IFB No. **DACA09-03-B-0004**

**U.S. ARMY CORPS**
**OF ENGINEERS**
**LOS ANGELES DISTRICT**

# INDEFINITE DELIVERY/INDEFINITE QUANTITY (IDIQ) CONTRACT FOR FORCE PROTECTION FENCING

## PRIMARILY FOR USE BY THE HIGH DESERT AREA OFFICE, BUT TO INCLUDE CIVIL WORK PROJECT SITES AND OTHER CORPS OF ENGINEERS' (COE) CUSTOMERS WITHIN ALL OF THE SOUTH PACIFIC DIVISION (INCLUDES CALIFORNIA, ARIZONA, NEVADA, UTAH AND NEW MEXICO)

# Construction Solicitation and Specifications

**8(a) Competitive**

**JANUARY 2003**

## PROJECT TABLE OF CONTENTS

**COVER**

**BIDDING REQUIREMENTS, CONTRACT FORMS AND CONTRACT CONDITIONS**

| | |
|---|---|
| Section 00010 | Solicitation, Offer and Award (SF 1442) and Bidding Schedule |
| Section 00100 | Instructions to Bidders |
| Section 00600 | Representations and Certifications |
| Section 00700 | Contract Clauses |
| Section 00800 | Special Contract Requirements |

**TECHNICAL SPECIFICATIONS**

**DIVISION 01 – GENERAL REQUIREMENTS**

| | |
|---|---|
| Section 01250 | MEASUREMENT AND PAYMENT |
| Section 01300 | SUBMITTAL PROCEDURES |
| Section 01312A | QUALITY CONTROL SYSTEMS (QCS) |
| Section 01320A | PROJECT SCHEDULE |
| Section 01420 | SOURCES OF REFERENCE PUBLICATIONS |
| Section 01430 | ENVIRONMENTAL PROTECTION (Southern California) |
| Section 01430A | ENVIRONMENTAL PROTECTION (Edwards Air Force Base Only) |
| Section 01440 | CONTRACTOR QUALITY CONTROL |
| Section 01500 | GENERAL CONDITIONS |
| Section 01780A | CLOSEOUT SUBMITTALS |

**DIVISION 02 – SITE WORK**

| | |
|---|---|
| Section 02050 | DEMOLITION |
| Section 02110A | CLEARING AND GRUBBING |
| Section 02221A | EARTHWORK |
| Section 02831 | CHAIN LINK FENCE (Standard) |
| Section 02831B | BARBED WIRE FENCE |
| Section 02831C | FENCE, DESERT TORTOISE |
| Section 02831D | ARCHED/ANGLE STYLE HIGH SECURITY FENCE |

**DIVISION 03 – CONCRETE**

| | |
|---|---|
| Section 03300A | CONCRETE, MINOR CONSTRUCTION |

**DIVISION 04 – MASONRY**

| | |
|---|---|
| Section 04200A | CONCRETE MASONARY UNITS |

**DIVISION 07 – THERMAL & MOISTURE PROTECTION**

| | |
|---|---|
| Section 07920A | CAULKING AND SEALANTS |

**-- End of Table of Contents --**

| SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)* | 1. SOLICITATION NO. DACA09-03-B-0004 | 2. TYPE OF SOLICITATION ☒ SEALED BID *(IFB)* ☐ NEGOTIATED *(RFP)* | 3. DATE ISSUED 07 January 2003 | PAGE OF PAGES |
|---|---|---|---|---|

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

| 4. CONTRACT NO. | 5. REQUISITION/PURCHASE REQUEST NO. | 6. PROJECT NO. IDIQ, FORCE PROTECTION FENCING |
|---|---|---|

7. ISSUED BY CODE DACA09

Contracting Division
West Region Branch
P.O. Box 532711
Los Angeles, CA 90053-2325

8. ADDRESS OFFER TO

| 9. FOR INFORMATION CALL: | A. NAME Sharon R. Morrow | B. TELEPHONE NO. *(Include area code) (NO COLLECT CALLS)* 213.452.3248 |
|---|---|---|

## SOLICITATION

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

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*
Indefinite Delivery Indefinite Quantity (IDIQ) Contract for Force Protection Fencing, Primarily for use by the High Desert Area Office, but to include Civil Works Project Sites and Other Corps of Engineers Customers within all of the South Pacific Division of the USACE (Includes California, Arizona, Nevada, Utah and New Mexico). The contract will be awarded for a Base Period NTE 12 months and four Option Periods NTE 12 months each for a total contract performance period NTE 5 years (60 Months) or a Maximum NTE Value of $10,000,000.00, whichever occurs first.

This procurement consists of one solicitation with the intent of award one (1) IDIQ Task Order contract. When awarding the contract, the guaranteed minimum shall be 2% of the not-to-exceed capacity for the Base Period, or $500,000.00, whichever is less, and the minimum as required by EFARS 16.504 for the Option Periods, if exercised. The minimum guaranteed amounts may be met by the award of a task order in an equivalent amount.

For this procurement, the Small Business Administration (SBA) has determined that competition will be restricted to eligible 8(a) firms certified for participation in the 8(a) program with Headquarters or approved satellite offices within Region 9 of the Small Business Administration and which have a NAICS Code of 238990 among their approved NAICS Codes.

Please note: This procurement may be delayed, cancelled, or revised at any time during the solicitation, evaluation, and/or final award process.

11. The Contractor shall begin performance within * calendar days and complete it within * calendar days after receiving ☐ award, ☒ notice to proceed. This performance period is ☒ mandatory, ☐ negotiable. *(See* ~~*Per Task Order~~ *.)*

| 12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how may calendar days after award in Item 12B.)* | 12B. CALENDAR DAYS |
|---|---|
| ☒ YES ☐ NO Per Task Order | 10 |

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8 by 1300 *(hour)* local time 7 Feb 2003 *(date).* If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee ☒ is, ☐ is not required. Refer to Section 00100 Bid Gaurantee Form & Amount

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

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

**OFFER** ***(Must be fully completed by offeror)***

| 14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)* | 15. TELEPHONE NO. *(Include area code)* |
|---|---|
| | 16. REMITTANCE ADDRESS *(Include only if different than Item 14)* |
| CODE FACILITY CODE | |

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

AMOUNTS ▶ See Schedule of Prices

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

**19. ACKNOWLEDGMENT OF AMENDMENTS**
*(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)*

| AMENDMENT NO. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DATE | | | | | | | | | | |

| 20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)* | 20B. SIGNATURE | 20C. OFFER DATE |
|---|---|---|
| | | |

**AWARD** ***(To be completed by Government)***

21. ITEMS ACCEPTED:

| 22. AMOUNT | 23. ACCOUNTING AND APPROPRIATION DATA |
|---|---|

| 24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 Copies unless otherwise specified)* ▶ | ITEM | 25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C 2304(c) ( ) ☐ 41 U.S.C 253(c) ( ) |
|---|---|---|
| 26. ADMINISTERED BY CODE | | 27. PAYMENT WILL BE MADE BY |

***CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE***

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

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

| 30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)* | | 31A. NAME OF CONTRACTING OFFICER *(Type or print)* | |
|---|---|---|---|
| 30B. SIGNATURE | 30C. DATE | 31B. UNITED STATES OF AMERICA<br>BY | 31C. AWARD DATE |

**Bid Schedule**
**IDIQ Force Protection Fencing**
**DACA09-03-B-0004**

## BASE PERIOD

### 0001 DEMOLITION

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0001AA | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH. POSTS INSTALLED IN CONCRETE SURFACE. CUT POSTS 4" BELOW CONCRETE AND PACK WITH GROUT. | 48,000 | LF | _____ | _____ |
| 0001AB | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH | 5,000 | LF | _____ | _____ |
| 0001AC | DEMO EXISTING CHAIN LINK FENCE, 4 1/2' to 6' HIGH | 10,000 | LF | _____ | _____ |
| 0001AD | DEMO EXISTING CHAIN LINK FENCE, 6' to 8' HIGH | 10,000 | LF | _____ | _____ |
| 0001AE | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) WITH ITEMS 0001AA THRU 0001AD ABOVE. | 12,000 | LF | _____ | _____ |
| 0001AF | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) ONLY. ON EXISTING FENCE. | 7,500 | LF | _____ | _____ |
| 0001AG | DEMO EXISTING CHAIN LINK FENCE FABRIC 4' to 8' HIGH | 15,000 | SF | _____ | _____ |
| 0001AH | DEMO EXISTING 3 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE | 4,000 | LF | _____ | _____ |
| 0001AJ | DEMO EXISTING 4 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE. | 10,000 | LF | _____ | _____ |
| 0001AK | DEMO EXISTING 3 OR 4 WIRE BARBED WIRE (WIRE ONLY, POSTS TO REMAIN) | 10,000 | LF | _____ | _____ |

### 0002 FENCE REPLACEMENT

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0002AA | DEMO EXISTING 3' to 4' HIGH CHAIN LINK FENCE. INSTALL NEW 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0002AB | DEMO EXISTING 5' to 6' HIGH CHAIN LINK FENCE. INSTALL NEW 6' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0002AC | DEMO EXISTING 5' to 8' HIGH CHAIN LINK FENCE. INSTALL NEW 8' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0002AD | REMOVE AND REPLACE EXISTING 4 STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0002AE | REMOVE AND REPLACE EXISTING S STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0002AF | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE AND ASSOCIATED HARDWARE. | 1,500 | LF | _____ | _____ |
| 0002AG | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE (ON CHAIN LINK FENCE) | 1,200 | LF | _____ | _____ |

## BASE PERIOD

### 0003 NEW FENCE INSTALLATION

| ITEM | DESCRIPTION | QTY | UNIT | PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0003AA | INSTALL 5' HIGH CHAIN LINK FENCE WITH 1.5" DIA. LINE POSTS, 2' DIA CORNER/TRUSS POSTS, 5-GAUGE TOP AND BOTTOM TENSION WIRE. FABRIC SHALL BE 6 GAUGE 2"X2" GALV. WIRE FABRIC. POSTS SHALL BE SET IN HOLES DRILLED IN CONCRETE TO A DEPTH OF NOT LESS THAN 2". HOLES SHALL BE MINIMUM 2" LARGER DIAL THAN OUTSIDE DIAL OF POST TO BE INSTALLED AND GROUTED. LINE POSTS SHALL BE SET 10' OC MAX | 48,000 | LF | _____ | _____ |
| 0003AB | INSTALL 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0003AC | INSTALL 5' HIGH CHAIN LINK FENCE, TYPE FE-5. | 2,000 | LF | _____ | _____ |
| 0003AD | INSTALL 6' HIGH CHAIN LINK FENCE, TYPE FE-5. | 20,000 | LF | _____ | _____ |
| 0003AE | INSTALL 7' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0003AF | INSTALL 8' HIGH CHAIN LINK FENCE, TYPE FE-5. | 35,000 | LF | _____ | _____ |
| 0003AG | INSTALL NEW 3 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0003AH | INSTALL NEW 4 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0003AJ | INSTALL NEW 5 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0003AK | INSTALL NEW 32" HIGH WOVEN WIRE GRADUATED FIELD FENCE AND ASSOCIATED HARDWARE. | 15,000 | LF | _____ | _____ |
| 0003AL | INSTALL NEW DESERT TORTOISE FENCE. | 30,000 | LF | _____ | _____ |
| 0003AM | INSTALL NEW DESERT TORTOISE FENCE (ON EXISTING CHAIN LINK FENCE) | 5,000 | LF | _____ | _____ |
| 0003AN | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-6. | 1,000 | LF | _____ | _____ |
| 0003AP | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-7. | 1,000 | LF | _____ | _____ |
| 0003AQ | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-8. | 1,000 | LF | _____ | _____ |

### 0004 SWINGING GATES 4' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0004AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0004AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |

## BASE PERIOD

### 0005 SWINGING GATES 6' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0005AA | 4' PERSONNEL GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0005AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0005AC | 8' SINGLE SWING GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0005AD | 10' SINGLE SWING GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0005AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0005AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0006 SWINGING GATES 8' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0006AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0006AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0006AC | 8' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0006AD | 10' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0006AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0006AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0007 SLIDING GATES 6' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0007AA | 12' GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0007AB | 16’ GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0007AC | 20' GATE WITH POSTS. | 15 | EA | _____ | _____ |
| 0007AD | 24' GATE WITH POSTS. | 15 | EA | _____ | _____ |

### 0008 SLIDING GATES 8' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0008AA | 12' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0008AB | 16' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0008AC | 20' GATE, WITH POSTS. | 15 | EA | _____ | _____ |
| 0008AD | 24' GATE, WITH POSTS. | 15 | EA | _____ | _____ |

## BASE PERIOD

### 0009 DESERT TORTOISE GATES & BARRIER STRIP

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0009AA | INSTALL DESERT TORTOISE GATE 12 'to 14' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0009AB | INSTALL DESERT TORTOISE GATE 16' to 18' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0009AC | INSTALL DESERT TORTOISE GATE 20' to 24' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0009AD | PROVIDE AND INSTALL SWING GATE FOR BARBED WIRE/WOVEN WIRE GRADUATED FIELD FENCE, AND ASSOCIATED HARDWARE, COMPLETE IN PLACE. | 10 | EA | _____ | _____ |

### 0010 CONCRETE MASONRY BLOCK WALL

*INSTALL SPLIT FACE CMU BLOCK WALL WITH INTEGRAL COLOR, INCLUDING 8"x16"x8" STANDARD UNITS, 2" CAPPING BLOCK, EXCAVATION, CONCRETE FOOTING, DISPOSAL OF EXCESS MATERIALS, REINFORCEMENT, AND GROUT.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0010AA | 4' HIGH MASONRY BLOCK WALL COMPLETE. | 500 | LF | _____ | _____ |
| 0010AB | 4' HIGH CORNER (16"x1 6")8") | 26 | EA | _____ | _____ |
| 0010AC | 4' HIGH END (16"x8") | 26 | EA | _____ | _____ |
| 0010AD | 6' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0010AE | 6’ HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| 0010AF | 6’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0010AG | 8' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0010AH | 8' HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| OO10AJ | 8’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0010AK | GATE HARDWARE FOR MOUNTING CHAIN LINK GATE, INCLUDING HINGES AND LOCKING DEVICES FOR SINGLE GATE TO 8' WIDE. | 226 | EA | _____ | _____ |

## BASE PERIOD

### 0011 ARCHED/ ANGLED STYLE HIGH

*SECURITY FENCE, SEE SPECIFICATION SECTION 02831D*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0011AA | ANGLED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE, 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE, 1/2" EXPANDED METAL (STANDARD) UPPER SECTION, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0011AB | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE 1/2" EXPANDED METAL (STANDARD) UPPER SECTION COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0011AC | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL FULL HEIGHT OF FENCE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0011AD | UNDERGROUND CONCRETE FOUNDATION, (GRADE BEAM) INCLUDING EXCAVATION AND DISPOSAL OF EXCESS MATERIAL, REINFORCEMENT, AND CONCRETE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0011AE | ANGELED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION, 9 GAUGE 3/4" EXPANDED METAL (STANDARD) MID SECTION, AND 14 GAUGE 3/8" CHAIN LINK UPPER SECTION, COMPLETE IN PLACE. | 8,000 | LF | _____ | _____ |
| 0011AF | ROLLING GATE, 30' WIDE | 5 | EA | _____ | _____ |
| 0011AG | SWING GATE, 15' WIDE ARCHED FENCE SYSTEM 15’ HIGH, WITH 13 GUAGE ½” CHAIN LINK FULL HEIGHT POSTS SET AT 10’ OC, COMPLETE IN-PLACE | 10 | EA | _____ | _____ |
| 0011AH | PEDESTRIAN SWING GATE, 5' WIDE | 20 | EA | _____ | _____ |

### 0012 ADDITIONAL WORK

*Amount to be negotiated per Task Order.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0012AA | MOBILIZATION /DEMOBILIZATION: DOLLAR AMOUNT TO BE NEGOTIATED PER TASK ORDER. | N/A | EA | N/A | N/A |
| 0012AB | LABOR POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO BIDDING NOTE "LABOR POOL" IN BIDDERS’ NOTES FOR CLARIFICATION) | N/A | HR | N/A | N/A |
| 0012AC | EQUIPMENT POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER. TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "EQUIPMENT POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |
| 0012AD | MATERIAL POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "MATERIAL POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |

**Total Estimated Amount Base Period**
**(Line Items 0001 to 0012)** **$ _____**

## OPTION PERIOD I

### 0013 DEMOLITION

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0013AA | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH. POSTS INSTALLED IN CONCRETE SURFACE. CUT POSTS 4" BELOW CONCRETE AND PACK WITH GROUT. | 48,000 | LF | _____ | _____ |
| 0013AB | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH | 5,000 | LF | _____ | _____ |
| 0013AC | DEMO EXISTING CHAIN LINK FENCE, 4 1/2' to 6' HIGH | 10,000 | LF | _____ | _____ |
| 0013AD | DEMO EXISTING CHAIN LINK FENCE, 6' to 8' HIGH | 10,000 | LF | _____ | _____ |
| 0013AE | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) WITH ITEMS 0001AA THRU 0001AD ABOVE. | 12,000 | LF | _____ | _____ |
| 0013AF | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) ONLY. ON EXISTING FENCE. | 7,500 | LF | _____ | _____ |
| 0013AG | DEMO EXISTING CHAIN LINK FENCE FABRIC 4' to 8' HIGH | 15,000 | SF | _____ | _____ |
| 0013AH | DEMO EXISTING 3 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE | 4,000 | LF | _____ | _____ |
| 0013AJ | DEMO EXISTING 4 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE. | 10,000 | LF | _____ | _____ |
| 0013AK | DEMO EXISTING 3 OR 4 WIRE BARBED WIRE (WIRE ONLY, POSTS TO REMAIN) | 10,000 | LF | _____ | _____ |

### 0014 FENCE REPLACEMENT

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0014AA | DEMO EXISTING 3' to 4' HIGH CHAIN LINK FENCE. INSTALL NEW 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0014AB | DEMO EXISTING 5' to 6' HIGH CHAIN LINK FENCE. INSTALL NEW 6' HIGH CHAIN LINK FENCE, TYPE FE-6. | 5,000 | LF | _____ | _____ |
| 0014AC | DEMO EXISTING 5' to 8' HIGH CHAIN LINK FENCE. INSTALL NEW 8' HIGH CHAIN LINK FENCE, TYPE FE-6. | 5,000 | LF | _____ | _____ |
| 0014AD | REMOVE AND REPLACE EXISTING 4 STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0014AE | REMOVE AND REPLACE EXISTING S STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0014AF | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE AND ASSOCIATED HARDWARE. | 1,500 | LF | _____ | _____ |
| 0014AG | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE (ON CHAIN LINK FENCE) | 1,200 | LF | _____ | _____ |

## OPTION PERIOD I

### 0015 NEW FENCE INSTALLATION

| ITEM | DESCRIPTION | QTY | UNIT | PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0015AA | INSTALL 5' HIGH CHAIN LINK FENCE WITH 1.5" DIA. LINE POSTS, 2' DIA CORNER/TRUSS POSTS, 5-GAUGE TOP AND BOTTOM TENSION WIRE. FABRIC SHALL BE 6 GAUGE 2"X2" GALV. WIRE FABRIC. POSTS SHALL BE SET IN HOLES DRILLED IN CONCRETE TO A DEPTH OF NOT LESS THAN 2". HOLES SHALL BE MINIMUM 2" LARGER DIAL THAN OUTSIDE DIAL OF POST TO BE INSTALLED AND GROUTED. LINE POSTS SHALL BE SET 10' OC MAX | 48,000 | LF | _____ | _____ |
| 0015AB | INSTALL 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0015AC | INSTALL 5' HIGH CHAIN LINK FENCE, TYPE FE-5. | 2,000 | LF | _____ | _____ |
| 0015AD | INSTALL 6' HIGH CHAIN LINK FENCE, TYPE FE-5. | 20,000 | LF | _____ | _____ |
| 0015AE | INSTALL 7' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0015AF | INSTALL 8' HIGH CHAIN LINK FENCE, TYPE FE-5. | 35,000 | LF | _____ | _____ |
| 0015AG | INSTALL NEW 3 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0015AH | INSTALL NEW 4 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0015AJ | INSTALL NEW 5 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0015AK | INSTALL NEW 32" HIGH WOVEN WIRE GRADUATED FIELD FENCE AND ASSOCIATED HARDWARE. | 15,000 | LF | _____ | _____ |
| 0015AL | INSTALL NEW DESERT TORTOISE FENCE. | 30,000 | LF | _____ | _____ |
| 0015AM | INSTALL NEW DESERT TORTOISE FENCE (ON EXISTING CHAIN LINK FENCE) | 5,000 | LF | _____ | _____ |
| 0015AN | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-6. | 1,000 | LF | _____ | _____ |
| 0015AP | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-7. | 1,000 | LF | _____ | _____ |
| 0015AQ | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-8. | 1,000 | LF | _____ | _____ |

### 0016 SWINGING GATES 4' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0016AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0016AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |

## OPTION PERIOD I

### 0017 SWINGING GATES 6' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0017AA | 4' PERSONNEL GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0017AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0017AC | 8' SINGLE SWING GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0017AD | 10' SINGLE SWING GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0017AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0017AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0018 SWINGING GATES 8' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0018AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0018AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0018AC | 8' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0018AD | 10' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0018AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0018AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0019 SLIDING GATES 6' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0019AA | 12' GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0019AB | 16’ GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0019AC | 20' GATE WITH POSTS. | 15 | EA | _____ | _____ |
| 0019AD | 24' GATE WITH POSTS. | 15 | EA | _____ | _____ |

### 0020 SLIDING GATES 8' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0020AA | 12' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0020AB | 16' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0020AC | 20' GATE, WITH POSTS. | 15 | EA | _____ | _____ |
| 0020AD | 24' GATE, WITH POSTS. | 15 | EA | _____ | _____ |

## OPTION PERIOD I

### 0021 DESERT TORTOISE GATES & BARRIER STRIP

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0021AA | INSTALL DESERT TORTOISE GATE 12 'to 14' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0021AB | INSTALL DESERT TORTOISE GATE 16' to 18' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0021AC | INSTALL DESERT TORTOISE GATE 20' to 24' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0021AD | PROVIDE AND INSTALL SWING GATE FOR BARBED WIRE/WOVEN WIRE GRADUATED FIELD FENCE, AND ASSOCIATED HARDWARE, COMPLETE IN PLACE. | 10 | EA | _____ | _____ |

### 0022 CONCRETE MASONRY BLOCK WALL

*INSTALL SPLIT FACE CMU BLOCK WALL WITH INTEGRAL COLOR, INCLUDING 8"x16"x8" STANDARD UNITS, 2" CAPPING BLOCK, EXCAVATION, CONCRETE FOOTING, DISPOSAL OF EXCESS MATERIALS, REINFORCEMENT, AND GROUT.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0022AA | 4' HIGH MASONRY BLOCK WALL COMPLETE. | 500 | LF | _____ | _____ |
| 0022AB | 4' HIGH CORNER (16"x1 6")8") | 26 | EA | _____ | _____ |
| 0022AC | 4' HIGH END (16"x8") | 26 | EA | _____ | _____ |
| 0022AD | 6' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0022AE | 6’ HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| 0022AF | 6’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0022AG | 8' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0022AH | 8' HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| OO22AJ | 8’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0022AK | GATE HARDWARE FOR MOUNTING CHAIN LINK GATE, INCLUDING HINGES AND LOCKING DEVICES FOR SINGLE GATE TO 8' WIDE. | 226 | EA | _____ | _____ |

## OPTION PERIOD I

### 0023 ARCHED/ ANGLED STYLE HIGH

*SECURITY FENCE, SEE SPECIFICATION SECTION 02831D*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0023AA | ANGLED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE, 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE, 1/2" EXPANDED METAL (STANDARD) UPPER SECTION, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0023AB | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE 1/2" EXPANDED METAL (STANDARD) UPPER SECTION COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0023AC | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL FULL HEIGHT OF FENCE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0023AD | UNDERGROUND CONCRETE FOUNDATION, (GRADE BEAM) INCLUDING EXCAVATION AND DISPOSAL OF EXCESS MATERIAL, REINFORCEMENT, AND CONCRETE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0023AE | ANGELED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION, 9 GAUGE 3/4" EXPANDED METAL (STANDARD) MID SECTION, AND 14 GAUGE 3/8" CHAIN LINK UPPER SECTION, COMPLETE IN PLACE. | 8,000 | LF | _____ | _____ |
| 0023AF | ROLLING GATE, 30' WIDE | 5 | EA | _____ | _____ |
| 0023AG | SWING GATE, 15' WIDE ARCHED FENCE SYSTEM 15’ HIGH, WITH 13 GUAGE ½” CHAIN LINK FULL HEIGHT POSTS SET AT 10’ OC, COMPLETE IN-PLACE | 10 | EA | _____ | _____ |
| 0023AH | PEDESTRIAN SWING GATE, 5' WIDE | 20 | EA | _____ | _____ |

### 0024 ADDITIONAL WORK

*Amount to be negotiated per Task Order.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0024AA | MOBILIZATION /DEMOBILIZATION: DOLLAR AMOUNT TO BE NEGOTIATED PER TASK ORDER. | N/A | EA | N/A | N/A |
| 0024AB | LABOR POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO BIDDING NOTE "LABOR POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | HR | N/A | N/A |
| 0024AC | EQUIPMENT POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER. TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "EQUIPMENT POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |
| 0024AD | MATERIAL POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "MATERIAL POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |

**Total Estimated Amount Option Period I**
**(Line Items 0013 to 0024)** **$ _____**

## OPTION PERIOD II

### 0025 DEMOLITION

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0025AA | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH. POSTS INSTALLED IN CONCRETE SURFACE. CUT POSTS 4" BELOW CONCRETE AND PACK WITH GROUT. | 48,000 | LF | _____ | _____ |
| 0025AB | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH | 5,000 | LF | _____ | _____ |
| 0025AC | DEMO EXISTING CHAIN LINK FENCE, 4 1/2' to 6' HIGH | 10,000 | LF | _____ | _____ |
| 0025AD | DEMO EXISTING CHAIN LINK FENCE, 6' to 8' HIGH | 10,000 | LF | _____ | _____ |
| 0025AE | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) WITH ITEMS 0001AA THRU 0001AD ABOVE. | 12,000 | LF | _____ | _____ |
| 0025AF | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) ONLY. ON EXISTING FENCE. | 7,500 | LF | _____ | _____ |
| 0025AG | DEMO EXISTING CHAIN LINK FENCE FABRIC 4' to 8' HIGH | 15,000 | SF | _____ | _____ |
| 0025AH | DEMO EXISTING 3 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE | 4,000 | LF | _____ | _____ |
| 0025AJ | DEMO EXISTING 4 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE. | 10,000 | LF | _____ | _____ |
| 0025AK | DEMO EXISTING 3 OR 4 WIRE BARBED WIRE (WIRE ONLY, POSTS TO REMAIN) | 10,000 | LF | _____ | _____ |

### 0026 FENCE REPLACEMENT

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0026AA | DEMO EXISTING 3' to 4' HIGH CHAIN LINK FENCE. INSTALL NEW 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0026AB | DEMO EXISTING 5' to 6' HIGH CHAIN LINK FENCE. INSTALL NEW 6' HIGH CHAIN LINK FENCE, TYPE FE-7. | 5,000 | LF | _____ | _____ |
| 0026AC | DEMO EXISTING 5' to 8' HIGH CHAIN LINK FENCE. INSTALL NEW 8' HIGH CHAIN LINK FENCE, TYPE FE-7. | 5,000 | LF | _____ | _____ |
| 0026AD | REMOVE AND REPLACE EXISTING 4 STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0026AE | REMOVE AND REPLACE EXISTING S STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0026AF | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE AND ASSOCIATED HARDWARE. | 1,500 | LF | _____ | _____ |
| 0026AG | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE (ON CHAIN LINK FENCE) | 1,200 | LF | _____ | _____ |

## OPTION PERIOD II

### 0027 NEW FENCE INSTALLATION

| ITEM | DESCRIPTION | QTY | UNIT | PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0027AA | INSTALL 5' HIGH CHAIN LINK FENCE WITH 1.5" DIA. LINE POSTS, 2' DIA CORNER/TRUSS POSTS, 5-GAUGE TOP AND BOTTOM TENSION WIRE. FABRIC SHALL BE 6 GAUGE 2"X2" GALV. WIRE FABRIC. POSTS SHALL BE SET IN HOLES DRILLED IN CONCRETE TO A DEPTH OF NOT LESS THAN 2". HOLES SHALL BE MINIMUM 2" LARGER DIAL THAN OUTSIDE DIAL OF POST TO BE INSTALLED AND GROUTED. LINE POSTS SHALL BE SET 10' OC MAX | 48,000 | LF | _____ | _____ |
| 0027AB | INSTALL 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0027AC | INSTALL 5' HIGH CHAIN LINK FENCE, TYPE FE-5. | 2,000 | LF | _____ | _____ |
| 0027AD | INSTALL 6' HIGH CHAIN LINK FENCE, TYPE FE-5. | 20,000 | LF | _____ | _____ |
| 0027AE | INSTALL 7' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0027AF | INSTALL 8' HIGH CHAIN LINK FENCE, TYPE FE-5. | 35,000 | LF | _____ | _____ |
| 0027AG | INSTALL NEW 3 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0027AH | INSTALL NEW 4 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0027AJ | INSTALL NEW 5 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0027AK | INSTALL NEW 32" HIGH WOVEN WIRE GRADUATED FIELD FENCE AND ASSOCIATED HARDWARE. | 15,000 | LF | _____ | _____ |
| 0027AL | INSTALL NEW DESERT TORTOISE FENCE. | 30,000 | LF | _____ | _____ |
| 0027AM | INSTALL NEW DESERT TORTOISE FENCE (ON EXISTING CHAIN LINK FENCE) | 5,000 | LF | _____ | _____ |
| 0027AN | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-6. | 1,000 | LF | _____ | _____ |
| 0027AP | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-7. | 1,000 | LF | _____ | _____ |
| 0027AQ | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-8. | 1,000 | LF | _____ | _____ |

### 0028 SWINGING GATES 4' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0028AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0028AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |

## OPTION PERIOD II

### 0029 SWINGING GATES 6' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0029AA | 4' PERSONNEL GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0029AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0029AC | 8' SINGLE SWING GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0029AD | 10' SINGLE SWING GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0029AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0029AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0030 SWINGING GATES 8' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0030AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0030AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0030AC | 8' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0030AD | 10' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0030AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0030AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0031 SLIDING GATES 6' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0031AA | 12' GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0031AB | 16’ GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0031AC | 20' GATE WITH POSTS. | 15 | EA | _____ | _____ |
| 0031AD | 24' GATE WITH POSTS. | 15 | EA | _____ | _____ |

### 0032 SLIDING GATES 8' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0032AA | 12' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0032AB | 16' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0032AC | 20' GATE, WITH POSTS. | 15 | EA | _____ | _____ |
| 0032AD | 24' GATE, WITH POSTS. | 15 | EA | _____ | _____ |

## OPTION PERIOD II

### 0033 DESERT TORTOISE GATES & BARRIER STRIP

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0033AA | INSTALL DESERT TORTOISE GATE 12 'to 14' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0033AB | INSTALL DESERT TORTOISE GATE 16' to 18' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0033AC | INSTALL DESERT TORTOISE GATE 20' to 24' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0033AD | PROVIDE AND INSTALL SWING GATE FOR BARBED WIRE/WOVEN WIRE GRADUATED FIELD FENCE, AND ASSOCIATED HARDWARE, COMPLETE IN PLACE. | 10 | EA | _____ | _____ |

### 0034 CONCRETE MASONRY BLOCK WALL

*INSTALL SPLIT FACE CMU BLOCK WALL WITH INTEGRAL COLOR, INCLUDING 8"x16"x8" STANDARD UNITS, 2" CAPPING BLOCK, EXCAVATION, CONCRETE FOOTING, DISPOSAL OF EXCESS MATERIALS, REINFORCEMENT, AND GROUT.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0034AA | 4' HIGH MASONRY BLOCK WALL COMPLETE. | 500 | LF | _____ | _____ |
| 0034AB | 4' HIGH CORNER (16"x1 6")8") | 26 | EA | _____ | _____ |
| 0034AC | 4' HIGH END (16"x8") | 26 | EA | _____ | _____ |
| 0034AD | 6' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0034AE | 6’ HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| 0034AF | 6’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0034AG | 8' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0034AH | 8' HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| OO34AJ | 8’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0034AK | GATE HARDWARE FOR MOUNTING CHAIN LINK GATE, INCLUDING HINGES AND LOCKING DEVICES FOR SINGLE GATE TO 8' WIDE. | 226 | EA | _____ | _____ |

## OPTION PERIOD II

### 0035 ARCHED/ ANGLED STYLE HIGH

*SECURITY FENCE, SEE SPECIFICATION SECTION 02831D*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0035AA | ANGLED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE, 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE, 1/2" EXPANDED METAL (STANDARD) UPPER SECTION, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0035AB | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE 1/2" EXPANDED METAL (STANDARD) UPPER SECTION COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0035AC | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL FULL HEIGHT OF FENCE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0035AD | UNDERGROUND CONCRETE FOUNDATION, (GRADE BEAM) INCLUDING EXCAVATION AND DISPOSAL OF EXCESS MATERIAL, REINFORCEMENT, AND CONCRETE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0035AE | ANGELED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION, 9 GAUGE 3/4" EXPANDED METAL (STANDARD) MID SECTION, AND 14 GAUGE 3/8" CHAIN LINK UPPER SECTION, COMPLETE IN PLACE. | 8,000 | LF | _____ | _____ |
| 0035AF | ROLLING GATE, 30' WIDE | 5 | EA | _____ | _____ |
| 0035AG | SWING GATE, 15' WIDE ARCHED FENCE SYSTEM 15’ HIGH, WITH 13 GUAGE ½” CHAIN LINK FULL HEIGHT POSTS SET AT 10’ OC, COMPLETE IN-PLACE | 10 | EA | _____ | _____ |
| 0035AH | PEDESTRIAN SWING GATE, 5' WIDE | 20 | EA | _____ | _____ |

### 0036 ADDITIONAL WORK

*Amount to be negotiated per Task Order.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0036AA | MOBILIZATION /DEMOBILIZATION: DOLLAR AMOUNT TO BE NEGOTIATED PER TASK ORDER. | N/A | EA | N/A | N/A |
| 0036AB | LABOR POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO BIDDING NOTE "LABOR POOL" IN BIDDERS’ NOTES FOR CLARIFICATION) | N/A | HR | N/A | N/A |
| 0036AC | EQUIPMENT POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER. TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "EQUIPMENT POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |
| 0036AD | ATERIAL POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "MATERIAL POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |

**Total Estimated Amount Option Period II (Line Items 0025 to 0036)** **$ _____**

## OPTION PERIOD III

### 0037 DEMOLITION

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0037AA | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH. POSTS INSTALLED IN CONCRETE SURFACE. CUT POSTS 4" BELOW CONCRETE AND PACK WITH GROUT. | 48,000 | LF | _____ | _____ |
| 0037AB | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH | 5,000 | LF | _____ | _____ |
| 0037AC | DEMO EXISTING CHAIN LINK FENCE, 4 1/2' to 6' HIGH | 10,000 | LF | _____ | _____ |
| 0037AD | DEMO EXISTING CHAIN LINK FENCE, 6' to 8' HIGH | 10,000 | LF | _____ | _____ |
| 0037AE | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) WITH ITEMS 0001AA THRU 0001AD ABOVE. | 12,000 | LF | _____ | _____ |
| 0037AF | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) ONLY. ON EXISTING FENCE. | 7,500 | LF | _____ | _____ |
| 0037AG | DEMO EXISTING CHAIN LINK FENCE FABRIC 4' to 8' HIGH | 15,000 | SF | _____ | _____ |
| 0037AH | DEMO EXISTING 3 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE | 4,000 | LF | _____ | _____ |
| 0037AJ | DEMO EXISTING 4 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE. | 10,000 | LF | _____ | _____ |
| 0037AK | DEMO EXISTING 3 OR 4 WIRE BARBED WIRE (WIRE ONLY, POSTS TO REMAIN) | 10,000 | LF | _____ | _____ |

### 0038 FENCE REPLACEMENT

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0038AA | DEMO EXISTING 3' to 4' HIGH CHAIN LINK FENCE. INSTALL NEW 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0038AB | DEMO EXISTING 5' to 6' HIGH CHAIN LINK FENCE. INSTALL NEW 6' HIGH CHAIN LINK FENCE, TYPE FE-8. | 5,000 | LF | _____ | _____ |
| 0038AC | DEMO EXISTING 5' to 8' HIGH CHAIN LINK FENCE. INSTALL NEW 8' HIGH CHAIN LINK FENCE, TYPE FE-8. | 5,000 | LF | _____ | _____ |
| 0038AD | REMOVE AND REPLACE EXISTING 4 STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0038AE | REMOVE AND REPLACE EXISTING S STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0038AF | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE AND ASSOCIATED HARDWARE. | 1,500 | LF | _____ | _____ |
| 0038AG | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE (ON CHAIN LINK FENCE) | 1,200 | LF | _____ | _____ |

