleared as well. Cleared material shall be disposed of by burning inside the diked area. All burning shall comply with SC DHEC Regulation 61-62.2. The Contractor shall be responsible for compliance with all

Federal, State (i.e. DHEC), county, and local laws regulating the building of fires, and will be held responsible for all damages resulting from his fires. The Contractor shall notify the South Carolina Forestry Commission (at 1-800-777-FIRE) before burning and shall obtain a "Notification Number". Such number shall be recorded on the Contractor's Daily QC Report and shall also be phoned in to the Contracting Officer. The Contractor shall also obtain any necessary county or local permits prior to any burning. NOTE: In interior areas only, where vegetation consists of small brush and weeds only, the Contractor may clear by bush-hogging and discing so long as no roots greater than 2" dia. remain, and so long as the resultant borrow materials still meet the requirements of paragraph 3.5.2. Materials.

#### 3.4.2 Impacts

The Contractor acknowledges that the clearing operation will impact the natural ground surface and will change the elevations of the site from those elevations provided on the Government-furnished topo survey of the site. The Contractor shall take this fact into account when estimating the required cut and fill quantities for this project.

#### 3.5 DIKE CONSTRUCTION

##### 3.5.1 General

The dikes, berms, and ramps shall be constructed to not less than the cross sections and elevations shown on the contract drawings. In general, the dikes have been founded on a marsh type base, which has relatively low strength and high water content. Past experience has disclosed that increases to the dikes' weight (especially, rapid increases) may cause settlement, bearing capacity failure, or localized slope failures. Therefore, construction of the dikes and berms should proceed gradually to give the underlying soil time to consolidate and gain strength under the load. "**Gradually**" is defined for purposes of this contract to mean the placement of no more than **3.0 feet of fill per month** in any one location (EXCEPTION: This limitation does not apply to filling of perimeter ditches in conjunction with berm construction). The materials from which the dikes are to be constructed also have low shear strengths and in general must be placed in several lifts, with each lift being allowed to develop strength through consolidation, before the required dike height can be obtained. Dike side slopes

steeper than those indicated may cause slope or dike instability. Some over-building may be required to offset dike and foundation settlement. NOTE: Upon additional loading of dikes, dike settlement of up to one foot (1.0') or more per year in some places is not uncommon. Dike settlement averaging 0.30 to 0.46 feet per year at Clouter Creek Disposal Area North Cell has been documented by the Charleston District. Additionally, it is expected that relatively greater settlements will occur along the Clouter Creek side Main Dike than along the Cooper River side Main Dike. The above settlement figures refer to the magnitude of settlement of the compacted dike structure (at centerline) only and in no way include shrinkage of uncompacted materials overlying the berm or slope of the dike. The Contractor shall achieve and maintain the dike sections until accepted. Any settlement of the dikes from consolidation of the dike or its foundation or for any other reasons occurring prior to acceptance shall be corrected, so as to conform to the requirements of this contract. All corrective action shall be at the Contractor's expense.

### 3.5.2 Materials

Diking materials shall be obtained from borrow excavation within the area enclosed by the dikes as indicated on the contract drawings or as directed by the Contracting Officer. The diking materials shall not contain organic matter greater than 2 inches in diameter, matted organic matter or rocks greater than 6 inches in diameter, and shall be free of all debris. The Contracting Officer reserves the right to reject/refuse any materials which do not meet the spirit and intent of these specifications as stated herein and below (i.e., material which is too wet or contains excess organics or debris). The Contractor should expect to encounter some debris (such as riprap, scrap metal, etc.) in locations where the dredge discharge pipe was previously placed (such as just inside the dike at or near station 156+97).

#### 3.5.2.1 Excavation of Materials

The borrow materials shall be removed by stripping thin lifts of **dewatered dredged material** from large areas with low ground pressure (LGP) equipment such that the elevation of the borrow area is not lowered below the elevation(s) shown on the contract drawings. The excavation process shall produce a disposal area interior that is relatively uniform in elevation. Materials shall not be excavated so

as to create ponds of water, holes, pits, or ditches (except as otherwise shown on contract drawings or required for drainage). All areas of borrow shall be graded or shaped so as to provide positive drainage toward existing or new drainage ditches (or culverts) while the work progresses and until all borrowing is completed under the contract including any change orders thereto.

### 3.5.2.2 Definition of Dewatered Dredged Material

The borrow materials are comprised of predominately fine-grained dredged material which was hydraulically deposited in a slurry state. The material then undergoes natural processes of drainage and drying called consolidation and desiccation. Consolidation removes water from the underlying material through compression while desiccation dries the surface layer of material by evaporation, resulting in a desiccation crust. It has been found that, left to itself, fine-grained dredged material will, after an extended period of time, reach a water content (ratio of weight of water to weight of solids) of about its liquid limit (LL). The water content of the crust has been found to be approximately 1.2 times the material's plastic limit (1.2 X PL). The natural processes of consolidation and desiccation are enhanced/accelerated by removal of surface water from the material. This is accomplished by progressive ditching. As ditches in the material are progressively deepened, a thicker desiccation crust forms and the seepage path for water being squeezed out of the material is shortened, thereby increasing the rate of consolidation. The moisture content of the material is site specific and depends on the material characteristics, the thickness of the dredged material lift, the site drainage, the length of time since the material was deposited, the weather, etc. The moisture content will also vary with depth and with time.

### 3.5.2.3 Temporary Haul Roads

Experience has shown that the dredged material crust will support LGP equipment but it usually will not support heavier construction equipment such as rubber-tired haulers or scrapers. For this reason, it is usually necessary to construct temporary haul roads within the borrow area to improve access and trafficability. It has also been shown by experience that the only way that suitable diking material can be obtained is to strip the drier crust material from the surface and windrow it up into "pick-up roads" which are then capable of supporting hauling

equipment such as scrapers or trucks. Experience has shown that it is best not to cut too deeply into the crust, but rather to cut only 2" to 6" at a time, depending on the crust thickness (i.e., a portion of the crust must be left in place to support the LGP stripping equipment). As the top few inches of material are stripped off, the underlying material (which has a higher moisture content) is exposed to the air and in turn dries by evaporation and "crusts over".

Depending on the moisture content of the newly exposed surface and the weather, the crust is ready to be "harvested" again in a matter of days or weeks. As material is removed from the pick-up roads by hauling equipment, the pick-up roads must then be "renourished" with additional stripped crust material as described above.

#### 3.5.2.4 Equipment Operation

Long-reach excavators on mats have operated in the interior of the North Cell during spring and summer 2003.

#### 3.5.2.5 Drying of Materials

The Contractor should anticipate that borrow materials will be wet (even in hot, dry, weather). Any or all of the following methods may be necessary to reduce the water content and render borrow materials suitable for diking: discing or plowing the material, blending or mixing of drier crust material with wetter subcrust material in order to achieve a moisture content acceptable for handling and placement, and stockpiling of sandy or coarse-grained materials (if any) to drain prior to hauling and placement.

#### 3.5.2.6 Ditching and Drainage Operations

Ditching has been shown to be an effective means for lowering the moisture content of the soils that are adjacent to the ditches, provided that the free water is then drained from the ditches to suitable outlets. Although the borrow area has previously been ditched, there are areas within the borrow area which are relatively level and poorly-drained. Also, the ground water can be expected to be very close to the surface within these portions of the borrow area. Therefore, significant ditching and drainage operations are expected to be necessary in order to maintain good surface drainage as well as to promote continued dewatering of the dredged material so that it is suitable for borrowing and placement. The Contractor shall "clean out" or deepen existing drainage ditches and construct additional drainage ditches as necessary in order to maintain good surface

drainage and promote additional crust development as existing crust material is borrowed. The Contractor shall anticipate that localized ditch slope failures may occur while ditching in dredged materials with relatively high water contents. Other items, including but not limited to installation of temporary drainage culverts and flapgates shall be done as necessary in order to obtain the borrow materials required to complete the diking. See also Paragraph 3.7 SURFACE DRAINAGE.

#### 3.5.2.7 Borrow Plan

The Contractor shall submit for approval prior to any borrow excavation, a site-specific **Borrow Plan** stating particulars of how the contract requirements are to be met. Borrow Plan shall detail specific borrow locations within the overall borrow area, how the material will be prepared and moved, what equipment will be used, and where the fill will be placed (by station number). General layout of haul roads shall be included. The Contractor shall maintain a current Borrow Plan which shall be revised as the work progresses. Any major change in equipment or method of operation shall be cause for revision of the current Borrow Plan.