## OPTION PERIOD III

### 0039 NEW FENCE INSTALLATION

| ITEM | DESCRIPTION | QTY | UNIT | PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0039AA | INSTALL 5' HIGH CHAIN LINK FENCE WITH 1.5" DIA. LINE POSTS, 2' DIA CORNER/TRUSS POSTS, 5-GAUGE TOP AND BOTTOM TENSION WIRE. FABRIC SHALL BE 6 GAUGE 2"X2" GALV. WIRE FABRIC. POSTS SHALL BE SET IN HOLES DRILLED IN CONCRETE TO A DEPTH OF NOT LESS THAN 2". HOLES SHALL BE MINIMUM 2" LARGER DIAL THAN OUTSIDE DIAL OF POST TO BE INSTALLED AND GROUTED. LINE POSTS SHALL BE SET 10' OC MAX | 48,000 | LF | _____ | _____ |
| 0093AB | INSTALL 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0039AC | INSTALL 5' HIGH CHAIN LINK FENCE, TYPE FE-5. | 2,000 | LF | _____ | _____ |
| 0039AD | INSTALL 6' HIGH CHAIN LINK FENCE, TYPE FE-5. | 20,000 | LF | _____ | _____ |
| 0039AE | INSTALL 7' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0039AF | INSTALL 8' HIGH CHAIN LINK FENCE, TYPE FE-5. | 35,000 | LF | _____ | _____ |
| 0039AG | INSTALL NEW 3 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0039AH | INSTALL NEW 4 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0039AJ | INSTALL NEW 5 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0039AK | INSTALL NEW 32" HIGH WOVEN WIRE GRADUATED FIELD FENCE AND ASSOCIATED HARDWARE. | 15,000 | LF | _____ | _____ |
| 0039AL | INSTALL NEW DESERT TORTOISE FENCE. | 30,000 | LF | _____ | _____ |
| 0039AM | INSTALL NEW DESERT TORTOISE FENCE (ON EXISTING CHAIN LINK FENCE) | 5,000 | LF | _____ | _____ |
| 0039AN | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-6. | 1,000 | LF | _____ | _____ |
| 0039AP | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-7. | 1,000 | LF | _____ | _____ |
| 0039AQ | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-8. | 1,000 | LF | _____ | _____ |

### 0040 SWINGING GATES 4' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0040AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0040AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |

## OPTION PERIOD III

### 0041 SWINGING GATES 6' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0041AA | 4' PERSONNEL GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0041AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0041AC | 8' SINGLE SWING GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0041AD | 10' SINGLE SWING GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0041AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0041AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0042 SWINGING GATES 8' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0042AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0042AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0042AC | 8' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0042AD | 10' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0042AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0042AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0043 SLIDING GATES 6' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0043AA | 12' GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0043AB | 16’ GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0043AC | 20' GATE WITH POSTS. | 15 | EA | _____ | _____ |
| 0043AD | 24' GATE WITH POSTS. | 15 | EA | _____ | _____ |

### 0044 SLIDING GATES 8' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0044AA | 12' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0044AB | 16' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0044AC | 20' GATE, WITH POSTS. | 15 | EA | _____ | _____ |
| 0044AD | 24' GATE, WITH POSTS. | 15 | EA | _____ | _____ |

## OPTION PERIOD III

### 0045 DESERT TORTOISE GATES & BARRIER STRIP

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0045AA | INSTALL DESERT TORTOISE GATE 12 'to 14' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0045AB | INSTALL DESERT TORTOISE GATE 16' to 18' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0045AC | INSTALL DESERT TORTOISE GATE 20' to 24' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0045AD | PROVIDE AND INSTALL SWING GATE FOR BARBED WIRE/WOVEN WIRE GRADUATED FIELD FENCE, AND ASSOCIATED HARDWARE, COMPLETE IN PLACE. | 10 | EA | _____ | _____ |

### 0046 CONCRETE MASONRY BLOCK WALL

*INSTALL SPLIT FACE CMU BLOCK WALL WITH INTEGRAL COLOR, INCLUDING 8"x16"x8" STANDARD UNITS, 2" CAPPING BLOCK, EXCAVATION, CONCRETE FOOTING, DISPOSAL OF EXCESS MATERIALS, REINFORCEMENT, AND GROUT.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0046AA | 4' HIGH MASONRY BLOCK WALL COMPLETE. | 500 | LF | _____ | _____ |
| 0046AB | 4' HIGH CORNER (16"x1 6")8") | 26 | EA | _____ | _____ |
| 0046AC | 4' HIGH END (16"x8") | 26 | EA | _____ | _____ |
| 0046AD | 6' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0046AE | 6’ HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| 0046AF | 6’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0046AG | 8' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0046AH | 8' HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| OO46AJ | 8’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0046AK | GATE HARDWARE FOR MOUNTING CHAIN LINK GATE, INCLUDING HINGES AND LOCKING DEVICES FOR SINGLE GATE TO 8' WIDE. | 226 | EA | _____ | _____ |

## OPTION PERIOD III

### 0047 ARCHED/ ANGLED STYLE HIGH

*SECURITY FENCE, SEE SPECIFICATION SECTION 02831D*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0047AA | ANGLED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE, 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE, 1/2" EXPANDED METAL (STANDARD) UPPER SECTION, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0047AB | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE 1/2" EXPANDED METAL (STANDARD) UPPER SECTION COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0047AC | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL FULL HEIGHT OF FENCE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0047AD | UNDERGROUND CONCRETE FOUNDATION, (GRADE BEAM) INCLUDING EXCAVATION AND DISPOSAL OF EXCESS MATERIAL, REINFORCEMENT, AND CONCRETE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0047AE | ANGELED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION, 9 GAUGE 3/4" EXPANDED METAL (STANDARD) MID SECTION, AND 14 GAUGE 3/8" CHAIN LINK UPPER SECTION, COMPLETE IN PLACE. | 8,000 | LF | _____ | _____ |
| 0047AF | ROLLING GATE, 30' WIDE | 5 | EA | _____ | _____ |
| 0047AG | SWING GATE, 15' WIDE ARCHED FENCE SYSTEM 15’ HIGH, WITH 13 GUAGE ½” CHAIN LINK FULL HEIGHT POSTS SET AT 10’ OC, COMPLETE IN-PLACE | 10 | EA | _____ | _____ |
| 0047AH | PEDESTRIAN SWING GATE, 5' WIDE | 20 | EA | _____ | _____ |

### 0048 ADDITIONAL WORK

*Amount to be negotiated per Task Order.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0048AA | MOBILIZATION /DEMOBILIZATION: DOLLAR AMOUNT TO BE NEGOTIATED PER TASK ORDER. | N/A | EA | N/A | N/A |
| 0048AB | LABOR POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO BIDDING NOTE "LABOR POOL" IN BIDDERS’ NOTES FOR CLARIFICATION) | N/A | HR | N/A | N/A |
| 0048AC | EQUIPMENT POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER. TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "EQUIPMENT POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |
| 0048AD | MATERIAL POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "MATERIAL POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |

**Total Estimated Amount Option Period III (Line Items 0037 to 0048)** **$ _____**

## OPTION PERIOD IV

### 0049 DEMOLITION

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0049AA | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH. POSTS INSTALLED IN CONCRETE SURFACE. CUT POSTS 4" BELOW CONCRETE AND PACK WITH GROUT. | 48,000 | LF | _____ | _____ |
| 0049AB | DEMO EXISTING CHAIN LINK FENCE, 3' to 4' HIGH | 5,000 | LF | _____ | _____ |
| 0049AC | DEMO EXISTING CHAIN LINK FENCE, 4 1/2' to 6' HIGH | 10,000 | LF | _____ | _____ |
| 0049AD | DEMO EXISTING CHAIN LINK FENCE, 6' to 8' HIGH | 10,000 | LF | _____ | _____ |
| 0049AE | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) WITH ITEMS 0001AA THRU 0001AD ABOVE. | 12,000 | LF | _____ | _____ |
| 0049AF | DEMO EXISTING SECURITY ARM, ATTACHING HARDWARE, AND WIRE (RAZOR/BARBED) ONLY. ON EXISTING FENCE. | 7,500 | LF | _____ | _____ |
| 0049AG | DEMO EXISTING CHAIN LINK FENCE FABRIC 4' to 8' HIGH | 15,000 | SF | _____ | _____ |
| 0049AH | DEMO EXISTING 3 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE | 4,000 | LF | _____ | _____ |
| 0049AJ | DEMO EXISTING 4 STRAND BARBED WIRE FENCE, INCLUDING POSTS AND ASSOCIATED HARDWARE. | 10,000 | LF | _____ | _____ |
| 0049AK | DEMO EXISTING 3 OR 4 WIRE BARBED WIRE (WIRE ONLY, POSTS TO REMAIN) | 10,000 | LF | _____ | _____ |

### 0050 FENCE REPLACEMENT

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0050AA | DEMO EXISTING 3' to 4' HIGH CHAIN LINK FENCE. INSTALL NEW 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0050AB | DEMO EXISTING 5' to 6' HIGH CHAIN LINK FENCE. INSTALL NEW 6' HIGH CHAIN LINK FENCE, TYPE FE-9. | 5,000 | LF | _____ | _____ |
| 0050AC | DEMO EXISTING 5' to 8' HIGH CHAIN LINK FENCE. INSTALL NEW 8' HIGH CHAIN LINK FENCE, TYPE FE-9. | 5,000 | LF | _____ | _____ |
| 0050AD | REMOVE AND REPLACE EXISTING 4 STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0050AE | REMOVE AND REPLACE EXISTING S STRAND BARBED WIRE FENCE AND ASSOCIATED HARDWARE. | 1,200 | LF | _____ | _____ |
| 0050AF | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE AND ASSOCIATED HARDWARE. | 1,500 | LF | _____ | _____ |
| 0050AG | REMOVE AND REPLACE EXISTING DESERT TORTOISE FENCE (ON CHAIN LINK FENCE) | 1,200 | LF | _____ | _____ |

## OPTION PERIOD IV

### 0051 NEW FENCE INSTALLATION

| ITEM | DESCRIPTION | QTY | UNIT | PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0051AA | INSTALL 5' HIGH CHAIN LINK FENCE WITH 1.5" DIA. LINE POSTS, 2' DIA CORNER/TRUSS POSTS, 5-GAUGE TOP AND BOTTOM TENSION WIRE. FABRIC SHALL BE 6 GAUGE 2"X2" GALV. WIRE FABRIC. POSTS SHALL BE SET IN HOLES DRILLED IN CONCRETE TO A DEPTH OF NOT LESS THAN 2". HOLES SHALL BE MINIMUM 2" LARGER DIAL THAN OUTSIDE DIAL OF POST TO BE INSTALLED AND GROUTED. LINE POSTS SHALL BE SET 10' OC MAX | 48,000 | LF | _____ | _____ |
| 0051AB | INSTALL 4' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0051AC | INSTALL 5' HIGH CHAIN LINK FENCE, TYPE FE-5. | 2,000 | LF | _____ | _____ |
| 0051AD | INSTALL 6' HIGH CHAIN LINK FENCE, TYPE FE-5. | 20,000 | LF | _____ | _____ |
| 0051AE | INSTALL 7' HIGH CHAIN LINK FENCE, TYPE FE-5. | 5,000 | LF | _____ | _____ |
| 0051AF | INSTALL 8' HIGH CHAIN LINK FENCE, TYPE FE-5. | 35,000 | LF | _____ | _____ |
| 0051AG | INSTALL NEW 3 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0051AH | INSTALL NEW 4 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0051AJ | INSTALL NEW 5 STRAND BARBED WIRE FENCE, AND ASSOCIATED HARDWARE. | 18,000 | LF | _____ | _____ |
| 0051AK | INSTALL NEW 32" HIGH WOVEN WIRE GRADUATED FIELD FENCE AND ASSOCIATED HARDWARE. | 15,000 | LF | _____ | _____ |
| 0051AL | INSTALL NEW DESERT TORTOISE FENCE. | 30,000 | LF | _____ | _____ |
| 0051AM | INSTALL NEW DESERT TORTOISE FENCE (ON EXISTING CHAIN LINK FENCE) | 5,000 | LF | _____ | _____ |
| 0051AN | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-6. | 1,000 | LF | _____ | _____ |
| 0051AP | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-7. | 1,000 | LF | _____ | _____ |
| 0051AQ | UPGRADE NEW OR EXISTING TYPE FE-5 FENCE TO TYPE FE-8. | 1,000 | LF | _____ | _____ |

### 0052 SWINGING GATES 4' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0052AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0052AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |

## OPTION PERIOD IV

### 0053 SWINGING GATES 6' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING HARDWARE*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0053AA | 4' PERSONNEL GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0053AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0053AC | 8' SINGLE SWING GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0053AD | 10' SINGLE SWING GATE WITH POSTS. | 40 | EA | _____ | _____ |
| 0053AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0053AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0054 SWINGING GATES 8' CHAIN LINK FENCE

*INSTALL NEW SWING GATE INCLUDING REQUIRED BRACING AND LOCKING*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0054AA | 4' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0054AB | 6' PERSONNEL GATE WITH POSTS. | 30 | EA | _____ | _____ |
| 0054AC | 8' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0054AD | 10' SINGLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0054AE | 12' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |
| 0054AF | 20' DOUBLE SWING GATE WITH POSTS. | 20 | EA | _____ | _____ |

### 0055 SLIDING GATES 6' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0055AA | 12' GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0055AB | 16’ GATE WITH POSTS. | 10 | EA | _____ | _____ |
| 0055AC | 20' GATE WITH POSTS. | 15 | EA | _____ | _____ |
| 0055AD | 24' GATE WITH POSTS. | 15 | EA | _____ | _____ |

### 0056 SLIDING GATES 8' LINK FENCE

*INSTALL NEW SLIDING GATES INCLUDING REQUIRED BRACING, FRAME WORK, TRACK, FOUNDATION AND LOCKING HARDWARE.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0056AA | 12' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0056AB | 16' GATE, WITH POSTS. | 10 | EA | _____ | _____ |
| 0056AC | 20' GATE, WITH POSTS. | 15 | EA | _____ | _____ |
| 0056AD | 24' GATE, WITH POSTS. | 15 | EA | _____ | _____ |

## OPTION PERIOD IV

### 0057 DESERT TORTOISE GATES & BARRIER STRIP

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0057AA | INSTALL DESERT TORTOISE GATE 12 'to 14' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0057AB | INSTALL DESERT TORTOISE GATE 16' to 18' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0057AC | INSTALL DESERT TORTOISE GATE 20' to 24' WIDE, INCLUDING GATE POSTS, CONCRETE BARRIER STRIP, AND ASSOCIATED HARDWARE. | 10 | EA | _____ | _____ |
| 0057AD | PROVIDE AND INSTALL SWING GATE FOR BARBED WIRE/WOVEN WIRE GRADUATED FIELD FENCE, AND ASSOCIATED HARDWARE, COMPLETE IN PLACE. | 10 | EA | _____ | _____ |

### 0058 CONCRETE MASONRY BLOCK WALL

*INSTALL SPLIT FACE CMU BLOCK WALL WITH INTEGRAL COLOR, INCLUDING 8"x16"x8" STANDARD UNITS, 2" CAPPING BLOCK, EXCAVATION, CONCRETE FOOTING, DISPOSAL OF EXCESS MATERIALS, REINFORCEMENT, AND GROUT.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0058AA | 4' HIGH MASONRY BLOCK WALL COMPLETE. | 500 | LF | _____ | _____ |
| 0058AB | 4' HIGH CORNER (16"x1 6")8") | 26 | EA | _____ | _____ |
| 0058AC | 4' HIGH END (16"x8") | 26 | EA | _____ | _____ |
| 0058AD | 6' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0058AE | 6’ HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| 0058AF | 6’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0058AG | 8' HIGH MASONRY BLOCK WALL COMPLETE | 2,000 | LF | _____ | _____ |
| 0058AH | 8' HIGH CORNER (16"x16"x8") | 100 | EA | _____ | _____ |
| OO58AJ | 8’ HIGH END (16"x8") | 100 | EA | _____ | _____ |
| 0058AK | GATE HARDWARE FOR MOUNTING CHAIN LINK GATE, INCLUDING HINGES AND LOCKING DEVICES FOR SINGLE GATE TO 8' WIDE. | 226 | EA | _____ | _____ |

## OPTION PERIOD IV

### 0059 ARCHED/ ANGLED STYLE HIGH

*SECURITY FENCE, SEE SPECIFICATION SECTION 02831D*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 0059AA | ANGLED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE, 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE, 1/2" EXPANDED METAL (STANDARD) UPPER SECTION, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0059AB | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13 GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION AND 13 GAUGE 1/2" EXPANDED METAL (STANDARD) UPPER SECTION COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0059AC | ARCHED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL FULL HEIGHT OF FENCE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0059AD | UNDERGROUND CONCRETE FOUNDATION, (GRADE BEAM) INCLUDING EXCAVATION AND DISPOSAL OF EXCESS MATERIAL, REINFORCEMENT, AND CONCRETE, COMPLETE IN-PLACE. | 2,000 | LF | _____ | _____ |
| 0059AE | ANGELED FENCE SYSTEM, 15' HIGH, WITH 13-GAUGE 1/2" HIGH DENSITY EXPANDED METAL LOWER SECTION, 9 GAUGE 3/4" EXPANDED METAL (STANDARD) MID SECTION, AND 14 GAUGE 3/8" CHAIN LINK UPPER SECTION, COMPLETE IN PLACE. | 8,000 | LF | _____ | _____ |
| 0059AF | ROLLING GATE, 30' WIDE | 5 | EA | _____ | _____ |
| 0059AG | SWING GATE, 15' WIDE ARCHED FENCE SYSTEM 15’ HIGH, WITH 13 GUAGE ½” CHAIN LINK FULL HEIGHT POSTS SET AT 10’ OC, COMPLETE IN-PLACE | 10 | EA | _____ | _____ |
| 0059AH | PEDESTRIAN SWING GATE, 5' WIDE | 20 | EA | _____ | _____ |

### 0060 ADDITIONAL WORK

*Amount to be negotiated per Task Order.*

| ITEM | DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL COST |
|---|---|---|---|---|---|
| 00602AA | MOBILIZATION /DEMOBILIZATION: DOLLAR AMOUNT TO BE NEGOTIATED PER TASK ORDER. | N/A | EA | N/A | N/A |
| 0060AB | LABOR POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO BIDDING NOTE "LABOR POOL" IN BIDDERS’ NOTES FOR CLARIFICATION) | N/A | HR | N/A | N/A |
| 0060AC | EQUIPMENT POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER. TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "EQUIPMENT POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |
| 0060AD | MATERIAL POOL: DOLLAR AMOUNT TO BE SPECIFIED IN EACH TASK ORDER TOTAL AMOUNT NOT TO EXCEED $10,000 PER TASK ORDER (REFER TO NOTE "MATERIAL POOL" IN BIDDERS’ NOTES FOR CLARIFICATION). | N/A | N/A | N/A | N/A |

**Total Estimated Amount Option Period IV**
**(Line Items 0049 to 0060)** **$ _____**

**Total Estimated Amount ALL PERIODS:**
**(Line Items 0001 to 0060)** **$ _____**
**Base Period and All Option Periods**

BIDDERS' NOTES:

1. All prices shall include overhead where applicable and profit. The bidder shall distribute his indirect costs (overhead, profit, bond, etc.) over all items in the Price Schedule. The Government will review all submitted Price Schedules for any unbalancing of the items. Any submitted Price Schedule determined to be unbalanced may be considered non-responsive and cause the bidder to be ineligible for contract award.

2. The bidder shall furnish all plant, labor, material, equipment, etc., necessary to perform all work in strict accordance with the terms and conditions set forth in the contract, to include all attachments thereto.

3. All extensions of the unit prices shown shall be subject to verification by the Government. In case of variation between the unit price and the extension, the unit price will be considered to be the offer. For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the Price Schedule as submitted by the bidder:

a. Obviously misplaced decimal points will be corrected;
b. In case of discrepancy between the unit price and the extended price, the unit price will govern;
c. Apparent errors in extension of unit prices will be corrected;
d. Apparent errors in addition of lump sum and extended prices will be corrected.

For the purpose of bid evaluation, the Government will proceed on the assumption that the bidder intends the bid to be evaluated on the basis of unit prices the totals arrived at by the resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

4. If an offer or modification to an offer based on unit prices is submitted which provides for a lump sum adjustment to the total estimated amount, the application of the lump sum adjustment to each unit price in the Schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rat basis to every price in the Schedule.

5. Amounts and prices shall be indicated in either words or figures, NOT BOTH. Bidders are cautioned to check their Price Schedule carefully for errors prior to submission. If the pricing schedules contain unit prices, they should be extended to the actual amount and not rounded off.

6. When awarding the contract, the guaranteed minimum shall be 2% of the not-to-exceed capacity for the Base Period, or $500,000, whichever is less and the minimum as required by EFARS 16.504 for the Option Periods, if exercised. The minimum guaranteed amounts may be met by the award of a task order in an equivalent amount.

7. ADDITIONAL WORK:

MOBILIZATION/DEMOBILIZATION: To be negotiated per task order.

LABOR POOL: A pool of labor hours has been set aside to accomplish work not covered in the contract line items listed in the Price Schedule. The contractor is required to include direct labor rates, related labor rates, mix trades, overhead, General and Administrative expenses and Profit in the development of the composite labor rate. The justification for and dollar amount will be negotiated for each Task Order as needed.

EQUIPMENT POOL: This pool is established to accomplish work not covered in the contract line items listed in the Price Schedule. The Contractor is required to provide copies of invoices for rental of equipment and/or provide rate schedules in support of these costs. The justification for and dollar amount will be negotiated for each Task order as needed.

MATERIAL POOL: This pool is established to accomplish work not covered in the contract line items in the Price Schedule. The Contractor is required to provide copies of purchase order and/or invoices for material required/utilized in support of these costs. The justification for and dollar amount will be negotiated for each Task Order as needed.

8. BONDING REQUIREMENTS: Pursuant to the Miller Act, Performance and Payment Bonds or Alternative Payment Protections will be provided for all Task Orders awarded under this contract. Upon award of the contract, the penal sum of the Performance and Payment Bond for the Base Period shall be $500,000.00. If the first task order is greater than $500,000.00, then the Contracting Officer can either direct an increase in the penal sum of the bonds to match the price of the Task Order or require an additional bond. Thereafter, each Task Order can have its own Performance and Payment Bonds. Consents of Surety may be required for changes increasing the price of a particular task order. Bonds and other protections shall be provided within 10 calendar days of award of a Task Order or as stated in the Invitation for Bids. A Notice to Proceed will not be issued until the Contractor provides sufficient bonding to cover the work being performed.

9. APPLICATION OF DAVIS-BACON ACT (DBA) PROVISIONS: The wage rates for this contract shall be in accordance with the Davis Bacon Act and the provisions of FAR subpart 22.404-2(a) and 22.404-12(b). Wage determinations will be issued on a Task Order basis and in conformance with the DOL rate in effect at the time of award of the Contract or subsequent exercise of an Option Period and shall apply to all task orders issued during the applicable period for the locality in which the work is to be performed. The wage rates shall remain in effect for the complete performance period of the task order. For instance, any task order issued during the Base Period of the contract shall have incorporated the wage determination in effect a the time of contract award for the locality of the project and any task order issued during an option period shall include the rates applicable at the time of exercising the option. Task orders shall include the

complete text of the applicable DOL wage determination and shall not merely incorporate the determination by reference.

10. Quantities listed are estimated, the bidders unit prices must be FIRM.

11. Please note that although all contract line item numbers (CLINS) show a specific amount, the actual quantity will be on an "as required" basis. The quantities specified in the Price Schedule are estimated for purpose of evaluation only and are not necessarily purchased by this contract.

12. One contract will be awarded for a Base Period NTE 12 months and four Option Periods NTE 12 months each for a total contract performance period NTE 5 years or $10,000,000, whichever occurs first. The guaranteed minimum shall be 2% of the not-to-exceed capacity for the Base Period, or $500,000, whichever is less and the minimum as required by EFARS 16.504 for the Option Periods, if exercised. The minimum guaranteed amounts may be met by the award of a task order in an equivalent amount.

13. PRINCIPAL CONTRCTING OFFICER: The Contracting Officer who signs this contract will be the Principal Contracting Officer for this contract. However, any Contracting Officer assigned to the Los Angeles District, contracting within his or her authority, may take formal action on this contract when a contract action needs to be taken and the Principal Contracting Officer is unavailable.

14. The Contract Clause 52.232-27, "Prompt Payment for Construction Contracts" requires that the name and address of the contractor official, to whom payment is to be sent, be the same as that in the contract or in a proper Notice of Assignment.

15. Payments under Firm Fixed Price Task Orders will be made pursuant to FAR 52.23-5, "Payments Under Fixed Price Construction Contracts."

CERTIFICATE OF CORPORATE PRINCIPAL

1) IF THE OFFEROR IS A JOINT VENTURE, COMPLETE THE FOLLOWING:

| | | |
|---|---|---|
| _____ | _____ | _____ |
| (Company Name) | (Signature) | (Title) |
| _____ | _____ | _____ |
| (Company Name) | (Signature) | (Title) |
| _____ | _____ | _____ |
| (Company Name) | (Signature) | (Title) |

2) IF THE OFFEROR IS PARTNERSHIP, LIST FULL NAME OF ALL PARTNERS:

| | | |
|---|---|---|
| _____ | _____ | _____ |
| (Company Name) | (Signature) | (Title) |
| _____ | _____ | _____ |
| (Company Name) | (Signature) | (Title) |
| _____ | _____ | _____ |
| (Company Name) | (Signature) | (Title) |

3) IF THE OFFEROR IS A CORPORATION, THE FOLLOWING CERTIFICATION SHOULD BE COMPLETED:

CERTIFICATION AS TO CORPORATE PRINCIPAL

I, _____ , certify that I am the Secretary of the corporation named as principal in the within contract; that _____ , who signed the said contract on behalf of the principal, was the _____ of the corporation; that I know his signature and that his signature is genuine; and that said contract was duly signed, sealed and attested for in behalf of said corporation by authority of its governing body.

_____
CORPORATE PRINCIPAL

CORPORATE SEAL

_____
SECRETARY

**Section 00100 - Bidding Schedule/Instructions to Bidders**

52.0000-4010 INQUIRIES ..... 2
52.0000-4023 SAFETY REQUIREMENTS ..... 2
52.0001-4004 BID RESULTS ..... 2
52.209-4501 CONTRACTOR REPONSIBILITY, PRE-AWARD SURVEY ..... 2
52.211-2 AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L (DEC 1999) ..... 3
52.211-14 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990) ..... 3
52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990) ..... 3
52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989) ..... 3
52.214-4 FALSE STATEMENTS IN BIDS (APR 1984) ..... 4
52.214-5 SUBMISSION OF BIDS (MAR 1997) ..... 4
52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984) ..... 4
52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (NOV 1999) ..... 4
52.214-10 CONTRACT AWARD--SEALED BIDDING (JUL 1990) ..... 5
52.214-12 PREPARATION OF BIDS (APR 1984) ..... 6
52.214-34 SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991) . 7
52.214-35 SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991) ..... 7
52.0214-4500 ARITHMETIC DISCREPANCIES EFARS 52.214-5000 ..... 7
52.0214-4583 TELEGRAPHIC BIDS/OFFERS ARE NOT ACCEPTABLE ..... 8
52.0214-4584 FACSIMILE BIDS/OFFERS ..... 8
52.0214-4599 EVALUATION FOR AWARD ..... 8
52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)—EFARS ..... 8
52.0214-5001 DIRECTIONS FOR SUBMITING BIDS (APR 2002) ..... 8
52.216-1 TYPE OF CONTRACT (APR 1984) ..... 11
52.217-5 EVALUATION OF OPTIONS (JUL 1990) ..... 11
52.219-18 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS (JUN 1999)--ALTERNATE I (NOV 1989) ..... 11
52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002) ..... 12
52.228-4507 BID GUARANTEE FORM AND AMOUNT – IDIQ CONTRACTS ..... 13
52.232-38 SUBMISSION OF ELECTRONIC FUNDS TRANSFER INFORMATION WITH OFFER (MAY 1999) ..... 13
52.233-2 SERVICE OF PROTEST (AUG 1996) ..... 14

52.0000-4010 INQUIRIES

Perspective bidders/offerors should submit inquiries related to this solicitation by writing or calling the following (collect calls will not be accepted:

(1) For inquiries of a contractual nature (solicitation requirements, interpretation of contractual language) call:
Sharon Morrow

(213) 452-3248

For bid results only, call (213) 452-3235.

(2) All technical questions on the specification or drawings will be submitted in writing to:
Address:

Larry Gittings
U.S. Army Corps of Engineers
Sacramento District
Programs Management
Telephone: 916.557.7215
Facimile: 916.557.7866

(3) Please include the solicitation number, project title and location of project with your questions. Written inquiries must be received by this office not later than 14 calendar days prior to bid opening date/date set for receipt of offers.

(4) Oral explanations or instructions are not binding. Any information given to a bidder/offeror which impacts the bid/offer will be given in the form of a written amendment to the solicitation.

52.0000-4023 SAFETY REQUIREMENTS

The bidder's attention is directed to the latest version of U.S Army Corps of Engineers Safety and Health Manual, EM 385-1-1, which will be strictly enforced. This publication may be obtained from the US Army Engineer District, Los Angeles, ATTN: Safety Office, P.O. Box 532711, Los Angeles, California 90053-2325.

52.0001-4004 BID RESULTS

The telephone number for bid results after the opening is Area Code (213) 452-3235.

52.209-4501 CONTRACTOR REPONSIBILITY, PRE-AWARD SURVEY

In order to determine a contractor’s responsibility for purposes of contract award in accordance with FAR Part 9, a statement regarding previous experience in performing comparable work, and/or plant to be used in performing the work is required. After the bid

opening, the Government will request this information and set a due date for its submission.

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

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

(a) From the ASSIST database via the Internet at http://assist.daps.mil; or

(b) By submitting a request to the--Department of Defense Single Stock Point (DoDSSP), Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(End of provision)

52.211-14 NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990)

Any contract awarded as a result of this solicitation will be DX rated order; X DO rated order certified for national defense use under the Defense Priorities and Allocations System (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation. [Contracting Officer check appropriate box.]

(End of provision)

52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990)

This is a rated order certified for national defense use, and the Contractor shall follow all the requirements of the Defense Priorities and Allocations System regulation (15 CFR 700).

(End of clause)

52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, (3) by letter or telegram, or (4) by facsimile, if facsimile bids are authorized in the solicitation. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

(End of provision)

52.214-4 FALSE STATEMENTS IN BIDS (APR 1984)

Bidders must provide full, accurate, and complete information as required by this solicitation and its attachments. The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

(End of provision)

52.214-5 SUBMISSION OF BIDS (MAR 1997)

(a) Bids and bid modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) (1) addressed to the office specified in the solicitation, and (2) showing the time and date specified for receipt, the solicitation number, and the name and address of the bidder.

(b) Bidders using commercial carrier services shall ensure that the bid is addressed and marked on the outermost envelope or wrapper as prescribed in subparagraphs (a)(1) and (2) of this provision when delivered to the office specified in the solicitation.

(c) Telegraphic bids will not be considered unless authorized by the solicitation; however, bids may be modified or withdrawn by written or telegraphic notice.

(d) Facsimile bids, modifications, or withdrawals, will not be considered unless authorized by the solicitation.

(e) Bids submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

(End of provision)

52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)

Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders as an amendment to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

(End of provision)

52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (NOV 1999)

(a) Bidders are responsible for submitting bids, and any modifications or withdrawals, so as to reach the Government office designated in the invitation for bids (IFB) by the time specified in the IFB. If no time is specified in the IFB, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that bids are due.

(b)(1) Any bid, modification, or withdrawal received at the Government office designated in the IFB after the exact time specified for receipt of bids is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late bid would not unduly delay the acquisition; and--

(i) If it was transmitted through an electronic commerce method authorized by the IFB, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of bids; or

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of bids and was under the Government's control prior to the time set for receipt of bids.

(2) However, a late modification of an otherwise successful bid that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(c) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the bid wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(d) If an emergency or unanticipated event interrupts normal Government processes so that bids cannot be received at the Government office designated for receipt of bids by the exact time specified in the IFB and urgent Government requirements preclude amendment of the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(e) Bids may be withdrawn by written notice received at any time before the exact time set for receipt of bids. If the IFB authorizes facsimile bids, bids may be withdrawn via facsimile received at any time before the exact time set for receipt of bids, subject to the conditions specified in the provision at 52.214-31, Facsimile Bids. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

(End of provision)

52.214-10 CONTRACT AWARD--SEALED BIDDING (JUL 1990)

(a) The Government will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder

whose bid, conforming to the solicitation, will be most advantageous to the Government considering only price and the price-related factors specified elsewhere in the solicitation.

(b) The Government may (1) reject any or all bids, (2) accept other than the lowest bid, and (3) waive informalities or minor irregularities in bids received.

(c) The Government may accept any item or group of items of a bid, unless the bidder qualifies the bid by specific limitations. Unless otherwise provided in the Schedule, bids may be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the bidder specifies otherwise in the bid.

(d) A written award or acceptance of a bid mailed or otherwise furnished to the successful bidder within the time for acceptance specified in the bid shall result in a binding contract without further action by either party.

(e) The Government may reject a bid as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the Government even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.

(End of provision)

52.214-12 PREPARATION OF BIDS (APR 1984)

(a) Bidders are expected to examine the drawings, specifications, Schedule, and all instructions. Failure to do so will be at the bidder's risk.

(b) Each bidder shall furnish the information required by the solicitation. The bidder shall sign the bid and print or type its name on the Schedule and each continuation sheet on which it makes an entry. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(c) For each item offered, bidders shall (1) show the unit price, including, unless otherwise specified, packaging, packing, and preservation and (2) enter the extended price for the quantity of each item offered in the "Amount" column of the Schedule. In case of discrepancy between a unit price and an extended price, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

(d) Bids for supplies or services other than those specified will not be considered unless authorized by the solicitation.

(e) Bidders must state a definite time for delivery of supplies or for performance of services, unless otherwise specified in the solicitation.

(f) Time, if stated as a number of days, will include Saturdays, Sundays, and holidays.

(End of provision)

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

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

(End of provision)

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

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

(End of provision)

52.0214-4500 ARITHMETIC DISCREPANCIES EFARS 52.214-5000

(a) For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bidding schedule as submitted by bidders:

(1) Obviously misplaced decimal points will be corrected;

(2) Discrepancy between unit price and extended price, the unit price will govern;

(3) Apparent errors in extension of unit prices will be corrected;

(4) Apparent errors in addition of lump sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the Government will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

52.0214-4583 TELEGRAPHIC BIDS/OFFERS ARE NOT ACCEPTABLE

Any telegram to modify or withdraw a bid/offer sent to this office must be physically delivered to the office designated for receipt of bid/offer by the date and time set for bid opening/receipt of proposals.
No one from this office will be dispatched to the local telegraph office to pick up any telegram for any reason.

52.0214-4584 FACSIMILE BIDS/OFFERS

Facsimile bids/offers, modifications thereto, or cancellations of bids/offers will not be accepted.

52.0214-4599 EVALUATION FOR AWARD

The Government contemplates award of one contract to the responsive, responsible bidder who submits the low bid for the total of all the items in the Bidding Schedule.

52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)—EFARS

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:
(1) Obviously misplaced decimal points will be corrected;
(2) Discrepancy between unit price and extended price, the unit price will govern;
(3) Apparent errors in extension of unit prices will be corrected;
(4) Apparent errors in addition of lump-sum and extended prices will be corrected.
(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.
(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

52.0214-5001 DIRECTIONS FOR SUBMITING BIDS (APR 2002)

Envelopes containing bids must be sealed, marked and addressed as follows:

MARK ENVELOPES:

Bid under IFB No. DACA09-03-B-0004
Bid Opening Date: 7 February 2003

ADDRESS ENVELOPES TO:

Department of the Army
U. S. Army Engineer District, Los Angeles
ATTN: Contracting Division
C/O: Sharon R. Morrow
P. O. Box 532711
Los Angeles, CA 90053-2325

SPECIAL INSTRUCTIONS PERTAINING TO HAND-CARRIED BIDS:

Due to security precautions, all Corps of Engineers visitors/couriers are now required to check in at the Public Affairs Office (PAO), Suite 980, 911 Wilshire Blvd, Los Angeles, CA. Bidders are no longer permitted to hand-carry their bids directly to Contacting Division without an authorized escort. **Bids may NOT be left unattended at the Public Affairs Office (PAO), Suite 980.**

Bidders who desire to hand-deliver their bids prior to the scheduled bid opening time/date must notify the Contracting Division to arrange for receipt of their bid by Contracting Division personnel. Normally the contact will be the Contract Specialist designated above. In the event the Contract Specialist cannot be reached, please call the main Contracting Division telephone number, 213-452-3231 or the following alternative telephone numbers -3233, -3245, -3234, or -3235, in order to request assistance.

**30 minutes prior to the scheduled bid opening time/date,** the Bid Opening Officer will be in the Public Affairs Office (PAO) Suite 980, to accept bids. After visitor in-processing, all bidders will subsequently be escorted to Bid Opening Room, where the bids will be publicly opened and read.

**In order to expedite visitor processing, bidders are encouraged to complete the information requested on the Notice of Visitor(s) Form (attached). The completed form can be faxed to the Contract Specialist at (213)452-4184 or 4187, prior to the date for receipt of bids. In addition, no more than 2 visitors per firm will be permitted within the building. No exceptions will be made. The offeror is responsible for compliance with the security requirements and shall ensure that any company representative, courier or delivery personnel are aware of these special procedures pertaining to hand carried bids.**

| NOTICE OF VISITOR(S) | | |
|---|---|---|
| **1. Date(s) of Visit *(Inclusive)*** | **2. Arrival Time** | |
| **3. Name of Visitor(s) *(Last, First)*** | **4. Agency/Company of Visitor** | |
| **5. Name of Person Being Visited *(Include Div, Br, Sec)*** | **6. Suite Number** | **7. Telephone Number** |
| **8. Contact Person *(if other than Person Being Visited)*** | | **9. Telephone Number** |
| **10. Other Comments or Instructions** | | |

- All visitors must report to the Public Affairs Office, Suite 980
- Visitors must use the Visitor Tag provided.
- Visitors must be escorted to Corps of Engineers floors
- Parking validation is only available for Engineering Division, Construction-Operations, and Information Management field personnel.
- Delivery personnel will be validated for 30 minutes only.