#### 3.5.2.8 Capping of Sandy Fill Material

Any areas of fill (i.e. outside slopes and outside berms, top of dike and dike inside slope), except for inside berms, which are constructed using sand or sandy material shall be capped with six inches (6") of fine-grained material (to inhibit erosion). For purposes of this requirement, "sand" or "sandy material" shall mean soils classifying under the Unified Soil Classification System as SW, SP, SM, or SC. For purposes of this requirement, fine-grained material suitable for capping shall include soils classifying as CL, CH, MH, and SC-H (PI > 15 or = 15). The Contractor shall run a sufficient quantity of lab classification tests to ensure that capping materials meet this requirement.

#### 3.5.3 Placement and Compaction

Placement and Compaction shall be performed in the following manner. The entire embankment (fill) cross section shall be raised in successive **horizontal lifts** not to exceed eight (8) inches in loose height over the full width of the fill section. The entire surface of each layer (including the

original surface before any fill is placed) shall be compacted by a minimum of four (4) passes with a sheepfoot roller (100 psi - 300 psi pressure range), modified sheepfoot roller ("elephant's foot roller") or rubber-tired roller (with minimum wheel load of 2000 lb (1 ton) per wheel at a minimum tire contact pressure of 35 psi), before the subsequent lift is placed. This "method" requirement will be waived by the Contracting Officer if and only if the Contractor elects to use scrapers or rubber-tired haulers to construct the dikes in such a way that multiple passes of the equipment are made over the entire width of each lift of fill material. In addition to the minimum number of equipment passes specified above, each layer shall be further compacted, as required to achieve at least **90 percent** laboratory maximum density. Moisture content of the fill material and in-place material on the embankment shall be adjusted by wetting or aerating as required, to a moisture content that will facilitate compaction to the minimum specified density. In addition to drying efforts at the borrow source such as plowing, discing, and windrowing, the contractor may need to disk the material on the embankment to further dry the material to the proper moisture content prior to compaction. Excessively wet material shall not be placed directly on the embankment. The Contractor will be required to remove any such material which is placed in the fill section and replace it with material of the appropriate moisture content.

#### 3.5.3.1 Testing

Testing shall be the responsibility of the Contractor and shall be performed by an approved commercial testing laboratory. When test results indicate that compaction is not as specified, the material shall be removed, replaced and recompacted to meet specification requirements, at no additional expense to the Government. Subsequent tests on recompacted areas shall be performed to determine conformance with specification requirements. Copies of test results shall be promptly (within 72 hours of the test) furnished the Contracting Officer by the Contractor Quality Control System Manager.

##### 3.5.3.1.1 Records

Records of all material tests and field density tests specified herein shall be maintained by the Contractor Quality Control Team during the course of the construction

and shall be available for inspection by the Government Quality Assurance Representative at all times.

#### 3.5.3.1.2 Laboratory Control

The moisture-density relations shall be determined in the laboratory in accordance with ASTM D 698 (Standard Proctor).

#### 3.5.3.1.3 Field Control

Field in-place density shall be determined by the sand displacement method ("sand cone" test) in accordance with ASTM D 1556.

#### 3.5.3.1.4 Number and Locations of Tests

Initially, a minimum of four (4) laboratory control tests (Proctors) shall be performed for materials to be borrowed.

The Proctors shall be performed in material which has already been prepared for borrow, i.e. material which has been pushed up into haul roads or "pickup" roads. Field in-place density tests shall be performed throughout construction by the Contractor at a frequency of one (1) test per 2000 linear feet, or fraction thereof, of fill section per 12 vertical inches (12") of lift placed. Fifty percent (50%) of the field in-place density tests shall be performed at locations determined by the Government Quality Assurance Representative. In addition to the initial laboratory control tests (Standard Proctors) mentioned above, laboratory control tests (Standard Proctors) shall be performed for at least 20% of all the in-place density tests performed, utilizing the fill material surrounding the hole dug for the in-place density test. Atterberg Limits, Natural Moisture Content, and Specific Gravity shall be determined for each Proctor sample. Additional laboratory control tests shall be performed for each new type of fill material encountered and when there is a question about the correct Proctor curve to compare with the field in-place density test results. If any in-place density tests fail, additional tests shall be performed at the Contractor's expense as directed by the Contracting Officer's Representative.

3.5.3.1.5 Documentation

At a minimum, all tests shall be documented with the following information:

- a. Date and time of sampling or test
- b. Testing lab and name of technician performing sampling or test
- c. Location of sampling or test by dike station (accurate within 10'), dike offset (accurate within 1'), and elevation (accurate within 0.20')

3.5.4 Crowns and Grades

The Contractor shall maintain proper crowns and grades on all embankments and fills at all times in order to prevent ponding. The surface of the fill shall be maintained free of ruts and shall drain freely throughout construction.

3.5.5 Final Surface

The final surface of all dikes, berms, and ramps shall be graded, smooth, and free from mounds, windrows, and ruts.

3.6 SPILLWAY SYSTEMS

3.6.1 General

The Contractor shall furnish all labor, equipment, materials and perform all operations in connection with repairs to existing riser channels, fabricating and installing spillway riser extensions, building or rebuilding/raising of wooden walkways to required elevation, replacing rotten stoplogs, and furnishing additional new stoplogs. The locations and elevations of work shall be as shown or indicated on drawings.

3.6.2 OMITTED

3.6.2.1 OMITTED

3.6.2.2 OMITTED

3.6.2.3 OMITTED

3.6.2.4 OMITTED

3.6.2.5 Damage

Any new or existing materials damaged or removed, during work under this contract, shall be repaired or replaced to a condition equal to or better than existing and satisfactory to the Contracting Officer.

3.6.3 **MATERIALS**

3.6.3.1 Spillways

3.6.3.1.1 Steel

Any structural steel members required for fabrication or repair of risers shall conform to ASTM A36 and shall be the size and shape as shown on the drawings. The steel used shall be suitable for welded and bolted construction.

3.6.3.1.2 Coating System

All new spillway riser sections shall be thoroughly cleaned, conforming to Steel Structures Painting Council (SSPC) SPECIFICATION SSPC-SP10 "Near-White Blast Cleaning" as a minimum, and then the entire structure, inside and out, including all hard-to-reach corners, shall be completely coated with a coal tar epoxy-polyamide paint in two (2) coats totaling sixteen (16) mils (minimum). The coating system shall conform to Steel Structures Painting Council (SSPC) Painting System Specification No. 11.01 ("Black (or Dark Red) Coal Tar Epoxy-Polyamide Painting System").

3.6.3.1.2.1 Paint

The paint used shall conform to Steel Structures Painting Council (SSPC) Paint Specification No. 16 ("Coal Tar Epoxy-Polyamide Black (or Dark Red) Paint").

3.6.3.1.2.2 Application Equipment

Application by heavy-duty conventional air atomization spray equipment is recommended unless otherwise specified by paint manufacturer.

3.6.3.1.2.3 Weather Conditions

Temperature and humidity are critical for the cure of coal tar epoxy paints. Do not apply such paints when the ambient temperature is below 60 degrees F or when the ambient temperature is not at least 5 degrees F above the dew point.

3.6.3.1.2.4 Surface Temperature/Shading

When the steel substrate or an applied coat is exposed to sunlight and is expected to have surface temperatures above 125 degrees F, either the surfaces shall be shaded by overhead cover or the intercoat drying time shall be adjusted downward to avoid poor intercoat adhesion. The curing time between coats should not exceed one (1) day in hot weather.

3.6.3.1.2.5 Color

One (1) coat shall be black and shall be 8 mils minimum dry thickness. The other coat shall be dark red and shall be 8 mils minimum dry thickness.

3.6.3.1.2.6 Thickness

Caution: Excessive film thickness can result in solvent entrapment and film cracking. Epoxies which are applied excessively thick tend to crack and disbond due to internal stresses within the coating because of shrinkage during the curing reaction. The total dry film thickness of the two coats of coal tar epoxy shall not exceed 60 mils. The dry film thickness of any one coat shall not exceed 40 mils. Coats exceeding these thicknesses shall be stripped off and redone at the Contractor's expense.

3.6.3.1.2.7 Manufacturer's Recommendations

The Contractor shall follow all instructions and recommendations of the paint manufacturer regarding those items which are not spoken to by these specifications or by SSPC-SP No. 11.01.

3.6.3.2 OMITTED

3.6.3.3 OMITTED

3.6.3.4 Hardware

All hardware (nuts, bolts, and washers) for bolting riser sections together, for connecting plastic pipe to metal spillway risers, and for wooden pipe supports shall be suitable for its intended use and shall be stainless steel. Bolts shall be Type 316 stainless, and 75,000 psi minimum tensile strength (Grade 2) as a minimum. However, hardware for wooden walkways may be galvanized in lieu of stainless steel.

3.6.3.5 Bituminous Mastic

A cold-applied bituminous compound conforming to AASHTO M 243-81 (1986) shall be utilized for repairs to and field-coating of metal spillway risers and hardware as required.

3.6.3.6 Wood Materials

Lumber for walkways shall be treated in accordance with American Wood Preserver's Association (AWPA) Standard C-2 (.40 pcf retention, waterborne preservative, for ground contact) and may be S4S (surfaced four sides/finished lumber).