52.216-1 TYPE OF CONTRACT (APR 1984)

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

(End of clause)

52.217-5 EVALUATION OF OPTIONS (JUL 1990)

(a) Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(b) The Government may reject an offer as nonresponsive if it is materially unbalanced as to prices for the basic requirement and the option quantities. An offer is unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

(End of provision)

52.219-18 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS (JUN 1999)--ALTERNATE I (NOV 1989)

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer--

(1) The Offeror is in conformance with the 8(a) support limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(4) The offeror's approved business plan is on the file and serviced by Small Business Administration Headquarters or approved satellite offices within Region 9 of the Small Business Administration. .

(b) By submission of its offer, the Offeror certifies that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation will be made to the Small Business Administration, which will subcontract performance to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

(d)(1) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term "United States" includes its territories and possessions, the Commonwealth of Puerto Rico, the trust territory of

the Pacific Islands, and the District of Columbia. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed $25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply in connection with construction or service contracts.

(2) The Contractor will notify the U.S. Army Corps of Engineers Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.

(End of clause)

52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002)

(a) Definitions. Construction material, designated country construction material, domestic construction material, foreign construction material, and NAFTA country construction material, as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act--Construction Materials under Trade Agreements" (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act or Balance of Payments Program before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

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

(d) Alternate offers. (1) When an offer includes foreign construction material, other than designated country or NAFTA country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic, designated country, or NAFTA country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic, designated country, or NAFTA country construction material, and the offeror shall be required to furnish such domestic, designated country, or NAFTA country construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.228-4507 BID GUARANTEE FORM AND AMOUNT - IDIQ CONTRACTS

When bids/proposals exceed $100,000, the offeror shall furnish a separated bid guarantee in accordance with the solicitation provision titled "Bid Guarantee", FAR 52.228-1. In accordance with FAR 28.101-2 the bid guarantee amount shall be a least 20 percent of the "bid price" but shall not exceed $3 million. When the penal sum is expressed as a percentage, a maximum dollar limitation may be stated. If there are option line items on the Pricing Schedule (Schedule B), the term "bid price" is hereby defined as the total bid not to include any amount for line items designated as "options". In bids/proposals that contain "additives", the "bid price" is defined as the total of all bid items including additive line items. FAR 28.106-1 states that a Standard Form (SF) 24 shall be used for the bid bond. In accordance with FAR 28.202(a)(1), corporate sureties utilized must appear on the list contained in the Department of Treasury Circular 570 titled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies."

52.232-38 SUBMISSION OF ELECTRONIC FUNDS TRANSFER INFORMATION WITH OFFER (MAY 1999)

The offeror shall provide, with its offer, the following information that is required to make payment by electronic funds transfer (EFT) under any contract that results from this solicitation. This submission satisfies the requirement to provide EFT information under paragraphs (b)(1) and (j) of the clause at 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration.

(1) The solicitation number (or other procurement identification number).

(2) The offeror's name and remittance address, as stated in the offer.

(3) The signature (manual or electronic, as appropriate), title, and telephone number of the offeror's official authorized to provide this information.

(4) The name, address, and 9-digit Routing Transit Number of the offeror's financial agent.

(5) The offeror's account number and the type of account (checking, savings, or lockbox).

(6) If applicable, the Fedwire Transfer System telegraphic abbreviation of the offeror's financial agent.

(7) If applicable, the offeror shall also provide the name, address, telegraphic abbreviation, and 9-digit Routing Transit Number of the correspondent financial institution receiving the wire transfer payment if the offeror's financial agent is not directly on-line to the Fedwire and, therefore, not the receiver of the wire transfer payment.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from Lucia Carvajal, U.S. Army Corps of Engineeers, Los Angeles District, Contract Division, West Region Branch, P.O. Box 532711, Los Angeles, CA 90053-2325.

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

(End of provision)

**Section 00600 - Representations & Certifications**

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985) ..... 2
52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991) ..... 3
52.204-3 TAXPAYER IDENTIFICATION (OCT 1998) ..... 3
52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99) 5
52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001) ..... 6
52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002) ..... 7
52.219-2 EQUAL LOW BIDS. (OCT 1995) ..... 10
52.219-18 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS (JUN 1999)--ALTERNATE I (NOV 1989) ..... 10
52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999) ALTERNATE I (OCT 1998) ..... 11
52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999) ..... 12
52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999).. 13
52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984) ..... 13
52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001) ..... 13
52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000) ..... 13
252.204-7001 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (AUG 1999) ..... 14
252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998) ..... 15
252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992) ..... 16

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

(a) The offeror certifies that --

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

(i) Those prices,

(ii) The intention to submit an offer, or

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

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

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

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

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

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provison _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

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

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

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

(End of clause)

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

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

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

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

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

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

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

(End of provision)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

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

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

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

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

(d) Taxpayer Identification Number (TIN).

___ TIN:._____

___ TIN has been applied for.

___ TIN is not required because:

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

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

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

(e) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

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

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other _____

(f) Common parent.

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

___ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

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

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

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

(1) Company name.

(2) Company address.

(3) Company telephone number.

(4) Line of business.

(5) Chief executive officer/key manager.

(6) Date the company was started.

(7) Number of people employed by the company.

(8) Company affiliation.

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

(End of provision)

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

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

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

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

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

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

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

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

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

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

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

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith,

the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

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

(End of provision)

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

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 238990.

(2) The small business size standard is $12 M.

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

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

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

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

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

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

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

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

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

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

____ Black American.

____ Hispanic American.

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

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

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

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

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

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

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

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

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

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

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

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

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

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

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

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

(d) Notice.

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

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

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

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

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

(End of provision)

52.219-2 EQUAL LOW BIDS. (OCT 1995)

(a) This provision applies to small business concerns only.

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

_____
_____
_____
_____

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

52.219-18 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS (JUN 1999)--ALTERNATE I (NOV 1989)

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer--

(1) The Offeror is in conformance with the 8(a) support limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(4) The offeror's approved business plan is on the file and serviced by Headquarters or approved satellite offices within Region 9 of the Small Business Administration.

(b) By submission of its offer, the Offeror certifies that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation will be made to the Small Business Administration, which will subcontract performance to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

(d)(1) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term "United States" includes its territories and possessions, the Commonwealth of Puerto Rico, the trust territory of

the Pacific Islands, and the District of Columbia. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed $25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply in connection with construction or service contracts.

(3) The Contractor will notify the U.S. Army Corps of Engineers Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.

(End of clause)

52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999) ALTERNATE I (OCT 1998)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--

___ (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

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

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

(C) It is identified , on the date of this representation, as a certifies small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net); or

___ (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2)___ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business

concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.]

(3) Address. The offeror represents that its address_____is, _____is not in a region for which a small disadvantaged business procurement mechanism is authorized and its address has not changed since its certification as a small disadvantaged business concern or submission of its application for certification. The list of authorized small disadvantaged business procurement mechanisms and regions is posted at http://www.arnet.gov/References/ sdbadjustments.htm. The offeror shall use the list in effect on the date of this solicitation. ``Address,'' as used in this provision, means the address of the offeror as listed on the Small Business Administrations register of small disadvantaged business concerns or the address on the completed application that the concern has submitted to the Small Business Administration or a Private Certifier in accordance with 13 CFR part 124, subpart B. For joint ventures, ``address'' refers to the address of the small disadvantaged business concern that is participating in the joint venture.

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:

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

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

(3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

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

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

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

(End of clause)

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

The offeror represents that --

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

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

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

(End of provision)

52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that

(a) [ ] it has developed and has on file, [ ] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or

(b) [ ] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of provision)

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

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

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

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

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

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

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

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

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

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

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

(End of clause)

252.204-7001 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (AUG 1999)

(a) The offeror is requested to enter its CAGE code on its offer in the block with its name and address. The CAGE code entered must be for that name and address. Enter “CAGE” before the number.

(b) If the offeror does not have a CAGE code, it may ask the Contracting Officer to request one from the Defense Logistics Information Service (DLIS). The Contracting Officer will--

(1) Ask the Contractor to complete section B of a DD Form 2051, Request for Assignment of a Commercial and Government Entity (CAGE) Code;

(2) Complete section A and forward the form to DLIS; and

(3) Notify the Contractor of its assigned CAGE code.

(c) Do not delay submission of the offer pending receipt of a CAGE code.

(End of provision)

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

(a) "Definitions."

As used in this provision --

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

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

(3) "Significant interest" means --

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

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

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

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

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

(b) "Prohibition on award."

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

(c) "Disclosure."

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

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

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

(End of provision)

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

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

(b) Representation. The Offeror represents that it:

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

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

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

(End of provision)

**Section 00700 - Contract Clauses**

52.202-1 DEFINITIONS (MAY 2001)--ALTERNATE I (MAR 2001)....4
52.203-3 GRATUITIES (APR 1984)....4
52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)....5
52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUL 1995)....5
52.203-7 Anti-Kickback Procedures. (JUL 1995)....6
52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)....7
52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)....8
52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)....9
52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)....13
52.209-6 Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment (JUL 1995)....15
52.214-26 Audit and Records--Sealed Bidding. (OCT 1997)....15
52.214-27 Price Reduction for Defective Cost or Pricing Data - Modifications - Sealed Bidding. (OCT 1997)....16
52.214-28 Subcontractor Cost or Pricing Data - Modifications - Sealed Bidding. (OCT 1997)....18
52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)....19
52.222-3 Convict Labor (Aug 1996)....19
52.222-4 Contract Work Hours and Safety Standards Act - Overtime Compensation. (SEP 2000)....20
52.222-6 DAVIS-BACON ACT (FEB 1995)....21
52.222-7 WITHHOLDING OF FUNDS (FEB 1988)....22
52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)....23
52.222-9 APPRENTICES AND TRAINEES (FEB 1988)....24
52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)....25
52.222-11 SUBCONTRACTS (LABOR STANDARDS) (FEB 1988)....26
52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)....26
52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)....26
52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)....26
52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)....27
52.222-26 EQUAL OPPORTUNITY (APR 2002)....27
52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (FEB 1999)29
52.222-35 AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (APR 1998)....33
52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)....35
52.222-37 EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1999)....37
52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)....37
52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (APR 1998)....39
52.223-6 DRUG-FREE WORKPLACE (MAY 2001)....39
52.223-10 WASTE REDUCTION PROGRAM (AUG 2000)....41
52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)....41
52.225-11 BUY AMERICAN ACT--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (JUL 2002)....42
52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUL 2000)....46
52.227-1 Authorization and Consent (JUL 1995)....46
52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)....47
52.228-1 BID GUARANTEE (SEP 1996)....47
52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)....47
52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)....48
52.228-11 PLEDGES OF ASSETS (FEB 1992)....48
52.229-3 FEDERAL, STATE, AND LOCAL TAXES (JAN 1991)....49
52.229-5 TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO (APR 1984)....50
52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 1997)....50

52.232-17 INTEREST (JUNE 1996) ....53
52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)....53
52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (FEB 2002) ....54
52.233-1 Disputes. (JUL 2002) ....61
52.233-3 PROTEST AFTER AWARD (AUG. 1996) ....62
52.236-2 DIFFERING SITE CONDITIONS (APR 1984)....63
52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984) ....64
52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)....65
52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984) ....65
52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)....65
52.236-8 OTHER CONTRACTS (APR 1984) ....66
52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984) ....66
52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984) ....66
52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)....67
52.236-12 CLEANING UP (APR 1984)....67
52.236-13 ACCIDENT PREVENTION (NOV 1991) ....68
52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984) ....68
52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984) ....69
52.236-17 LAYOUT OF WORK (APR 1984)....70
52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)....70
52.237-2 PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION (APR 1984)70
52.242-13 BANKRUPTCY (JUL 1995) ....70
52.242-14 SUSPENSION OF WORK (APR 1984)....71
52.243-4 CHANGES (AUG 1987) ....71
52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989) ....72
52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996) ....75
52.246-13 INSPECTION--DISMANTLING, DEMOLITION, OR REMOVAL OF IMPROVEMENTS (AUG 1996)....76
52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994) ....77
52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)....78
52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996) - ALTERNATE I (SEP 1996)....81
52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984) ....84
52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)....86
52.252-4 ALTERATIONS IN CONTRACT (APR 1984) ....86
52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984) ....86
52.253-1 COMPUTER GENERATED FORMS (JAN 1991)....86
252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)....86
252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999) ....87
252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991) ....88
252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991) ....89
252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)....89
252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)89
252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)....90
252.219-7009 SECTION 8(A) DIRECT AWARD (MAR 2002) ....90
252.223-7001 HAZARD WARNING LABELS (DEC 1991) ....91
252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)....91
252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS....93
MATERIALS (APR 1993)....93
252.225-7012 Preference for Certain Domestic Commodities (APR 2002) ....93
252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992) ....95

252.227-7000 Non-estoppel. (OCT 1966).....95
252.227-7022 GOVERNMENT RIGHTS (UNLIMITED) (MAR 1979).....96
252.227-7023 DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF GOVERNMENT. (MAR 1979) .....96
252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966).....96
252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991).....96
252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991).....97
252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991).....97
252.242-7000 POSTAWARD CONFERENCE (DEC 1991).....97
252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991).....97
252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998).....98
252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000).....98

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

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

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

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

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

(e) Nondevelopmental item means--

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

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

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

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

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

(End of clause)

52.203-3 GRATUITIES (APR 1984)

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

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

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

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

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

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

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

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

(End of clause)

52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

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

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

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

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

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

(End of clause)

52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUL 1995)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed $100,000.

52.203-7 Anti-Kickback Procedures. (JUL 1995)

(a) Definitions.

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

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(End of clause)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)

(a) Definitions.

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

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

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or

attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

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

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

(i) Agency and legislative liaison by own employees.

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

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

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

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

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

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

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

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

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

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

(ii) Professional and technical services.

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

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

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

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

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

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

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

(c) Disclosure.

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

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

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

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

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

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

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

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

(e) Penalties.

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

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

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

(End of clause)

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

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

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

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

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

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

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

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

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

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

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

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

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

(End of clause)

52.209-6 Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment (JUL 1995)

(a) The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

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

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

(1) The name of the subcontractor.

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

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

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

(End of clause)

52.214-26 Audit and Records--Sealed Bidding. (OCT 1997)

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

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

(1) The proposal for the modification;

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

(3) Pricing of the modification; or

(4) Performance of the modification.

(c) Comptroller General. In the case of pricing any modification, the Comptroller General of the United States, or an authorized representative, shall have the same rights as specified in paragraph (b) of this clause.

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

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

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

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

(End of clause)

52.214-27 Price Reduction for Defective Cost or Pricing Data - Modifications - Sealed Bidding. (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for the submission of cost or pricing data at FAR 15.403-4(a)(1), except that this clause does not apply to a modification if an exception under FAR 15.403-1(b) applies.

(1) Based on adequate price competition;

(2) Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

(3) Set by law or regulation.

(b) If any price, including profit, negotiated in connection with any modification under this clause, was increased by any significant amount because

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

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

(3) any of these parties furnished data of any description that were not accurate, the price shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) above.

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

(1) the actual subcontract; or

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

(d) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made:

(1) the Contractor agrees not to raise the following matters as a defense:

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

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

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

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

(2) Except as prohibited by subdivision (d)(2)(ii) of this clause:

(i) an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if:

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

(B) The Contractor proves that the cost or pricing data were available before the date of agreement on the price of the contract (or price of the modification) and that the data were not submitted before such date.

(ii) An offset shall not be allowed if:

(A) The understated data was known by the Contractor to be understated when the Certificate of Current Cost or Pricing Data was signed; or (B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the date of agreement on price.

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

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

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

(End of clause)

52.214-28 Subcontractor Cost or Pricing Data - Modifications - Sealed Bidding. (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall:

(1) become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of cost or pricing data at (FAR) 48 CFR 15.403-4(a)(1); and

(2) be limited to such modifications.

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

(1) Based on adequate price competition;

(2) Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

(3) Set by law or regulation.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in subsection 15.406-2 of the Federal Acquisition Regulation that, to the best of its knowledge and belief, the data submitted under paragraph (b) above were accurate, complete, and current as of the date

of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that, when entered into, exceeds the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1).

(End of clause)

52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

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

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

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

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

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

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

52.222-3 Convict Labor (Aug 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it prohibit the employment by the Contractor in the performance of this contract of persons confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(a)(1) The worker is paid or is in an approved work training program on a voluntary basis;

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

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

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

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

(End of clause)

52.222-4 Contract Work Hours and Safety Standards Act - Overtime Compensation. (SEP 2000)

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

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

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

(d) Payrolls and basic records.

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

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

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding $100,000 and require subcontractors to include these provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

52.222-6 DAVIS-BACON ACT (FEB 1995)

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

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

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

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

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

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

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

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

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

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

(End of clause)

52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or

advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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

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

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

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the

full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

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

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

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

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

(End of clause)

52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages

of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

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

(End of clause)

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

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

(End of clause)

52.222-11 SUBCONTRACTS (LABOR STANDARDS) (FEB 1988)

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

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

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

(End of clause)

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

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

(End of clause)

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

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

(End of clause)

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this

clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

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

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

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

(End of clause)

52.222-26 EQUAL OPPORTUNITY (APR 2002)

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

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of $10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

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

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

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

(4) The Contractor shall, in all solicitations or advertisements for employees

placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

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

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

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

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

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

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

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

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

(End of clause)

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

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

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

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

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

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

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

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

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

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

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in

which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

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

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

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

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

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

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

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

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including

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

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

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

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

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

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

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

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

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

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

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

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

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

(13) Ensure that seniority practices, job classifications, work assignments,

and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

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

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

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

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

(1) Actively participates in the group;

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

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

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

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

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

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

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

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or

ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

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

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

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

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

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

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

(End of clause)

52.222-35 AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (APR 1998)

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

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

Appropriate office of the State employment service system means the local office of the Federal-State national system of public employment offices with assigned responsibility to serve the area where the employment opening is to be filled, including the District of Columbia, Guam, the Commonwealth of Puerto Rico, and the Virgin Islands.

Positions that will be filled from within the Contractor's organization means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries,

and parent companies) and includes any openings that the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days, any part of which occurred between August 5, 1964, and May 7, 1975, and was discharged or released therefrom with other than a dishonorable discharge; or

(2) Was discharged or released from active duty for a service-connected disability if any part of such active duty was performed between August 5, 1964, and May 7, 1975.

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

(i) Employment;

(ii) Upgrading;

(iii) Demotion or transfer;

(iv) Recruitment;

(v) Advertising;

(vi) Layoff or termination;

(vii) Rates of pay or other forms of compensation; and

(viii) Selection for training, including apprenticeship.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended.

(c) Listing openings. (1) The Contractor agrees to list all employment openings existing at contract award or occurring during contract performance, at an appropriate office of the State employment service system in the locality where the opening occurs. These openings include those occurring at any Contractor facility, including one not connected with performing this contract. An independent corporate affiliate is exempt from this requirement.

(2) State and local government agencies holding Federal contracts of $10,000 or more shall also list all their employment openings with the appropriate office of the State employment service.

(3) The listing of employment openings with the State employment service system is required at least concurrently with using any other recruitment source or effort and involves the obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing does not require hiring any particular job applicant or hiring from any

particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

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

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

(e) Postings. (1) The Contractor agrees to post employment notices stating (i) the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era, and (ii) the rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. They shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary), and provided by or through the Contracting Officer.

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

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

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

(End of clause)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(ii) The rights of applicants and employees.

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

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

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

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

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1999)

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

(1) The number of disabled veterans and the number of veterans of the Vietnam era in the workforce of the contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of that total, the number of disabled veterans, and the number of veterans of the Vietnam era.

(b) The above items shall be reported by completing the form entitled "Federal Contractor Veterans' Employment Report VETS-100."

(c) Reports shall be submitted no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date: (1) As of the end of any pay period during the period January through March 1st of the year the report is due, or (2) as of December 31, if the contractor has previous written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The count of veterans reported according to paragraph (a) of this clause shall be based on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all disabled veterans and veterans of the Vietnam era who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that the information is voluntarily provided; that the information will be kept confidential; that disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and that the information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of $10,000 or more unless exempted by rules, regulations, or orders of the Secretary.

(End of clause)

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

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

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

| Material (If none, insert "None") | Identification No. |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

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

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

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

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

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

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

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

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

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

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

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

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

(End of clause)

52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (APR 1998)

(a) Executive Order 12856 of August 3, 1993, requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)(42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA)(42 U.S.C. 13101-13109).

(b) The Contractor shall provide all information needed by the Federal facility to comply with the emergency planning reporting requirements of Section 302 of EPCRA; the emergency notice requirements of Section 304 of EPCRA; the list of Material Safety Data Sheets required by Section 311 of EPCRA; the emergency and hazardous chemical inventory forms of Section 312 of EPCRA; the toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA; and the toxic chemical reduction goals requirements of Section 3-302 of Executive Order 12856.

(End of clause)

52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

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

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to deter- mine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee

including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) though (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or

acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

52.223-10 WASTE REDUCTION PROGRAM (AUG 2000)

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

Recycling means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

Waste prevention means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

Waste reduction means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

(b) Consistent with the requirements of Section 701 of Executive Order 13101, the Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract. The Contractor's programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 .S.C. 6962, et seq.) and implementing regulations (40 CFR part 247).

(End of clause)

52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor owned or operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--

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

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

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

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

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

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed $100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding $100,000 (including all options), the substance of this clause, except this paragraph (e).

(End of clause)

52.225-11 BUY AMERICAN ACT--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (JUL 2002)

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

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

Construction material means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site

preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

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

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

Designated country means any of the following countries: Aruba, Austria, Bangladesh, Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark.

Djibouti, Equatorial Guinea, Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Hong Kong, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of, Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different construction material distinct from the materials from which it was transformed.

Domestic construction material means--

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

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

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

North American Free Trade Agreement country means Canada or Mexico.

North American Free Trade Agreement country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different construction material distinct from the materials from which it was transformed.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Construction materials. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) and the Balance of Payments Program by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the Trade Agreements Act and the North American Free Trade Agreement (NAFTA) apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country and NAFTA country construction materials.

(2) The Contractor shall use only domestic, designated country, or NAFTA country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: “none”

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

| Construction material description | Unit of measure | Quantity | Price (dollars) \1\ |
|---|---|---|---|
| Item 1: | | | |
| Foreign construction material.... | ..... | ..... | ..... |

Domestic construction material... .....
..... .....
Item 2:
Foreign construction material.... .....
..... .....
Domestic construction material... .....
..... .....
---
---
\1\ Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free
entry certificate is issued).
List name, address, telephone number, and contact for suppliers surveyed.
Attach copy of response; if oral,
attach summary.
Include other applicable supporting information.

(End of clause)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUL 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

52.227-1 Authorization and Consent (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for

supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

(End of clause)

52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be 20 percent of the bid price or $3,000,000, whichever is less.-

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of clause)

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract

if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit,

commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (JAN 1991)

(a) "Contract date," as used in this clause, means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties," as used in this clause, means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax," as used in this clause, means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.
"After-relieved Federal tax," as used in this clause, means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

(b) The contract price includes all applicable Federal, State, and local taxes and duties.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds $250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

52.229-5 TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO (APR 1984)

The term "local taxes," as used in the Federal, State, and local taxes clause of this contract, includes taxes imposed by a possession of the United States or by Puerto Rico.

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 1997)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

_____

(Name)

_____

(Title)

_____

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of

the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any

action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C.

3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (FEB 2002)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other

division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the

Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its

subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph
(e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter

referred to as a "second-tier subcontractor") a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts DisputesAct of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.233-1 Disputes. (JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding $100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute

Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative disput resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms

and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

As prescribed in 36.502, insert the following clause in solicitations and contracts when a fixed-price construction contract or a fixed-price dismantling, demolition, or removal of improvements contract is contemplated and the contract amount is expected to exceed the small purchase limitation. The Contracting Officer may insert the clause in solicitations and contracts when a fixed-price construction or a fixed-price contract for dismantling, demolition, or removal of improvements is contemplated and the contract amount is expected to be within the small purchase limitation.

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or

interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be

responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work

area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

52.236-13 ACCIDENT PREVENTION (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(d) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(End of clause)

52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)

(a) The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

(b) The Contractor, at its expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

(End of clause)

52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

52.236-17 LAYOUT OF WORK (APR 1984)

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

(End of clause)

52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

52.237-2 PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION (APR 1984)

The Contractor shall use reasonable care to avoid damaging existing buildings, equipment, and vegetation on the Government installation. If the Contractor's failure to use reasonable care causes damage to any of this property, the Contractor shall replace or repair the damage at no expense to the Government as the Contracting Officer directs. If the Contractor fails or refuses to make such repair or replacement, the Contractor shall be liable for the cost, which may be deducted from the contract price.

(End of clause)

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

(1) the date, circumstances, and source of the order and

(2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or
(2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989)

(a) Government-furnished property. (1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the

Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) Changes in Government-furnished property. (1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any--

(i) Decrease or substitution in this property pursuant to subparagraph (b)(1) of this clause; or

(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) Title in Government property. (1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract--

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon--

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) Use of Government property. The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) Property administration. (1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) Access. The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) Risk of loss. Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) Equitable adjustment. When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for--

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) Final accounting and disposition of Government property. Upon completing this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property (including any resulting scrap) not consumed in performing this contract or delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as the Contracting Officer directs.

(j) Abandonment and restoration of Contractor's premises. Unless otherwise provided herein, the Government--

(1) May abandon any Government property in place, at which time all obligations of the Government regarding such abandoned property shall cease; and

(2) Has no obligation to restore or rehabilitate the Contractor's premises under any circumstances (e.g., abandonment, disposition upon completion of need, or upon contract completion). However, if the Government-furnished property (listed in the Schedule or specifications) is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) Communications. All communications under this clause shall be in writing.

(l) Overseas contracts. If this contract is to be performed outside of the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

52.246-13 INSPECTION--DISMANTLING, DEMOLITION, OR REMOVAL OF IMPROVEMENTS (AUG 1996)

(a) Unless otherwise designated by the specifications, all workmanship performed under the contract is subject to Government inspection at all times

and places where dismantling or demolition work is being performed. The Contractor shall furnish promptly, and at no increase in contract price all reasonable facilities, labor, and materials necessary for safe and convenient inspection by the Government. The Government shall perform inspections in a manner that will not unduly delay the work.

(b) The Contractor is responsible for damage to property caused by defective workmanship. The Contractor shall promptly segregate and remove from the premises any unsatisfactory facilities, materials, and equipment used in contract performance, and promptly replace them with satisfactory items. If the Contractor fails to proceed at once in a workmanlike manner with performance of the work or with the correction of defective workmanship, the Government may (1) by contract or otherwise, replace the facilities, materials, and equipment or correct the workmanship and charge the cost to the Contractor and (2) terminate for default the Contractor's right to proceed. The Contractor and any surety shall be liable, to the extent specified in the contract for any damage or cost of repair or replacement.

(End of clause)

52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of clause)

52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and

the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or $100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of $50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments;

provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract . . . . . , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause,

exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may

take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if--

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

(i) acts of God or of the public enemy,

(ii) acts of the Government in either its sovereign or contractual capacity,

(iii) acts of another Contractor in the performance of a contract with the Government,

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

[Insert one or more Internet addresses]

(End of clause)

52.252-4 ALTERATIONS IN CONTRACT (APR 1984)

Portions of this contract are altered as follows:

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

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

(e) The use in this solicitation or contract of any _____ (48 CFR _____) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

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

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

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

(End of clause)

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

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal

Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

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

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

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

(i) Attempting to obtain;

(ii) Obtaining, or

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

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

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

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

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

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

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than $500,000 if convicted of knowingly—

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

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

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

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

(End of clause)

252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991)

(a) The Contractor shall display prominently in common work areas within business segments performing work under Department of Defense (DoD) contracts, DoD Hotline Posters prepared by the DoD Office of the Inspector General.

(b) DoD Hotline Posters may be obtained from the DoD Inspector General, ATTN:

Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884.

(g) The Contractor need not comply with paragraph (a) of this clause if it has established a mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(End of clause)

252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

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

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

(End of clause)

252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-268; 25 U.S.C. 450 (c))); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)

(a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

(End of clause)

252.219-7009 SECTION 8(A) DIRECT AWARD (MAR 2002)

(a) This contract is issued as a direct award between the contracting office and the 8(a) Contractor pursuant to the Partnership Agreement dated February 1, 2002, between the Small Business Administration (SBA) and the Department of Defense. Accordingly, the SBA, even if not identified in Section A of this contract, is the prime contractor and retains responsibility for 8(a) certification, for 8(a) eligibility determinations and related issues, and for providing counseling and assistance to the 8(a) Contractor under the 8(a) Program. The cognizant SBA district office is:

(To be completed by the Contracting Officer at the time of award)

(b) The contracting office is responsible for administering the contract and for taking any action on behalf of the Government under the terms and conditions of the contract; provided that the contracting office shall give advance notice to the SBA before it issues a final notice terminating performance, either in whole or in part, under the contract. The contracting office also shall coordinate with the SBA prior to processing any novation agreement. The contracting office may assign contract administration functions to a contract administration office.

(c) The Contractor agrees that--

(1) It will notify the Contracting Officer, simultaneous with its notification to the SBA (as required by SBA's 8(a) regulations at 13 CFR 124.308), when the owner or owners upon whom 8(a) eligibility is based plan to relinquish

ownership or control of the concern. Consistent with Section 407 of Pub. L. 100-656, transfer of ownership or control shall result in termination of the contract for convenience, unless the SBA waives the requirement for termination prior to the actual relinquishing of ownership and control; and

(2) It will not subcontract the performance of any of the requirements of this contract without the prior written approval of the SBA and the Contracting Officer.

(End of Clause)

252.223-7001 HAZARD WARNING LABELS (DEC 1991)

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;

(3) Consumer Product Safety Act;

(4) Federal Hazardous Substances Act; or

(5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

| MATERIAL (If None, Insert "None.") | ACT |
|---|---|
| _____ | _____ |
| _____ | _____ |

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)

(a) "Definitions".

As used in this clause --

(1) "Storage" means a non-transitory, semi-permanent or permanent holding, placement, or leaving of material. It does not include a temporary accumulation of a limited quantity of a material used in or a waste generated or resulting from authorized activities, such as servicing, maintenance, or repair of Department of Defense (DoD) items, equipment, or facilities.

(2) "Toxic or hazardous materials" means:

(i) Materials referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601(14)) and materials designated under section 102 of CERCLA (42 U.S.C. 9602) (40 CFR part 302);

(ii) Materials that are of an explosive, flammable, or pyrotechnic nature; or

(iii) Materials otherwise identified by the Secretary of Defense as specified in DoD regulations.

(b) In accordance with 10 U.S.C. 2692, the Contractor is prohibited from storing or disposing of non-DoD-owned toxic or hazardous materials on a DoD installation, except to the extent authorized by a statutory exception to 10 U.S.C. 2692 or as authorized by the Secretary of Defense or his designee.

(End of clause)

252.225-7012 Preference for Certain Domestic Commodities (APR 2002)

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

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and
(ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To foods that have been manufactured or processed in the United States, its possessions, or Puerto Rico, regardless of where the foods (and any component if applicable) were grown or produced;

(4) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(5) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(End of clause)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

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

(1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concerns, as determined under regulations of the President.

(b) Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(End of clause)

252.227-7000 Non-estoppel. (OCT 1966)

The Government reserves the right at any time to contest the enforceability, validity, scope of, or the title to any patent or patent application herein licensed without waiving or forfeiting any right under this contract.

(End of clause)

252.227-7022 GOVERNMENT RIGHTS (UNLIMITED) (MAR 1979)

The Government shall have unlimited rights, in all drawings, designs, specifications, notes and other works developed in the performance of this contract, including the right to use same on any other Government design or construction without additional compensation to the Contractor. The Contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish the original or copies of all such works on the request of the Contracting Officer.

(End of clause)

252.227-7023 DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF GOVERNMENT. (MAR 1979)

All designs, drawings, specifications, notes and other works developed in the performance of this contract shall become the sole property of the Government and may be used on any other design or construction without additional compensation to the Contractor. The Government shall be considered the "person for whom the work was prepared" for the purpose of authorship in any copyrightable work under 17 U.S.C. 201(b). With respect thereto, the Contractor agrees not to assert or authorize others to assert any rights nor establish any claim under the design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish all retained works on the request of the Contracting Officer. Unless otherwise provided in this contract, the Contractor shall have the right to retain copies of all works beyond such period.

(End of clause)

252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

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

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

(b) The price breakdown --

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

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

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

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

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

252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

---
(Official's Name)
---
(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause

**Section 00800 - Special Contract Requirements**

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000) ..... 2
52.211-5000 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984 FAR 52.211-10 ..... 2
52.216-18 ORDERING. (OCT 1995) ..... 2
52.216-19 ORDER LIMITATIONS. (OCT 1995) ..... 2
52.216-22 INDEFINITE QUANTITY. (OCT 1995) ..... 3
52.216-27 Single or Multiple Awards. (OCT 1995) ..... 4
52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000) ..... 4
52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999) ..... 4
52.228-12 Prospective Subcontractor Requests for Bonds. (OCT 1995) ..... 5
52.228-13 ALTERNATIVE PAYMENT PROTECTIONS (JULY 2000) ..... 5
52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999) ..... 6
52.228-15 Performance and Payment Bonds--Construction (JUL 2000)- ..... 10
52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (MAY 1999) ..... 11
52.236-4 PHYSICAL DATA (APR 1984) ..... 13
52.236-16 QUANTITY SURVEYS (APR 1984) ..... 13
52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997) ..... 14
52.236-5000 PLANT AND MATERIAL REMOVAL AFTER CONTRACT TERMINATION (MAR 1995)--EFARS ..... 15
52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS ..... 15
252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000) ..... 16
252.236-7005 AIRFIELD SAFETY PRECAUTIONS. (DEC 1991) ..... 16

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

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount indicated on each Task Order for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.211-5000 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984 FAR 52.211-10

The contractor shall be required to (a) commence work under each individual order as determined at time of execution of the order, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than the time stated in the individual order. The time stated for completion shall include final cleanup of the premises.

52.216-18 ORDERING. (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from date of contract award through date of contract performance period to include Option Periods, if exercised by the Contracting Officer.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of clause)

52.216-19 ORDER LIMITATIONS. (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than $1,000, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor:

(1) Any order for a single item in excess of 3,000,000;

(2) Any order for a combination of items in excess of $3,000,000; or

(3) A series of orders from the same ordering office within one day that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) above.

(d) Notwithstanding paragraphs (b) and (c) above, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

52.216-22 INDEFINITE QUANTITY. (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum". The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum".

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after the last completion date of any Task Order issued against this contract by the Contracting Officer.

(End of clause)

52.216-27 Single or Multiple Awards. (OCT 1995)

The Government may elect to award a single delivery order contract or task order contract or to award multiple delivery order contracts or task order contracts for the same or similar supplies or services to two or more sources under this solicitation.

52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within the Base Period, and Option Periods, if exercised by the Contracting Officer; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 years or a NTE amount of $10,000,000, whichever occurs first.

(End of clause)

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

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

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

| Goals for minority participation for each trade | Goals for female participation for each trade |
|---|---|
| 19.7% | 6.9% |

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

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations

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

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

(1) Name, address, and telephone number of the subcontractor;

(2) Employer's identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is the High Desert Area Office, but to include other civil sites and customers of the U.S. Army Corps of Engineers (USACE) in the Southern Pacific Division (California, Nevada, Arizona, New Mexico, and Utah).

(End of provision)

52.228-12 Prospective Subcontractor Requests for Bonds. (OCT 1995)

In accordance with Section 806(a)(3) of Pub. L. 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requester.

(End of clause)

52.228-13 ALTERNATIVE PAYMENT PROTECTIONS (JULY 2000)

(a) The Contractor shall submit one of the following payment protections:

Payment Bonds
Irrevocable Letter of Credit

(b) The amount of the payment protection shall be 100 percent of the contract price.

(c) The submission of the payment protection is required within 10 days of contract award, if required on each task order.

(d) The payment protection shall provide protection for the full contract performance period plus a one-year period.

(e) Except for escrow agreements and payment bonds, which provide their own protection procedures, the Contracting Officer is authorized to access funds under the payment protection when it has been alleged in writing by a supplier of labor or material that a nonpayment has occurred, and to withhold such funds pending resolution by administrative or judicial proceedings or mutual agreement of the parties.

(f) When a tripartite escrow agreement is used, the Contractor shall utilize only suppliers of labor and material that signed the escrow agreement.

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

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

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

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

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

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

to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

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

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

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

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

(A) 90 days following final payment; or

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

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than $25 million in the past year, ILCs over $5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than $25 million in the past year.