3.6.3.6.1 Stoplogs

Stoplogs shall be 3" x 6" tongue and groove (T&G) lumber, Southern Yellow Pine #2 or approved equal, treated in accordance with AWPA Standard C-2 (2.5 pcf retention, waterborne preservative (CCA/ACA)). Style of tongue and groove shall be acceptable to the Contracting Officer.

3.6.3.7 OMITTED

3.6.3.8 OMITTED

3.6.3.9 OMITTED

3.6.3.10 OMITTED

3.6.4 FABRICATION and INSTALLATION

3.6.4.1 General

No departures from the drawings or specifications shall be made without the written approval of the Contracting Officer. Departures not approved are done at the Contractor's risk and may result in the nonacceptance of materials.

3.6.4.2 Welding

Any welding required under this contract shall adhere to all guidelines set up by the American Welding Society (AWS) and the American Institute of Steel Construction (AISC) for the type and size of welds and materials and types of welding to be used.

3.6.4.3 Fabrication Before Coating

All metal spillway riser fabrication, modification, or repair, including but not limited to, bolt holes, welding, etc., shall be completed prior to sandblasting and coating (or recoating).

3.6.4.4 Fit

The mating ends of spillway sections and spillway riser extensions shall be uniform and flush.

3.6.4.5 Repairs to Coating

All necessary repairs to the coating system shall be per new work requirements. Surface preparation shall be as required for new work.

3.6.4.6 OMITTED

3.6.5 Submittals

The Contractor shall submit to the Contracting Officer certificates, invoices or catalog cuts attesting that the following materials furnished meet the required specifications: treated lumber. The Contractor shall also submit to the COR certificates stating the following:

- (1) The grade or grades, including referenced publication numbers, of steels used, including all structural shapes, bolts, washers, nuts, etc.
- (2) The measured thickness of coating systems used.
- (3) The type of material, including any specification number, used in repairs to any coating system, and catalog cuts supplied by the manufacturer.

All submittals shall be signed and dated by the Contractor or his authorized representative. Acceptance of these submittals does not relieve the Contractor from supplying satisfactory materials or from any other requirements specified herein.

3.6.6 ACCEPTANCE

An inspection of the weir installations, including but not limited to the following: verifying that all silt and debris has been removed from risers, inspecting for damage to riser coating, inspecting for proper stoplogs and their condition, and proper seating of same, verifying use of specified lumber and hardware, and verifying walkway deck elevations, will be performed by the Government before acceptance of the spillway systems. Another inspection for final acceptance will be made at the time of final completion of all work under the contract. If both inspections show that there are no deficiencies in the weir installations, materials, and fabrication, the work will be finally accepted.

3.7 SURFACE DRAINAGE.

3.7.1 Positive Drainage

All areas disturbed or affected by the performance of this contract shall be sloped or shaped so as to provide for positive drainage of surface water. This shall include, but

is not limited to, the borrow area, berm areas, and fill areas. Pondered surface water allowed to remain within the work area will be prima facie evidence that the intent of this paragraph is not being met by the Contractor. See also paragraph 3.5.2.6 DITCHING AND DRAINAGE OPERATIONS.

### 3.7.2 Interior Drainage Ditches

All existing and new interior drainage ditches within the borrow area shall be kept open (clear of obstructions) and shall drain freely throughout the duration of the dike construction. Haul roads or crossings over the drainage ditches shall be provided with a free-flowing culvert (min. dia. 8 inches) of suitable length (min. 30 feet), such that movement of water through the ditches is not impeded. The Contractor shall furnish all culvert or drainage pipe necessary for this purpose. Ends of culverts shall not be blocked and shall drain freely throughout the construction.

### 3.7.3 Perimeter Ditches

Perimeter ditches shall be filled as necessary for berm construction. However, all filling shall proceed from high end toward low end so as to force water out of the ditch and toward the outlets. Those perimeter ditches, or portions of perimeter ditches, which are necessary to drain interior ditches, shall be relocated to the interior so as to not interfere with berm construction.

### 3.7.4 Backfill of Ditches

At the conclusion of work, when all earthwork has been finally accepted, all ditches shall be backfilled flush with the adjacent ground (within a tolerance of +/- 1.0 foot). Any remaining shallow "mosquito trenches" (if any) need not be filled, but may be filled at the Contractor's option. All temporary culverts shall be removed from the borrow area at that time and stored at a location to be determined by the Contracting Officer. Any temporary culverts damaged to the point of not being usable shall become property of the Contractor and shall be removed from the disposal area and properly disposed of in accordance with all applicable law.

### 3.7.5 Fill Around Spillways

For fill required around spillways, the backside (pipe side) and left and right sides of the spillways shall be boarded up to the existing adjacent berm elevation (or minimum required berm elevation), and the front side (facing disposal area interior) shall be boarded up to the invert elevation of the backfilled ditch using stoplogs (see para. 3.6.3.6.1).

### 3.7.6 Approval

No ditches shall be filled without written approval by the Contracting Officer.

### 3.7.7 Clearing of Spillways

All spillways within the work area shall be cleared of any mud, silt, stoplogs, debris, or other matter that will interfere with their proper functioning, before boards are placed in them. All stoplogs shall be positively seated. The outlet pipe of each spillway shall also be cleared of all debris and obstructions.

## 3.8 GRASSING.

### 3.8.1 General

This specification is intended to provide for the establishment of a low, permanent vegetative cover on newly filled areas (dikes, slopes, berms and all ramps), to control erosion and to reduce the growth of noxious weeds and thereby simplify surveying, monitoring, and maintenance of the dikes.

### 3.8.2 Permanent Vegetative Cover

After final acceptance of an acceptance section/bid item for diking, and when the Contracting Officer determines that such acceptance section/bid item will not be subject to damage by further operations under the contract, the Contractor shall provide for a permanent vegetative cover on the following areas within that acceptance section/bid item:

**Main Perimeter Dikes:** All outside slopes where fill was placed or the ground surface was otherwise disturbed, full dike top width, and all inside slopes. Full width (60') of outside berm from sta. 222+00 to sta. 241+00 (1900 LF).

**Cross Dike "C":** Full dike top width and all dike side slopes.

**Pipe Ramp:** Full top width and side slopes.

NOTE: Seeding shall not be conducted when ground is excessively wet or frozen or during drought period. The project site area is subject to drought conditions during the months of April through June. In cases of prolonged drought, seeding shall be suspended (at no additional cost to the Government) until such time as normal rainfall is occurring (as determined by the Contracting Officer).

### 3.8.3 Soil Tests

A Soils Test by Clemson University Extension Service or other qualified lab will be required on every section of dike of no more than 2000' increments to determine limestone and fertilizer requirements of newly diked areas. Findings (test results and recommendations) shall be certified by the testing lab and submitted to the Contracting Officer. Quantity of Limestone shown on Bidding Schedule is an estimated quantity based upon an estimated rate of one (1) ton/acre and shall be increased or decreased as required by results of soils testing.

### 3.8.4 Ground Preparation

All surfaces shall be graded, smooth and even, prior to preparation. Preparation shall consist of tilling the soil to a depth of three inches (3") by plowing, discing, harrowing, or other approved operation, to break compaction, incorporate lime and fertilizer and to allow the proper placement of seed. Side slopes may be tilled by dragchain.

### 3.8.5 Fertilizer and Limestone

Agricultural limestone shall be uniformly spread and incorporated into the soil at an estimated rate of one (1) ton per acre. (Actual limestone rate shall be determined by

the results of soils testing. See paragraph 3.8.3 SOIL TESTS). Five hundred (500) pounds of 10-10-10 fertilizer per acre shall be uniformly spread and incorporated into the soil. Fertilizer and limestone shall be incorporated into the soil to a depth of three inches (3") by discing, harrowing, or other acceptable method (top of dikes and accessible side slopes only). Incorporation of fertilizer and/or limestone may be a part of the preparation operations specified in paragraph 3.8.4 GROUND PREPARATION. On dike side slopes the fertilizer and limestone may be either broadcast or applied by a hydroseeder and incorporated into the soil by dragchain.

3.8.6 Seeding Mixtures and Rates

3.8.6.1 Certification

Before use of seed on the site, notarized certificates attesting that the seed meets the requirements specified shall be submitted for approval. The Contractor shall notify the Contracting Officer of the delivery schedule in advance so that the seed can be inspected before use.