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

_____

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

Issue Date _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

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

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn

on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

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

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

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

Sincerely,

_____

[Issuing financial institution]

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

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

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

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

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

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

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

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

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

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

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

Sincerely,

_____

[Confirming financial institution]

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

SIGHT DRAFT

_____

[City, State]

(Date) _____

[Name and address of financial institution]

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

_____

[Beneficiary Agency]

By: _____

(End of clause)

52.228-15 Performance and Payment Bonds--Construction (JUL 2000)-

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

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is $100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or

by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 270b(c). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Contractor EFT arrangements. If the Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(j) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal

Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

(End of Clause)

52.236-4 PHYSICAL DATA (APR 1984)

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

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by techniques to be determined per Individaul Order.

(b) Weather conditions: The Contractor shall satisfy himself as to the hazards likely to arise from weather conditions.

(c) Transportation facilities: The Contractor shall make his own investigation of the conditions of existing public and private roads and clearances, restrictions, bridge load limits and other limitations affecting transportation and ingress and egress at the job site. The unavailability of transportation facilities or limitation thereof shall not become a basis for claims against the Government or extensions of time for completion of the work.

(End of clause)

52.236-16 QUANTITY SURVEYS (APR 1984)

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

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

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

(End of clause)

52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the

requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

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

Should this contract be terminated as provided in clause 52.232-5001 because of the failure of Congress to provide additional funds for its completion, the contractor may be permitted to remove plant and material on which payments for preparatory work have been made, subject to an equitable deduction from the amounts due the contractor to reimburse the United States for the unabsorbed value of such plant and material.

(End of clause)

52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS

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

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

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

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

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

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

(End of Clause)

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

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

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

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

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

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

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

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

| Title | File | Drawing No. |
|---|---|---|

See “Plans” for each task order, as incurred.

(End of clause)

252.236-7005 AIRFIELD SAFETY PRECAUTIONS. (DEC 1991)

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

(1) "Landing areas means" --

(i) The primary surfaces, comprising the surface of the runway, runway shoulders, and lateral safety zones. The length of each primary surface is the same as the runway length. The width of each primary surface is 2,000 feet (1,000 feet on each side of the runway centerline);

(ii) The "clear zone" beyond the ends of each runway, i.e., the extension of

the primary surface for a distance of 1,000 feet beyond each end of each runway;

(iii) All taxiways, plus the lateral clearance zones along each side for the length of the taxiways (the outer edge of each lateral clearance zone is laterally 250 feet from the far or opposite edge of the taxiway, e.g., a 75-foot-wide taxiway would have a combined width of taxiway and lateral clearance zones of 425 feet); and

(iv) All aircraft parking aprons, plus the area 125 feet in width extending beyond each edge all around the aprons.

(2) "Safety precaution" areas means those portions of approach-departure clearance zones and transitional zones where placement of objects incident to contract performance might result in vertical projections at or above the approach-departure clearance, or the transitional surface.

(i) "The approach-departure clearance surface" is an extension of the primary surface and the clear zone at each end of each runway, for a distance of 50,000 feet, first along an inclined (glide angle) and then along a horizontal plane, both flaring symmetrically about the runway centerline extended.

(A) The inclined plane (glide angle) begins in the clear zone 200 feet past the end of the runway (and primary surface) at the same elevation as the end of the runway. It continues upward at a slope of 50:1 (1 foot vertically for each 50 feet horizontally) to an elevation of 500 feet above the established airfield elevation. At that point the plane becomes horizontal, continuing at that same uniform elevation to a point 50,000 feet longitudinally from the beginning of the inclined plane (glide angle) and ending there.

(B) The width of the surface at the beginning of the inclined plane (glide angle) is the same as the width of the clear zone. It then flares uniformly, reaching the maximum width of 16,000 feet at the end.

(ii) The "approach-departure clearance zone" is the ground area under the approach-departure clearance surface.

(iii) The "transitional surface" is a sideways extension of all primary surfaces, clear zones, and approach-departure clearance surfaces along inclined planes.

(A) The inclined plane in each case begins at the edge of the surface.

(B) The slope of the incline plane is 7:1 (1 foot vertically for each 7 feet horizontally). It continues to the point of intersection with the --

(1) Inner horizontal surface (which is the horizontal plane 150 feet above the established airfield elevation); or

(2) Outer horizontal surface (which is the horizontal plane 500 feet above the established airfield elevation), whichever is applicable.

(iv) The "transitional zone" is the ground area under the transitional surface. (It adjoins the primary surface, clear zone, and approach-departure clearance zone.)

(b) General. (1) The Contractor shall comply with the requirements of this clause while --

(i) Operating all ground equipment (mobile or stationary);

(ii) Placing all materials; and

(iii) Performing all work, upon and around all airfields.

(2) The requirements of this clause are in addition to any other safety requirements of this contract.

(c) The Contractor shall -

(1) Report to the Contracting Officer before initiating any work;

(2) Notify the Contracting Officer of proposed changes to locations and operations;

(3) Not permit either its equipment or personnel to use any runway for purposes other than aircraft operation without permission of the Contracting Officer, unless the runway is -

(i) Closed by order of the Contracting Officer; and

(ii) Marked as provided in paragraph (d)(2) of this clause;

(4) Keep all paved surfaces, such as runways, taxiways, and hardstands, clean at all times and, specifically, free from small stones which might damage aircraft propellers or jet aircraft;

(5) Operate mobile equipment according to the safety provisions of this clause, while actually performing work on the airfield. At all other times, the Contractor shall remove all mobile equipment to locations -

(i) Approved by the Contracting Officer;

(ii) At a distance of at least 750 feet from the runway centerline, plus any additional distance; and

(iii) Necessary to ensure compliance with the other provisions of this clause; and

(6) Not open a trench unless material is on hand and ready for placing in the trench. As soon as practicable after material has been placed and work approved, the Contractor shall backfill and compact trenches as required by the contract. Meanwhile, all hazardous conditions shall be marked and lighted in accordance with the other provisions of this clause.

(d) Landing areas. The Contractor shall -

(1) Place nothing upon the landing areas without the authorization of the Contracting Officer;

(2) Outline those landing areas hazardous to aircraft, using (unless

otherwise authorized by the Contracting Officer) red flags by day, and electric, battery-operated low-intensity red flasher lights by night;

(3) Obtain, at an airfield where flying is controlled, additional permission from the control tower operator every time before entering any landing area, unless the landing area is marked as hazardous in accordance with paragraph (d)(2) of this clause;

(4) Identify all vehicles it operates in landing areas by means of a flag on a staff attached to, and flying above, the vehicle. The flag shall be three feet square, and consist of a checkered pattern of international orange and white squares of 1 foot on each side (except that the flag may vary up to ten percent from each of these dimensions);

(5) Mark all other equipment and materials in the landing areas, using the same marking devices as in paragraph (d)(2) of this clause; and

(6) Perform work so as to leave that portion of the landing area which is available to aircraft free from hazards, holes, piles of material, and projecting shoulders that might damage an airplane tire.

(e) Safety precaution areas. The Contractor shall -

(1) Place nothing upon the safety precaution areas without authorization of the Contracting Officer;

(2) Mark all equipment and materials in safety precaution areas, using (unless otherwise authorized by the Contracting Officer) red flags by day, and electric, battery-operated, low-intensity red flasher lights by night; and

(3) Provide all objects placed in safety precaution areas with a red light or red lantern at night, if the objects project above the approach-departure clearance surface or above the transitional surface.

SECTION 01250

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 The Unit Cost for each Line Item shall include labor, material, and equipment required to complete the work as described in the following table. In addition to the direct costs, each unit cost shall include all mark-ups, overhead costs and profit. Work specified shall be measured for payment by the unit of measure (i.e.: each, linear feet, cubic yard, ton, etc.) listed for that item on the Bid Schedule. Payment shall be full compensation to complete the required work, as identified in the individual Task Order, in accordance with the contract plans and specifications.

**DESCRIPTION OF WORK**

**REPLACEMENT, REPAIR, & INSTALLATION OF FENCING IDIQ**

| ITEM No. | **NOTE: All work to be done in accordance with all current codes general orders and sketches included in the specifications and Task Orders.** |
|---|---|
| 0001<br>0013<br>0025<br>0037<br>0049 | **DEMOLITION:** Work includes the complete removal and disposal of existing fence and/or fencing systems as identified in the individual sub-items. The contractor will take special precautions to protect existing surface conditions and vegetation in and around the work area to insure the removal and disposal of fencing is accomplished in a manner that will not disturb the surrounding areas. Holes created by the removal of fence posts and/or foundations shall be filled and compacted with approved clean fill to match the surrounding surface elevation. |
| 0002<br>0014<br>0026<br>0038<br>0050 | **FENCE REPLACEMENT:** Work includes the removal and disposal of existing fencing systems as described above, as well as providing and installing new fence complete in place as described below and as stated in the individual sub-items. Fencing systems will be constructed in strict accordance with the appropriate specification section and drawings provided for the type of fence listed. |
| 0003<br>0015<br>0027<br>0039<br>0051 | **NEW FENCE INSTALLATION:** Work includes layout, excavation, fence posts (including concrete), bracing, fence fabric or wire, hardware, and disposal of excess material, as described in the individual sub-items. The contractor will take special precautions to protect existing surface conditions and vegetation in and around the work area to insure the installation will not disturb the surrounding areas. Fencing systems will be constructed in strict accordance with the appropriate specification sections and drawings provided. |

| ITEM No. | **NOTE: All work to be done in accordance with all current codes general orders and sketches included in the specifications and Task Orders.** |
|---|---|
| 0004-0009<br>0016-0021<br>0028-0033<br>0040-0045<br>0052-0057 | **GATES:** Work includes the fabrication and installation of gates as identified in the individual sub-items. Gates shall be fabricated and installed in accordance with the appropriate specification section and drawings provided, for the type and size of gate listed. |
| 0010<br>0022<br>0034<br>0046<br>0058 | **CONCRETE MASONARY BLOCK WALL:** Work includes the installation of CMU block walls including layout, excavation, footings, reinforcement, grout and disposal of exess materials for units identified in the individual sub-items. Walls shall be installed in strict accordance with the appropriate specification section and the drawings provided. |
| 0011<br>0023<br>0035<br>0047<br>0059 | **ARCHED STYLE HIGH SECURITY FENCE:** Fence installation includes layout, excavation, fence posts, sleeves, concrete grade beam, bracing, fence fabric, hardware and disposal of excess material as identified in the individual sub-items. Fence shall be installed in strict accordance with the approporiate specification section and the drawings provided. |
| 0012<br>0024<br>0036<br>0048<br>0060 | **ADDITIONAL WORK:** *Mobilization / Demobilization* will be paid for new Task Orders issued for work that is located outside a radius of 50 miles from any on-going work. The unit cost stated will be added to the first Task Order issued in a geographic area. *Labor Pool, Equipment Pool, and Material Pool* line items will be used to cover incidental costs in those categories for work that is required to complete a Task Order, but is not covered in the main bid items. See Note 6 at the end of the Bid Schedule for further clarification. |

--End of Section--

INDEX

SECTION 01300

SUBMITTAL PROCEDURES


| PARAGRAPH | | PAGE |
|---|---|---|
| PART 1 | GENERAL | 01300-1 |
| 1.1 | SUBMITTAL CLASSIFICATION | 01300-1 |
| 1.1.1 | Government Approved | 01300-1 |
| 1.1.2 | Information Only | 01300-1 |
| 1.2 | SUBMITTAL REVIEW AND APPROVAL | 01300-1 |
| 1.3 | GOVERNMENT APPROVED SUBMITTALS | 01300-1 |
| 1.4 | DISAPPROVED SUBMITTALS | 01300-2 |
| 1.5 | PAYMENT FOR ITEMS FOR WHICH A SUBMITTAL AND APPROVAL IS REQUIRED | 01300-2 |
| PART 2 | PRODUCTS (Not Applicable) | 01300-2 |
| PART 3 | EXECUTION | 01300-2 |
| 3.1 | GENERAL | 01300-2 |
| 3.2 | SUBMITTAL REGISTER (ENG FORM 4288) | 01300-2 |
| 3.3 | SCHEDULING | 01300-3 |
| 3.4 | TRANSMITTAL FORM (ENG FORM 4025) | 01300-3 |
| 3.5 | SUBMITTAL PROCEDURE | 01300-3 |
| 3.5.1 | Procedures | 01300-3 |
| 3.5.2 | Deviations | 01300-4 |
| 3.6 | SPARE PARTS LIST AND MAINTENANCE OPERATIONS MANUALS: | 01300-4 |
| 3.7 | AS-BUILT DRAWINGS | 01300-5 |
| 3.8 | CONTROL OF SUBMITTALS | 01300-6 |
| 3.9 | GOVERNMENT APPROVED SUBMITTALS | 01300-6 |
| 3.10 | GOVERNMENT APPROVED SUBMITTALS | 01300-6 |
| 3.11 | INFORMATION ONLY SUBMITTALS | 01300-7 |
| 3.12 | STAMPS | 01300-7 |

SECTION 01300

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.1.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.1.2 Information Only

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

1.2 SUBMITTAL REVIEW AND APPROVAL

Before submission, Contractor shall review all submittals prepared by subcontractors, suppliers, and himself, for completeness, accuracy, and compliance with plans and specifications. Contractor shall not use red markings on submittals. Red markings are reserved for use by the Contracting Officer. Approval by Contractor shall be indicated on each drawing by an "Approved" stamp with Contractor's name, signature, and date. The Contractor shall have independent agents not associated with his organization to do the review. The review shall be done by a licensed architect or registered engineers in the appropriate disciplines of architectural, civil, structural, mechanical and electrical, as appropriate. The reviews shall be thorough and complete and authenticated by registered engineer's or architect's stamp. This administration of submittal review must be integrated into the Contractor's Quality Control Plan. The plan must delineate in precise detail how the Contractor intends to satisfy this requirement. This should include names of organizations, qualifications and names of individuals who will be doing the work with their qualifications/resumes. Supplier's or subcontractors certifications are not acceptable as meeting this requirement of independent review. Submittals not conforming to the requirements of this section will be returned to the Contractor for correction and resubmittal.

1.3 GOVERNMENT 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 CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

## 1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

## 1.5 PAYMENT FOR ITEMS FOR WHICH A SUBMITTAL AND APPROVAL IS REQUIRED

In accordance with FAR 52.232-5, "Payment Under Fixed-Price Construction Contract", the Government shall make progress payments to the Contractor monthly based on estimates of work accomplished which meets the standards of quality established under the contract. On items for which submittals must be approved by the Contracting Officer, payment cannot be made for the item until the Government establishes that the item "meets the standards of quality" required by the contract. The Contractor shall not invoice for, nor shall the Government make payment for any item, for which submittal and approval is required, until the item has been submitted and approved as described herein.

# PART 2 PRODUCTS (Not Applicable)

# PART 3 EXECUTION

## 3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

## 3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications. Columns "d" through "p" have been completed by the Government. The Contractor shall complete columns "a," through "c," and "r" thru "t" and return two (2) completed copies to the Contracting Officer for approval within thirty (30) calendar days after Notice to Proceed. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal

register and the progress schedules shall be coordinated. The Contractor will insure that any errors in draft ENG Form 4288 and any omissions are added prior to submission for approval.

## 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 35 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

## 3.4 TRANSMITTAL FORM (ENG FORM 4025)

The Contractor shall complete ENG Form 4025, "Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance" and forward four (4) copies of same with each set of shop drawings, certificates of compliance, materials, fixtures and equipment lists submitted for approval. Three (3) copies of the ENG Form 4025 shall be submitted for information only data. No translucent or coated reproduced copies will be accepted.

Each item submitted shall be listed separately on the ENG Form 4025. For new submittals or resubmittals mark the appropriate box; or resubmittals also insert previous transmittal number. Blank ENG Forms 4025 will be furnished by the Contracting Officer on request. Shop drawings shall be either blue line or black line prints on a white background. Blueprints are not acceptable. Each submittal shall be identified with the Contractor's name, Contract Number, Transmittal Number, and Item Number to correspond with Item Number listed on ENG form 4288. The following identification shall be marked on submittals as applicable:

Contract Number
Project Title and Location
Subcontractor's Name
Supplier's Name or Manufacturer's Name
Specification Section and Paragraph Number
Contract Drawing File Number

## 3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

### 3.5.1 Procedures

Submittals required by the CONTRACT CLAUSES and other non-technical parts of the contract are not included in this section. The Contractor shall submit to the Contracting Officer: four (4) copies for approval, and three (3) copies for information only, of all shop drawings, certificates of compliance, materials, fixtures and equipment lists called for under the various headings of these specifications. These drawings, certificates and lists shall be complete and detailed and, prior to submission, must be reviewed and certified correct by the Contractor as required by the Quality Control System paragraph of the Construction Quality Control Section. If approved by the Contracting Officer, three (3) sets of all submittals will be returned to the Contractor. Submittals for information only usually will be returned to the Contractor. Submittals for information only usually will not be returned. The Contractor

is encouraged to submit paper documents that are printed/copied double-sided on recycled paper that has at least 20% postconsumer material.

(a) Resubmittals

(1) If a submittal is returned for correction or is not satisfactory and is disapproved by the Contracting Officer, the Contractor shall resubmit the corrected material in the same quantity, including reproducibles as specified for the original submittal for approval within 14 days after receipt by him of the disapproved material.

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.

3.6 SPARE PARTS LIST AND MAINTENANCE OPERATIONS MANUALS:

Within 30 calendar days after approval of shop drawings and equipment lists, the Contractor shall submit, to the Contracting Officer, 3 copies of spare parts lists and operating and maintenance manuals as required under the various headings of these specifications. One reproducible, unfolded copy shall be provided of all operating instructions, control diagrams, etc., that are larger than 8-1/2-inches by 11-inches; this does not apply to standard manufacturer's data.

(A) Spare parts lists shall contain the following listed information:

(1) Quantity of parts required for 120 days and one year of operation.

(2) Description of each spare part.

(3) Drawing number and shop drawing reference.

(4) Part equipment code number.

(5) Unit price of each item.

(6) Total price of all items.

(7) Procurement lead time with particular attention to long lead times.

(8) Name and address of nearest supplier.

(9) Such remarks and data as the manufacturer may consider.

(10) Complete parts list of all replaceable items.

(B) Operation, Maintenance, and Repair Manuals and Instructions:

(1) The requirements for furnishing operating, maintenance, and repair data/manuals and field instructions under this contract are specified in the Technical Specifications. The Contractor shall submit to the Contracting Officer, not later than 60 calendar days

after the Notice to Proceed, an outline showing the proposed submittal date(s) of operation and maintenance manuals to be furnished the Government and the scheduled date(s) of all required field instructions to be provided by the Contractor furnished personnel or manufacturer's representatives. All operation and maintenance manuals must be furnished to the Contracting Officer not later than 60 calendar days prior to turnover of the facility to the Government.

(2) Failure on the part of the Contractor to comply with requirements of this clause will result in no further payment until all required O&M data/manuals are submitted and accepted.

(3) All O&M data/manuals submittal data shall be entered in a separate section of the master submittal register.

3.7 AS-BUILT DRAWINGS

(A) General: The Contractor shall send to Contracting Officer one (1) full set of reproducible construction record drawings (30" x 42" cronoflex or 3 mil double matte sheets) and two (2) copies of drawings on 3 1/2" floppy diskettes, in format compatible with AutoCad, Release 12. The as-built prints shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract set of drawings and a record of all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, all additional work not appearing on the contract drawings, and all changes which are made after final inspection of the contract work.

In the event the Contractor accomplishes additional work which changes the as-built conditions of the facility after submission of the as-built drawings, the Contractor shall furnish revised and/or additional drawings as required to depict as-built conditions. The requirements for these additional drawings will be the same as for the as-built drawings included in the original submission.

(B) Preliminary As-built Prints: The Contractor shall maintain one set of paper prints to show the as-built conditions. These as-built marked prints shall be kept current and available on the jobsite at all times. All changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. The as-built marked prints will be jointly inspected for accuracy and completeness by the Contracting Officer's representative and a responsible representative of the construction Contractor prior to submission of each monthly pay estimate. The prints shall show the following information, but not be limited there to:

(1) The location and description of any utility lines or other installations of any kind or description known to exist within the construction area. The location includes dimensions to permanent features.

(2) The location and dimensions of any changes within the building or structure.

(3) Correct grade or alignment of roads, structures or utilities if any changes were made from contract plans.

(4) Correct elevations if changes were made in site grading.

(5) Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

(6) The topography and grades of all drainage installed or affected as a part of the project construction.

(7) All changes or modifications which result from the final inspection.

(8) Options: Where contract drawings or specifications allow options, only the option selected for construction shall be shown on the as-built drawings.

(9) Submittal to Contracting Officer for review and Approval: Not later than 2 weeks before acceptance of the project by the Government, the Contractor shall deliver to the Contracting Officer one (1) full set of reproducible construction record drawings (30" x 42" cronoflex or 3 mil double matte sheets) and two (2) copies of drawings on 3-1/2" floppy diskettes, in format compatible with AutoCad, Release 12 and marked-up specifications complete with amendments, to depict as-built conditions. If upon review, the drawings are found to contain errors and/or omissions, they shall be returned to the Contractor for corrections. The Contractor shall complete the corrections and return the drawings to the Contracting Officer within ten (10) calendar days. If a satisfactory set of as-built drawings are not received within the time limits defined, no further payment will be made to the Contractor until this requirement is satisfied.

3.8 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."

3.9 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Three (3) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Contractor.

3.10 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Three (3) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Contractor.

## 3.11 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

## 3.12 STAMPS

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

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01312A

QUALITY CONTROL SYSTEM (QCS)

**08/01**


1.1 GENERAL
1.1.1 Correspondence and Electronic Communications
1.1.2 Other Factors
1.2 QCS SOFTWARE
1.3 SYSTEM REQUIREMENTS
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 Disk or CD-ROM Labels
1.8.3 File Names
1.9 MONTHLY COORDINATION MEETING
1.10 NOTIFICATION OF NONCOMPLIANCE


-- End of Section Table of Contents --

SECTION 01312A

QUALITY CONTROL SYSTEM (QCS)
**08/01**

## 1.1 GENERAL

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

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

### 1.1.1 Correspondence and Electronic Communications

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

### 1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01300, PROJECT SCHEDULE, Section 01300, SUBMITTAL PROCEDURES, and Section 01440, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

## 1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the

Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

## 1.3 SYSTEM REQUIREMENTS

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

**Hardware**

IBM-compatible PC with 200 MHz Pentium or higher processor

32+ MB RAM

4 GB hard drive disk space for sole use by the QCS system

3 1/2 inch high-density floppy drive

Compact disk (CD) Reader

Color monitor

Laser printer compatible with HP LaserJet III or better, with minimum 4 MB installed memory.

Connection to the Internet, minimum 28 BPS

**Software**

MS Windows 95 or newer version operating system (MS Windows NT 4.0 or newer is recommended)

Word Processing software compatible with MS Word 97 or newer

Internet browser

The Contractor's computer system shall be protected by virus protection software that is regularly upgraded with all issued manufacturer's updates throughout the life of the contract.

Electronic mail (E-mail) compatible with MS Outlook

## 1.4 RELATED INFORMATION

### 1.4.1 QCS User Guide

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

CD-ROM containing these instructions.

### 1.4.2 Contractor Quality Control(CQC) Training

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

## 1.5 CONTRACT DATABASE

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

## 1.6 DATABASE MAINTENANCE

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

### 1.6.1 Administration

#### 1.6.1.1 Contractor Information

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

#### 1.6.1.2 Subcontractor Information

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

#### 1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home

(main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

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

1.6.1.5 Management Reporting

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

1.6.2 Finances

1.6.2.1 Pay Activity Data

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

1.6.2.2 Payment Requests

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

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01440, 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 01440, CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

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

1.6.3.3 Three-Phase Control Meetings

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

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 200.

1.6.3.5 Features of Work

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

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC testing,

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

### 1.6.4 Submittal Management

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

### 1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts", 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 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 95 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. All data shall be provided in English.

### 1.8.2 Disk or CD-ROM Labels

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

### 1.8.3 File Names

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

## 1.9 MONTHLY COORDINATION MEETING

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

## 1.10 NOTIFICATION OF NONCOMPLIANCE

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

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01320A

PROJECT SCHEDULE

**05/02**


PART 1 GENERAL

1.1 REFERENCES
1.2 QUALIFICATIONS

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS
3.2 BASIS FOR PAYMENT
3.3 PROJECT SCHEDULE
3.3.1 Use of the Critical Path Method
3.3.2 Level of Detail Required
3.3.2.1 Activity Durations
3.3.2.2 Procurement Activities
3.3.2.3 Critical Activities
3.3.2.4 Government Activities
3.3.2.5 Responsibility
3.3.2.6 Work Areas
3.3.2.7 Modification or Claim Number
3.3.2.8 Bid Item
3.3.2.9 Phase of Work
3.3.2.10 Category of Work
3.3.2.11 Feature of Work
3.3.3 Scheduled Project Completion
3.3.3.1 Project Start Date
3.3.3.2 Constraint of Last Activity
3.3.3.3 Early Project Completion
3.3.4 Interim Completion Dates
3.3.4.1 Start Phase
3.3.4.2 End Phase
3.3.4.3 Phase X
3.3.5 Default Progress Data Disallowed
3.3.6 Out-of-Sequence Progress
3.3.7 Negative Lags
3.4 PROJECT SCHEDULE SUBMISSIONS
3.4.1 Preliminary Project Schedule Submission
3.4.2 Initial Project Schedule Submission
3.4.3 Periodic Schedule Updates

3.4.4 Standard Activity Coding Dictionary
3.5 SUBMISSION REQUIREMENTS
3.5.1 Data Disks
3.5.1.1 File Medium
3.5.1.2 Disk Label
3.5.1.3 File Name
3.5.2 Narrative Report
3.5.3 Approved Changes Verification
3.5.4 Schedule Reports
3.5.4.1 Activity Report
3.5.4.2 Logic Report
3.5.4.3 Total Float Report
3.5.4.4 Earnings Report
3.5.5 Network Diagram
3.5.5.1 Continuous Flow
3.5.5.2 Project Milestone Dates
3.5.5.3 Critical Path
3.5.5.4 Banding
3.5.5.5 S-Curves
3.6 PERIODIC PROGRESS MEETINGS
3.6.1 Meeting Attendance
3.6.2 Update Submission Following Progress Meeting
3.6.3 Progress Meeting Contents
3.6.3.1 Start and Finish Dates
3.6.3.2 Time Completion
3.6.3.3 Cost Completion
3.6.3.4 Logic Changes
3.6.3.5 Other Changes
3.7 REQUESTS FOR TIME EXTENSIONS
3.7.1 Justification of Delay
3.7.2 Submission Requirements
3.7.3 Additional Submission Requirements
3.8 DIRECTED CHANGES
3.9 OWNERSHIP OF FLOAT

-- End of Section Table of Contents --

SECTION 01320A

PROJECT SCHEDULE
**05/02**

## PART 1 GENERAL

### 1.1 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

| | |
|---|---|
| ER 1-1-11 | (1995) Progress, Schedules, and Network Analysis Systems |

### 1.2 QUALIFICATIONS

The Contractor shall designate an authorized representative who shall be responsible for the preparation of all required project schedule reports.

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

### 3.1 GENERAL REQUIREMENTS

Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS, a Project Schedule as described below shall be prepared. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

### 3.2 BASIS FOR PAYMENT

The schedule shall be the basis for measuring Contractor progress. Lack of an approved schedule or scheduling personnel will result in an inability of the Contracting Officer to evaluate Contractor's progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. In the case where Project Schedule revisions have been directed by the Contracting Officer and those revisions have not been included in the Project Schedule, the Contracting Officer may hold retainage up to the maximum allowed by

contract, each payment period, until revisions to the Project Schedule have been made.

## 3.3 PROJECT SCHEDULE

The computer software system utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule. Manual methods used to produce any required information shall require approval by the Contracting Officer.

### 3.3.1 Use of the Critical Path Method

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project Schedule in the Precedence Diagram Method (PDM).

### 3.3.2 Level of Detail Required

The Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, as specified by the Contracting Officer, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule:

#### 3.3.2.1 Activity Durations

Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods (usually less than 2 percent of all non-procurement activities' Original Durations are greater than 20 days).

#### 3.3.2.2 Procurement Activities

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery.

#### 3.3.2.3 Critical Activities

The following activities shall be listed as separate line activities on the Contractor's project schedule:

a. Submission and approval of mechanical/electrical layout drawings.

b. Submission and approval of O & M manuals.

c. Submission and approval of as-built drawings.

d. Submission and approval of 1354 data and installed equipment lists.

e. Submission and approval of testing and air balance (TAB).

f. Submission of TAB specialist design review report.

g. Submission and approval of fire protection specialist.

h. Submission and approval of testing and balancing of HVAC plus commissioning plans and data.

i. Air and water balance dates.

j. HVAC commissioning dates.

k. Controls testing plan.

l. Controls testing.

m. Performance Verification testing.

n. Other systems testing, if required.

o. Prefinal inspection.

p. Correction of punchlist from prefinal inspection.

q. Final inspection.

3.3.2.4 Government Activities

Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-in, Government Furnished Equipment (GFE) and Notice to Proceed (NTP) for phasing requirements.

3.3.2.5 Responsibility

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, contractor work force, or government agency performing a given task. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

3.3.2.6 Work Areas

All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the Work Area Code.

3.3.2.7 Modification or Claim Number

Any activity that is added or changed by contract modification or used to justify claimed time shall be identified by a mod or claim code that changed the activity. Activities shall not belong to more than one modification or claim item. The modification or claim number of each activity shall be identified by the Mod or Claim Number. Whenever possible, changes shall be added to the schedule by adding new activities. Existing activities shall not normally be changed to reflect modifications.

3.3.2.8 Bid Item

All activities shall be identified in the project schedule by the Bid Item to which the activity belongs. An activity shall not contain work in more than one bid item. The bid item for each appropriate activity shall be identified by the Bid Item Code.

3.3.2.9 Phase of Work

All activities shall be identified in the project schedule by the phases of work in which the activity occurs. Activities shall not contain work in more than one phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

3.3.2.10 Category of Work

All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as submittals approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.

3.3.2.11 Feature of Work

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers, but is not limited to, a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

3.3.3 Scheduled Project Completion

The schedule interval shall extend from NTP to the contract completion date.

3.3.3.1 Project Start Date

The schedule shall start no earlier than the date on which the NTP was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have an "ES" constraint date equal to the date that the NTP was acknowledged, and a zero day duration.

3.3.3.2 Constraint of Last Activity

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration.

#### 3.3.3.3 Early Project Completion

In the event the project schedule shows completion of the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted in the narrative report at every project schedule update period to assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

### 3.3.4 Interim Completion Dates

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

#### 3.3.4.1 Start Phase

The Contractor shall include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have an "ES" constraint date equal to the date on which the NTP was acknowledged, and a zero day duration.

#### 3.3.4.2 End Phase

The Contractor shall include as the last activity in a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration.

#### 3.3.4.3 Phase X

The Contractor shall include a hammock type activity for each project phase called "Phase X" where "X" refers to the phase of work. The "Phase X" activity shall be logically tied to the earliest and latest activities in the phase.

### 3.3.5 Default Progress Data Disallowed

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports. Failure of the Contractor to document the Actual Start and Finish dates on the Daily Quality Control

report for every in-progress or completed activity, and failure to ensure that the data contained on the Daily Quality Control reports is the sole basis for schedule updating shall result in the disapproval of the Contractor's schedule and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes.

### 3.3.6 Out-of-Sequence Progress

Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case approval of the Contracting Officer. The Contractor shall propose logic corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule.

### 3.3.7 Negative Lags

Lag durations contained in the project schedule shall not have a negative value.

## 3.4 PROJECT SCHEDULE SUBMISSIONS

The Contractor shall provide the submissions as described below. The data disk, reports, and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS.

### 3.4.1 Preliminary Project Schedule Submission

The Preliminary Project Schedule, defining the Contractor's planned operations for the first 60 calendar days shall be submitted for approval within 20 calendar days after the NTP is acknowledged. The approved preliminary schedule shall be used for payment purposes not to exceed 60 calendar days after NTP.

### 3.4.2 Initial Project Schedule Submission

The Initial Project Schedule shall be submitted for approval within 40 calendar days after NTP. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail.

### 3.4.3 Periodic Schedule Updates

Based on the result of progress meetings, specified in "Periodic Progress Meetings," the Contractor shall submit periodic schedule updates. These submissions shall enable the Contracting Officer to assess Contractor's progress. If the Contractor fails or refuses to furnish the information and project schedule data, which in the judgement of the Contracting Officer or authorized representative is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

### 3.4.4 Standard Activity Coding Dictionary

The Contractor shall use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11, Appendix A. This exact structure is mandatory, even if some fields are not used.

## 3.5 SUBMISSION REQUIREMENTS

The following items shall be submitted by the Contractor for the preliminary submission, initial submission, and every periodic project schedule update throughout the life of the project:

### 3.5.1 Data Disks

Two data disks containing the project schedule shall be provided. Data on the disks shall adhere to the SDEF format specified in ER 1-1-11, Appendix A.

#### 3.5.1.1 File Medium

Required data shall be submitted on 3.5 disks, formatted to hold 1.44 MB of data, under the MS-DOS Version 5. or 6.x, unless otherwise approved by the Contracting Officer.

#### 3.5.1.2 Disk Label

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Preliminary, Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number or person responsible for the schedule, and the MS-DOS version used to format the disk.

#### 3.5.1.3 File Name

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will ensure that the names of the files submitted are unique. The Contractor shall submit the file naming convention to the Contracting Officer for approval.

### 3.5.2 Narrative Report

A Narrative Report shall be provided with the preliminary, initial, and each update of the project schedule. This report shall be provided as the basis of the Contractor's progress payment request. The Narrative Report shall include: a description of activities along the 2 most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken or required to be taken. The narrative report is expected to relay to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis.

### 3.5.3 Approved Changes Verification

Only project schedule changes that have been previously approved by the

Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

3.5.4 Schedule Reports

The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.

3.5.4.1 Activity Report

A list of all activities sorted according to activity number.

3.5.4.2 Logic Report

A list of Preceding and Succeeding activities for every activity in ascending order by activity number. Preceeding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping.

3.5.4.3 Total Float Report

A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall not be shown on this report.

3.5.4.4 Earnings Report

A compilation of the Contractor's Total Earnings on the project from the NTP until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. Activities shall be grouped by bid item and sorted by activity numbers. This report shall: sum all activities in a bid item and provide a bid item percent; and complete and sum all bid items to provide a total project percent complete. The printed report shall contain, for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), and Earnings to Date.

3.5.5 Network Diagram

The network diagram shall be required on the initial schedule submission and on monthly schedule update submissions. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review

compliance with this paragraph:

3.5.5.1 Continuous Flow

Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity number, description, duration, and estimated earned value shall be shown on the diagram.

3.5.5.2 Project Milestone Dates

Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

3.5.5.3 Critical Path

The critical path shall be clearly shown.

3.5.5.4 Banding

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

3.5.5.5 S-Curves

Earnings curves showing projected early and late earnings and earnings to date.

3.6 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include a monthly onsite meeting or other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor shall describe, on an activity by activity basis, all proposed revisions and adjustments to the project schedule required to reflect the current status of the project. The Contracting Officer will approve activity progress, proposed revisions, and adjustments as appropriate.

3.6.1 Meeting Attendance

The Contractor's Project Manager and Scheduler shall attend the regular progress meeting.

3.6.2 Update Submission Following Progress Meeting

A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than 4 working days after the monthly progress meeting.

3.6.3 Progress Meeting Contents

Update information, including Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost-to-Date shall be subject to the approval of the Contracting Officer. As a minimum, the Contractor shall address the

following items on an activity by activity basis during each progress meeting.

3.6.3.1 Start and Finish Dates

The Actual Start and Actual Finish dates for each activity currently in-progress or completed .

3.6.3.2 Time Completion

The estimated Remaining Duration for each activity in-progress. Time-based progress calculations shall be based on Remaining Duration for each activity.

3.6.3.3 Cost Completion

The earnings for each activity started. Payment will be based on earnings for each in-progress or completed activity. Payment for individual activities will not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

3.6.3.4 Logic Changes

All logic changes pertaining to NTP on change orders, change orders to be incorporated into the schedule, contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence progress, lag durations, and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

3.6.3.5 Other Changes

Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather. 2) delays encountered due to submittals, Government Activities, deliveries or work stoppages which make re-planning the work necessary. 3) Changes required to correct a schedule which does not represent the actual or planned prosecution and progress of the work.

3.7 REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests an extension of the contract completion date, or any interim milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

3.7.1 Justification of Delay

The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request.

The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon the project schedule updates in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, will not be a cause for a time extension to the contract completion date.

### 3.7.2 Submission Requirements

The Contractor shall submit a justification for each request for a change in the contract completion date of under 2 weeks based upon the most recent schedule update at the time of the NTP or constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

a. A list of affected activities, with their associated project schedule activity number.

b. A brief explanation of the causes of the change.

c. An analysis of the overall impact of the changes proposed.

d. A sub-network of the affected area.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

### 3.7.3 Additional Submission Requirements

For any requested time extension of over 2 weeks, the Contracting Officer may request an interim update with revised activities for a specific change request. The Contractor shall provide this disk within 4 days of the Contracting Officer's request.

## 3.8 DIRECTED CHANGES

If the NTP is issued for changes prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within 2 weeks of the NTP being issued. The proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor with suggested revisions to the project schedule. The Contractor shall include these revisions in the project schedule until revisions are submitted, and final changes and impacts have been negotiated. If the Contractor has any objections to the revisions furnished by the Contracting Officer, the Contractor shall advise the Contracting Officer within 2 weeks of receipt of the revisions. Regardless of the objections, the Contractor shall continue to update the schedule with the Contracting Officer's revisions until a mutual agreement in the revisions is reached. If the Contractor fails to submit alternative revisions within 2 weeks of receipt of the Contracting Officer's proposed revisions, the Contractor will be deemed to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will then

be the basis for an equitable adjustment for performance of the work.

## 3.9 OWNERSHIP OF FLOAT

Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

**09/01**

PART 1 GENERAL

1.1 REFERENCES
1.2 ORDERING INFORMATION

-- End of Section Table of Contents --

SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS
**09/01**

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number. The designations "AOK" and "LOK" are for administrative purposes and should not be used when ordering publications.

ACI INTERNATIONAL (ACI)
P.O. Box 9094
Farmington Hills, MI 48333-9094
Ph: 248-848-3700
Fax: 248-848-3701
Internet: www.aci-int.org
AOK 5/01
LOK 2/01

ACOUSTICAL SOCIETY OF AMERICA (ASA)
2 Huntington Quadrangle
Melville, NY 11747-4502
Ph: 516-576-2360
Fax: 516-576-2377
email: asa@aip.org
Internet: www.asa.aip.org

To order ASA Standards, contact:
Standards and Publications Fulfillment Center
P.O. Box 1020
Sewickley, PA 15143-9998
Phone: 412-741-1979
Fax: 412-741-0609

Email:  asapubs@abdintl.com

AOK 5/01
LOK 2/01

AIR CONDITIONING AND REFRIGERATION INSTITUTE (ARI)
4301 North Fairfax Dr., Suite 425
ATTN:  Pubs Dept.
Arlington, VA  22203
Ph:  703-524-8800
Fax:  703-528-3816
E-mail:  ari@ari.org
Internet: www.ari.org
AOK 5/01
LOK 2/01

AIR CONDITIONING CONTRACTORS OF AMERICA (ACCA)
2800 Shirlington Road, Suite 300
Arlington, VA 22206
Ph:  703-575-4477
FAX: 703-575-4449
Internet:  www.acca.org
AOK 5/01
LOK 6/00

AIR DIFFUSION COUNCIL (ADC)
104 So. Michigan Ave., No. 1500
Chicago, IL  60603
Ph:  312-201-0101
Fax: 312-201-0214
Internet: www.flexibleduct.org
AOK 5/01
LOK 6/00

AIR MOVEMENT AND CONTROL ASSOCIATION (AMCA)
30 W. University Dr.
Arlington Heights, IL  60004-1893
Ph:  847-394-0150
Fax:  847-253-0088
Internet:  www.amca.org
AOK 5/01
LOK 2/01

ALUMINUM ASSOCIATION (AA)

900 19th Street N.W.
Washington, DC  20006
Ph:  202-862-5100
Fax:  202-862-5164
Internet:  www.aluminum.org
AOK 5/01
LOK 2/01

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

1827 Walden Ofc. Sq.
Suite 104
Schaumburg, IL  60173-4268
Ph:  847-303-5664
Fax:  847-303-5774
Internet:  www.aamanet.org
AOK 5/01
LOK 2/01

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)
444 N. Capital St., NW, Suite 249
Washington, DC  20001
Ph:  800-231-3475 202-624-5800
Fax:  800-525-5562 202-624-5806
Internet:  www.transportation.org
AOK 5/01
LOK 2/01

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)
P.O. Box 12215
Research Triangle Park, NC  27709-2215
Ph:  919-549-8141
Fax:  919-549-8933
Internet:  www.aatcc.org
AOK 5/01
LOK 2/01

AMERICAN BEARING MANUFACTURERS ASSOCIATION (ABMA)
2025 M Street, NW, Suite 800
Washington, DC  20036
Ph:  202-429-5155
Fax:  202-828-6042
Internet:  www.abma-dc.org
AOK 5/01
LOK 2/01

AMERICAN BOILER MANUFACTURERS ASSOCIATION (ABMA)
4001 North 9th Street, Suite 226
Arlington, VA 22203-1900
Ph:  703-522-7350
Fax:  703-522-2665
Internet:  www.abma.com
AOK 5/01
LOK 2/01

AMERICAN CONCRETE PIPE ASSOCIATION (ACPA)
222 West Las Colinas Blvd., Suite 641
Irving, TX  75039-5423
Ph:  972-506-7216
Fax:  972-506-7682
Internet:  www.concrete-pipe.org
e-mail:  info@concrete-pipe.org
AOK 5/01

LOK 6/00

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)
1330 Kemper Meadow Dr.
Suite 600
Cincinnati, OH 45240
Ph: 513-742-2020
Fax: 513-742-3355
Internet: www.acgih.org
E-mail: pubs@acgih.org
AOK 5/01
LOK 2/01

AMERICAN FOREST & PAPER ASSOCIATION (AF&PA)
American Wood Council
ATTN: Publications Dept.
1111 Nineteenth St. NW, Suite 800
Washington, DC 20036
Ph: 800-294-2372 202-463-2700
Fax: 202-463-2471
Internet: www.afandpa.org
AOK 5/01
LOK 6/00

AMERICAN GAS ASSOCIATION (AGA)
400 N. Capitol St. N.W.Suite 450
Washington, D.C. 20001
Ph: 202-824-7000
Fax: 202-824-7115
Internet: www.aga.org
AOK 5/01
LOK 2/01

AMERICAN GAS ASSOCIATION LABORATORIES (AGAL)
400 N. Capitol St. N.W.Suite 450
Washington, D.C. 20001
Ph: 202-824-7000
Fax: 202-824-7115
Internet: www.aga.org
AOK 10/00
LOK 0/00

AMERICAN GEAR MANUFACTURERS ASSOCIATION (AGMA)
1500 King St., Suite 201
Alexandria, VA 22314-2730
Ph: 703-684-0211
Fax: 703-684-0242
Internet: www.agma.org
AOK 5/010
LOK 3/01

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
One East Wacker Dr., Suite 3100
Chicago, IL 60601-2001

Ph:  312-670-2400
Publications: 800-644-2400
Fax:  312-670-5403
Internet:  www.aisc.org
AOK 5/01
LOK 3/01

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)
7012 So. Revere Parkway, Suite 140
Englewood, CO  80112
Ph:  303-792-9559
Fax:  303-792-0669
Internet:  www.aitc-glulam.org
AOK 5/01
LOK 3/01

AMERICAN IRON AND STEEL INSTITUTE (AISI)
1101 17th St., NW Suite 1300
Washington, DC 20036
Ph:  202-452-7100
Internet:  www.steel.org
AOK 5/01
LOK 3/01

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1819 L Street, NW, 6th Floor
Washington, DC 20036
Ph:  202-293-8020
Fax:  202-293-9287
Internet:  www.ansi.org/

Acoustical Society of America
Standards and Publications Fulfillment Center
P. O. Box 1020
Sewickley, PA  15143-9998
Ph:  412-741-1979
Fax:  412-741-0609
Internet: http://asa.aip.org
General e-mail:  asa@aip.org
Publications 3 e-mail:  asapubs@abdintl.com
AOK 5/01
LOK 6/00

AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA)
1250 I St., NW, Suite 500
Washington, DC  20005-3922
Ph:  202-789-2900
FAX: 202-789-1893
Internet:  www.anla.org
AOK 5/01
LOK 3/01

AMERICAN PETROLEUM INSTITUTE (API)
1220 L St., NW

Washington, DC  20005-4070
Ph:  202-682-8000
Fax:  202-682-8223
Internet:  www.api.org
AOK 5/01
LOK 3/01

AMERICAN PUBLIC HEALTH ASSOCIATION (APHA)
800 I Street, NW
Washington, DC 20001
PH: 202-777-2742
FAX: 202-777-2534
Internet:  www.apha.org
AOK 6/01
LOK 0/00

AMERICAN RAILWAY ENGINEERING & MAINTENANCE-OF-WAY ASSOCIATION (AREMA)
8201 Corporate Dr., Suite 1125
Landover, MD 20785-2230
Ph:  301-459-3200
Fax:  301-459-8077
Internet: www.arema.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (ASNT)
1711 Arlingate Lane
P.O. Box 28518
Columbus, OH  43228-0518
Ph:  800-222-2768
Fax:  614-274-6899
Internet: www.asnt.org
AOK 5/01
LOK 6/00

AMERICAN SOCIETY FOR QUALITY (ASQ)
600 North Plankinton Avenue
Milwaukee, WI 53202-3005
Ph:  800-248-1946
Fax:  414-272-1734
Internet:  www.asq.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA  19428-2959
Ph:  610-832-9585
Fax:  610-832-9555
Internet:  www.astm.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
1801 Alexander Bell Drive
Reston, VA 20191-4400
Ph: 703-295-6300 - 800-548-2723
Fax: 703-295-6222
Internet: www.asce.org
e-mail: marketing@asce.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)
1791 Tullie Circle, NE
Atlanta, GA 30329
Ph: 800-527-4723 or 404-636-8400
Fax: 404-321-5478
Internet: www.ashrae.org
AOK 5/01
LOK 3/01

AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE)
901 Canterbury, Suite A
Westlake, OH 44145
Ph: 440-835-3040
Fax: 440-835-3488
E-mail: asse@ix.netcom.com
Internet: www.asse-plumbing.org
AOK 5/01
LOK 3/01

AMERICAN WATER WORKS ASSOCIATION(AWWA)
6666 West Quincy
Denver, CO 80235
Ph: 800-926-7337 - 303-794-7711
Fax: 303-794-7310
Internet: www.awwa.org
AOK 5/01
LOK 3/01

AMERICAN WELDING SOCIETY (AWS)
550 N.W. LeJeune Road
Miami, FL 33126
Ph: 800-443-9353 - 305-443-9353
Fax: 305-443-7559
Internet: www.amweld.org
AOK 5/01
LOK 3/01

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)
P.O. Box 5690
Grandbury, TX 76049-0690
Ph: 817-326-6300
Fax: 817-326-6306
Internet: www.awpa.com

AOK 5/01
LOK 3/01

APA - THE ENGINEERED WOOD ASSOCIATION (APA)
P.O.Box 11700
Tacoma, WA  98411-0700
Ph:  253-565-6600
Fax:  253-565-7265
Internet:  www.apawood.org
AOK 5/01
LOK 6/00

ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD (ATBCB)

The Access Board
1331 F Street, NW, Suite 1000
Washington, DC 20004-1111
PH: 202-272-5434
FAX: 202-272-5447
Internet:  www.access-board.gov
AOK 6/01
LOK 0/00

ARCHITECTURAL WOODWORK INSTITUTE (AWI)
1952 Isaac Newton Square West
Reston, VA 20190
Ph:  703-733-0600
Fax:  703-733-0584
Internet:  www.awinet.org
AOK 5/01
LOK 6/00

ASBESTOS CEMENT PIPE PRODUCERS ASSOCIATION (ACPPA)
PMB114-1745 Jefferson Davis Highway
Arlington, VA  22202
Ph:  703-412-1153
Fax:  703-412-1152
AOK 5/01
LOK 0/00

ASME INTERNATIONAL (ASME)
Three Park Avenue
New York, NY 10016-5990
Ph:  212-591-7722
Fax:  212-591-7674
Internet:  www.asme.org
AOK 5/01
LOK 6/00

ASPHALT INSTITUTE (AI)
Research Park Dr.
P.O. Box 14052
Lexington, KY  40512-4052
Ph:  859-288-4960

Fax:  859-288-4999
Internet:  www.asphaltinstitute.org
AOK 5/01
LOK 6/00

ASSOCIATED AIR BALANCE COUNCIL (AABC)
1518 K St., NW, Suite 503
Washington, DC  20005
Ph:  202-737-0202
Fax:  202-638-4833
Internet:  www.aabchq.com
E-mail:  aabchq@aol.com
AOK 5/01
LOK 6/00

ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL INSTRUMENTATION (AAMI)
1110 N. Glebe Rd., Suite 220
Arlington, VA 22201-5762
Ph:  703-525-4890
Fax: 703-276-0793
Internet:  www.aami.org
AOK 5/01
LOK 6/00

ASSOCIATION OF EDISON ILLUMINATING COMPANIES (AEIC)
600 No. 18th St.
P.O. Box 2641
Birmingham, AL  35291
Ph:  205-257-2530
Fax:  205-257-2540
Internet:  www.aeic.org
AOK 5/01
LOK 6/00

ASSOCIATION OF HOME APPLIANCE MANUFACTURERS (AHAM)
1111 19th St. NW., Suite 402
Washington, DC 20036
Ph:  202-872-5955
Fax:  202-872-9354
Internet:  www.aham.org
AOK 5/01
LOK 6/00

ASSOCIATION OF IRON AND STEEL ENGINEERS (AISE)
Three Gateway Center, Suite 1900
Pittsburgh, PA 15222-1004
Ph:  412-281-6323
Fax: 412-281-4657
Internet:  www.aise.org
AOK 5/01
LOK 6/00

BIFMA INTERNATIONAL (BIFMA)
2680 Horizon Drive SE, Suite A-1

Grand Rapids, MI  49546-7500
Ph:  616-285-3963
Fax:  616-285-3765
Internet:  www.bifma.com
E-mail:  email@bifma.com
AOK 5/01
LOK 6/00

BIOCYCLE, JOURNAL OF COMPOSTING AND RECYCLING (BIOCYCLE)
The JG Press Inc.
419 State Avenue
Emmaus PA.  18049
Ph: 610-967-4135
Internet:  www.biocycle.net
E-mail: jgpress@jgpress.com
AOK 5/01
LOK 0/00

BRICK INDUSTRY ASSOCIATION (BIA)
11490 Commerce Park Dr., Suite 308
Reston, VA  22091-1525
Ph:  703-620-0010
Fax:  703-620-3928
Internet:  www.brickinfo.org
AOK 5/01
LOK 6/00

BRITISH STANDARDS INSTITUTE (BSI)
389 Chiswick High Road
London W4 4AL
United Kingdom
Phone:  +44 (0)20 8996 9000
Fax:  +44 (0)20 8996 7400
Email:  Info@bsi-global.com
Website:  www.bsi-global.com
AOK  8/01
LOK  6/01

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)
355 Lexington Ave.
17th floor
New York, NY  10017-6603
Ph:  212-297-2122
Fax: 212-370-9047
Internet:  www.buildershardware.com
AOK 5/01
LOK 6/00

BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL (BOCA)
4051 W. Flossmoor Rd.
Country Club Hills, IL  60478
Ph:  708-799-2300
Fax:  708-799-4981

Internet: www.bocai.org
AOK 5/01
LOK 6/00

CALIFORNIA REDWOOD ASSOCIATION (CRA)
405 Enfrente Drive., Suite 200
Novato, CA 94949
Ph: 415-382-0662
Fax: 415-382-8531
Internet: www.calredwood.org
AOK 5/01
LOK 6/00

CARPET AND RUG INSTITUTE (CRI)
310 Holiday Ave.
Dalton, GA 30720
P.O. Box 2048
Dalton, GA 30722-2048
Ph: 706-278-0232
Fax: 706-278-8835
Internet: www.carpet-rug.com
AOK 5/01
LOK 6/00

CAST IRON SOIL PIPE INSTITUTE (CISPI)
5959 Shallowford Rd., Suite 419
Chattanooga, TN 37421
Ph: 423-892-0137
Fax: 423-892-0817
Internet: www.cispi.org
AOK 5/01
LOK 6/00

CEILINGS & INTERIOR SYSTEMS CONSTRUCTION ASSOCIATION (CISCA)
1500 Lincoln Highway, Suite 202
St. Charles, IL 60174
Ph: 630-584-1919
Fax: 630-584-2003
Internet: www.cisca.org
AOK 5/01
LOK 6/00

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

1600 Clifton Road
Atlanta, GA 30333
PH: 404-639-3534
FAX:
Internet: www.cdc.gov
AOK 6/01
LOK 0/00

CHEMICAL FABRICS & FILM ASSOCIATION (CFFA)

1300 Sumner Ave.
Cleveland OH 44115-2851
PH: 216-241-7333
FAX: 216-241-0105
www.chemicalfabricsandfilm.com/welcome.htm
AOK 6/01

CHLORINE INSTITUTE (CI)
2001 L St., NW Suite 506
Washington, DC 20036
Ph: 202-775-2790
Fax: 202-223-7225
Internet: www.cl2.com
AOK 5/01
LOK 6/00

COMPRESSED AIR AND GAS INSTITUTE (CAGI)

1300 Sumner Ave.
Cleveland OH 44115-2851
PH: 216-241-7333
FAX: 216-241-0105
www.cagi.org/welcome.htm
AOK 6/01

COMPRESSED GAS ASSOCIATION (CGA)
1725 Jefferson Davis Highway, Suite 1004
Arlington, VA 22202-4102
Ph: 703-412-0900
Fax: 703-412-0128
Internet: www.cganet.com
e-mail: Customer_Service@cganet.com
AOK 5/01
LOK 6/00

CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
933 N. Plum Grove Rd.
Schaumburg, IL 60173-4758
Ph: 847-517-1200
Fax: 847-517-1206
Internet: www.crsi.org
AOK 5/01
LOK 6/00

CONSUMER PRODUCT SAFETY COMMISSION (CPSC)
4330 East-West Highway
Bethesda, Maryland 20814-4408
Ph: 301-504-0990
Fx: 301-504-0124 and 301-504-0025
Internet: www.cpsc.gov
AOK 5/01
LOK 6/00

CONVEYOR EQUIPMENT MANUFACTURERS ASSOCIATION (CEMA)

6724 Lone Oak Blvd.
Naples, Florida 34109
Ph:  941-514-3441
Fax:  941-514-3470
Internet:  www.cemanet.org
AOK 5/01
LOK 6/00

COOLING TECHNOLOGY INSTITUTE (CTI)
530  Wells Fargo Dr., Suite 218, Houston, TX 77090
Ph:  281-583-4087
Fax:  281-537-1721
Internet: www.cti.org
AOK 5/01
LOK 6/00

COPPER DEVELOPMENT ASSOCIATION (CDA)
260 Madison Ave.
New York, NY 10016
Ph:  212-251-7200
Fax:  212-251-7234
Website: www.copper.org
E-mail:  staff@cda.copper.org
AOK 5/01
LOK 6/00

CRANE MANUFACTURERS ASSOCIATION OF AMERICA (CMAA)
8720 Red Oak Blvd., Ste, 201
Charlotte, NC 28217 USA
Ph:  704-676-1190/800722-6832
Fx:  704-676-1199
Internet:  www.mhia.org/psc/psc_products_cranes.cfm
AOK 6/01
LOK 0/00

DIAMOND CORE DRILL MANUFACTURERS ASSOCIATION (DCDMA)

Organization no longer exists.  See National Drilling Association.

DISTRICT OF COLUMBIA MUNICIPAL REGULATIONS (DCMR)

441 4th Street NW
Wachington DC 20001
PH: 202-727-1000
http://pw2.netcom.com/~flowers
AOK 6/01

DOOR AND ACCESS SYSTEM MANUFACTURERS ASSOCIATION (DASMA)
1300 Sumner Avenue
Cleveland, OH  44115-2851
Ph:  216-241-7333
Fax:  216-241-0105
Internet:  www.dasma.com
e-mail:  dasma@dasma.com

AOK 5/01
LOK 6/00

DOOR AND HARDWARE INSTITUTE (DHI)
14150 Newbrook Dr.Suite 200
Chantilly, VA 20151-2223
Ph: 703-222-2010
Fax: 703-222-2410
Internet: www.dhi.org
e-mail: techdept@dhi.org
AOK 5/01
LOK 6/00

DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA)
245 Riverchase Parkway East, Suite 0
Birmingham, AL 35244
Ph: 205-402-8700
Fax: 205-402-8730
Internet: www.dipra.org
E-mail: info@dipra.org
AOK 5/01
LOK 6/00

EIFS INDUSTRY MEMBERS ASSOCIATION (EIMA)
3000 Corporate Center Drive, Suite 270
Morrow, GA 30260
Ph: 800-968-7945
Fax: 770-294-3462
Internet: www.eifsfacts.com
AOK 5/01
LOK 6/00

ELECTRICAL GENERATING SYSTEMS ASSOCIATION (EGSA)
1650 South Dixie Highway, Ste. 500
Boca Raton, FL 33432
Ph: 561-750-5575
Fax: 561-395-8557
Internet: www.egsa.org
AOK 5/01
LOK 6/00

ELECTRONIC INDUSTRIES ALLIANCE (EIA)
2500 Wilson Blvd.
Arlington, VA 22201-3834
Ph: 703-907-7500
Fax: 703-907-7501
Internet: www.eia.org
AOK 5/01
LOK 6/00

ENGINE MANUFACTURERS ASSOCIATION (EMA)

Two North LaSalle Street, Suite 2200
Chicago, Il 60602

PH: 312-827-8700
FAX: 312-827-8737
www.engine-manufacturers.org/index.cfm
AOK 6/01

EUROPEAN COMMITTEE FOR ELECTROTECHNICAL STANDARDIZATION (CENELEC)

35 Rue de CENELEC CS Info & Publications Department
Rue de Stassartstraat 35
1050 Brussels
Phone: + 32 2 519 68 71
Fax: + 32 2 519 69 19
www.cenelec.org
AOK 9/01

EXPANSION JOINT MANUFACTURERS ASSOCIATION (EJMA)
25 N Broadway
Tarrytown, NY 10591
Ph: 914-332-0040
Fax: 914-332-1541
Internet: www.ejma.org
AOK 5/01
LOK 6/00

FACTORY MUTUAL ENGINEERING AND RESEARCH (FM)
500 River Ridge Drive
Norwood, MA 02062
Ph: 781-255-6681
Ph: (Toll-Free): 877-364-6726
Fax: 781-255-0181
Internet: www.fmglobal.com
AOK 5/01
LOK 6/00

FLAT GLASS MARKETING ASSOCITATION (FGMA)
3310 SW. Harrison St.,
Topeka Kansas
USA 66611-2279
AOK 0/00
LOK 0/00

FLUID SEALING ASSOCIATION (FSA)
994 Old Eagle School Road #1019
Wayne, PA 19087
610.971.4850 (USA)
www.fluidsealing.com
E-mail: info@fluidsealing.com
AOK 6/01

FORESTRY SUPPLIERS (FSUP)
205 West Rankin St.
P.O. Box 8397
Jackson, MS 39284-8397
Ph: 601-354-3565

Fax: 601-292-0165
Internet: www.forestry-suppliers.com
AOK 5/01
LOK 6/00

FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH (FCCCHR)
University of South California
Kaprielian Hall 200
Los Angeles, CA 90089-2531
Ph: 213-740-2032
Fax: 213-740-8399
Internet: www.usc.edu/dept/fccchr
AOK 5/01
LOK 6/00

GEOLOGICAL SOCIETY OF AMERICA (GSA)
P.O. Box 9140
Boulder, CO 80301-9140
3300 Penrose Place
Boulder, CO 80301-1806
Ph: 800-447-472-1988
Fax: 303-447-1133
Internet: www.geosociety.org
AOK 5/01
LOK 6/00

GEOSYNTHETIC INSTITUTE (GSI)
475 Kedron Ave.
Folsom, PA 19033-1208
Ph: 610-522-8440
Fax: 610-522-8441
Internet: geosynthetic-institute.org
AOK 5/01
LOK 6/00

GERMANY INSTITUTE FOR STANDARDIZATION (DIN)
BURGGRAFENSTRAáE 6
POSTFACH 11 07
10787 BERLIN
GERMANY
Internet: www.gsf.de
Ph: 49-30-2601-2260
Fax: 49-30-2601-1231
AOK 8/00
LOK 6/00
Order from a United States publications service.

GLASS ASSOCIATION OF NORTH AMERICA (GANA)
2945 SW Wanamaker Drive, Suite A
Topeka, KS 66614-5321
Ph: 785-271-0208
Fax: 785-271-0166
Internet:www.glasswebsite.com/GANA

AOK 5/01
LOK 6/00

GYPSUM ASSOCIATION (GA)
810 First St. NE, Suite 510
Washington, DC 20002
Ph: 202-289-5440
Fax: 202-289-3707
Internet: www.gypsum.org
AOK 5/01
LOK 6/00

HARDWOOD PLYWOOD & VENEER ASSOCIATION (HPVA)
1825 Michael Faraday Dr.
P.O. Box 2789
Reston, VA 20195-0789
Ph: 703-435-2900
Fax: 703-435-2537
Internet: www.hpva.org
AOK 5/01
LOK 6/00

HEAT EXCHANGE INSTITUTE (HEI)
1300 Sumner Ave
Cleveland, OH 44115-2851
Ph: 216-241-7333
Fax: 216-241-0105
Internet: www.heatexchange.org
email: hei@heatexchange.org
AOK 5/01
LOK 6/00

HOIST MANUFACTURERS INSTITUTE (HMI)

8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217
PH: 704-676-1190
FAX: 704-676-1199
www.mhia.org/psc/PSC_Products_Hoists.cfm
AOK 6/01
LOK 0/00

HOLLOW METAL MANUFACTURERS ASSOCIATION (HMMA)

NAAMM Headquarters
8 South Michigan Avenue, Suite 1000
Chicago, IL 60603
PH: 312-332-0405
FAX: 312-332-0706
www.naamm.org/hmma.htm
AOK 6/01
LOK 0/00

H.P. WHITE LABORATORY (HPW)

3114 Scarboro Rd.
Street, MD  21154
Ph:  410-838-6550
fax: 410-838-2802
Internet: www.hpwhite.com
AOK 5/01
LOK 6/00

HYDRAULIC INSTITUTE (HI)
9 Sylvan Way, Suite 180
Parsippany, NJ  07054-3802
Ph:  888-786-7744 or 973-267-9700
Fax:  973-267-9055
Internet: www.pumps.org
AOK 5/01
LOK 6/00

HYDRONICS INSTITUTE DIVISION OF GAMA (HYI)
35 Russo Pl.
P.O. Box 218
Berkeley Heights, NJ  07922-0218
Ph:  908-464-8200
Fax:  908-464-7818
Internet:  www.gamanet.org/publist/hydroordr.htm
AOK 5/01
LOK 6/00

IBM CORPORATION (IBM)
Publications
P.O. Box 29570
Raleigh, NC  27626-0570
Ph:  800-879-2755, Option 1
Fax: 800-445-9269
Internet:  www.ibm.com/shop/publications/order
AOK 5/01
LOK 6/00

ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)
120 Wall St., 17th Floor
New York, NY  10005-4001
Ph:  212-248-5000
Fax:  212-248-5017
Internet:  www.iesna.org
AOK 5/01
LOK 6/00

INDUSTRIAL FASTENERS INSTITUTE (IFI)
1717 East 9th St., Suite 1105
Cleveland, OH  44114-2879
Ph:  216-241-1482
Fax:  216-241-5901
Internet:  www.industrial-fasteners.org
e-mail:  indfast@aol.com
AOK 5/01

LOK 6/00

INSECT SCREENING WEAVERS ASSOCIATION (ISWA)
DEFUNCT in 1997
P.O. Box 1018
Ossining, NY 10562
Ph: 914-962-9052
Fax: 914-923-3031
AOK 5/01
LOK 6/00

INSTITUTE OF CLEAN AIR COMPANIES (ICAC)
1660 L St., NW, Suite 1100
Washington, DC 20036-5603
Ph: 202-457-0911
Fax: 202-331-1388
E-mail: sjenkins@icac.com
Internet: icac.com
AOK 5/01
LOK 6/00

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)
445 Hoes Ln, P. O. Box 1331
Piscataway, NJ 08855-1331
Ph: 732-981-0060 OR 800-701-4333
Fax: 732-981-9667
Internet: www.ieee.org
E-mail: customer.services@ieee.org
AOK 5/01
LOK 6/00

INSTITUTE OF ENVIRONMENTAL SCIENCES AND TECHNOLOGY (IES)
940 East Northwest Highway
Mount Prospect, IL 60056
Ph: 847-255-1561
Fax: 847-255-1699
Internet: www.iest.org
AOK 5/01
LOK 12/00

INSTRUMENT SOCIETY OF AMERICA (ISA)

INSULATED CABLE ENGINEERS ASSOCIATION (ICEA)
P.O. Box 440
South Yarmouth, MA 02664
Ph: 508-394-4424
Fax: 508-394-1194
E-mail: Internet: www.icea.net
AOK 5/01
LOK 6/00

INTERNATIONAL APPROVAL SERVICES (IAS)
8501 East Pleasant Valley Rd.
Cleveland, OH 44131

Ph:  216-524-4990
Fax: 216-328-8118
Internet:  www.iasapprovals.org
AOK 5/01
LOK 6/00

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (IAPMO)
20001 Walnut Dr., So.
Walnut, CA  91789-2825
Ph:  909-595-8449
Fax:  909-594-3690
Fax for Stds:  909-594-5265
Internet:  www.iapmo.org
AOK 5/01
LOK 6/00

INTERNATIONAL CODE COUNCIL (ICC)
5203 Leesburg Pike, Suite 600
Falls Church, VA  22041
Ph:  703-931-4533
Fax:  703-379-1546
Internet: www.intlcode.org
AOK 5/01
LOK 6/00

INTERNATIONAL CONCRETE REPAIR INSTITUTE (ICRI)

3166 S. River Road, Suite 132
Des Plaines, IL 60018
Phone: 847-827-0830
Fax: 847-827-0832
www.icri.org
AOK 9/01
LOK 0/00

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO)
5360 Workman Mill Rd.
Whittier, CA  90601-2298
Ph:  800-284-4406
Ph:  562-699-0541
Fax:  562-692-3853
Internet:  icbo.org
AOK 5/01
LOK 6/00

INTERNATIONAL ELECTRICAL TESTING ASSOCIATION (NETA)

P.O. Box 687
106 Stone Street
Morrison, Colorado 80465
PH: 303-697-8441
FAX: 303-697-8431
www.netaworld.org

AOK 6/01

INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)
3, rue de Varembe, P.O. Box 131
CH-1211 Geneva 20, Switzerland
Ph: 41-22-919-0211
Fax: 41-22-919-0300
Internet: www.iec.ch
e-mail: info@iec.ch
AOK 5/01
LOK 6/00

INTERNATIONAL GROUND SOURCE HEAT PUMP ASSOCIATION (IGSHPA)

490 Cordell South
Stillwater OK 74078-8018
PH: 800-626-4747
FAX: 405-744-5283
www.igshpa.okstate.edu/Technology/Infopackets/WhatsIGSHPA.html
AOK 6/01
LOK 0/00

INTERNATIONAL INSTITUTE OF AMMONIA REFRIGERATION (IIAR)
1110 N. Glebe Rd., Suite 250
Arlington, VA 22201
Ph: 703-312-4200
Fax: 703-312-0065
Internet: www.iiar.org
e-mail: iiar@iiar.org
AOK 5/01
LOK 6/00

INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA)
P.O. Box 539
165 East Union St.
Newark, NY 14513-0539
Ph: 315-331-2182
Ph: 800-723-4672
Fax: 315-331-8205
Internet: www.imsasafety.org
AOK 5/01
LOK 6/00

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)
1, rue de Varembe'
Case Postale 56
CH-1211 Geneve 20
Switzerland
Ph: 41-22-749-0111
Fax: 41-22-733-3430
Internet: www.iso.ch
e-mail: central@iso.ch
AOK 5/01
LOK 6/00

INTERNATIONAL SLURRY SURFACING ASSOCIATION (ISSA)
3 Church Circle, PMB 250
Annapolis, MD 21401
Ph: 410-267-0023
Fax: 410-267-7546
Internet: www.slurry.org
e-mail: krissoff@slurry.org
AOK 5/01
LOK 6/00

INTERNATIONAL TELECOMMUNICATION UNION (ITU)
Order from:
U.S. Dept of Commerce
National Technical Information Service
5285 Port Royal Road.
Springfield, VA 22161
Ph: 703-605-6040
FAX: 703-605-6887
Internet: www.ntis.gov

For documents not avail from Dept of Commerce:
Sales Service
International Telecommunication Union
Place des Nations
CH-1211 Geneve 20
Switzerland
E-Mail: sales@itu.ch
Ph: 41.22.730.6141
Fax: 41.22.730.5194
Internet: www.itu.org
AOK 5/01
LOK 6/00

IPC - ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES (IPC)
2215 Sanders Rd.
Northbrook, IL 60062-6135
Ph: 847-509-9700
Fax: 847-509-9798
Internet: www.ipc.org
e-mail: orderipc@ipc.org
AOK 5/01
LOK 6/00

IRON & STEEL SOCIETY (ISS)
186 Thorn Hill Road
Warrendale, PA 15086-7528
Ph: 724-776-1535 Ext 1
Fax: 724-776-0430
E-Mail: dennisf@iss.org
Internet: www.issource.org
AOK 5/01
LOK 6/00

ISA - THE INSTRUMENTATION, SYSTEMS AND AUTOMATION SOCIETY (ISA)
67 Alexander Drive
P.O. Box 12277
Research Triangle Park, NC 27709
Ph: 919-549-8411
Fax: 919-549-8288
e-mail: info@isa.org
Internet: www.isa.org
AOK 5/01
LOK 6/00

JOINT INDUSTRIAL COUNCIL (JIC)

Association for Manufacturing Technology
7901 Westpark Dr.
McLean, VA 22102
Ph: 703-893-2900
Fax: 703-893-1151
AOK 0/0
LOK 0/0

KITCHEN CABINET MANUFACTURERS ASSOCIATION (KCMA)
1899 Preston White Dr.
Reston, VA 20191-5435
Ph: 703-264-1690
Fax: 703-620-6530
Internet: www.kcma.org
AOK 5/01
LOK 6/00

L.H. BAILEY HORTORIUM (LHBH)

c/o Cornell University
Information and Referral Center
Day Hall Lobby
Ithaca, NY 14853-2801
PH: 607-254-INFO (4636)
www.plantbio.cornell.edu/Hortorium
AOK 6/01
LOK 0/00

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY (MSS)
127 Park St., NE
Vienna, VA 22180-4602
Ph: 703-281-6613
Fax: 703-281-6671
Internet: www.mss-hq.com
e-mail: info@mss-hq.com
AOK 5/01
LOK 6/00

MAPLE FLOORING MANUFACTURERS ASSOCIATION (MFMA)
60 Revere Dr., Suite 500

Northbrook, IL  60062
Ph:  847-480-9138
Fax:  847-480-9282
Internet: www.maplefloor.org
AOK 5/01
LOK 6/00

MARBLE INSTITUTE OF AMERICA (MIA)
30 Eden Alley, Suite 301
Columbus, OH 43215
Ph:  614-228-6194
Fax:  614-461-1497
Internet:  www.marble-institute.com
e-mail:  stoneassociations@hotmail.com
AOK 5/01
LOK 6/00

MASTER PAINTERS INSTITUTE (MPI)
4090 Graveley Street
Burnaby, BC CANADA V5C 3T6
PH: 888-674-8937
Fx: 888-211-8708
www.paintinfo.com/mpi
AOK 9/01
LOK 0/00

MATERIAL HANDLING INDUSTRY OF AMERICA (MHI)
8720 Red Oak Blvd., Suite 201
Charlotte, NC  28217-3992
Ph:  800-345-1815 or 704-676-1190
Fax: 704-676-1199
Internet:  www.mhia.org
AOK 5/01
LOK 6/00

METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA)
1300 Sumner Ave.
Cleveland, OH  44115-2851
Ph:  216-241-7333
Fax:  216-241-0105
Internet: www.mbma.com
e-mail:  mbma@mbma.com
AOK 5/01
LOK 6/00

METAL LATH/STEEL FRAMING ASSOCIATION (ML/SFA)

NAAMM Headquarters
8 South Michigan Avenue, Suite 1000
Chicago, IL 60603
PH: 312-332-0405
FAX: 312-332-0706
www.naamm.org/mlsfa.htm
AOK 6/01

LOK 0/00

MIDWEST INSULATION CONTRACTORS ASSOCIATION (MICA)
2017 So. 139th Cir.
Omaha, NE  68144
Ph:  402-342-3463
Fax:  402-330-9702
Internet:  www.micainsulation.org
e-mail:  info@micainsulation.org
AOK 5/01
LOK 6/00

MONORAIL MANUFACTURERS ASSOCIATION (MMA)

8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217
PH: 704-676-1190
FAX: 704-676-1199
www.mhia.org/psc/PSC_Products_Monorail.cfm
AOK 6/01
LOK 0/00

NACE INTERNATIONAL (NACE)
1440 South Creek Drive
Houston, TX  77084-4906
Ph:  281-228-6200
Fax:  281-228-6300
Internet:  www.nace.org
AOK 5/01
LOK 6/00

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)
8 S. Michigan Ave, Suite 1000
Chicago, IL  60603
Ph:  312-782-4951
Fax:  312-332-0405
Internet:  www.naamm.org
e-mail:  naamm@gss.net
AOK 5/01
LOK 6/00

NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS (NBBPVI)
1055 Crupper Ave.
Columbus, OH  43229-1183
Ph:  614-888-8320
Fax:  614-847-1147
Internet:  www.nationalboard.org
e-mail: tbecker@nationalboard.org
LOK 5/01
AOK 12/00

NATIONAL CABLE TELEVISION ASSOCIATION (NCTA)
1724 Massachusetts Ave. NW
Washington, DC  20036-1969

Ph:  202-775-3550
Fax:  202-775-1055
Internet:  www.ncta.com
AOK 5/01
LOK 6/00

NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)
2302 Horse Pen Road
Herndon, VA 20171-3499
Ph:  703-713-1900
Fax:  703-713-1910
Internet:  www.ncma.org
AOK 9/01
LOK 0/00

NATIONAL COUNCIL ON RADIATION PROTECTION AND MEASUREMENTS (NCRP)
7910 Woodmont Ave., Suite 800
Bethesda, MD  20814-3095
Ph:  800-229-2652
Ph.  301-657-2652
Fax:  301-907-8768
Internet:  www.ncrp.com
AOK 5/01
LOK 6/00