3.8.6.2 Seeding Mixture No. 1

Seeding Mixture No. 1 for Fall and Winter planting shall be used between September 1 and March 31:

<u>Kind of Seed</u>	<u>Purity %</u>	<u>Germination %</u>	<u>Rate (lbs/Ac)</u>
Bermudagrass, common (with hull)	97	85	70
Pensacola Bahia	80	70	30
Ryegrass (annual)	98	90	<u>25</u>
		TOTAL	125

3.8.6.3 Seeding Mixture No. 2

Seeding Mixture No. 2 for Spring and Summer planting shall be used between April 1 and August 31:

<u>Kind of Seed</u>	<u>Purity %</u>	<u>Germination%</u>	<u>Rate (lbs/Ac)</u>
Bermudagrass, common (without hull)	89	85	70
Pensacola Bahia	80	70	30
Browntop Millet	98	85	<u>20</u>
		TOTAL	120

3.8.7 Seed Planting

Seed shall be distributed uniformly by broadcasting or hydroseeding. Seed which has been broadcast shall be covered to an average depth of 1/4 inch by brush harrow, spike-tooth harrow, chain harrow, cultipacker, hand rake with wood tines, or other approved device, and on all accessible areas the surface shall be compacted by a cultipacker, roller, or other approved equipment weighing 100 to 160 pounds per linear foot of roller.

3.8.8 Turf Establishment/Final Acceptance

Acceptance will be based upon a satisfactory stand of turf, which is hereby defined as a minimum of 9 new growing sprouts at least 2 inches tall per square foot over at least 80% of the area required to be seeded and where no gaps or bare areas larger than 6 feet in diameter occur anywhere in the area required to be seeded. Any areas not meeting the requirements for a satisfactory stand of turf shall be reseeded in accordance with the requirements of this specification at the Contractor's expense.

3.8.9 Submittals

Prior to their use on site, the Contractor shall submit to the COR invoices or manufacturer's labels stating the composition of lime and fertilizer to be used. For submittals on seed, see paragraph 3.8.6.1 CERTIFICATION.

3.9 MEASUREMENT AND PAYMENT

Each bid item, as shown on Bidding Schedule, shall comprise an acceptance section. No separate payment will be made for other items incidental to completion of work. All such items shall be included in the contract price for the bid items shown in the Bidding Schedule. **Bid Item 0001 MOBILIZATION and DEMOBILIZATION** shall include all cost connected with moving all the Contractor's plant and equipment to and from the construction site. This cost will also include clean-up of the site at completion of contract. **Bid Item 0002 SITE WORK** shall include all payment for clearing, grubbing, disposal of debris, ditching, ditch maintenance, drainage, culvert pipe placement, disking, stripping of crust materials, windrowing, construction and maintenance of haul roads, stockpiling materials to drain, and any other items incidental to furnishing adequate suitable diking materials, and shall also include filling of ditches at conclusion of diking. Bid Item 0002. is expected to be performed both prior to and throughout dike and berm construction, and payment will therefore be made accordingly. **Bid Item 0003 RAISE DIKES AND BERMS** shall include all payment for loading, hauling, transportation, dumping, placement, spreading, compaction, grading and dressing and any other items incidental to completion of construction, repair, rehabilitation, raising or realignment of dikes, berms, ramps and roads. **Bid Item 0004 and Bid Item 0005 SPILLWAY RISER EXTENSION**, shall include all cost for new spillway riser extension fabrication, coating, and installation. **Bid Item 0006 REBUILD/RESET WOODEN WALKWAY**, shall include all cost for construction of new walkways and/or modifying and raising of existing wooden walkways. Measurement for **Bid Item 0007 AGRICULTURAL LIMESTONE** delivered to and stored at the job site shall be based on truck weight tickets furnished by the supplier. Payment will be for actual quantities used based upon soils tests and actual area grassed. **Bid Item 0008 GRASSING** shall include all cost associated with establishing a stand of grass (minus cost of limestone material). Costs include ground preparation, soils tests, fertilizer material, spreading and incorporation of limestone and fertilizer, seeding, tilling, reseeding, etc. Area grassed will be measured in the following manner. The actual slope distance of all grassed side slopes will be added to the actual top widths actually grassed and the sum will be multiplied by the linear distance of dike grassed (using dike stationing) to obtain pay acreage. **Bid item 0009 SURVEYING** shall include all cost for

establishing horizontal and vertical control for alignment and grade of dikes, berms, etc., interim surveys for partial payment purposes, and final as-built surveys. **Bid Item 0010. UTILITY VEHICLE FOR GOV'T USE** shall include all cost for furnishing and maintaining a vehicle on-site for use of Government personnel. Partial payments shall be made monthly in accordance with the Contract Clause entitled "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS". Partial payments shall be based on a mutually agreeable percentage of completed work.

3.10 HORIZONTAL CONTROL, DATUM AND BENCH MARKS

The vertical plane of reference, as used in these specifications, was determined by bench marks or temporary bench marks (TBM's) referred to on the contract drawings. The horizontal reference or **baseline** for this project is **not** tied to coordinate values, but is a relative rather than absolute reference, and is **the existing centerline of the existing dike as shown and labeled on the cross section sheets (i.e. offset "0" on the cross section)**. The Contractor shall lay out all work horizontally from this baseline, which is the existing centerline **as depicted** on the cross section sheets.

3.11 SURVEYS

3.11.1 General

The Contractor shall perform all surveys necessary to lay out the lines and grades of the work. The Contractor shall perform a final as-built survey of the project as well as interim surveys for any periods for which progress payments are requested. All surveys shall be performed with the knowledge of the Contracting Officer or his representative, and shall be documented in the Daily CQC Report. The Contractor shall make computations based on his surveys to determine the percentage of earthwork placed, for any periods for which progress payments are requested. All surveys for any given location shall use the same horizontal and vertical controls. The Contractor shall furnish the following data to substantiate the work performed or placed during each progress payment period: original (reduced) field survey notes, computations, and plotted cross sections showing the current work status. The plotted sections shall show both the template section and the as-constructed sections. The Contractor shall retain copies of all such material furnished

to the Contracting Officer. The Contracting Officer must agree to any deviations from the template section prior to payment. Progress payments on partially completed work will not be made without the above data.

### 3.11.2 As-Built Topographic Survey

**As-built** Survey of all areas of construction (dikes, berms, ramps, spillways, borrow areas, and all other areas affected by operations under this contract) shall be performed at final completion of construction (for final acceptance). As-built topographic (topo) survey shall consist of the following as a minimum:

- (1) Dike **centerline profile** (with elevation every 100') around the entire North Cell from Main Dike station 154+30 to station 241+00 (+/-), Cross Dike "C" station 0+00 to station 38+70.
- (2) Full **cross sections** of the embankment (dike/slopes/berms) every 500' (or more frequently) including the same stations used in the contract drawings. Cross sections of main dikes shall extend from the marsh outside the dike to the interior borrow area and shall consist of a minimum of three (3) top-of-dike shots (one being at centerline), five (5) shots outside of dike, and four (4) shots inside of dike. Additional elevation shots shall be obtained as necessary in order to completely define all berms, changes in slope, etc. At least one shot shall be obtained in the middle of all fifty-foot and sixty-foot berms (i.e. the berm shall be described by a minimum of three spot elevations, not two). Cross sections of Cross Dike "C" shall extend at least to the dike toe or mudline on the Highway Cell side and shall extend further if the material will support the surveyor. At a minimum, one "mud shot" shall be obtained by reaching out over the soft or fluid mud and obtaining a reading by supporting the rod at the current level of the mud. Cross sections of Cross Dike "C" shall extend to the inside toe of the berm on the North Cell side. Cross sections of Cross Dike "C" shall consist of a minimum of three (3) top-of-dike shots (one being at centerline), three (3) shots to right of cross dike, and four (4) shots to left of cross dike, and shall completely define all berms, changes in slope, etc.

At least one shot shall be obtained in the middle of each berm (i.e. the berms shall be described by three spot elevations, not two).

(3) Centerline profile of all access ramps including ramps from other cells, with two cross sections of each ramp near its thirdpoints. Centerline profile of interior pipe ramp and full cross section at its thirdpoints.

(4) The entire **interior** area (North Cell) shall be **topo** surveyed by use of data collector such that a sufficient number of representative interior elevations are obtained (min. 0.4 random spot elevations per acre: i.e. over a 190-acre site this requires 76 random spot elevations) to allow determination of average basin interior elevation and computation of gross capacity of the basin and material excavated/ removed. The survey shall show any anomalies such as ditches, mounds, haul roads, and other such prominent features.

(5) Spillways. Five spot elevations shall be obtained on all **spillways**, consisting of top of riser - front and back, top of walkway deck, inverts of outlet pipe (at inlet and outfall). Also record diameter of pipe, type and length of pipe, and type of spillway (i.e. 4' x 4' square, 4' x 8' rectangular).

### 3.11.3 Plotting Requirements

As-built dike cross sections shall be plotted on 10 x 10 grid cross section paper at a scale of 1" = 10' horizontal and vertical. Profile line data, cross section data, spillway data, and topo data shall be plotted on a 28" x 40" basemap at a scale of 1" = 200'. All major features and structures (i.e. access ramps, pipe ramps, culvert pipes, spillways, power poles, etc.) shall be shown.

### 3.11.4 Government-Furnished Material

The Government will furnish vertical control from which the Contractor will base his work. The Government will also furnish a floppy disk containing an Intergraph Microstation (.dgn) file of the project site basemap for plotting the Contractor's survey information.

### 3.11.5 Deliverables

All survey data, information, and plots shall be submitted to the Contracting Officer in a timely manner after performance of field work. Final as-built survey data shall be furnished on floppy disk in Intergraph Microstation (.dgn) format and shall be accompanied by paper hardplots. The Contractor shall deliver to the Contracting Officer's Representative all field notes (reduced), plotted cross section sheets, and plotted topo map of the area prior to final acceptance and payment by the Contracting Officer.

NOTE: Digital files which have been converted from AutoCadd/SoftDesk, etc. will not be accepted unless all information is presented in a legible fashion and all information is on the correct levels and all colors, line styles, and line weights are in accordance with EM 1110-1-1807, dated 30 July 1990 (copy available upon request).

### 3.11.6 Documentation

All required surveys shall be accomplished and all pertinent data shall be submitted to the Contracting Officer prior to disturbing the surveyed area. The survey data shall be recorded in standard duplicating page survey field notebooks following standard good survey practice. All particulars concerning a survey shall be recorded in these notes, including but not all inclusive: date, location of survey, type of survey, purpose of survey, who made the survey, all control data of the particular survey, etc. The original of the survey field notes shall be submitted to the Contracting Officer's Representative. In addition, the contractor must provide the reduced survey data to the COR on floppy disk or CD-ROM in ASCII files which present all data (cross section data, spot elevations, etc.) in Easting-Northing-Elevation (X-Y-Z) format.

### 3.11.7 Survey Personnel

All surveys required shall be performed by a professional surveying or engineering firm hired as a subcontractor of the prime contractor. The firm hired shall regularly be in the surveying business and shall be subject to approval by the Contracting Officer. All surveys shall be certified/sealed by a Registered Land Surveyor (RLS). All personnel performing the survey work shall be proficient and experienced in land survey work and a Registered Land Surveyor (to be designated by name and evidence of

registration) shall participate in the surveys at least to the extent that he physically reviews the survey layout in the field and the finished field notes and shows evidence of that review by notation in the submittal notes to the COR.

3.11.8 Verification

The Government may make checks as the work progresses to verify lines and grades established by the Contractor and to determine the conformance of the completed work as it progresses with the requirements of contract specifications and drawings. Such checking by the Contracting Officer or his designated representative shall not relieve the Contractor of his responsibility to perform all work in accordance with the contract drawings and specifications and any approved modifications thereto.

3.12 FINAL EXAMINATION AND ACCEPTANCE (1965 APR OCE)

3.12.1 Final Acceptance

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

3.12.2 Final Acceptance of Dikes/Inspection For Acceptance

Final acceptance of dikes will be made only when they are completed and conform to the shapes, grades, and slopes required, as confirmed by Contractor's surveys. As soon as practicable after completion of the entire work or any section thereof as in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract and receipt by the Contracting Officer of all Contractor's surveys, plots, etc., such work will be thoroughly visually examined by the Government. The Contractor shall notify the Contracting Officer when (all or part of) the work is completed and an examination is required. The Contractor will be advised when final visual examination is to be made and will be permitted to be present at the examination. If the work is found to comply fully with all the requirements of the contract, it will be

accepted. In the event the work does not comply fully with the requirements of these specifications and drawings, corrective measures will be undertaken immediately by the Contractor, following which a second inspection will be made. Should more than two inspections become necessary as a result of failure on the part of the Contractor to perform the work satisfactorily, the cost of the third and all subsequent inspections, at the cost of \$650.00 per day, will be deducted from any amounts due or to become due.

### 3.12.3 Acceptance Sections

For the purpose of inspection, each bid item will comprise an acceptance section.

### 3.13 UTILITY VEHICLE FOR GOVERNMENT USE (LOCAL)

The Contractor shall provide and keep a vehicle on the island (Clouter Creek Disposal Area) during this entire contract, for use by the Government Construction Representative(s) and other Government employees.

Utility Vehicle shall be four-wheel drive (4WD); have seating for at least four adults (driver plus three others); be Jeep Cherokee, Ford Bronco, or equal, in good working order. Contractor shall be responsible for all fuel, oil, lube, maintenance, insurance coverage, and security of vehicle while on island.

ATTACHMENTS

	<u>DESCRIPTION</u>	<u>No. Of PAGES</u>
A	CONSTRUCTION QUALITY CONTROL REPORT	2
B	DEFICIENCY TRACKING LOG	1
C	LOG AND SUMMARY OF OCCUPATIONAL INJURIES AND ILLNESSES (OSHA FORM 200)	2
D	MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN	7
E	ACTIVITY HAZARD ANALYSIS	1
F	REPORT OF WEEKLY SAFETY MEETING (SAC FORM 253)	1
G-2	SAD FORM 1437b-R, LAUNCHES, MOTORBOATS, AND SKIFFS	2
G-3	SAD FORM 1666a-R, CRAWLER, TRUCK, AND WHEEL MOUNTED CRANES	4
G-5	SAD FORM 1666c-R, RIGGING	4
G-6	SAD FORM 1666d-R, MOTOR VEHICLES, TRAILERS, AND TRUCKS	3
G-7	SAD FORM 1666e-R, CRAWLER TRACTORS AND DOZERS	2
G-8	SAD FORM 1666f-R, SCRAPERS, MOTOR GRADERS, AND OTHER MOBILE EQUIPMENT	3
H	SUBMITTAL REGISTER (ENG FORM 4288)	1
H-1	TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE (ENG FORM 4025)	2
I	DISCLOSURE OF LOBBYING ACTIVITIES (Standard Form LLL)	3
J	CONSOLIDATED REPORT	OMITTED
K	WAGE RATES	2
L	CONSTRUCTION PROGRESS CHART (ENG FORM 2454)	1

FORMAT

CONTRACTOR'S NAME  
(Address)

**CONSTRUCTION QUALITY CONTROL REPORT**

Date: \_\_\_\_\_ Report No. \_\_\_\_\_

Contract No. \_\_\_\_\_

Description and Location of Work: \_\_\_\_\_  
\_\_\_\_\_

Weather: (Clear) (P. Cloudy) (Cloudy): Temperature: \_\_\_\_\_ -Min, \_\_\_\_\_ Max;;  
Rainfall \_\_\_\_\_ Inches

Contractor/Subcontractors and Area of Responsibility \_\_\_\_\_

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_
- g. \_\_\_\_\_

1. Work Performed Today:

(Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.)

\_\_\_\_\_

2. Results of Control Activities:

(Indicate whether: P-Preparatory, I-Initial, or F-Follow-up and include satisfactory work completed or deficiencies with action to be taken.)

\_\_\_\_\_

3. Test Required by Plans and/or Specifications Performed and Results of Tests:

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4. Monitoring of Materials and Equipment:

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5. Off-Site Surveillance Activities:

---

6. Job Safety and Health Deficiencies:

(Daily Comment Required)

---

7. Remarks:

- a. (Cover any conflicts in plans and specifications or instructions.)
  - b. (Action taken in review of submittal.)
  - c. (Verbal instructions received.)
- 

CONTRACTOR'S VERIFICATION:

The above report is complete and correct and all material and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications except as noted above.

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Chief of Contractor Quality Control







## MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PROGRAM

This outline is intended to be a guide and may be incomplete dependent on the type of operations to be performed. Its only purpose is to assist the contractor when submitting his proposal for carrying out the accident prevention provisions of the contract. When composing the proposals the Contractor must be mindful to be relevant, specific, and not copy or reproduce statements from safety regulations. Rather, his submitted proposals are to relate "how, who, why, what, where" he plans to perform the contracted work requirements in a safe manner using the Safety and Health Requirements Manual, EM 385-1-1, Revised September 1996 and current revisions to date. Non-applicable parts of this outline should be disregarded.