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
1300 N. 17th St., Suite 1847
Rosslyn, VA  22209
Ph:  703-841-3200
Fax:  703-841-3300
Internet:  http//www.nema.org/
AOK 5/01
LOK 6/00

NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB)
8575 Grovemont Circle
Gaithersburg, MD  20877-4121
Ph:  301-977-3698
Fax:  301-977-9589
Internet:  www.nebb.org
AOK 5/01
LOK 6/00

NATIONAL FENESTRATION RATING COUNCIL (NFRC)
1300 Spring Street, Suite 500
Silver Spring, MD  20910
Ph:  301-589-6372
Fax: 303-588-6342
Internet:  www.nfrc.org
E-Mail:  nfrcusa@aol.com or info@nfrc.com
AOK 5/01
LOK 6/00

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

1 Batterymarch Park
P.O. Box 9101
Quincy, MA  02269-9101
Ph:  617-770-3000
Fax:  617-770-0700
Internet:  www.nfpa.org
AOK 5/01
LOK 8/00

NATIONAL FLUID POWER ASSOCIATION (NFLPA)
3333 N. Mayfair Rd.
Milwaukee, WI  53222-3219
Ph:  414-778-3344
Fax:  414-778-3361
Internet:  www.nfpa.com
E-mail:  nfpa@nfpa.com
AOK 5/01
LOK 6/00

NATIONAL HARDWOOD LUMBER ASSOCIATION (NHLA)
P.O. Box 34518
Memphis, TN  38184-0518
Ph:  901-377-1818
Fax:  901-382-6419
e-mail:  info@natlhardwood.org
Internet:  natlhardwood.org
AOK 5/01
LOK 6/00

NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET)
1420 King Street
Alexandria, VA  22314-2794
Ph:  888-476-4238
Internet:  www.nicet.org
AOK 5/01
LOK 6/00

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)
Mail Stop C-13
4676 Columbia Parkway
Cincinnati, OH  45226-1998
Ph:  800-356-4674
Fx:  513-533-8573
Internet:  www.cdc.gov/niosh/homepage.html
To order pubs for which a fee is charged, order from:
Superintendent of Documents
U.S. Government Printing Office
732 North Capitol Street, NW
Mailstop:  SDE
Washington, DC  20401
Ph:  202-512-1530
Fax:  202-512-1262
Internet:  www.gpo.gov

AOK 5/01
LOK 6/00

NATIONAL INSTITUTE OF JUSTICE (NIJ)
National Law Enforcement and Corrections Technology Center
2277 Research Blvd. - Mailstop 1E
Rockville, MD 20850
Ph: 800-248-2742 or 301-519-5060
Fax: 301-519-5149
Internet: www.nlectc.org
e-mail: asknlectc@nlectc.org
AOK 5/01
LOK 6/00

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)
100 Bureau Drive
Stop 3460
Gaithersburg, MD 20899-3460
Ph: 301-975-NIST
Internet: www.nist.gov
Order Publications From:
Superintendent of Documents
U.S. Government Printing Office
732 North Capitol Street, NW
Mailstop: SDE
Washington, DC 20401
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
or
National Technical Information Services (NTIS)
5285 Port Royal Rd.
Springfield, VA 22161
Ph: 703-605-6000
Fax: 703-605-6900
Internet: www.ntis.gov
AOK 5/01
LOK 6/00

NATIONAL LIME ASSOCIATION (NLA)

200 North Glebe Road, Suite 800
Arlington, VA 22203
PH: 703-243-5463
FAX: 703-243-5489
www.lime.org
AOK 6/01
LOK 0/00

NATIONAL OAK FLOORING MANUFACTURERS ASSOCIATION (NOFMA)
P.O. Box 3009
Memphis, TN 38173-0009
Ph: 901-526-5016
Fax: 901-526-7022

Internet: www.nofma.org
AOK 5/01
LOK 6/00

NATIONAL READY-MIXED CONCRETE ASSOCIATION (NRMCA)
900 Spring St.
Silver Spring, MD 20910
Ph: 301-587-1400
Fax: 301-585-4219
Internet: www.nrmca.org
AOK 5/01
LOK 6/00

NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
10255 W. higgins Rd., Suite 600
Rosemont, IL 60018
Ph: 847-299-9070
Fax: 847-299-1183
Internet: www.nrca.net
AOK 5/01
LOK 6/00

NATIONAL TERRAZZO & MOSAIC ASSOCIATION (NTMA)
110 East Market St., Suite 200 A
Leesburg, Virginia 20176
Ph: 703-779-1022 or 800-323-9736
Fax: 703-779-1026
Internet: www.ntma.com
e-mail: info@ntma.com
AOK 5/01
LOK 6/00

NATURAL RESOURCE, AGRICULTURAL AND ENGINEERING SERVICE (NRAES)

Cooperative Extension
152 Riley-Robb Hall
Ithaca, NY 14853-5701
Ph: 607-255-7654
Fax: 607-254-8770
Internet: www.nraes.org
E-mail: nraes@cornell.edu
AOK 5/01
LOK 6/00

NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION (NAIMA)
44 Canal Center Plaza, Suite 310
Alexandria, VA 22314
Ph: 703-684-0084
Fax: 703-684-0427
Internet: www.naima.org
e-mail: insulation@naima.org
AOK 5/01
LOK 6/00

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)
272 Tuttle Road
P.O. Box 87A
Cumberland Center, ME 04021
Ph: 207-829-6901
Fax: 207-829-4293
Internet: www.nelma.org
e-mail: nelma@javanet.com
AOK 5/01
LOK 6/00

NSF INTERNATIONAL (NSF)
ATTN: Publications
789 North Dixboro Rd.
P.O. Box 130140
Ann Arbor, MI 48113-0140
Ph: 734-769-8010
Fax: 734-769-0109
Toll Free: 800-NSF-MARK
Internet: www.nsf.org
AOK 5/01
LOK 6/00

PIPE FABRICATION INSTITUTE (PFI)
655 32nd Avenue, Suite 201
Lachine, QC, Canada H8T 3G6
Ph: 514-634-3434
Fax: 514-634-9736
Internet: www.pfi-institute.org
e-mail: pfi@pfi-institute.org
AOK 5/01
LOK 6/00

PLASTIC PIPE AND FITTINGS ASSOCIATION (PPFA)
800 Roosevelt Rd., Bldg C, Suite 20
Glen Ellyn, IL 60137
Ph: 630-858-6540
Fax: 630-790-3095
Internet: www.ppfahome.org
AOK 5/01
LOK 6/00

PLASTICS PIPE INSTITUTE (PPI)
1825 Connecticut Ave. NW
Washington, D. C. 20009
Ph: 202-462-9607
Fax: 202-462-9779
Internet: www.plasticpipe.org
AOK 5/01
LOK 6/00

PLUMBING AND DRAINAGE INSTITUTE (PDI)
45 Bristol Dr.
South Easton, MA 02375

Ph:  508-230-3516 or 800-589-8956
Fax:  508-230-3529
Internet:  www.pdionline.org
E-Mail: info@pdionline.org
AOK 5/01
LOK 6/00

PLUMBING AND PIPING INDUSTRY COUNCIL (PPIC)
9450 SW Commerce Circle, Suite 310
Wilsonville, OR 97070-9626
Ph: 503-682-7919
AOK 5/01
LOK 0/00

PLUMBING-HEATING-COOLING CONTRACTORS NATIONAL ASSOCIATION (NAPHCC)
180 S. Washington Street
P.O. Box 6808
Falls Church, VA  22040
Ph:  800-533-7694
Fax:  703-237-7442
Internet:  www.naphcc.org
AOK 5/01
LOK 6/00

PORCELAIN ENAMEL INSTITUTE (PEI)
5696 Peachtree Parkway, PO Box 920220
Norcross, GA 30092
Ph:  770-242-2632
Fax: 770-446-1452
Internet:  www.porcelainenamel.com
e-mail:  penamel@aol.com
AOK 5/01
LOK 6/00

PRECAST/PRESTRESSED CONCRETE INSTITUTE (PCI)
209 West Jackson Blvd.
Chicago, IL  60606-6938
Ph:  312-786-0300
Fax:  312-786-0353
Internet:  www.pci.org
e-mail:  info@pci.org
AOK 5/01
LOK 6/00

REDWOOD INSPECTION SERVICE (RIS)

405 Efrente Drive, Suite 200
Novato, CA 94949
Ph:  415-382-0662
Fax:  415-382-8531
Website: www.calredwood.org
E-Mail: cjjourdain@worldnet.att.net
AOK 8/01
LOK 0/00

RUBBER MANUFACTURERS ASSOCIATION (RMA)
1400 K St., NW, Suite 900
Washington, DC 20005
Ph: 202-682-4800
Fax: 202-682-4854
Internet: www.rma.org
Order Publications from:
The Mail Room
P. O. Box 3147
Medina, OH 44258
Ph: 800-325-5095 EXT 242 or 330-723-2978
Fax: 330-725-0576
AOK 5/01
LOK 6/00

SCIENTIFIC APPARATUS MAKERS ASSOCIATION (SAMA)
225 Reinekers Lane, Suite 625
Alexandria, VA 22314
Ph:703 836-1360
FAX: 703-836-6644
AOK 8/01
LOK 0/00

SCREEN MANUFACTURERS ASSOCIATION (SMA)
2850 South Ocean Boulevard, Suite 311
Palm Beach, FL 33480-5535
Ph: 561-533-0991
Fax: 561-533-7466
e-mail: fitzgeraldfscott@aol.com
Internet: www.screenmfgassociation.org
AOK 5/01
LOK 6/00

SEMICONDUCTOR EQUIPMENT AND MATERIALS INTERNATIONAL (SEMI)

3081 Zanker Road
San Jose, CA 95134
Phone: 1.408.943.6900
Fax: 1.408.428.9600
www.semi.org
E-mail: semihq@semi.org
AOK 6/01
LOK 0/00

SHEET METAL & AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
4201 Lafayette Center Dr.,
Chantilly, VA 20151-1209
Ph: 703-803-2980
Fax: 703-803-3732
Internet: www.smacna.org
e-mail: info@smacna.org
AOK 5/01

LOK 6/00

SINGLE PLY ROOFING INSTITUTE (SPRI)
200 Reservoir St., Suite 309A
Needham, MA 02494
Ph: 781-444-0242
Fax: 781-444-6111
Internet: www.spri.org
e-mail: spri@spri.org
AOK 5/01
LOK 6/00

SOCIETY OF AUTOMOTIVE ENGINEERS INTERNATIONAL (SAE)
400 Commonwealth Dr.
Warrendale, PA 15096-0001
Ph: 724-776-4841
Fax: 724-776-5760
Internet: www.sae.org
e-mail: custsvc@sae.org
AOK 5/01
LOK 6/00

SOCIETY FOR MOTION PICTURE & TELEVISION ENGINEERS (SMPTE)

595 West Hartsdale Avenue
WhitePlains, New York 10607
PH: 914-761-1100
FAX: 914-761-3115
www.smpte.org
AOK 6/01
LOK 0/00

SOCIETY OF THE PLASTICS INDUSTRY (SPI)

1801 K Street, NW, Suite 600K
Washington, DC 20006
PH: 202-974-5200
FX: 202-296-7005
www.socplas.org or www.plasticsindustry.org
AOK 9/01
LOK 0/00

SOLAR RATING AND CERTIFICATION CORPORATION (SRCC)

c/o FSEC, 1679 Clearlake Road
Cocoa, FL 32922-5703
PH: 321-638-1537
FAX: 321-638-1010
www.solar-rating.org
AOK 6/01
LOK 0/00

SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL (SBCCI)
900 Montclair Road

Birmingham, AL  35213-1206
Ph:  205-591-1853
Fax:  205-591-0775
Internet:  www.sbcci.org
AOK 5/01
LOK 6/00

SOUTHERN CYPRESS MANUFACTURERS ASSOCIATION (SCMA)
400 Penn Center Boulevard, Suite 530
Pittsburgh, PA  15235
Ph:  412-829-0770
Fax: 412-829-0844
Internet:  www.cypressinfo.org
AOK 5/01
LOK 6/00

SOUTHERN PINE INSPECTION BUREAU (SPIB)
4709 Scenic Highway
Pensacola, FL  32504-9094
Ph:  850-434-2611
Fax:  850-433-5594
e-mail:  spib@spib.org
Internet:  www.spib.org
AOK 5/01
LOK 6/00

STATE OF [_____] DEPARTMENT OF TRANSPORTATION ([_____] DOT)

STATE OF [_____] DEPARTMENT OF TRANSPORTATION ([_____] DOT)

STATE OF [_____] HIGHWAY SPECIFICATION (SHS)

STATE OF [_____] HIGHWAY SPECIFICATION (SHS)

STATE OF [_____], DEPARTMENT OF TRANSPORTATION, [_____] STATE HIGHWAY DEPARTMENT, [_____] STATE HIGHWAY COMMISSION

STATE OF [_____], DEPARTMENT OF TRANSPORTATION, [_____] STATE HIGHWAY DEPARTMENT, [_____] STATE HIGHWAY COMMISSION

STATE OF [_____], DEPARTMENT OF [_____] [(DOT)] [(_____)] STANDARD (SSS)

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CDT)
Publication Distribution Unit
1900 Royal Oaks Dr.
Sacramento, CA  95815
Ph:  916-445-3520 or 916-227-7000 (CA Transportation Lab)
Fax:  916-324-8997
Internet:  www.dot.ca.gov
AOK 5/01
LOK 0/00

STATE OF MARYLAND CODE OF MARYLAND REGULATIONS (COMAR)

1700 Margaret Avenue
Annapolis, MD 21401
phone: 410-974-2486
fax: 410-974-2546
website: sos.state.md.us/sos/dsd/comar/html/comar.html
AOK 8/01
LOK 0/00

STATE OF NORTH CAROLINA ADMINISTRATIVE CODE

www.doa.state.nc.us/PandC/admcode.htm
AOK 6/01
LOK 0/00

STATE OF VIRGINIA ADMINISTRATIVE CODE (VAC)
Virginia Code Commission
General Assembly Building, 2nd Floor
910 Capitol Street
Richmond, Virginia 23219
Phone: 804-786-3591
Fax: 804-692-0625
website: legis.state.va.us/codecomm/codehome.htm
AOK 8/01
LOK 0/00

STATE OF [CALIFORNIA] [WASHINGTON] DEPARTMENT OF AGRICULTURE

AOK 0/00
LOK 0/00

STEEL DECK INSTITUTE (SDI)
P.O. Box 25
Fox River Grove, IL 60021-0025
Ph: 847-462-1930
Fax: 847-462-1940
Internet: www.sdi.org
e-mail: Steve@sdi.org
AOK 5/01
LOK 6/00

STEEL DOOR INSTITUTE (SDOI)
30200 Detroit Rd.
Cleveland, OH 44145-1967
Ph: 440-899-0010
Fax: 440-892-1404
Internet: www.steeldoor.org
AOK 5/01
LOK 6/00

STEEL JOIST INSTITUTE (SJI)
3127 Tenth Ave., North Ext.
Myrtle Beach, SC 29577-6760
Ph: 843-626-1995
Fax: 843-626-5565

Internet:  www.steeljoist.org
AOK 5/01
LOK 6/00

STEEL TANK INSTITUTE (STI)
570 Oakwood Rd.
Lake Zurich, IL  60047
Ph:  847-438-8265
Fax:  847-438-8766
Internet:  www.steeltank.com
AOK 5/01
LOK 6/00

STEEL WINDOW INSTITUTE (SWI)
1300 Sumner Ave.
Cleveland, OH  44115-2851
Ph:  216-241-7333
Fax:  216-241-0105
Internet:  www.steelwindows.com
AOK 5/01
LOK 6/00

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY (TAPPI)

P.O. Box 105113
Atlanta, GA 30348-5113
PH: 800-322-8686
www.tappi.org
AOK 6/01
LOK 0/00

THE ASSOCIATION OF THE WALL AND CEILING INDUSTRIES - INTERNATIONAL (AWCI)

803 West Broad Street
Falls Church, VA 22046
PH: 703-534-8300
FAX: 703-534-8307
Internet:  www.awci.org
AOK 6/01
LOK 0/00

THE INSULATING GLASS MANUFACTURERS ALLIANCE (IGMA)

27 ave Goulburn Avenue
Ottawa, Ontario. CANADA
K1N 8C7
Phone:  613-233-1510
Fax:  613-233-1929
e-mail:  info@igmaonline.org
Internet: www.imaonline.org
AOK 9/01
LOK 0/00

THE SOCIETY FOR PROTECTIVE COATINGS (SSPC)
40 24th Street, 6th Floor
Pittsburgh, PA  15222-4656
Ph:  412-281-2331
Fax: 412-281-9992
Internet: www.sspc.org
AOK 5/01
LOK 6/00

TILE COUNCIL OF AMERICA (TCA)
100 Clemson Research Blvd
Anderson, SC 29625
Ph:  864-646-8453
FAX: 864-646-2821
Internet:  www.tileusa.com
e-mail:  literature@tileusa.com
AOK 5/01
LOK 6/00

TRUSS PLATE INSTITUTE (TPI)
583 D'Onofrio Dr., Suite 200
Madison, WI  53719
Ph:   608-833-5900
Fax:  608-833-4360
AOK 5/01
LOK 6/00

TUBULAR EXCHANGER MANUFACTURERS ASSOCIATION (TEMA)
25 N. Broadway
Tarrytown, NY  10591
Ph:  914-332-0040
Fax: 914-332-1541
Internet:  www.tema.org
AOK 5/01
LOK 6/00

TURFGRASS PRODUCERS INTERNATIONAL (TPI)
1855-A Hicks Road
Rolling Meadows, IL 60008
PH: 800-405-8873
FAX: 847-705-8347
Internet:  www.turfgrasssod.org
AOK 6/01
LOK 0/00

UNDERWRITERS LABORATORIES (UL)
333 Pfingsten Rd.
Northbrook,  IL  60062-2096
Ph:  847-272-8800
Fax: 847-272-8129
Internet:  www.ul.com/
e-mail:  northbrook@us.ul.com
AOK 5/01
LOK 6/00

UNI-BELL PVC PIPE ASSOCIATION (UBPPA)
2655 Villa Creek Dr., Suite 155
Dallas, TX 75234
Ph: 214-243-3902
Fax: 214-243-3907
Internet: www.uni-bell.org
e-mail: info@uni-bell.org
AOK 5/01
LOK 6/00

UNIVERSITY OF CALIFORNIA DIVISION OF AGRICULTURE AND NATURAL RESOURCES (UCDANR)
FRANKLIN BUILDING
1111 Franklin St., 6th floor
Oakland, CA 94607-5200
website: danr.ucop.edu
AOK 8/01
LOK 0/00

U.S. AIR FORCE (USAF)
website: afcesa.af.mil

U.S. ARMY (DA)

Internet: www.usace.army.mil/publications

U.S. ARMY CORPS OF ENGINEERS (USACE)

Order CRD-C DOCUMENTS from:
U.S. Army Engineer Waterways Experiment Station
ATTN: Technical Report Distribution Section, Services Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2664
Fax: 601-634-2388
Internet: www.wes.army.mil/SL/MTC/handbook/handbook.htm

Order Other Documents from:
USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081
Fax: 301-394-0084
Internet: www.usace.army.mil/publications
or www.hnd.usace.army.mil/techinfo/index.htm
AOK 5/01
LOK 6/00

U.S. ARMY ENVIRONMENTAL CENTER (AEC)

5179 Hoadley Road

Aberdeen Proving Ground, MD 21010-5401
Internet: www.aec.army.mil
AOK 8/00
LOK 0/00

U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY (USAEHA)

Waste Disposal Engineering Division
Aberdeen Proving Ground, MD 21010-5422
Ph: 410-436-3652

U.S. BUREAU OF RECLAMATION (BOR)
Denver Federal Center
P.O. Box 25007
Denver, CO 80225
Ph: 303-445-2080
Internet: www.usbr.gov
Order from:
National Technical Information
Services (NTIS)
5285 Port Royal Rd.
Springfield, VA 22161
Ph: 703-605-6000
Fax: 703-605-6900
Internet: www.ntis.gov
AOK 5/01
LOK 6/00

U.S. DEFENSE COMMUNICATIONS AGENCY (DCA)

U.S. DEFENSE INTELLIGENCE AGENCY (DIA)
Defense Intelligence Analysis Center (DIAC)
MacDill Boulevard and Luke Avenue
Bolling AFB, MD
website: dia.mil
AOK 8/01

U.S. DEFENSE LOGISTICS AGENCY (DLA)
Andrew T. McNamara Building
8725 John J. Kingman Road
Fort Belvoir, VA 22060
website: dla.mil
AOK 8/01

U.S. DEPARTMENT OF AGRICULTURE (USDA)

Order AMS Publications from:
AGRICULTURAL MARKETING SERVICE (AMS)
Seed Regulatory and Testing Branch
USDA, AMS, LS Div.
Room 209, Bldg. 306, BARC-East
Beltsville, MD 20705-2325

Ph:  301-504-9430
Fax:  301-504-8098
Internet:  www.ams.usda.gov/lsg
e-mail:  jeri.irwin@usda.gov

Order Other Publications from:
U.S. Department of Agriculture
14th and Independence Ave., SW, Room 4028-S
Washington, DC  20250
Ph:  202-720-2791
Fax:  202-720-2166
Internet:  www.usda.gov
AOK 5/01
LOK 6/00

U.S. DEPARTMENT OF COMMERCE (DOC)

Order Publications From:
National Technical Information Service
5285 Port Royal Road
Springfield, VA  22161
Ph:  703-605-6000
Fax:  703-605-6900
Internet:  www.ntis.gov
AOK 5/01
LOK 6/00

U.S. DEPARTMENT OF DEFENSE (DOD)

Order DOD Documents from:
National Technical Information Service
5285 Port Royal Road
Springfield, VA  22161
Ph:  703-605-6000
FAX: 703-605-6900
Internet:  www.ntis.gov

Order Military Specifications, Standards and Related Publications from:
Department of Defense Single Stock Point for  (DODSSP)
Defense Automation and Production Service (DAPS)
Bldg 4D
700 Robbins AV
Philadelphia, PA 19111-5094
Ph:  215-697-2179
Fax:  215-697-1462
Internet:  www.dodssp.daps.mil
AOK 5/01
LOK 6/00

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)
Order from:
HUD User
P.O. Box 6091

Rockville, MD  20849
Ph:  800-245-2691
Fax:  301-519-5767
Internet:  www.huduser.org
e-mail:  Huduser@aspensys.com
AOK 5/01
LOK 6/00

U.S. DEPARTMENT OF STATE (SD)

ATTN:  DS/PSP/SEP
SA-6, Room 804
Washington, DC 20522-0602
Ph:  703-875-6537
Internet:  www.state.gov
AOK 5/01
LOK 6/00

U.S. DEPARTMENT OF TRANSPORTATION (DOT)
400 7th Street, SW
Washington, DC 20590
website: dot.gov
AOK 8/01
LOK 0/00

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC  20460
Ph:  202-260-2090
FAX:  202-260-6257
Internet:  www.epa.gov

National Technical Information Services (NTIS)
5285 Port Royal Rd.
Springfield, VA  22161
Ph:  703-605-6000
Fax:  703-605-6900
Internet: www.ntis.gov
AOK 5/01
LOK 6/00

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)
Order from:
Superintendant of Documents
U. S. Government Printing Office
732 North Capitol Street, NW
Mailstop: SDE
Washington, DC 20401
Ph:  202-512-1530
Fax:  202-512-1262
Internet: www.gpo.gov
For free documents, order from:
Federal Aviation Administration

Dept. of Transportation
ATTN: General Services Section M-45
400 Seventh St., SW
Washington, DC 20590-0001
Ph: 202-366-4000

Internet: www.dot.gov
AOK 5/01
LOK 6/00

U.S. FEDERAL COMMUNICATIONS COMMISSION (FCC)
445 12th Street SW
Washington, DC 20554
Phone: 888-CALL-FCC
Fax: 202-418-0232
website: fcc.gov
E-mail: fccinfo@fcc.gov
AOK 8/01
LOK 0/00

U.S. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
500 C Street, SW
Washington, D.C. 20472
Phone: 202-646-4600
website: fema.gov
AOK 8/01
LOK 0/00

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)
Office of Highway Safety (HHS-31)
400 Seventh St., SW
Washington, DC 20590-0001
Ph: 202-366-0411
Fax: 202-366-2249
Internet: www.fhwa.dot.gov
Order from:

Superintendant of Documents
U. S. Government Printing Office
732 North Capitol Street, NW
Mailstop: SDE
Washington, DC 20401
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
AOK 5/01
LOK 6/00

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

Order from:
General Services Administration
Federal Supply Service Bureau

470 E L'Enfant Plaza, S.W., Suite 8100
Washington, DC 20407
Ph: 202-619-8925
Fx: 202-619-8978
Internet: fss.gsa.gov/pub/fed-specs.cfm
AOK 5/01
LOK 6/00

U.S. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)
website: nasa.gov

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
700 Pennsylvania Avenue, N.W.
Washington, D.C. 20408
Phone: 800-234-8861
website: nara.gov

Order documents from:
Superintendent of Documents
U.S.Government Printing Office
732 North Capitol Street, NW
Washington, DC 20401
Mailstop: SDE
Ph: 202-512-1530
Fax: 202-512-1262
Internet: www.gpo.gov
E-mail: gpoaccess@gpo.gov
AOK 5/01

U.S. NAVAL FACILITIES ENGINEERING COMMAND (NAVFAC)
1510 Gilbert St.
Norfolk, VA 23511-2699
Ph: 757-322-4200
Fax: 757-322-4416
Internet: www.efdlant.navfac.navy.mil/LANTOPS_15
AOK 5/01
LOK 6/00

U.S. NAVAL FACILITIES ENGINEERING SERVICE CENTER (NFESC)
1100 23rd Avenue
Port Hueneme, CA 93043-4370
Ph: 805-982-4980
Internet: www.nfesc.navy.mil
AOK 5/01
LOK 6/00

WATER ENVIRONMENT FEDERATION (WEF)
601 Wythe St.
Alexandria, VA 22314-1994
Ph: 703-684-2452
Fax: 703-684-2492
Internet: www.wef.org
AOK 5/01
LOK 6/00

WATER QUALITY ASSOCIATION (WQA)
4151 Naperville Rd.
Lisle, IL 60532
Ph: 630-505-0160
Fax: 630-505-9637
Internet: www.wqa.org
e-mail: info@mail.wqa.org
AOK 5/01
LOK 6/00

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)
P.O. Box 23145
Portland, OR 97281
Ph: 503-639-0651
Fax: 503-684-8928
internet: www.wclib.org
e-mail: info@wclib.org
AOK 5/01
LOK 6/00

WESTERN WOOD PRESERVERS INSTITUTE (WWPI)
7017 N.E. Highway 99 # 108
Vancover, WA 98665
Ph: 360-693-9958
Fax: 360-693-9967
Internet: www.wwpinstitute.org
e-mail: wwpi@teleport.com
AOK 5/01
LOK 6/00

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)
Yeon Bldg.
522 SW 5th Ave.
Suite 500
Portland, OR 97204-2122
Ph: 503-224-3930
Fax: 503-224-3934
Internet: www.wwpa.org
e-mail: info@wwpa.org
AOK 5/01
LOK 6/00

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)
1400 East Touhy Ave., Suite 470
Des Plaines, IL 60018
Ph: 847-299-5200 or 800-223-2301
Fax: 708-299-1286
Internet: www.wdma.com
e-mail: admin@wdma.com
AOK 5/01
LOK 6/00

WOOD MOULDING AND MILLWORK PRODUCERS ASSOCIATION (WMMPA)

507 First Street
Woodland, CA 95695
Ph:  916-661-9591
Fax:  916-661-9586
Internet:  www.wmmpa.com
AOK 5/01
LOK 6/00

-- End of Section --

INDEX

SECTION 01430
(General Requirements-Southern California)

PART 1

1 GENERAL

1.1 DEFINITIONS

2 APPLICABLE PUBLICATIONS

3. APPLICABLE REGULATIONS

4. NOTIFICATION

5. SUBCONTRACTORS

6. IMPLEMENTATION

7. PROTECTION

8. ARCHAEOLOGICAL FINDINGS DURING CONSTRUCTION

9. BURNING RUBBISH AND DEBRIS

10. DUST CONTROL

11. NOISE POLLUTION

12. EMISSION CONTROL

13. MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION.

PART 2

NOT USED

PART 3

NOT USED

SECTION 01430

# ENVIRONMENTAL PROTECTION
(General Requirements-Southern California)

## 1. GENERAL

### 1.1 DEFINITIONS

For the purpose of this specification environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. The control of environment pollution requires consideration of air, water, and land, and involves noise, solid waste-management and management of radiant energy and radioactive materials, as well as other pollutants.

## 2. APPLICABLE PUBLICATIONS

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

U. S. Army, Corps of Engineers Publication:
EM 385-1-1 Safety and Health Requirements Manual (3 September 1996)

## 3. APPLICABLE REGULATIONS

In order to prevent, and provide for the abatement and control of, any environmental pollution arising from the construction activities of the Contractor and his subcontractor in the performance of this contract, they shall comply with all applicable Federal, State, and local laws, and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, and elsewhere in the contract specifications.

(A) Environmental compliance and monitoring.

(1) General:

All construction activity performed are subject to federal environmental laws including, but not limited to: The National Environmental Policy Act (NEPA); The National Historic Preservation Act (NHPA); Endangered Species Act; Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response Compensation and Liability Act (CERCLA); Clean Water Act (CWA); Clean Air Act (CAA); Safe Drinking Water Act (SDWA), and applicable state, regional, and local equivalents. The Contractor is responsible for compliance with these laws.

(2) Hazardous materials:

The Contractor shall be responsible for the removal, storage, transportation, and disposal of all hazardous waste (Title 22, CCR) and designated waste (Title 23, CCR) in accordance with applicable federal, state, and local regulations. Copies of all analyses and manifests shall be given to the government inspector at the time of removal from the site and after the disposal facility accepts and signs for the waste. Hazardous waste manifests will be signed only by an appropriate county official. Suspected hazardous materials encountered during excavation and construction will require immediate notification of the Contracting Officer's Representative for examination, possible sampling, and guidance for management. If hazardous or designated waste is identified after award, a negotiated equitable adjustment will be made to the contract.

4. NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any non-compliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it was determined that the Contractor was in compliance in accordance with FAR 52.212-12, see Section 00700.

5. SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor.

6. IMPLEMENTATION

Prior to commencement of the work the Contractor will:

(A) Submit in writing his proposals for implementing this section for environmental pollution control;

(B) Meet with representatives of the Contracting Officer to develop mutual understandings relative to compliance with this provision and administration of the environmental pollution control program.

7. PROTECTION OF LAND RESOURCES

It is intended that the land resources within the project boundaries and outside the limits of permanent work performed under this contract be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the

appearance of the project. Insofar as possible, the Contractor shall confine his construction activities to areas defined by the plans or specifications. Contractor's attention is directed to the requirements of Contract Clauses: PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS ; OPERATIONS AND STORAGE AREAS ; and CLEANING UP, of Section 00700.

(A) It is intended that the natural and cultural resources within the project boundaries and outside the limits of permanent work performed under this contract be preserved in their present condition or be restored to pre-constructions conditions. The Contractor shall confine project-related activities to areas defined by the plans or specifications. The Contractor shall mark the construction limits using 36-inch stakes placed no further than 25 feet apart. These stakes mustremain in place for the duration of the project. After staking, the construction limits will be inspected and must be approved by the Contracting Officer's Representative. The Contractor shall brief all employees and subcontractors on the purpose of the stakes. Any encroachment outside the staked area may result in project delays and increased environmental costs for which the Contractor shall be liable.

8. ARCHAEOLOGICAL FINDINGS DURING CONSTRUCTION

There are no known archaeological remains at the project site. Should any skeletons, artifacts, or other archaeological remains be uncovered, the Contractor shall suspend operations at the site of discovery and continue operations in other areas. The Contractor shall notify the Contracting Officer's Representative immediately of the findings. Included with the notification shall be a brief statement to the Contracting Officer of the location and the findings. Should the discovery site require archaeological studies resulting in delays and/or additional work, the Contractor will be compensated by an adjustment under the Contract Clauses in Section 00700, of the contract.

9. BURNING RUBBISH AND DEBRIS

Open burning of rubbish, debris and other combustibles will not be permitted.

10. DUST CONTROL

The Contractor shall provide an acceptable plan for preventing the generation of dust due to his operation in construction zones, along haul routes, in equipment parking areas, and in waste areas. This plan may consist of water sprinkling or an equivalent service.

11. NOISE POLLUTION

The Contractor shall maintain all noise levels within the following limits and regulations:

(A) <u>All vehicles</u> shall have operational noise suppression systems (e.g. mufflers).

(B) <u>Noise levels</u> shall comply with OSHA Standards for the State Model Community Noise Control Ordinance.

(C)<u>Construction operations which generate excessive noise levels</u> shall be prohibited between

the hours of 7:00 P.M. and 7:00 A.M. without prior approval by the Contracting Officer.

## 12. EMISSION CONTROL

The Contractor shall see that all his vehicles and stationary piston-engine-powered equipment have emission control systems in conformance with Federal, State, and local regulations, as specified in 40 CFR 60 and 40 CFR 85-86 (and later amendments); in the California Administrative Code, Title 17, Part III, and Title 13, Chapter 3 (and later amendments); and in the rules and regulations of the local Air Pollution Control District. These emission control systems shall be operational and well maintained at all times. In addition, transfer and storage systems that carry or contain volatile liquids or solids or that generate particulate shall be constructed and operated to minimize escape of vapors and particulate and shall comply in this regard with regulations of the U.S. Environmental Protection Agency, the State of California, and the local Air Pollution Control District or Air Quality Management Board.

## 13. MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

During the construction period the Contractor shall conduct adequate training courses for his supervisory maintenance personnel (down to and including foreman) including initial instructions of at least 30 minutes and continuing instructions at appropriate times but in no case less than 30 minutes per month. The curriculum shall include but not be limited to the following topics:

(A) Methods of detection and avoiding pollution;

(B) Familiarity with environmental standards both statutory and contractual;

(C) Installation and care of vegetation covers, plants, and other facilities to prevent and correct environmental pollution.

(D) Instruction in the recognition of archaeological resources.

--End of Section--

INDEX
SECTION 01430-A

ENVIRONMENTAL PROTECTION
(Special Requirements-Edwards Air Force Base, CA)


**PART 1 GENERAL** . . . . . 1430-1

1.1 DEFINITIONS . . . . . 1430-1
1.2 APPLICABLE PUBLICATIONS . . . . . 1430-1
1.3 ENVIRONMENTAL PROTECTION REQUIREMENTS . . . . . 1430-1
1.3.1 ENVIRONMENTAL PROTECTION PLAN . . . . . 1430-1
1.3.1.1 Laws, Regulations, and Permits . . . . . 1430-2
1.3.1.2 Protection of Features . . . . . 1430-2
1.3.1.3 Procedures . . . . . 1430-2
1.3.1.4 Permit or License . . . . . 1430-2
1.3.1.5 Drawings . . . . . 1430-2
1.3.1.6 Environmental Monitoring Plans . . . . . 1430-3
1.3.1.7 Traffic Control Plan . . . . . 1430-3
1.3.1.8 Surface and Ground Water . . . . . 1430-3
1.3.1.9 Work Area Plan . . . . . 1430-3
1.4 SUBCONTRACTORS . . . . . 1430-3
1.5 PERMITS OBTAINED BY THE CORPS OF ENGINEERS . . . . . 1430-3
1.6 REGULATORY REQUIREMENTS . . . . . 1430-3

**PART 2 PRODUCTS** . . . . . 1430-3

2.1 GENERAL ELECTRICAL NOTE . . . . . 1430-3

**PART 3 EXECUTION** . . . . . 1430-4

3.1 PROTECTION OF ENVIRONMENTAL RESOURCES . . . . . 1430-4
3.1.1 PROTECTION OF LAND RESOURCES . . . . . 1430-4
3.1.1.1 Work Area Limits . . . . . 1430-4
3.1.1.2 Protection of Landscape . . . . . 1430-4
3.1.1.3 Reduction of Exposure of Unprotected Erodible Soils . . . . . 1430-4
3.1.1.4 Temporary Protection of Disturbed Areas . . . . . 1430-5
3.1.1.5 Location of Contractor Facilities . . . . . 1430-5
3.1.1.6 Disposal Areas on Government Property . . . . . 1430-5
3.1.1.7 Temporary Excavation and Embankments . . . . . 1430-5
3.1.1.8 Disposal of Solid Wastes . . . . . 1430-5
3.1.1.9 Disposal of Chemical (Hazardous) Wastes . . . . . 1430-6
3.1.1.10 Hazardous Materials . . . . . 1430-6
3.1.1.11 Contractor Equipment . . . . . 1430-6
3.1.2 POLLUTION PREVENTION . . . . . 1430-7
3.1.2.1 OZONE DEPLETING COMPOUNDS . . . . . 1430-7

3.1.2.2 PCBs, PCB Articles, PCB Contaminated Items ..... 1430-7
3.2 HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES ..... 1430-8
3.2.1 Cultural Resources in or near the work area ..... 1430-8
3.2.3 Designated Cultural Resources ..... 1430-8
3.2.4 Archaeological or Historic Items ..... 1430-8
3.3 PROTECTION OF FISH AND WILDLIFE RESOURCES ..... 1430-9
3.3.1 Wildlife Encounters During Construction ..... 1430-9
3.3.2 Desert Tortoise ..... 1430-9
3.3.3 Trash and Litter Control ..... 1430-9
3.4 NOISE CONTROL ..... 1430-9
3.5 PROTECTION OF AIR RESOURCES ..... 1430-9
3.5.1 Particulate Matter ..... 1430-10
3.5.2 Other Criteria Pollutants ..... 1430-10
3.5.3 Odors ..... 1430-10
3.5.4 Monitoring Air Quality ..... 1430-10
3.5.5 Internal Combustion Engines ..... 1430-10
3.6 PROTECTION OF JOSHUA TREES ..... 1430-11
3.6.1 Joshua Trees Within Project Site ..... 1430-11
3.6.2 Joshua Trees ..... 1430-11
3.7 COMPLIANCE LOG ..... 1430-11
3.7.1 Laws, Regulations, and Ordinances ..... 1430-11
3.7.2 Protection of Land Resources ..... 1430-12
3.7.3 Protection of Water Resources ..... 1430-12
3.8 INSPECTION ..... 1430-12
3.9 POST CONSTRUCTION CLEANUP ..... 1430-12
3.10 RESTORATION OF LANDSCAPE DAMAGE ..... 1430-12
3.11 MAINTENANCE OF POLLUTION FACILITIES ..... 1430-12
3.12 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL ... 1430-13

SECTION 01430-A

ENVIRONMENTAL PROTECTION
(Special Requirements-Edwards Air Force Base, CA)

# 1. GENERAL

## 1.1 DEFINITIONS

For the purpose of this specification environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, land, noise, solid waste-management and management of radiant energy and radioactive materials, as well as other pollutants.

## 1.2 APPLICABLE PUBLICATIONS

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

U.S. ARMY CORPS OF ENGINEERS, PUBLICATION

| | |
|---|---|
| EM 385-1-1 | SAFETY AND HEALTH REQUIREMENTS MANUAL (1 APRIL 1981, REV. OCT 1992) |

## 1.3 ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor shall plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Plan for and provide restorative measures for those areas disturbed by construction and project related activities. Comply with Federal, State, and Local regulations pertaining to the environment, including but not limited to solid and hazardous waste generation, natural and cultural resources, water, air and noise pollution.

### 1.3.1 ENVIRONMENTAL PROTECTION PLAN

Within 15 days after receipt of Notice to Proceed, and at least 7 days prior to the Preconstruction Conference, the Contractor shall submit an Environmental Protection Plan in writing and meet with representatives of the Contracting Officer to develop mutual understanding relative to compliance with this provision and administration of the Environmental Protection Program. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. The Government reserves the right to make changes in the Environmental Protection Plan and operations as necessary to maintain satisfactory environmental protection performance. As part of this plan, the Contractor shall

implement an Employee's Environmental Awareness Program which will be provided to construction and operation employees, with information to encourage awareness and preservation of the desert ecosystem and the resources found in the Western Mojave Desert. This information shall be distributed to and discussed with all employees during employee orientation sessions. This information will also be provided to all subcontractors and visitors that enter the site. The Contractor shall insure that all personnel participate in the Environmental Awareness Program and sign a statement declaring that he/she understands, and will adhere to the guidelines set forth in the program material.

The Environmental Protection Plan shall be based upon the terms and conditions published in the Environmental Document, "Assessment Review Group (ARG) of the Environmental Protection Committee (EPC) Memorandum", prepared for this project (refer to Attachment I at the end of this section) and shall include but not be limited to the following:

1.3.1.1 Laws, Regulations, and Permits

The Contractor shall prepare a list of Federal, State, and Local Laws, regulations and permit requirements, applicable the Contractors' proposed operations concerning environmental protection, pollution control, abatement, and the requirements imposed by those laws, regulations and permits.

1.3.1.2 Protection of Features

The Contractor shall determine methods for the protection of features to be preserved within the authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, including but not limited to: trees, shrubs, vines, grasses and ground cover; landscape features and soil; air and water quality; fish and wildlife; and historical, cultural and archaeological resources.

1.3.1.3 Procedures

The Contractor shall implement procedures to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures set forth in the Environmental Protection Plan.

1.3.1.4 Permit or License

The Contractor shall obtain all required permits and/or licenses, and coordinate all environmental related permits with the Base Environmental Management Office.

1.3.1.5 Drawings

The Contractor shall include drawings showing locations of any proposed temporary excavations or embankments, haul roads, drainage systems, stream crossings, material storage areas, structures, parking areas, equipment storage areas, sanitary facilities, stockpiles of earth materials, and disposal areas for excess earth material and unsatisfactory earth materials, and any other project related

temporary disturbance. The location of all such areas will be coordinated in advance with 95 CEG/CECV (Base Planning) and AFFTC/EM (Environmental Management Office). In no case shall any location be proposed for use that is not analyzed in the Environmental Document.

1.3.1.6 Environmental Monitoring Plans

The Contractor shall include an Environmental Monitoring Plan for the project which includes land, water, air, noise, and any other required monitoring.

1.3.1.7 Traffic Control Plan

The Contractor shall include a Traffic Control Plan for the project, which shall include required mitigations identified in the Environmental Document (if applicable).

1.3.1.8 Surface and Ground Water

The Contractor shall establish methods of protecting surface and ground water during construction activities.

1.3.1.9 Work Area Plan

The Contractor shall include a work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or non-use. The plan shall include measures for marking the limits of use areas. The proposed work areas shall not exceed those limitations or boundaries identified in the Environmental Document prepared for this project.

## 1.4 SUBCONTRACTORS

Assurance of compliance with this Section and all related environmental documents and procedures by subcontractors is the responsibility of the Prime Contractor.

## 1.5 PERMITS OBTAINED BY THE CORPS OF ENGINEERS

The Corps of Engineers will not obtain any permits for this project. See Contract Clause entitled, "PERMITS AND RESPONSIBILITIES".

## 1.6 REGULATORY REQUIREMENTS

The Contractor shall comply with all Federal, State, and Local regulatory and statutory requirements.

# PART 2 PRODUCTS

## 2.1 GENERAL ELECTRICAL NOTE

Electrical equipment intended for use on Edwards Air Force Base projects will not contain detectable PCB's.

## PART 3 EXECUTION

### 3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine his activities to areas defined by the contract drawings, specifications, and environmental documents. If a conflict exists, the Contractor will contact the Contracting Officer's Representative for resolution of differences among the documents. Environmental protection shall be as stated in the following paragraphs:

#### 3.1.1 PROTECTION OF LAND RESOURCES

Prior to the beginning of any construction, the Contracting Officer's Representative will identify all land resources to be preserved within the Contractor's work area (see the Environmental Document for identification). The Contractor shall not remove, cut, deface, injure, or destroy any environmental feature including plants, insects, or land features of animals outside the boundaries established in the Environmental Document prepared for this project. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, or land forms without special permission from the Contracting Officer's Representative. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times. No ropes, cables, or guys shall be fastened or attached to any tree for anchorage unless specifically authorized.

##### 3.1.1.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas where work is to be performed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. Monuments and markers shall be protected prior to commencement of work and the protection will be maintained for the entire duration of construction operations. Where construction operations are to be conducted during darkness, the markers will be visible during darkness. The Contractor shall convey the purpose of marking and/or protection of necessary objects to all personnel entering the site.

##### 3.1.1.2 Protection of Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features to be preserved, as indicated and defined on drawings submitted by the Contractor as a part of the Environmental Protection Plan, shall be clearly identified by marking, fencing, wrapping with boards, or other approved techniques.

##### 3.1.1.3 Reduction of Exposure of Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated and specified. Side slopes and back slopes shall be protected from wind and water erosion using commonly accepted construction practices as soon as practicable upon completion of rough grading. All earthwork shall be planned

and conducted to minimize the duration of exposure of unprotected soils. In instances where the constructed feature involves borrow areas, quarries and waste material areas, these areas shall not initially be cleared in total. Clearing of such areas shall progress in reasonably sized increments, as needed, to use the areas developed as approved by the Contracting Officer's Representative. Terms and conditions identified in the Environmental Document to minimize production of airborne particles shall be incorporated into the project.

3.1.1.4 Temporary Protection of Disturbed Areas

The Contractor is responsible to provide whatever method is necessary to effectively prevent erosion, control sedimentation, and prevent dust and other particulates from becoming airborne.

3.1.1.5 Location of Contractor Facilities

The Contractor's field offices, staging and storage areas, stockpiles, and temporary buildings shall be planned in areas designated on the contract drawings, approved by the Contracting Officer's Representative, and coordinated with the Base Civil Engineer and Environmental Management Office. Temporary movement or relocation of Contractor facilities shall be made only with approval of the Contracting Officer's Representative.

3.1.1.6 Disposal Areas on Government Property

There are no disposal sites located on Edwards Air Force Base, therefore the Contractor shall haul material to an approved off-Base disposal site.

3.1.1.7 Temporary Excavation and Embankments

Temporary excavation and embankments shall be controlled to protect adjacent areas from disturbance. All excavations shall be conducted in accordance with OSHA, Cal-OSHA, or EM 385-1-1. The most stringent requirement shall apply.

3.1.1.8 Disposal of Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. All disposal of solid waste shall be at a Contracting Officer's Representative approved, off-Base facility. The Contractor shall provide the Contracting Officer's Representative with copies of records showing the actual weight of solid waste disposed of, as measured at the disposal facility, as well as disposal facility identification.

The Contractor shall be responsible for the preparation of all manifest(s) and or other documentation, for all solid waste. For signature required by law prior to disposal, an authorized representative of Edwards AFB Environmental Management Office shall sign the manifests. The Contractor shall obtain the services of a licensed and approved transporter of hazardous and/or non-hazardous material(s). Copies of the completed manifests shall be returned to the Environmental Management Office within 30 days of the date of the manifest. Costs involved in the preparation of

the hazardous or non-hazardous manifests and/or other documentation, removal, disposal, recycling and other costs involved with disposal are the responsibility of the Contractor.

3.1.1.9 Disposal of Chemical (Hazardous) Wastes

The off-Base disposal of all hazardous materials shall be conducted in strict accordance with all applicable Federal, State and Local laws, rules and regulations.

Paint, paint products, sealants, solvents, cements, asphaltic compounds, pesticides, herbicides, rodenticides, etc., are all considered to be hazardous materials. The containers in which these materials are held, unless the container is thoroughly dried, are also considered to be hazardous waste. All usable or unusable residues shall be retained by the Contractor. Thoroughly dried containers that have held hazardous materials shall be prepared for disposal at an off-Base location by punching a 1/4 inch hole in the container 2 inches up from the bottom.

Chemical waste (including pesticides) shall be stored in appropriate containers, in compliance with applicable laws, rules and regulations. The waste shall be removed from the work area, to an approved off-Base location and disposed of in accordance with Federal, State and Local regulations. No waste shall remain on Edwards AFB for longer than 75 days. The Contractor shall maintain appropriate records, to include copies of manifests showing quantities and location of disposal, method of disposal, etc.. These records will be made available upon request, in the event of a Federal, State or Local inspection of records. The Contractor shall be responsible for the preparation of all manifests and or other documentation. The Contractor shall obtain the services of a DOT licensed and approved transporter of hazardous and or non-hazardous (contaminated) material. All manifests and/or other documentation will be returned to Edward's Environmental Management Office within 30 days of the date of the manifest, as required by law. The Contractor is responsible for all costs involved in the preparation of hazardous or non-hazardous waste manifests; removal, transportation, disposal or recycling of the wastes; and all documentation and records associated with the disposal of such material.

3.1.1.10 Hazardous Materials (Brought on Site)

The Contractor shall submit Material Safety Data Sheets (MSDS) on all hazardous materials (as defined by Federal, State, and Local regulations) before such materials are brought on base. The Contractor shall maintain a Hazards Communication Program for the duration of the project. All project personnel shall be informed of the program, and the location of the program materials.

3.1.1.11 Contractor Equipment

Both mobile (trucks, bulldozers, etc.) and immobile (generators, welding machines, compressors) equipment are covered by this section. The hazards of concern include those associated with the leaking or spilling of fuels, oils, greases, cleaning agents, etc. The Contractor shall implement the following mitigations:

1. Impervious membranes will be used to cover the ground surface where mobile and/or immobile equipment will be parked and/or serviced.

2. Equipment and vehicles will be kept in a condition of good repair.

3. Leaks will be repaired, or the leaking equipment will be replaced immediately.

4. All leaks and spills will be cleaned up immediately.

5. The Contractor is responsible for full compliance with all laws and regulations governing the release of all chemicals or chemical agents into the environment.

6. All used oils, filters, etc., will be removed from the site on a daily basis.

7. All fuels, oils, lubricants and etc., stored on site, will be stored, dispensed, used and disposed of in accordance with all applicable Federal, State, and Local laws, rules and regulations.

**Note:** It is suggested that the Contractor provide an equipment servicing truck, or a Contracting Officer's approved subcontractor for refueling, oiling, lubricating and servicing. This will eliminate the need to store fuels, oils, and lubricants on Base, reducing the associated environmental liability.

### 3.1.2 POLLUTION PREVENTION

#### 3.1.2.1 OZONE DEPLETING COMPOUNDS

The Contractor shall adhere to Federal, State, Local, and Base policies with regards to pollution prevention. The use of Class 1 Ozone Depleting Compounds (ODC's) during the performance of this work, or when used in equipment is discouraged, must be coordinated with the Contracting Officers Representative, the Base Environmental Management Office and the Hazardous Materials Pharmacy, and be approved prior to use. The Contractor shall minimize the use of hazardous materials and the subsequent generation of hazardous wastes whenever possible. The Contractor shall maintain an inventory of hazardous materials brought on Base, and shall provide a copy of this inventory to the Contracting Officer's Representative. The Contractor shall employ source reduction techniques whenever possible to minimize wastes. The Contractor shall maximize the use of materials containing recycled contents in accordance with affirmative procurement policies. The Contractor is encouraged to demonstrate conservation of energy and natural resources and use recycling whenever possible.

#### 3.1.2.2 PCBs, PCB Articles, PCB Contaminated Items

Should "PCB" ballasts or other PCB contaminated wastes be encountered on this project, the Contractor shall provide the following:

1) Disposal of PCBs and PCB contaminated wastes shall be by incineration in an EPA approved facility. For carcasses and similar components, the term incineration as used here means the complete destruction of PCBs with recycling of reusable metals.

2) Submit a Certificate of Destruction to the Government not more than 90 calendar days from the date the waste is received at the Approved Disposal Facility. The Certificate of Destruction shall

include:

a) Name, Address, EPA Identification number of disposal facility

b) Waste identification, including manifest number for shipment

c) A statement certifying the fact of complete destruction of the identified PCB waste, including the date(s) of destruction, and identifying the process used.

Should non-contaminated ballasts be encountered on this project, the Contractor shall recycle the ballast(s) in accordance with Federal, State, Local, and Air Force approved methods in a licensed facility in accordance with current environmental regulations.

Should fluorescent tubes, and/or HID lamps be encountered on this project, it is recommended that the Contractor not dispose of fluorescent tubes and or HID lamps that have been identified as containing Mercury, in any Federal, State, or Local landfill. Recycling of fluorescent tubes and HID lamps that have been identified as containing Mercury, in order to reclaim the mercury, glass and metal parts, shall be accomplished at a State or Federally approved facility. There are approved facilities for the recycling of fluorescent tubes and HID lamps containing Mercury located in the State of California. The name, address and identification number of the State or Federally approved facility shall be noted on the manifest, certificate of destruction, or other documentation, which shall be returned to Edward's AFB AFFTC/EM department.

## 3.2 HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

3.2.1 There may be cultural resources in or near the work area.

All work of a ground disturbing nature will be confined to those areas designated for the project. The Environmental Document shall be carefully reviewed for any special directions or restrictions related to cultural resource protection, and all mitigations identified in the Environmental Document shall be incorporated into the project.

3.2.2 Known cultural resources within or adjacent to the Contractor's work area will be identified by the Contracting Officer's Representative. Precautions shall be taken by the Contractor to avoid and preserve all such resources as they existed at the time they were identified to the Contractor. The Contractor shall depict the location of these resources on the contract drawings and shall assume responsibility for their protection during the contract. Cultural resource location information is protected and shall be disseminated only on a need-to-know basis.

3.2.3 All contractor personnel shall be instructed not to collect any artifact or specimen, or trespass into areas designated as cultural resources.

3.2.4 If any items of an apparent archaeological or historic interest ( arrowheads, old bottles, etc.) are discovered, they shall be left undisturbed and the Contractor shall report the find immediately to the Contracting Officer's Representative. The Contracting Officer's Representative shall then immediately notify the Base Historic Preservation Officer of the find so that it may be evaluated.

## 3.3 PROTECTION OF FISH AND WILDLIFE RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control, to minimize interference, disturbance, or damage to fish and wildlife. Species that require specific attention, along with measures for their protection, shall be listed by the Contractor prior to beginning construction operations. Instructions on how to identify sensitive animals that may be encountered will be provided at the Preconstruction Conference.

### 3.3.1 Wildlife Encounters During Construction

It is not anticipated that there will be an abundance of wildlife encounters at the project site. However, should the Contractor discover animals, bats or nesting birds living within the construction boundaries, operations shall be suspended at the site of discovery and continued in other areas. The Contracting Officer's Representative will be notified of the findings immediately, informing him/her with a brief statement of the location and nature of the encounter.

### 3.3.2 Desert Tortoise

Contractors shall follow all terms and conditions identified in the "Biological Opinion for Routine Operations and Facility Construction within the Cantonment Areas of Main and South Base, Edwards AFB, CA (1-6-91-F-28)", dated 4 Dec 91, or the applicable Biological Opinion for this project. The applicable Biological Opinion will be included in the Environmental Document.

The Contractor shall follow all terms, conditions and mitigations identified in the Biological Opinion that is applicable to this project. Contractor employees shall not touch, harm, harass, or kill desert tortoises. The Contracting Officer's Representative shall be notified immediately of all Desert Tortoise sightings. Should construction activities threaten the survival of any Desert Tortoises, those activities will immediately cease.

### 3.3.3 Trash and Litter Control

The Contractor shall develop a strict trash and litter control program. A litter control program shall consist of supplying an adequate number of covered trash and litter receptacles at all appropriate locations. All containers shall be raven-proof, and all aspects of the litter control program will discourage the scavenging of litter by ravens.

## 3.4 NOISE CONTROL

The Contractor shall follow all terms and conditions regarding noise control identified in the Environmental Document. All operations shall be conducted to minimize impacts to residents, workers and wildlife in the area. All noise-generating devices shall be equipped with silencers, mufflers, or any other devices required to minimize noise.

## 3.5 PROTECTION OF AIR RESOURCES

The Contractor shall keep construction activities under surveillance, management and control to

minimize air emissions and protect air resources. All activities, equipment, processes, and work managed or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with California Air Resources Board (CARB), local Air Pollution Control District (APCD), and Federal laws and regulations governing Air Quality. All requirements of the mentioned rules and regulations as well as the Special Management techniques as set out below shall be implemented to control air pollution during the construction activities which are included in the contract.

3.5.1 Particulate Matter

Dust particles, aerosols, and gaseous by-products from all construction activities, processing and preparation of materials (such as from asphaltic batch plants) shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain all work areas inside and adjacent to the project site including but not limited to: excavations; stockpiles; haul roads; permanent and temporary access roads; plant sites; spoil areas and borrow areas. All areas will be kept free of air-borne particulates which could cause the standards mentioned in paragraph 3.5 "PROTECTION OF AIR RESOURCES" to be exceeded, or which could cause a hazard or nuisance. Sprinkling, chemical treatment (Government approved), light bituminous treatment, total enclosure, air scrubbers, electrostatic precipitators or other methods will be used as required to control particulates in the work area. The Contractor must have the proper equipment and competent personnel available to accomplish and maintain this task. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs or there is a potential for such an occurrence.

3.5.2 Other Special Criteria Pollutants: This paragraph pertains to such pollutants as Hydrocarbons, Carbon Monoxide, Nitrogen Oxides, Sulfur Oxides, Lead and others.

All identified Emissions generated from equipment or processes shall be controlled per applicable Federal, State, and Local rules and regulations. All permitted devices shall be operated only within the identified limitations. Best Available Control Technology (BACT) and/or Reasonably Available Control Technology (RACT) shall be employed to the greatest extent possible.

3.5.3 Odors

Odors shall be controlled at all times for all construction activities, processing and preparation of materials.

3.5.4 Monitoring Air Quality

Monitoring of air quality is the responsibility of the Contractor during all operations requiring such monitoring, as identified by the agencies and/or documents listed in paragraph 3.5 above.

3.5.5 Internal Combustion Engines

Kern County APCD, Rule 202, requires a permit on all internal combustion engines over 50BHP not connected to a transmission. No permit is needed if the equipment shall be removed from EAFB in

45 days or less. These engines include, but are not limited to: Generators, compressors, and welding machines. If the equipment is to remain on-base for longer than 45 days, a permit from the APCD will be required. The permit shall remain on base as long as the equipment remains, and the Contractor shall produce the permit when requested to do so. For further information, contact AFFTC/EM at (805) 277-1427.

## 3.6 PROTECTION OF JOSHUA TREES

### 3.6.1 Joshua Trees Within Project Site

Due to the limited vegetation in the area, removal or relocation of plants shall be minimized. The Contractor shall obtain approval from the Contracting Officer's Representative before removing or relocating any plants within the construction boundaries. Joshua trees shall be protected to the extent possible and coordination made with the Contracting Officer's Representative before moving or relocating this species. Procedures for relocating those within the project site are described as follows:

### 3.6.2 Joshua Trees

Only trees under five (5) feet tall may be moved, and only in accordance with the following procedures: Mark north side of the tree and plant in same orientation. Using shovel, dig down to get main root mass (generally within two (2) feet of surface). Try to get tap root and the fibrous water storage structure that it leads to. Take some of the top soil to put in new hole. Roots should be dusted with sulfur to prevent rot. A small amount of manure can be mixed in soil when replanting. Soil should be tamped down and a small 5-foot diameter berm placed around plant. Soak with several gallons of water. Stake in two (2) directions to prevent wind from knocking it down. If not transplanted right away, "heel in" plant (lay plant on its side and cover roots with soil). Larger Joshua Trees (5-20 feet tall) shall not be moved but be detoured around by the utilities. If plants need to be relocated outside the project area, contact the Contracting Officer's Representative for other locations on EAFB.

## 3.7 COMPLIANCE LOG

The Contractor shall establish and maintain a Quality Control Compliance Log for environmental protection to assure compliance with contract requirements. The Contractor is required to maintain records of non-compliance issues for construction operations, including any problems in meeting the requirements of all applicable laws, regulations or ordinances, and the corrective action taken. The log will be maintained on a daily basis, and is subject to government review at all times. Three copies of these records, including any tests taken, and the records of corrective actions taken, shall be furnished to the Government at the end of the project or as directed by the Contracting Officer's Representative.

### 3.7.1 Laws, Regulations, and Ordinances

The Contractor must comply with all Federal, State, Local and EAFB laws, regulations, ordinances and policies concerning pollution control. This includes submitting a Hazardous Materials and

Hazardous Waste Management Plan specifically for Edwards Air Force Base.

### 3.7.2 Protection of Land Resources

The Contractor shall prevent landscape defacement and provide post-construction clean-up.

### 3.7.3 Protection of Water Resources

The Contractor shall prevent the contamination of lakes, ditches, or other bodies of water with harmful chemicals; dispose of waste materials at an approved off-base disposal site; and provide erosion control of affected areas for the duration of this contract.

## 3.8 INSPECTION

The Contracting Officer's Representative will notify the Contractor in writing of any observed noncompliance with the Contractor's Environmental Protection Plan. The Contractor, after receiving such a notice, will inform the Contracting Officer's Representative of the proposed corrective action to be taken. Upon approval of his proposal, the Contractor will immediately take whatever action is required to correct the deficiency. If the Contractor fails to comply promptly, the Contracting Officer's Representative may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions will be granted or costs or damages allowed to the Contractor for any such suspension.

## 3.9 POST CONSTRUCTION CLEANUP

The Contractor is responsible for removing all construction debris from the site, and restoring all used areas to their original condition.

## 3.10 RESTORATION OF LANDSCAPE DAMAGE

The Contractor shall restore all landscape features damaged or destroyed during construction operations to original conditions. Such restoration shall be in accordance with the plans submitted for approval to the Contracting Officer's Representative, and shall include an AFFTC/EM approved revegetation plan. To minimize restoration the Contractor is encouraged to minimize disturbing desert areas.

## 3.11 MAINTENANCE OF POLLUTION CONTROL FACILITIES

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

## 3.12 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL

The Contractor shall train his personnel in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and
contractual, and installation and care of facilities (vegetative covers and instruments required for monitoring purposes) to insure adequate and continuous environmental pollution control.

**********End of Section**********

INDEX

SECTION 01440

CONTRACTOR QUALITY CONTROL

PART 1.0 GENERAL

1.1 REFERENCES

PART 2.0 PRODUCTS (NOT APPLICABLE)

PART 3.0 EXECUTION

3.1 GENERAL

3.2 QUALITY CONTROL PLAN

3.3 COORDINATION MEETING

3.4 QUALITY CONTROL ORGANIZATION

3.5 SUBMITTALS

3.6 CONTROL

3.7 TESTS

3.8 COMPLETION INSPECTION

3.9 DOCUMENTATION

3.10 NOTIFICATION OF NONCOMPLIANCE

SECTION 01440

# CONTRACTOR QUALITY CONTROL

## PART 1 GENERAL

### 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM E 329 | (1993b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction |

## 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 entitled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

### 3.2 QUALITY CONTROL PLAN

#### 3.2.1 General

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause entitled "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 include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

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

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters will also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01300 SUBMITTAL PROCEDURES.

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

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

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures 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.

### 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 of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

## 3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 14 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

## 3.4 QUALITY CONTROL ORGANIZATION

### 3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

### 3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 5 years in related work. This CQC System Manager shall be on the site at all times during construction and will be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project

superintendent in addition to quality control. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate will be the same as for the designated CQC System Manager.

### 3.4.3 Additional Requirement

In addition to the above experience and education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered quarterly by the Los Angeles District, contact the Contracting Officer for more information.

### 3.4.4 Organizational Changes

The Contractor shall maintain his CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

## 3.5 SUBMITTALS

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 that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

### 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

a. A review of each paragraph of applicable specifications.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

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

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

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

f. The Government shall be notified at least 48 hours in advance of beginning the initial phase.

Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

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

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

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

c. Check test instrument calibration data against certified standards.

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

e. Results of all tests taken, both passing and failing tests, will be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials will be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory, f.o.b., at the following address:

For delivery by mail:

Director
South Pacific Division Laboratory
U.S. Army Corps of Engineers
25 Liberty Ship Drive
Sausalito, California 94965-1768

For other deliveries:

Director
South Pacific Division Laboratory
U.S. Army Corps of Engineers
Bridgeway, Foot of Spring St.
(Building Directly east of 2000 Bridgeway)
Sausalito, California 94965

Coordination for each specific test, exact delivery location, and dates will be made through the Area Office. The Contractor shall only submit those samples which are specifically designated to be sent to the SPD Lab. Notify the Resident Contracting Officer's Representative at lease 14 days prior to delivery of samples.

## 3.8 COMPLETION INSPECTION

### 3.8.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "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. Once this is accomplished the Contractor shall notify the Government that the facility is ready for the Government "Pre-Final" inspection.

### 3.8.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government "Pre-Final Punch List" may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected and so notify the Government so that a "Final" inspection with the customer can be scheduled. Any items noted on the "Pre-Final" inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

### 3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, his superintendent or other primary management person and the contracting Officer's representative will be in attendance at this inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final

acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. This notice will be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and must include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with Section 00800, Paragraph, "Inspection of Construction".

## 3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications / drawings requirements. The control phase 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.

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 24 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 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.

## 3.11 CONSTRUCTION CONTROL MANUAL

In addition to the requirements specified in the various Technical Specifications hereinafter, test procedures and minimum number of tests will be performed in accordance with SPK PAM 415-1-2, "Construction Control Manual". Neither the specified minimum number of tests nor the lack of them shall in any way limit or relieve the Contractor of his responsibility to perform adequate tests to assure compliance with the quality requirements of these specifications. The referenced standards listed in this Construction Control Manual shall be of the latest issue otherwise specified.

The "Construction Control Manual" may be examined in the following office locations, and will be furnished to the Contractor:

Corps of Engineers
Los Angeles District
Construction Management Section
300 N. Los Angeles St., Rm 6101
Los Angeles, California

Corps of Engineers
High Desert Area Office
352 E. Ave., K-4
Lancaster, California

-- End of Section --

INDEX

SECTION 01500

GENERAL CONDITIONS

Paragraph


1.1 GENERAL REQUIREMENTS . . . . . 01500-1

1.1.1 Site Plan . . . . . 01500-1

1.1.2 Identification of Employees . . . . . 01500-1

1.1.3 Employee Parking . . . . . 01500-1

1.2 AVAILABILITY AND USE OF UTILITY SERVICES . . . . . 01500-1

1.2.1 Payment for Utility Services . . . . . 01500-1

1.2.2 Meters and Temporary Connections . . . . . 01500-1

1.2.3 Advance Deposit . . . . . 01500-2

1.2.4 Final Meter Reading . . . . . 01500-2

1.2.5 Sanitation . . . . . 01500-2

1.2.6 Telephone . . . . . 01500-2

1.3 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN . . . . . 01500-2

1.3.1 Bulletin Board . . . . . 01500-2

1.3.2 Project and Safety Signs . . . . . 01500-2

1.4 PROTECTION AND MAINTENANCE OF TRAFFIC . . . . . 01500-3

1.4.1 Haul Roads . . . . . 01500-4

1.4.2 Barricades . . . . . 01500-4

1.5 CONTRACTOR'S TEMPORARY FACILITIES . . . . . 01500-4

1.5.1 Administrative Field Offices . . . . . 01500-4

1.5.2 Storage Area . . . . . 01500-4

1.5.3 Supplemental Storage Area . . . . . 01500-4

1.5.4 Appearance of Trailers . . . . . 01500-5

1.5.5 Maintenance of Storage Area . . . . . 01500-5

1.5.6 New Building . . . . . 01500-4

1.5.7 Security Provisions . . . . . 01500-5

1.6 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER: . . . . . 01500-6

1.7 GOVERNMENT FIELD OFFICE (NOT USED) . . . . . 01500-6

1.8 PLANT COMMUNICATION . . . . . 01500-6

1.9 TEMPORARY PROJECT SAFETY FENCING . . . . . 01500-6

1.10 CLEANUP . . . . . 01500-7

1.11 RESTORATION OF STORAGE AREA . . . . . 01500-7

SECTION 01500

GENERAL CONDITIONS

## 1.1 GENERAL REQUIREMENTS

### 1.1.1 Site Plan

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

### 1.1.2 Identification of Employees

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

### 1.1.3 Employee Parking

Contractor employees shall park privately owned vehicles in an area designated by the Contracting Officer. This area will be within reasonable walking distance of the construction site. Contractor employee parking shall not interfere with existing and established parking requirements of the military installation.

## 1.2 AVAILABILITY AND USE OF UTILITY SERVICES

### 1.2.1 Payment for Utility Services

The Government will make all reasonably required utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

### 1.2.2 Meters and Temporary Connections

The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall provide and maintain necessary temporary connections, distribution lines, and meter bases (Government will provide meters) required to measure the amount of each utility used for the purpose of determining charges. The Contractor shall notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that a utilities contract can be established. The Government will provide a meter and make the final hot connection after inspection and approval of the Contractor's temporary wiring installation. Under no circumstance shall the Contractor make the final electrical connection.

1.2.3 Advance Deposit

An advance deposit for utilities consisting of an estimated month's usage or a minimum of $50.00 will be required. The last monthly bills for the fiscal year will normally be offset by the deposit and adjustments will be billed or returned as appropriate. Services to be rendered for the next fiscal year, beginning 1 October, will require a new deposit. Notification of the due date for this deposit will be mailed to the Contractor prior to the end of the current fiscal year.

1.2.4 Final Meter Reading

Before completion of the work and final acceptance of the work by the Government, the Contractor shall notify the Contracting Officer, in writing, 5 working days before termination is desired. The Government will take a final meter reading, disconnect service, and remove the meter(s). The Contractor shall then remove all the temporary distribution lines, meter base(s), and associated paraphernalia. The Contractor shall pay all outstanding utility bills before final acceptance of the work by the Government.

1.2.5 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel.

1.2.6 Telephone

The Contractor shall make arrangements and pay all costs for telephone facilities desired.

1.3 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

1.3.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 915 by 1220 mm (36 by 48 inches) in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

1.3.2 Project and Safety Signs

(a) General:

The Contractor shall construct and erect one project sign, one safety sign and a minimum of 2 hard hat signs at locations designated by the Contracting Officer. The signs shall conform to the requirements of the drawings attached at the end of this section. The signs shall be erected as soon as possible and within 15 days after date of commencement of work under this contract. The date required by the safety sign shall be corrected daily.

(b) Materials:

(1) Lumber shall conform to DOC PS 20 and grading rules of applicable grading agencies, WCLIB or WWPA. Grade shall be "Standard" or better Douglas Fir, S4S and shall be stamped S-Dry.

(2) Plywood: Plywood shall conform to DOC PS 1, Grade AC, Group 1, Exterior.

(3) Bolts, Nuts and Nails: Bolts shall be galvanized and conform to Industry Standards. Nuts shall conform to industry standards.

(4) Type of paint for primer, finish coats, lettering and color of signs and lettering shall be indicated below. Safety signs shall be painted the same colors as the project sign. Hard hat signs shall be painted as indicated on the attached drawing.

(a) Primer as indicated on Standard Drawing.

(b)Air Force Projects: Finish coats: Background shall be Decatron (Glidden) *English Tudor* with Spectratone *white* lettering or computer generated white vinyl letters.

(c)Army, Marine and Support For Others Projects: Background shall be exterior *white* with *black* lettering.

(c) Construction:

(1) Signs shall be constructed as detailed on attached drawings.

(2) Painting: All exposed surfaces and edges of plywood shall be given one coat of linseed oil and be wiped prior to applying primer. All exposed surfaces of signs and supports shall be given one coat of primer and one finish coat of paint colors as indicated above. All lettering shall be sized as indicated. Width of letter stroke shall be 1/6 of the letter height, except as noted.

(d) Maintenance and Disposal:

The Contractor shall maintain the signs in good condition throughout the life of the project. Signs shall remain the property of the Contractor and upon completion of the project, removed from the site.

1.4 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The

Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

### 1.4.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

### 1.4.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

## 1.5 CONTRACTOR'S TEMPORARY FACILITIES

### 1.5.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

### 1.5.2 Storage Area

The Contractor shall construct a temporary 1.8 meter (6 foot) high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored brown, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. At the end of each work day mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area.

### 1.5.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer will designate another or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction

site but shall be within the military boundaries. Fencing of materials or equipment will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government.

1.5.4 Appearance of Trailers

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

1.5.5 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse with construction equipment or other vehicles grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

1.5.6 New Building

In the event a new building is constructed for the temporary project field office, it shall be a minimum 3.6 meters (12 feet) in width, 4.9 meters (16 feet) in length and have a minimum of 2.1 meters (7 feet) headroom. It shall be equipped with approved electrical wiring, at least one double convenience outlet and the required switches and fuses to provide 110-120 volt power. It shall be provided with a work table with stool, desk with chair, two additional chairs, and one legal size file cabinet that can be locked. The building shall be waterproof, shall be supplied with heater, shall have a minimum of two doors, electric lights, a telephone, a battery operated smoke detector alarm, a sufficient number of adjustable windows for adequate light and ventilation, and a supply of approved drinking water. Approved sanitary facilities shall be furnished. The windows and doors shall be screened and the doors provided with dead bolt type locking devices or a padlock and heavy duty hasp bolted to the door. Door hinge pins shall be non-removable. The windows shall be arranged to open and to be securely fastened from the inside. Glass panels in windows shall be protected by bars or heavy mesh screens to prevent easy access to the building through these panels. In warm weather, air conditioning capable of maintaining the office at 50 percent relative humidity and a room temperature 11 degrees C (20 degrees F) below the outside temperature when the outside temperature is 35 degrees C, (95 degrees F,) shall be furnished. Any new building erected for a temporary field office shall be maintained by the Contractor during the life of the contract and upon completion and acceptance of the work shall become the property of the Contractor and shall be removed from the site. All charges for telephone service for the temporary field office shall be borne by the Contractor, including long distance charges up to a maximum of $75.00 per month.

1.5.7 Security Provisions

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

its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office.

1.6 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER:

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE, SECTION 00700, 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.

3. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) 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. Adverse weather days were determined based on the following four elements:

Precipitation greater than or equal to .10 inch.
Minimum temperature less than or equal to 32 degrees F.
Maximum temperature greater than or equal to 100 degrees F.
Surface wind greater than or equal to 20 MPH.