1. CONTRACT NO: DATE SUBMITTED:
2. CONTRACTORS NAME, ADDRESS AND TELEPHONE NO:
3. PROJECT LOCATION:
4. CONTRACTORS PAST SAFETY RECORD: (Including work with other Districts.)
  - A. Analysis of Accident experience
  - B. Years experience covers
  - C. Types of Accidents
  - D. Causes of Accidents
  - E. Corrective measures taken
  - F. Statement giving percent debit or credit of annual rate of compensation insurance
5. INVESTIGATION: All accidents investigation for the purpose of preventing similar accidents and gather facts
  - A. Procedures used in investigation accidents
  - B. Completeness and promptness of reports
6. SAFETY INSPECTIONS:
  - A. Who will perform these inspections
  - B. How often will they be conducted

C. What items will be inspected

- 1) Hand Tools
- 2) Equipment
- 3) Motor Vehicles
- 4) Housekeeping
- 5) Safe work practices
- 6) Sanitation
- 7) Personal Protective Equipment

7. SAFETY TRAINING

- A. Orientation and Instruction of new employee (safety topics)
- B. Who will give the orientation and instruction
- C. Knowledge of Corps of Engineers Safety Requirements

8. SAFETY MEETINGS:

- A. Who will conduct safety meetings
- B. What subjects will be discussed
- C. How often will meetings be conducted
- D. When will reports of these meetings be submitted
- E. Do you have an incentive program for safety consciousness
- F. Who will administer your overall Accident prevention Program

9. HEALTH AND SANITATION:

- A. Drinking Water
  - 1) Source
  - 2) Type of Dispensing Unit
    - a. methods
    - b. care of units

B. Toilet Facilities

- 1) Location
- 2) Type of Unit
- 3) Quantity
- 4) Service Frequency

C. Housing and/or office facilities

- 1) Location
- 2) Type of Accommodations

D. Medical Facilities

- 1) First Aid Capabilities
  - a. Number of trained personnel and certificate of qualifications
  - b. Number and type of first aid kits and supplies
  - c. How often are instructions given to employees
- 2) Professional care and services (names, addresses and phone numbers)
  - a. Local physicians
  - b. Hospital Facilities
  - c. EMS or Ambulance Service
- 3) Emergency Evacuation for Critically Injured personnel
  - a. Procedure
  - b. Helicopter Service and Phone Number

10. FIRE PREVENTION AND PROTECTION:

A List your Fire Fighting Personnel

- 1) Who has definite responsibility
- 2) How often are personnel trained

B. Fire Fighting Equipment/Extinguishers

- 1) Type of Service
- 2) Is it adequate
- 3) Where is it located
- 4) When is maintenance and inspection performed

C. Flammable

- 1) Types stored
- 2) How stored (methods)
- 3) Where stored (containers, cabinets, etc)
- 4) Dispensing methods

11. PERSONAL PROTECTIVE EQUIPMENT (PPE): (Safety hats, goggles, personal flotation devices, safety shoes, respirators, etc.

- A. Provided
- B. Use required
- C. Maintenance of PPE
- D. Storage

12. LIGHTING:

- A. On mobile equipment
- B. Work areas
- C. Access to work areas

13. TRANSPORTING PERSONNEL:

- A. Equipment used
  - 1) Design
  - 2) Capacity
  - 3) Maintenance and frequency
- B. Operators and Qualifications

14. MACHINERY AND EQUIPMENT: (includes floating plant)
  - A. Number and type equipment
  - B. Pre-work safety checks
  - C. Guards and safety devices
  - D. Maintenance and Servicing
  - E. Load tests
  - F. Operating Personnel
    - 1) Qualifications and Certification
    - 2) Responsibilities
    - 3) Observance of instructions, etc.
15. CLEARING OPERATIONS:
  - A. Burning
16. ACCESS FACILITIES:
  - A. Ladders
  - B. Stairways
17. HANDTOOLS
  - A. Electric
  - B. Pneumatic
  - C. Explosive activated
  - D. Other (specify)
18. WELDING AND BURNING OPERATIONS:
  - A. Type Equipment
  - B. Personal Protective Equipment and Devices
  - C. Storage of compressed cylinders (full and empty)
  - D. Safe practices
19. HEATING DEVICES:

- A. Types
  - B. Fuel
  - C. Maintenance
  - D. Locations
20. RIPRAP - METHODS OF PLACEMENT:
21. PROTECTION OF THE PUBLIC:
- A. Visitors
  - B. Pedestrians
  - C. Motor vehicles
  - D. Controls and procedures
22. HOUSEKEEPING POLICY:
- A. Procedures
  - B. Methods
  - C. Debris Disposal
23. EXCAVATIONS:
- A. Type
  - B. Depth
  - C. Shoring
  - D. Sloping
24. WATER SAFETY:
- A. Type and size floating plant
  - B. Use of personal protective equipment (PPE)
  - C. Life saving skiff
  - D. Lifesaving and rescue drills
  - E. Diving policy and notifications procedures (Separate plan must be submitted)

25. ELECTRICAL WIRING

- A. Voltage and uses
- B. Elevated and/or buried
- C. Grounding
- D. Ground fault circuit interrupters (GFCI's)
- E. Operators adjacent to overhead lines

26. NOISE ABATEMENT:

- A. Hearing Conservation Program
- B. Source
- C. Exposure controls (PPE)

27. HAZARD COMMUNICATION PROGRAM:

- A. Description of Company Policy
- B. Materials Safety Data Sheets (MSDS)
- C. Communication Methods with Employees

28. ALCOHOL AND DRUG POLICY:

29. COMPLIANCE STATEMENT:

(All work will be performed in accordance with Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, Revised September 1996, and current revisions to date, and will include any additional measures the Contracting Officer deems necessary for the prevention of Accidents.)

30. OTHER SAFETY HAZARDS:

(Describe any other hazards you may anticipate for this particular job and those measures that will be taken to eliminate them.)

31. ACTIVITY HAZARD ANALYSIS:

EM 385-1-1, requires an Activity Hazards Analysis to be prepared by the Contractor. This (phase plan) will be attached to the accident prevention plan. Work will not proceed until these plans have been accepted by the Government.

This plan has been reviewed and determined appropriate for the safe operations of this job.

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PRIME CONTRACTOR

---

AUTHORIZED REPRESENTATIVE  
OF THE CONTRACTING OFFICER

---

CHIEF, SAFETY OFFICE

## ACTIVITY HAZARD ANALYSIS

ACTIVITY \_\_\_\_\_ ANALYZED BY/DATE \_\_\_\_\_ REVIEWED BY/DATE \_\_\_\_\_

PRINCIPAL STEPS	POTENTIAL HAZARDS	RECOMMENDED CONTROLS	
Identify the principal steps involved and the sequence of work activities	Analyze each principal step for its potential hazards	Develop specific controls for each potential hazard.	
EQUIPMENT TO BE USED	INSPECTION REQUIREMENTS	SUPERVISORY REQUIREMENT	TRAINING REQUIREMENT
List of equipment/machinery to be used in conducting the work activities.	List inspection requirements for the equipment/machinery listed.	List the names of the individuals responsible for the safe execution of these activities	Determine requirements for worker training including hazard communication.

**REPORT OF WEEKLY SAFETY MEETING** \_\_\_\_\_

(DR 385-1-4)

TO: Chief, Safety Office

FROM \_\_\_\_\_

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ (A.M./P.M.)

No. Employees Present \_\_\_\_\_ Duration: \_\_\_\_\_

Old Business: (Review report of last meeting. Follow up on action taken or anticipated to correct any safety deficiencies brought up at last meeting. Discuss any unfinished business.)

New Business: (Discuss any unsafe acts or conditions observed since last safety meeting and any mishaps or injuries which occurred during the week.)

Safety Presentation: Safety talk, movie, or slide presentation on subject that is relevant to operation at hand.)

\_\_\_\_\_  
SIGNATURE & DATE  
Government Representative

\_\_\_\_\_  
SIGNATURE & DATE  
Contractor Safety Representative

## SAFETY CHECKLIST FOR LAUNCHES, MOTORBOATS AND SKIFFS

Contract # and title:			
Contractor:	Subcontractor:		
Name of equipment:	Superintendent:		
	Yes	No	N/A
1. Is a qualified crew person assigned to assist with deck duties under the following circumstances: (19.C.01) a. when extended trips (more than 2 hours) are made from the work site? b. when conditions of navigation make it hazardous for an operator to leave the wheel while underway? c. when operation other than tying-in require the handling of lines? d. when operating at night or in inclement weather? e. when towing?			
2. Are all motorboats, launches and skiffs posted with the number of passengers and weight they can carry? (19.C.02)			
3. Is there a PFD available for each passenger and crew member? (19.C.02)			
4. Do all launches and motorboats that are less than 26 feet in length have at least one 1A-10B:C fire extinguisher on board? (19.C.03)			
5. Do all launches and motorboats that are 26 feet or more in length have at least 2 1A-10B:C fire extinguishers on board? (19.C.03)			

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 Mar 97 referencing the 1992 edition of EM 385-1-1.  
 page 1 of 2

	Yes	No	N/A
<p>6. Do all launches and motorboats that have gasoline or liquid petroleum gas power plants or equipment in cabins, compartments, or confined spaces have built-in automatic CO2 or other equally effective type of fire extinguishing system? (19.C.03)</p>			
<p>7. Remarks: (Enter actions taken for "no" answers.)</p>			
<p>Contractor inspector signature</p>			
<p>Contractor QC/safety officer/project manager signature</p>			

SAD Form 1437b-R Previous editions may be used for contracts  
Mar 97 referencing the 1992 edition of EM 385-1-1.  
page 2 of 2

## SAFETY CHECKLIST FOR CRAWLER, TRUCK & WHEEL MOUNTED CRANES

Contract # and title:					
Equipment name & number: owned or leased?					
Contractor:		Subcontractor:			
Contract Inspector:		Date inspected:			
			Yes	No	N/A
1. Unless the manufacture has specified an on-rubber rating, outriggers will be fully extended and down? (16.D.10)					
2. Are lattice boom cranes equipped with a boom angle indicator, load indicating device, or a load moment indicator? (16.D.01)					
3. Are lattice boom and hydraulic cranes equipped with a means for the operator to visually determine levelness? (16.D.02)					
4. Are lattice boom and hydraulic cranes, except articulating booms cranes, equipped with drum rotation indicators located for use for the operator? (16.D.03)					
5. Are lattice boom and hydraulic mobile cranes equipped with a boom angle or radius indicator within the operator's view? (16.D.04)					
6. Are lattice boom cranes, with exception of duty cycle cranes, equipped with an anti-two blocking device? (16.D.05)					
7. When duty cycle machines are required to make a non-duty lift, is the crane equipped with an international orange warning device and is a signal person present? (16.D 05)					
8. Are the following with the crane at all times: (16.C.02)					
<ul style="list-style-type: none"> <li>a. the manufacturer's operating manual?</li> <li>b. the load rating chart?</li> <li>c. the crane's log book documenting use, maintenance, inspections and tests?</li> <li>d. operating manual for crane operator aids used on the crane.</li> </ul>					

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Mar 97 referencing the 1992 edition of EM 385-1-1.

	Yes	No	N/A
9. Are the following on the project site: a. completed periodic inspection report prior to initial work? (16.C.12) b. pre-operational checklist used for daily inspection? (16.C.12) c. written reports of the operational performance test? (16.C.13) d. written reports of the load performance test? (16.C.13)			
10. Are all operators physically qualified to perform work? (16.C.05)			
11. Are all operators qualified by written and practical exam or by appropriate licensing agency for the type crane they are to operate? (16.C.05)			
12. Is the crane designed and constructed IAW the standards listed in Table 16-1? (16.C.06)			
13. Is a hazard analysis for set-up and set-down available? (16.C.08)			
14. Are accessible areas within the swing radius of the rear of the crane barricaded? (16.C.09)			
15. Are there at least 3 wraps of cable on the drum? (16.C.10)			
16. Are the hoisting ropes installed IAW the manufacturer's recommendations? (16.C.10)			
17. Are critical lift plans available? (16.C.18)			
18. Are minimum clearance distance for high voltage lines posted at the operator's position? (11.E.04)			
19. Do older lattice boom cranes with anti-two block warning devices in lieu of anti-two block prevention devices have a written exemption? (16.D.05)			
20. Is the slow moving emblem used on all vehicles which by design move at 25 MPH or less on public roads? (08.A.04)			
21. Are all vehicles which will be parked or moving slower than normal traffic on haul roads equipped with a yellow flashing light or flasher visible from all directions? (16.A.13)			

	Yes	No	N/A
22. Is all equipment to be operated on public roads provided with: (16A.07) a. headlights? b. brake lights? c. taillights? d. back-up lights? e. front and rear turn signals?			
23. Are seat and seat belts provided for the operator and each rider on equipment? (16.A.07 and 16.B.08)			
24. Is all equipment with windshields equipped with powered wipers and defogging or defrosting devices? (16.A.07)			
25. Is the glass in the windshield or other windows clear and unbroken to provide adequate protection and visibility for the operator? (16.A.07, 16.B.10)			
26. Is all equipment equipped with adequate service brake system and emergency brake system? (16.A.18)			
27. Are areas on equipment where employees walk or climb equipped with platforms, footwalks, steps, handholds, guardrails, toeboards and non-slip surfaces? (16.B.03)			
28. Is all self propelled equipment equipped with automatic, audible, reverse signal alarms? (16.B.01)			
29. Is there a record of manufacturer's approval of any modification of equipment which affects its capacity or safe operation? (16.A.18)			
30. Are truck and crawler cranes attached to a barge or pontoon by a slack tiedown system? (16.F.06)			
31. Have the following conditions been met for land cranes mounted on barges or pontoons: (16.F.04) a. Have load ratings been modified to reflect the increased loading from list, trim, wave, and wind action? b. Are all deck surfaces above the water? c. Is the entire bottom area of the barge or pontoon submerged? d. Are tie downs available? e. Are cranes blocked and secured?			
32. Are all belts, gears, shafts, spindles, drums, flywheels, or other rotating parts of equipment guarded where is a potential for exposure to workers? (16.B.03)			

	Yes	No	N/A
33. Is the area where the crane is to work level, firm and secured? (16.A.10)			
34. Is a dry chemical or carbon dioxide fire extinguisher rated at least 5-B:C on the crane? (16.A.26)			
35. Are trucks, for truck mounted cranes, equipped with a working reverse signal alarm? (16.B.01)			
36. Is a signal person provided where there is danger from swinging loads, buckets, booms, etc.? (16.B.13)			
37. Is there adequate clearance from overhead structures and electrical sources for the crane to be operated safely? (16.C.09)			
38. Is there adequate lighting for night operations? (16.C.19)			
39. Has the the boom stop test on cable-supported booms been performed? (16.D.06)			
40. Is the boom disengaging device functioning as required? (16.D.06)			
41. Has all rigging and wire rope been inspected? (Section 15)			
Remarks:(Enter actions taken for all "no" answers.)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			



	Yes	No	N/A
<p>f. Do all eye splices have at least 5 full tucks?</p> <p>g. If used, are wedge sockets fastening attached without attached the dead end of the wire rope to the live rope?</p> <p>h. Are they free of eyes or splices formed by wire rope clips or knots?</p>			
<p>9. Are the following conditions met for chain? (15.C.01-04)</p> <p>a. Are all chains alloyed?</p> <p>b. Do all coupling links or other attachments have rated capacities at least equal to that of the chain.</p> <p>c. Are makeshift fasteners restricted from use?</p>			
<p>10. Are the following conditions met for fiber rope:(15.D.01-07)</p> <p>a. Are all ropes protected from freezing, excessive heat or corrosive materials?</p> <p>b. Are all ropes protected from abrasion?</p> <p>c. Are splices made IAW manufacture's recommendations?</p> <p>d. Do all eye splices in manila rope contain at least 3 full tucks and do all short splices contain at least 6 full tucks(3 on each side of the centerline of the splice)?</p> <p>e. Do all splices in layed synthetic fiber rope contain at least 4 full tucks and do short splices contain at least 8 full tucks ( 4 on each side of the centerline of the splice)?</p> <p>f. Do the tails of fiber rope splices extend at least 6 rope diameters (for rope 1" diameter or greater) past the last full tuck?</p> <p>g. Are all eye splices large enough to provide an included angle of not greater than 60* at the splice when the eye is placed over the load or support?</p>			
<p>11. Are the following conditions met for all slings:(15.E.01-06)</p> <p>a. Is protection provided between the sling and sharp surfaces?</p> <p>b. Do all rope slings have minimum clear length of 40 times the diameter of component ropes between each end fitting or eye splice?</p> <p>c. Do all braided slings have a minimum clear length of 40 times the diameter of component ropes between each end fitting or eye splice?</p>			

	Yes	No	N/A
d. Do all welded alloy steel chain slings have affixed permanent identification stating size, grade, rated capacity and manufacturer? e. Is each synthetic web sling marked or coded to identify its manufacturer, rated capacities for each type hitch and the type material?			
12. Are drums, sheaves, and pulley smooth and free of surface defects? (15.F.01)			
13. Is the ratio of the diameter of the rigging and the drum, block sheave or pulley thread diameter such that the rigging will adjust without excessive wear, deformation, or damage? (15F.02)			
14. Have all damaged drums, sheaves and pulleys been removed from service? (15.F.04)			
15. Are all connections, fittings, fastenings, and attachments of good quality, proper size and strength, and installed IAW manufacturer's recommendations? (15.F.05)			
16. Are all shackles and hooks sized properly? (15.F.06 & .07)			
17. Are hoisting hooks rated at 10 tons or greater provided with safe handling means? (15.F.07)			
18. Do all drums have sufficient rope capacity? (15.F.08)			
19. Is the drum end of the rope anchored by a clamp securely attached to the drum in a manner approved by the manufacturer? (15.F.08)			
20. Do grooved drums have the correct groove pitch for the diameter of the rope and is the groove depth correct? (15.F.08)			
21. Do the flanges on grooved drums project beyond the last layer of rope at a distance of either 2" or twice the diameter of the rope, whichever is greater? (15.F.08)			
22. Do the flanges on ungrooved drums project beyond the last layer of rope a distance of either 2.5" or twice the diameter of the rope, which ever is greater.			

	Yes	No	N/A
23. Are the sheaves compatible with the size of rope used and as specified by the manufacture? (15F.09)			
24. Are sheaves properly aligned, lubricated, and in good condition? (15.F.09)			
25. When rope is subject to riding or jumping off a sheave, are sheaves equipped with cablekeepers? (15.F.09)			
26. Are eye bolts loaded in the plane of the eye and at angles less than 45* to the horizontal? (15.F.10)			
27. Remarks: (Enter actions taken for "no" answers.)			
Contractor inspector signature			
Contractor QC/safety/project manager signature			

SAD Form 1666c-R Previous editions may be used for contracts  
Mar 97 referencing the 1992 edition of EM 385-1-1.  
page 4 of 4



	Yes	No	N/A
6. Is all the glass safety glass and is all broken or cracked glass replace? (18.A.07)			
7. Do trailers meet the following: (18A.08) a. Are all towing devices adequate for the weight drawn? b. Are all towing devices properly mounted? c. Are locking devices or a double safety system provided on every 5th wheel mechanism and tow bar arrangement to prevent accidental separation? d. Are trailers coupled with safety chains or cables to the towing vehicle? e. Are trailers equipped with the power brakes equipped with a break-away device which will lock-up the brakes in the event the trailer separates from the towing vehicle?			
8. Are all dump trucks:(18.A.10) a. equipped with a holding device to prevent accidental lowering of the body? b. equipped with a hoist lever secured to prevent accidental starting or tipping? c. equipped with means to determine (from the operator's position) if the dump box is lowered? d. equipped with trip handles for tailgates that allow the operator to be clear?			
9. Are all buses, trucks and combination of vehicles with a carrying capacity of 1.5 tons or more, to be operated on public roads equipped with: (18.A.11) a. 3 reflective markers? b. 2 wheel chocks for each vehicle? c. at least one 2A:10B:C fire extinguisher? d. at least two properly rated fire extinguishers (for vehicles carrying flammable cargo)? e. a red flag not less than 1 foot square.			
10. Is vehicle exhaust controlled so as not to present a hazard to personnel? (18.A.13)			
11. Are all rubber tired motor vehicles equipped with fenders or with mud flaps if the vehicle is not designed for fenders? (18.A.14)			

SAD Form 1666d-R Previous editions may be used for contracts  
Mar 97 referencing the 1992 edition of EM 385-1-1.  
page 2 of 3

	Yes	No	N/A
12. Are all vehicles, except buses, equipped with seat belts? (18.B.02)			
13. Does all self-propelled construction and industrial equipment have a working reverse signal alarm? (16.B.01)			
14. Are all hot surfaces of equipment, including exhaust pipes or other lines, guarded or insulated to prevent injury or fire? (16.B.03)			
15. If an off the road vehicle, is it equipped with rollover protective structures? (16.B.12)			
16. Remarks: (Enter actions taken for "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

SAD Form 1666d-R Previous editions may be used for contracts  
Mar 97 referencing the 1992 edition of EM 385-1-1.  
page 3 of 3

## SAFETY CHECKLIST FOR CRAWLER TRACTORS AND DOZERS

Contract # and title:			
Equipment name & number: owned or leased?			
Contractor:		Subcontractor:	
Contractor inspector:		Date inspected:	
	Yes	No	N/A
1. Are initial and daily/shift inspection records available? (16.A.01& .02)			
2. Are only qualified operators assigned to operate mechanized equipment? (16.A.04)			
3. Are sufficient lights provided for night operations? (16.A.11)			
4. Is the unit shut down before refueling? (16.A.14)			
5. Does the unit have as a minimum a 5-B:C fire extinguisher? (16.A.26)			
6. Is there an effective, working reverse alarm? (16.B.01)			
7. Are moving parts, shafts, sprockets, belts, etc., guarded? (16.B.03 ,07, and 13)			
8. Is protections against hot surfaces, exhausts, etc., provided? (16.B.03 and .13)			
9. Are fuel tanks located in a manner to prevent spills or overflows from running onto engine exhaust or electrical equipment?			

SAD Form 1666e-R Previous editions may be used for contracts  
 Mar 97 referencing the 1992 edition of EM 385-1-1.  
 page 1 of 2

	Yes	No	N/A
10. Are exhaust discharges directed so they do not endanger person or obstruct operator vision?(16.B.05)			
11. Are seat belts provided? (16B.08)			
12. Is protection (grills, canopies, screens) provided to shield operator from falling or flying objects? (16.B.10 and .11)			
13. Is roll over protection provided? (16.B.12)			
14. Remarks: (Enter actions taken for "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

## SAFETY CHECKLIST FOR SCRAPERS, MOTOR GRADERS, AND OTHER MOBILE EQUIPMENT

Contract # and title:			
Equipment name and number: owned or leased?			
Contractor:		Subcontractor:	
Contractor inspector:		Date inspected:	
	Yes	No	N/A
1. Are initial and daily/shift inspection records available? (16.A.01 & .02)			
2. Are only qualified operators assigned to operate equipment? (16.A.04)			
3. Are sufficient lights provided for night operations? (16.A.11)			
4. Does the unit have as a minimum a 5-B:C fire extinguisher? (16.A.26)			
5. Is there an effective working reverse alarm? (16.B.01)			
6. Is the unit shut down for refueling? (16.A.14)			
7. Are moving parts, shafts, sprockets, belts, etc., guarded? (16.B.03, .07 and .13)			
8. Is protection against hot surfaces, exhausts, etc., provided? (16.B.03 and .13)			
9. Are fuel tanks located in a manner to prevent spills or overflow from running onto engine exhaust or electrical equipment? (16.B.04)			
10. Are exhaust discharges directed so they do not endanger persons or obstruct operator vision? (16.B.05)			

SAD Form 1666f-R Previous editions may be used for contracts  
 Mar 97 referencing the 1992 edition of EM 385-1-1.  
 page 1 of 3

	Yes	No	N/A
11. Are seat belts provided for each person required to ride on the equipment? (16.B.08)			
12. Is protection (grills, canopies, screens) provided to shield operators from falling or flying objects? (16.B.10 and .11)			
13. Is roll over protection provided? (16.B.12)			
14. Is a safe means of access to the cab provided (steps, grab bars, non-slip surfaces)? (16.B.03)_			
15. Are adequate head and tail lights provided? (16.A.07)			
16. Have brakes been tested and found satisfactory? (16.A.07)			
17. Does the unit have an emergency brake which will automatically stop the equipment upon brake failure? Is this system manually operable from the drivers position? (16.A.07)			
18. Is all equipment with windshields equipped with powered wipers and defogging or defrosting system? (16.A.07)			
19. Are all vehicles which will be parked or moving slower than normal traffic on haul roads equipped with a yellow flashing light or flasher visible from all directions? (16.A.13)			
20. Is the slow moving emblem used on all vehicles which by design move at 25 MPH or less on public roads? (08A.04)			

SAD Form 1666f-R Previous editions may be used for contracts  
Mar 97 referencing the 1992 edition of EM 385-1-1.  
page 2 of 3

	Yes	No	N/A
21. Have air tanks been tested and certified? (20.A.01)			
22. Is an air pressure gage in working condition installed on the unit? (20.A.12)			
23. Does the air tank have an accessible drain valve? (20.B.17)			
24. Remarks: (Enter action taken for all "no" answers)			
Contractor inspector signature			
Contractor QC/safety officer/project manager			

SAD Form 1666f-R Previous editions may be used for contracts  
Mar 97 referencing the 1992 edition of EM 385-1-1.  
page 3 of 3





## INSTRUCTIONS

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

### THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

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

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



## INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.  
(b) Enter the full names of the individuals(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

**DISCLOSURE OF LOBBYING ACTIVITIES  
CONTINUATION SHEET**

Approved by OM  
0348-0046

Reporting Entity: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

General Decision Number SC030031 06/13/2003

Superseded General Decision No. SC020031

State: **South Carolina**

**Construction** Type:

**HEAVY**

County(ies):

**BERKELEY** DORCHESTER

**HEAVY CONSTRUCTION** PROJECTS (Excluding Water and Sewer Lines)

Modification Number Publication Date

0 06/13/2003

COUNTY(ies):

**BERKELEY** DORCHESTER

SUSC2008B 04/15/1996

	Rates	Fringes
CEMENT MASONS (Including Rebar)	8.47	
ELECTRICIANS	11.67	.61
LABORERS, General	6.93	
POWER EQUIPMENT OPERATORS, Backhoe	10.00	
TRUCK DRIVERS, Tandem Dump	8.00	.46

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.  
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).  
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In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of **Construction** Wage Determinations. Write to:

Branch of **Construction** Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request

review and reconsideration from the Wage and Hour Administrator  
(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

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