Edwards AFB & Plant 42

| JAN | FEB | MAR | APR | MAY | JUN | JULY | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (14) | (9) | (7) | (5) | (9) | (16) | (19) | (17) | (15) | (7) | (7) | (14) |

Vandenberg AFB

| JAN | FEB | MAR | APR | MAY | JUN | JULY | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (5) | (5) | (5) | (3) | (1) | (0) | (0) | (0) | (1) | (1) | (4) | (5) |

1.7 GOVERNMENT FIELD OFFICE (NOT USED)

1.8 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

1.9 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high

visibility orange colored, high density polyethylene grid or approved equal, a minimum of 1.07 meters (42 inches) high, supported and tightly secured to steel posts located on maximum 3 meters (10 foot) centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

## 1.10 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

## 1.11 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01780A

CLOSEOUT SUBMITTALS

**05/02**


PART 1 GENERAL

1.1 SUBMITTALS
1.2 PROJECT RECORD DOCUMENTS
1.2.1 As-Built Drawings
1.2.1.1 Government Furnished Materials
1.2.1.2 Working As-Built and Final As-Built Drawings
1.2.1.3 Drawing Preparation
1.2.1.4 Computer Aided Design and Drafting (CADD) Drawings
1.2.1.5 Payment
1.2.2 As-Built Record of Equipment and Materials
1.2.3 Final Approved Shop Drawings
1.2.4 Construction Contract Specifications
1.2.5 Real Property Equipment
1.3 WARRANTY MANAGEMENT
1.3.1 Warranty Management Plan
1.3.2 Performance Bond
1.3.3 Pre-Warranty Conference
1.3.4 Contractor's Response to Construction Warranty Service Requirements
1.3.5 Warranty Tags
1.4 MECHANICAL TESTING, ADJUSTING, BALANCING, AND COMMISSIONING
1.5 OPERATION AND MAINTENANCE MANUALS
1.6 FINAL CLEANING

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)


-- End of Section Table of Contents --

SECTION 01780A

CLOSEOUT SUBMITTALS
**05/02**

## PART 1 GENERAL

### 1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

As-Built Drawings; RE

Drawings showing final as-built conditions of the project. The final CADD as-built drawings shall consist of one set of electronic CADD drawing files in the specified format, one set of mylar drawings, 2 sets of blue-line prints of the mylars, and one set of the approved working as-built drawings shall consist of 1 set of completed final as-built original transparency drawings, 2 sets of blue-line prints of the transparencies, and the approved marked working as-built prints.

SD-03 Product Data

As-Built Record of Equipment and Materials; RE

Two copies of the record listing the as-built materials and equipment incorporated into the construction of the project.

Warranty Management Plan; RE

One set of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Tags; RE

Two record copies of the warranty tags showing the layout and design.

Final Cleaning; RE

Two copies of the listing of completed final clean-up items.

## 1.2 PROJECT RECORD DOCUMENTS

### 1.2.1 As-Built Drawings

This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings.

#### 1.2.1.1 Government Furnished Materials

One set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the preconstruction conference for projects requiring CADD file as-built drawings.

#### 1.2.1.2 Working As-Built and Final As-Built Drawings

The Contractor shall revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be limited to, the following information:

a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

b. The location and dimensions of any changes within the building structure.

c. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

d. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

e. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

f. Changes or modifications which result from the final inspection.

g. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

h. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

i. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

j. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures.

(1) Directions in the modification for posting descriptive changes shall be followed.

(2) A Modification Circle shall be placed at the location of each deletion.

(3) For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

(4) For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

(5) For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.

(6) For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

(7) The Modification Circle size shall be 1/2 inch diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.1.3 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.1.4 Computer Aided Design and Drafting (CADD) Drawings

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The Contractor will be furnished "as-designed" drawings in AutoCad Release 14 format compatible with a MS-DOS/Windows operating system. The electronic files will be supplied on compact disc, read-only memory (CD-ROM). The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

a. CADD colors shall be the "base" colors of red, green, and blue. Color code for changes shall be as follows:

(1) Deletions (red) - Deleted graphic items (lines) shall be colored red with red lettering in notes and leaders.

(2) Additions (Green) - Added items shall be drawn in green with green lettering in notes and leaders.

(3) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes shall be in blue.

b. The Contract Drawing files shall be renamed in a manner related to the contract number (i.e., 98-C-10.DGN) as instructed in the Pre-Construction conference. Marked-up changes shall be made only to those renamed files. All changes shall be made on the layer/level as the original item. There shall be no deletions of existing lines; existing lines shall be over struck in red. Additions shall be in green with line

weights the same as the drawing. Special notes shall be in blue on layer #63.

c. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. All other contract drawings shall be marked either "AS-Built" drawing denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

d. Within 10 days for contracts less than $5 million after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 7 days for contracts less than $5 million the Contractor shall revise the CADD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 10 days for contracts less than $5 million of substantial completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of one set of electronic files on compact disc, read-only memory (CD-ROM), two sets of blue-line prints and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final as-built drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.2.1.5 Payment

No separate payment will be made for as-built drawings required under this contract, and all costs accrued in connection with such drawings shall be considered a subsidiary obligation of the Contractor.

1.2.2 As-Built Record of Equipment and Materials

The Contractor shall furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 2 days after final inspection with Government comments. Two sets of final record of equipment and materials shall be submitted 10 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

| Description | Specification Section | Manufacturer and Catalog, Model, and Serial Number | Composition and Size | Where Used |
|---|---|---|---|---|

1.2.3 Final Approved Shop Drawings

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed facility.

1.2.4 Construction Contract Specifications

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.2.5 Real Property Equipment

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished 30 days after transfer of the completed facility.

1.3 WARRANTY MANAGEMENT

1.3.1 Warranty Management Plan

The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance,

by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be limited to, the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

c. A list for each warranted equipment, item, feature of construction or system indicating:

1. Name of item.
2. Model and serial numbers.
3. Location where installed.
4. Name and phone numbers of manufacturers or suppliers.
5. Names, addresses and telephone numbers of sources of spare parts.
6. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
7. Cross-reference to warranty certificates as applicable.
8. Starting point and duration of warranty period.
9. Summary of maintenance procedures required to continue the warranty in force.
10. Cross-reference to specific pertinent Operation and Maintenance manuals.
11. Organization, names and phone numbers of persons to call for warranty service.
12. Typical response time and repair time expected for various warranted equipment.

d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

e. Procedure and status of tagging of all equipment covered by extended warranties.

f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.3.2 Performance Bond

The Contractor's Performance Bond shall remain effective throughout the construction period.

a. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer

will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

b. In the event sufficient funds are not available to cover the construction warranty work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to recoup expenses from the bonding company.

c. Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.3.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.3.4 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the timeframes specified, the Government will perform the work and backcharge the construction warranty payment item established.

a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.

b. Second Priority Code 2. Perform onsite inspection to evaluate

situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.

c. Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.

d. The "Construction Warranty Service Priority List" is as follows:

Code 1-Air Conditioning Systems
(1) Recreational support.
(2) Air conditioning leak in part of building, if causing damage.
(3) Air conditioning system not cooling properly.

Code 1-Doors
(1) Overhead doors not operational, causing a security, fire, or safety problem.
(2) Interior, exterior personnel doors or hardware, not functioning properly, causing a security, fire, or safety problem.

Code 3-Doors
(1) Overhead doors not operational.
(2) Interior/exterior personnel doors or hardware not functioning properly.

Code 1-Electrical
(1) Power failure (entire area or any building operational after 1600 hours).
(2) Security lights
(3) Smoke detectors

Code 2-Electrical
(1) Power failure (no power to a room or part of building).
(2) Receptacle and lights (in a room or part of building).

Code 3-Electrical
Street lights.

Code 1-Gas
(1) Leaks and breaks.
(2) No gas to family housing unit or cantonment area.

Code 1-Heat
(1). Area power failure affecting heat.
(2). Heater in unit not working.

Code 2-Kitchen Equipment
(1) Dishwasher not operating properly.
(2) All other equipment hampering preparation of a meal.

Code 1-Plumbing
(1) Hot water heater failure.
(2) Leaking water supply pipes.

Code 2-Plumbing

(1) Flush valves not operating properly.
(2) Fixture drain, supply line to commode, or any water pipe leaking.
(3) Commode leaking at base.

Code 3 -Plumbing
Leaky faucets.

Code 3-Interior
(1) Floors damaged.
(2) Paint chipping or peeling.
(3) Casework.

Code 1-Roof Leaks
Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks
Where major damage to property is not occurring, check for location of leak during rain and complete repairs on a Code 2 basis.

Code 2-Water (Exterior)
No water to facility.

Code 2-Water (Hot)
No hot water in portion of building listed.

Code 3-All other work not listed above.

1.3.5 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

a. Type of product/material_____.

b. Model number_____.

c. Serial number_____.

d. Contract number_____.

e. Warranty period_____from_____to_____.

f. Inspector's signature_____.

g. Construction Contractor_____.

Address_____.

Telephone number_____.

h. Warranty contact_____.

Address_____.

Telephone number_____.

i. Warranty response time priority code_____.

j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

## 1.4 MECHANICAL TESTING, ADJUSTING, BALANCING, AND COMMISSIONING

Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing, adjusting, balancing, and commissioning of mechanical systems shall be submitted to and approved by the Contracting Officer as specified in applicable technical specification sections.

## 1.5 OPERATION AND MAINTENANCE MANUALS

Operation manuals and maintenance manuals shall be submitted as specified. Operation manuals and maintenance manuals provided in a common volume shall be clearly differentiated and shall be separately indexed.

## 1.6 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be cleaned. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

# PART 2 PRODUCTS (NOT USED)

# PART 3 EXECUTION (NOT USED)

-- End of Section --

INDEX

SECTION 02050

DEMOLITION

PART 1 GENERAL

1.1 REFERENCES
1.2 GENERAL REQUIREMENTS
1.3 SUBMITTALS
1.4 DUST CONTROL
1.5 PROTECTION
1.6 BURNING
1.7 USE OF EXPLOSIVES

PART 2 PRODUCTS

(Not used)

PART 3 EXECUTION

3.1 DISPOSITION OF MATERIAL
3.2 CLEANUP

SECTION 02050

DEMOLITION
09/91

# PART 1 GENERAL

## 1.1 REFERENCES

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

ENGINEERING MANUALS (EM)

| | |
|---|---|
| EM 385-1-1 | (1992) U.S. Army Corps of Engineers Safety and Health Requirements Manual |

## 1.2 GENERAL REQUIREMENTS

The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from Government property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections. In the interest of conservation, salvage shall be pursued to the maximum extent possible; salvaged items and materials shall be disposed of as specified.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-18 Records

Work Plan; FIO

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations in accordance with EM 385-1-1.1.4

DUST CONTROL

The amount of dust resulting from demolition shall be controlled to prevent the spread of dust to occupied portions of the construction site and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as ice, flooding and pollution.

## 1.5 PROTECTION

### 1.5.1 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the existing fence/wall being demolished and take immediate action to protect all personnel working in and around the site.

### 1.5.2 Protection of Existing Property

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Government; any damaged items shall be repaired or replaced as approved by the Contracting Officer. The Contractor shall coordinate the work of this section with all other work.

### 1.5.3 Protection of Trees

Trees within the project site which might be damaged during demolition and which are indicated to be left in place shall be protected. Any tree designated to remain that is damaged during the work under this contract shall be replaced in kind or as approved by the Contracting Officer.

### 1.5.5 Environmental Protection

The work shall comply with the requirements of Section 01430.

## 1.6 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

## 1.7 USE OF EXPLOSIVES

Use of explosives will not be permitted.

# PART 2 PRODUCTS

(Not Applicable)

## PART 3 EXECUTION

### 3.1 DISPOSITION OF MATERIAL

Title to material and equipment to be demolished, except Government salvage and historical items, is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition, loss or damage to such property after notice to proceed.

#### 3.1.1 Salvageable Items and Material

Contractor shall salvage items and material to the maximum extent possible.

##### 3.1.1.1 Material Salvaged for the Contractor

Material salvaged for the Contractor shall be stored as approved by the Contracting Officer and shall be removed from Government property before completion of the contract. Material salvaged for the Contractor shall not be sold on the site.

##### 3.1.1.2 Items Salvaged for the Government

Salvaged items to remain the property of the Government shall be removed in a manner to prevent damage, and packed or crated to protect the items from damage while in storage or during shipment. Items damaged during removal or storage shall be repaired or replaced to match existing items. Containers shall be properly identified as to contents.

##### 3.1.1.4 Historical Items

Historical items shall be removed in a manner to prevent damage. The following historical items shall be delivered to the Government for disposition: Corner stones, contents of corner stones, and document boxes wherever located on the site.

#### 3.1.2 Unsalvageable Material

Concrete, masonry, and other noncombustible material, except concrete permitted to remain in place, shall be disposed of in a sanitary fill area located off the site.

### 3.2 CLEAN UP

Debris and rubbish shall be removed from basement and similar excavations. Debris shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

-- End of Section --

INDEX

SECTION 02110A

CLEARING AND GRUBBING

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS

**PART 2 PRODUCTS**

(Not used)

**PART 3 EXECUTION**

3.1 CLEARING
3.2 GRUBBING
3.3 DISPOSAL OF MATERIALS

SECTION 02110A

CLEARING AND GRUBBING
02/91

## PART 1 GENERAL

### 1.1 REFERENCES (Not Applicable)

### 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-18 Records

Materials other than salable timber; FIO.

Written permission to dispose of such products on private property shall be filed with Contracting Officer.

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

### 3.1 CLEARING

Clearing shall consist of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including down timber, snags, brush, and rubbish occurring in the areas to be cleared. Trees and vegetation to be left standing shall be protected from damage incident to clearing, grubbing, and construction operations. Clearing shall also include the removal and disposal of structures that obtrude, encroach upon, or otherwise obstruct the work.

### 3.2 GRUBBING

Stumps, roots, logs and other organic or metallic debris not suitable for foundation purposes, shall be removed to a depth of not less than 0.5 meters (18 inches) below the original surface level in areas indicated. Depressions made by grubbing shall be filled and graded to conform with the adjacent surface.

## 3.3 DISPOSAL OF MATERIALS

### 3.3.2 Materials Other Than Salable Timber

Refuse from the clearing and grubbing operations, except for salable timber, shall be disposed of outside the limits of Government-controlled land at the Contractor's expense.

-- End of Section --

INDEX

SECTION 02221A
EARTHWORK

PART 1 GENERAL

1.1 REFERENCES
1.2 DEFINITIONS
1.3 SUBMITTALS

PART 2 PRODUCTS

2.1 MATERIALS

PART 3 EXECUTION

3.1 CLEARING AND GRUBBING
3.2 EXCAVATION
3.3 DRAINAGE AND DEWATERING
3.4 SHORING
3.5 BLASTING
3.6 BORROW
3.7 EXCAVATED MATERIALS
3.8 SUBGRADE PREPARATION
3.9 FILLING AND BACKFILL
3.10 TESTING
3.11 GRADING
3.12 SPREADING TOPSOIL
3.13 PROTECTION

SECTION 02221A
EARTHWORK

# PART 1 GENERAL

## 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM D 1556 | (1990) Density and Unit Weight of Soil in Place by the Sand-Cone Method |
| ASTM D 1557 | (1991) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft. (2,700 kN-m/cu.m.) |
| ASTM D 2167 | (1994) Density and Unit Weight of Soil in Place by the Rubber Balloon Method |
| ASTM D 2487 | (1993) Classification of Soils For Engineering Purposes (Unified Soil Classification System) |
| ASTM D 4318 | (1993) Liquid Limit, Plastic Limit, and Plasticity Index of Soils |

## 1.2 DEFINITIONS

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557 abbreviated hereinafter as percent laboratory maximum density.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-09 Reports

Field Density Tests; FIO
Testing of Backfill Materials; FIO

## PART 2 PRODUCTS

### 2.1 MATERIALS

#### 2.1.1 Satisfactory Materials

Satisfactory materials include materials classified in ASTM D 2487 as GW, GP, and SW, and shall be free of trash, debris, roots or other organic matter, or stones larger than 75 mm (3 inches) in any dimension.

#### 2.1.2 Unsatisfactory Materials

Unsatisfactory materials include materials classified in ASTM D 2487 as Pt, OH, OL, and any other materials not defined as satisfactory.

#### 2.1.3 Cohesionless and Cohesive Materials

Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic.

#### 2.1.4 Expansive Soils

Expansive soils are defined as soils that have a plasticity index greater than or equal to 25 when tested in accordance with ASTM D 4318.

## PART 3 EXECUTION

### 3.1 CLEARING AND GRUBBING

The areas within lines 1.5 m (5 feet) outside of each building and structure line shall be cleared and grubbed of trees, stumps, roots, brush and other vegetation, debris, existing foundations, pavements, utility lines, structures, fences, and other items that would interfere with construction operations. Stumps, logs, roots, and other organic matter shall be completely removed and the resulting depressions shall be filled with satisfactory material, placed and compacted in accordance with paragraph FILLING AND BACKFILLING. Materials removed shall be disposed of outside the limits of Government-controlled property at the Contractor's responsibility.

### 3.2 EXCAVATION

Excavation shall be as indicated for each footing except as specified. Excavations below indicated depths will not be permitted except to remove unsatisfactory material. If unsatisfactory material is encountered, the Contractor shall contact the Contracting Officer. Payment for importing select fill material shall be made in addition to the bid price for items requiring excavation, as directed by the Contracting Officer. Material removed below the depths indicated without specific direction of the Contracting Officer shall be replaced at no additional cost to the Government to the indicated

excavation grade with satisfactory materials, except that concrete footings shall be increased in thickness to the bottom of the overdepth excavations and over-break in rock excavation. Satisfactory material shall be placed and compacted as specified in paragraph FILLING AND BACKFILLING.

## 3.3 DRAINAGE AND DEWATERING

### 3.3.1 Drainage

Surface water shall be directed away from construction sites so as to prevent erosion and undermining of foundations. Excavated slopes and backfill surfaces shall be protected to prevent erosion and sloughing. Excavation shall be performed so that the site and the area immediately surrounding the site and affecting operations at the site shall be continually and effectively drained.

## 3.4 SHORING

Shoring, including sheet piling, shall be furnished and installed as necessary to protect workmen, banks, adjacent paving, structures, and utilities. Shoring, bracing, and sheeting shall be removed as excavations are backfilled, in a manner to prevent caving.

## 3.5 BLASTING

Blasting will not be permitted.

## 3.6 BORROW

Where satisfactory materials are not available in sufficient quantity from required excavations, approved materials shall be obtained from sources outside the limits of Government-controlled land.

## 3.7 EXCAVATED MATERIALS

Satisfactory excavated material required for fill or backfill shall be placed in the proper section of the permanent work required under this section or shall be separately stockpiled if it cannot be readily placed. Satisfactory material in excess of that required for the permanent work and all unsatisfactory material shall be disposed of at locations indicated.

## 3.8 SUBGRADE PREPARATION

Unsatisfactory material in surfaces to receive fill or in excavated areas shall be removed and replaced with satisfactory materials. The surface shall be scarified to a depth of 150 mm (6 inches) before the fill is started. Sloped surfaces steeper than 1 vertical to 4 horizontal shall be plowed, stepped, benched, or broken up so that the fill material will bond with the existing material. When subgrades are less than the specified density, the ground surface shall be broken up to a minimum depth of 150 mm, (6 inches,) pulverized, and compacted to the specified density. When the subgrade is part fill and part excavation or natural ground, the excavated or natural ground portion shall be scarified to a depth of 300 mm (12 inches) and compacted as specified for the adjacent fill.

Compaction shall be as specified in paragraph FILLING AND BACKFILLING.

## 3.9 FILLING AND BACKFILLING

Satisfactory materials shall be used in bringing fills and backfills to the lines and grades indicated. Satisfactory materials shall be placed in horizontal layers not exceeding 200 mm (8 inches) in loose thickness, or 150 mm (6 inches) when hand-operated compactors are used. Material shall not be placed on surfaces that are muddy, frozen or contain frost. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, or other approved equipment well suited to the soil being compacted. After placing, each layer shall be plowed, disked, or otherwise broken up, moistened or aerated as necessary, thoroughly mixed and compacted as specified. Backfilling shall not begin until construction below finish grade has been approved, underground utilities systems have been inspected, tested and approved, forms removed, and the excavation cleaned of trash and debris. Heavy equipment for spreading and compacting backfill shall not be operated closer to foundation or retaining walls than a distance equal to the height of backfill above the top of footing; the area remaining shall be compacted in layers not more than 100 mm (4 inches) in compacted thickness with power-driven hand tampers suitable for the material being compacted. Backfill shall be placed carefully around pipes or tanks to avoid damage to coatings, wrappings, or tanks. Backfill shall not be placed against foundation walls prior to 7 days after completion of the walls. As far as practicable, backfill shall be brought up evenly on each side of the wall and sloped to drain away from the wall. Each layer of fill and backfill shall be compacted to not less than 90 percent of maximum density.

## 3.10 TESTING

Testing shall be the responsibility of the Contractor and shall be performed at no additional cost to the Government. Testing shall be performed by an approved commercial testing laboratory or may be performed by the Contractor subject to approval. Field in-place density shall be determined in accordance with ASTM D 1556. The following number of tests, if performed at the appropriate time, shall be the minimum acceptable for each type operation.

### 3.10.1 In-Place Densities

#### 3.10.1.1 In-Place Density of Subgrades

One test per 186 square meters (2,000 square feet) or fraction thereof.

#### 3.10.1.2 In-Place Density of Fills and Backfills

One test per 465 square meters (5,000 square feet) or fraction thereof of each lift for fill or backfill areas compacted by other than hand or hand-operated machines. The density for each lift of fill or backfill materials for trenches, pits, building perimeters or other structures or areas less than 3 m (10 feet) in width, which are compacted with hand or hand-operated machines shall be tested as follows: One test per each area less than 186 square meters, (2,000 square feet,) or one test for each 30.5 m (100 linear feet) of long narrow fills 15 m (50 feet) or more in length.

### 3.10.2 Optimum Moisture and Laboratory Maximum Density

Tests shall be made for each type material or source of material including borrow material to determine the optimum moisture and laboratory maximum density values. One representative test per 153 cubic meters (200 cubic yards) of fill and backfill, or when any change in material occurs which may affect the optimum moisture content or laboratory maximum density, will be made.

## 3.11 GRADING

Areas within 1.5 m (5 feet) outside of each structure line shall be constructed true-to-grade, shaped to drain, and shall be maintained free of trash and debris until final inspection has been completed and the work has been accepted.

## 3.12 SPREADING TOPSOIL

Areas outside the work lines from which topsoil has been removed shall be topsoiled. The surface shall be free of materials that would hinder planting or maintenance operations. Topsoil shall be uniformly spread, graded, and compacted to the thickness, elevations, and slopes shown. Topsoil shall be compacted by one pass of a cultipacker, roller, or other approved equipment weighing 1.46 kN per m to 2.34 kN per m (100 to 160 pounds per linear foot) of roller. Topsoil shall not be placed when the subgrade is frozen, excessively wet, extremely dry, or in a condition otherwise detrimental to proper grading.

## 3.13 PROTECTION

Settlement or washing that occurs in graded, topsoiled, or backfilled areas prior to acceptance of the work shall be repaired and grades reestablished to the required elevations and slopes.

-- End of Section --

INDEX

SECTION 02831

CHAIN LINK FENCE

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS

**PART 2 PRODUCTS**

2.1 MATERIALS
2.1.1 CHAIN LINK FENCE FABRIC
2.1.2 GATES
2.1.3 POSTS
2.1.4 BRACES AND RAILS
2.1.5 TENSION WIRE
2.1.6 ACCESSORIES
2.1.7 CONCRETE
2.1.8 (not used)
2.1.9 PADLOCKS

**PART 3 EXECUTION**

3.1 GENERAL
3.2 EXCAVATION
3.3 POSTS
3.4 RAILS
3.5 BRACES AND TRUSS RODS
3.6 TENSION WIRES
3.7 CHAIN LINK FABRIC
3.8 BARBED WIRE SUPPORTING ARMS AND WIRE
3.9 GATES
3.10 GROUNDING

TABLE I

SECTION 02831

CHAIN LINK FENCE

## PART 1 GENERAL

### 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM A 121 | (1992a) Zinc-Coated (Galvanized) Steel Barbed Wire |
| ASTM A 153 | (1996) Zinc-Coated (Hot Dip) on Iron and Steel Hardware |
| ASTM A 392 | (1991b) Zinc-Coated Chain-Link Fence Fabric |
| ASTM A 478 | (1995a) Chromium-Nickel Stainless and Heat-Resisting Steel Weaving and Knitting Wire |
| ASTM A 491 | (1994) Aluminum-Coated Steel Chain-Link Fence Fabric |
| ASTM A 585 | (1992) Aluminum-Coated Steel Barbed Wire |
| ASTM A 824 | (1992) Metallic-Coated Steel Marcelled Tension Wire for Use With Chain Link Fence |
| ASTM F 626 | (1994a) Fence Fittings |
| ASTM F 900 | (1994) Industrial and Commercial Swing Gates |
| ASTM F 1043 | (1995) Strength and Protective Coatings on Metal Industrial Chain-Link Fence Framework |
| ASTM F 1083 | (1993) Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded for Fence Structures |
| ASTM F 1184 | (1994) Industrial and Commercial Horizontal Slide Gates |

AMERICAN WELDING SOCIETY (AWS)

| | |
|---|---|
| AWS WZC | (1972) Welding Zinc-Coated Steels |

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-13 Certificates

Chain Link Fence; GA.

Statement signed by an official authorized to certify on behalf of the manufacturer attesting that the chain link fence and component materials meet the specified requirements.

# PART 2 PRODUCTS

## 2.1 MATERIALS

Materials shall conform to the following:

### 2.1.1 Chain Link Fence Fabric

ASTM A 392, Class 2, zinc-coated steel wire with minimum coating weight of 610 grams (2.0 ounces) of zinc per square meter (foot) of coated surface, or Polyvinyl chloride-coated steel fabric with 92 grams (0.3 ounces) of zinc coating per square meter (foot) in accordance with ASTM F 668. Fabric shall be fabricated of 6 gauge or 9 gauge wire woven in 50.8 mm (2 inch) mesh, as indicated in the individual Delivery Order. Fabric height shall be as indicated in the individual Delivery Order. Fabric shall be knuckled on the top and bottom selvage, unless otherwise noted.

### 2.1.2 Gates

Gates shall be in accordance with ASTM F 900 (swing gates) or ASTM F1184 (slide gates). Gate frames shall conform to strength and coating requirements of ASTM F 1083 for Group IA, steel pipe, with external coating Type A, nominal pipe size (NPS) 2". Gate frames shall conform to strength and coating requirements of ASTM F 1043, for Group IC, steel pipe with external coating Type A or Type B, pipe size (NPS) 2". Gate fabric shall be as specified for chain-link fabric. When required, Each end member of gate frames shall be extended sufficiently above the top member to carry three strands of barbed wire in horizontal alignment with barbed wire strands on the fence. Gate leaves more than 2.44 m (8 feet) wide shall have either intermediate members and diagonal truss rods or shall have tubular members as necessary to provide rigid construction, free from sag or twist. Gate leaves less than 2.44 m (8 feet) wide shall have truss rods or intermediate braces. Intermediate braces shall be provided on all gate frames with an electro-mechanical lock. Gate fabric shall be attached to the gate frame by method standard with the manufacturer except that welding will not be permitted. Latches, hinges, stops, keepers,

rollers, and other hardware items shall be furnished as required for the operation of the gate. Latches shall be arranged for padlocking so that the padlock will be accessible from both sides of the gate. Stops shall be provided for holding the gates in the open position.

2.1.3 Posts

ASTM F 1083, zinc-coated. Group IA, with external coating Type A steel pipe. Group IC steel pipe, zinc-coated with external coating Type A or Type B. Formed steel sections shall meet the strength and coating requirements of ASTM F 1043. Sizes shall be as shown on the drawings. Line posts and terminal (corner, gate, and pull) posts selected shall be of the same designation throughout the fence. Gate post shall be for the gate type specified subject to the limitation specified in ASTM F 900 and/or ASTM F 1184. *See Table I at end of section.

2.1.4 Braces and Rails

ASTM F 1083, zinc-coated, Group IA, steel pipe, size NPS 1-1/2". Group IC steel pipe, zinc-coated, shall meet the strength and coating requirements of ASTM F 1043.

2.1.5 Tension Wire

Tension wire shall be Type I or Type II, Class 2 coating, in accordance with ASTM A 824.

2.1.6 Accessories **NOTE: Clips are not allowed on security fences.**

ASTM F 626. Ferrous accessories shall be zinc or aluminum coated. Truss rods shall be furnished for each terminal post. Truss rods shall be provided with turnbuckles or other equivalent provisions for adjustment. Barbed wire, when required in the Delivery Order, shall be zinc-coated, Class 3 in accordance with ASTM A 121. Barbed wire shall be four-point barbed type steel wire. Barbed wire support arms shall be the single arm type and of the design required for the post furnished. Tie wire for attaching fabric to rails, braces, and posts shall be 9 gauge steel wire and match the coating of the fence fabric. Miscellaneous hardware coatings shall conform to ASTM A 153 unless modified herein.

2.1.7 Concrete

ASTM C 94, using 19 mm (3/4 inch) maximum size aggregate, and having minimum compressive strength of 21 MPa (3000 psi) at 28 days. Grout shall consist of one part portland cement to three parts clean, well-graded sand and the minimum amount of water to produce a workable mix. (See SECTION 03300A for additional concrete requirements)

2.1.9 Padlocks

ASTM F 883, Type PO1, Grade 2, Size 44.4 mm (1-3/4 inch). (1-3/4 inch.) Padlocks shall be keyed alike and each lock shall be furnished with two keys.

## PART 3 EXECUTION

### 3.1 GENERAL

Fence shall be installed to the lines and grades indicated. The area on either side of the fence line shall be cleared to the extent indicated. Line posts shall be spaced equidistant at intervals not exceeding 3.05 m (10 feet). Terminal (corner, gate, and pull) posts shall be set at abrupt changes in vertical and horizontal alignment. Fabric shall be continuous between terminal posts; however, runs between terminal posts shall not exceed 152.4 m (500 feet). Damage to the galvanized surface due to welding shall be repaired with "repair sticks" of zinc-cadmium alloys or zinc-tin-lead alloys per AWS WZC.

### 3.2 EXCAVATION

Post holes shall be cleared of loose material. Waste material shall be spread where directed. The ground surface irregularities along the fence line shall be eliminated to the extent necessary to maintain a 25.4 mm (1 inch) clearance between the bottom of the fabric and finish grade.

### 3.3 POSTS

Posts shall be set plumb and in alignment. Except where solid rock is encountered, posts shall be set in concrete to the depth indicated on the drawings. Where solid rock is encountered with no overburden, posts shall be set to a minimum depth of 457 mm (18 inches) in rock. Where solid rock is covered with an overburden of soil or loose rock, posts shall be set to the minimum depth indicated on the drawing unless a penetration of 457 mm (18 inches) in solid rock is achieved before reaching the indicated depth, in which case depth of penetration shall terminate. All portions of posts set in rock shall be grouted. Portions of posts not set in rock shall be set in concrete from the rock to ground level. Posts set in concrete shall be set in holes not less than the diameter shown on the drawings. Diameters of holes in solid rock shall be at least 25.4 mm (1 inch) greater than the largest cross section of the post. Concrete and grout shall be thoroughly consolidated around each post, shall be free of voids and finished to form a dome. Concrete and grout shall be allowed to cure for 72 hours prior to attachment of any item to the posts. Fence post rigidity shall be tested by applying a 222.4 Newtons (50 pound) force on the post, perpendicular to the fabric, at 1.52 m (5 feet) above ground. Post movement measured at the point where the force is applied shall be less than or equal to 19 mm (3/4 inch) from the relaxed position. Every tenth post shall be tested for rigidity. When a post fails this test, further tests on the next four posts on either side of the failed post shall be made. All failed posts shall be removed, replaced, and retested at the Contractor's expense.

### 3.4 RAILS

#### 3.4.1 Top Rail **NOTE: Top rail will not be used on security fences.**

Top rail shall be supported at each post to form a continuous brace between terminal posts. Where required, sections of top rail shall be joined using sleeves or couplings that will allow

expansion or contraction of the rail. Bottom rail, if required for high security fence, shall be installed as indicated on the drawings.

3.4.2 Bottom Rail **NOTE: This paragraph applies to security fence applications only.**

The bottom rail shall be bolted to double rail ends and double rail ends shall be securely fastened to the posts. Bolts shall be peened to prevent easy removal. Bottom rail shall be installed before chain link fabric.

## 3.5 BRACES AND TRUSS RODS

Braces and truss rods shall be installed as indicated and in conformance with the standard practice for the fence furnished. Horizontal (compression) braces and diagonal truss (tension) rods shall be installed on fences over 1.83 m (6 feet) in height. A center brace or 2 diagonal truss rods shall be installed on 3.66 m (12 foot) fences. Braces and truss rods shall extend from terminal posts to line posts. Diagonal braces shall form an angle of approximately 40 to 50 degrees with the horizontal. No bracing is required on fences 1.83 m (6 feet) high or less if a top rail is installed.

## 3.6 TENSION WIRES **NOTE: For security fence, the tension wire will be installed within the top 4 inches of the installed fabric.**

Tension wires shall be installed along the top and bottom of the fence line and attached to the terminal posts of each stretch of the fence. Top tension wires shall be installed within the top 305 mm (1 foot) or 102 mm (4 inches), as indicated in the Delivery Order, of the installed fabric. Bottom tension wire shall be installed within the bottom 152 mm (6 inches) of the installed fabric. Tension wire shall be pulled taut and shall be free of sag.

## 3.7 CHAIN LINK FABRIC

Chain link fabric shall be installed on the side of the post indicated. Fabric shall be attached to terminal posts with stretcher bars and tension bands. Bands shall be spaced at approximately 381 mm (15 inch) intervals. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Fabric shall be fastened to line posts at approximately 381 mm (15 inch) intervals and fastened to all rails and tension wires at approximately 305 mm (12 inch) intervals. Fabric shall be cut by untwisting and removing pickets. Splicing shall be accomplished by weaving a single picket into the ends of the rolls to be joined. The bottom of the installed fabric shall be 25.4 mm (1 inch) above the ground. After the fabric installation is complete, the fabric shall be exercised by applying a 222 Newtons (50 pound) push-pull force at the center of the fabric between posts. The use of a 133 Newtons (30 pound) pull at the center of the panel shall cause fabric deflection of not more than 63.5 mm (2.5 inches) when pulling fabric from the post side of the fence. Every second fence panel shall meet this requirement. All failed panels shall be resecured and retested at the Contractor's expense.

## 3.8 BARBED WIRE SUPPORTING ARMS AND BARBED WIRE

**NOTE: Supporting arms for high security fence applications will be securely anchored with rivets to the line posts.**

Barbed wire supporting arms and barbed wire shall be installed as indicated and as recommended by the manufacturer. Supporting arms shall be anchored to the posts in a manner to prevent easy removal with hand tools. Supporting arms shall be anchored with 9.5 mm (3/8 inch) diameter plain pin rivets or, at the Contractor's option, with studs driven by low-velocity explosive-actuated tools for steel, wrought iron, ductile iron, or malleable iron. Studs driven by an explosive-actuated tool shall not be used with gray iron or other material that can be fractured. A minimum of two studs per support arm shall be used. Barbed wire shall be pulled taut and attached to the arms with clips or other means that will prevent easy removal.

## 3.9 GATES

Gates shall be installed at the locations shown. Hinged gates shall be mounted to swing as indicated. Latches, stops, and keepers shall be installed as required. Slide gates shall be installed in accordance with the attached drawings. Padlocks shall be attached to gates or gate posts with chains. Hinge pins, and hardware shall be welded or otherwise secured to prevent removal.

## 3.10 GROUNDING

Fences crossed by power lines of 600 volts or more shall be grounded at or near the point of crossing and at distances not exceeding 45 m (150 feet) on each side of crossing. Ground conductor shall consist of No. 8 AWG solid copper wire. Grounding electrodes shall be 19 mm (3/4 inch)by 3.05 m (10 foot) long copper-clad steel rod. Electrodes shall be driven into the earth so that the top of the electrode is at least 152 mm (6 inches) below the grade. Where driving is impracticable, electrodes shall be buried a minimum of 305 mm (12 inches) deep and radially from the fence. The top of the electrode shall be not less than 0.6 m (2 feet) or more than 2.4 m (8 feet) from the fence. Ground conductor shall be clamped to the fence and electrodes with bronze grounding clamps to create electrical continuity between fence posts, fence fabric, and ground rods. After installation the total resistance of fence to ground shall not be greater than 25 ohms.

## TABLE I

### Minimum Sizes for Terminal, Line, and Gate Posts

| POST TYPE | FABRIC HEIGHTS | SIZE |
|---|---|---|
| Terminal | up to 6 feet | 2 3/8" |
| | over 6 feet | 2 7/8" |
| Line | up to 6 feet | 2" |
| | 6 to 8 feet | 2 3/8" |
| | over 8 feet | 2 7/8" |
| | **GATE LEAF WIDTHS** | |
| Gate | up to 6 feet | 2 7/8" |
| | 6 to 13 feet | 4" |
| | 13 to 18 feet | 6 5/8" |
| | 18 to 23 feet | 8 5/8" |

-- End of Section --

INDEX

SECTION 02831B

BARBED WIRE FENCE

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS

**PART 2 PRODUCTS**

2.1 BARBED WIRE
2.2 HARDWARE CLOTH
2.3 METAL POSTS
2.4 ACCESSORIES
2.5 PADLOCKS

**PART 3 EXECUTION**

3.1 GENERAL
3.2 POSTS
3.3 WIRE
3.4 GATES

SECTION 02831B

BARBED WIRE FENCE

## 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM A 121 | (1992a) Zinc-Coated (Galvanized) Steel Barbed Wire |
| ASTM A 702 | (1989; R 1994) Steel Fence Posts and Accessories, Hot Wrought |
| ASTM F 883 | (1990) Padlocks |

## 1.2 SUBMITTALS

| | |
|---|---|
| Barbed Wire | GA |
| Metal Posts | GA |
| Accessories | FIO |
| Padlocks | FIO |

## PART 2 PRODUCTS

## 2.1 BARBED WIRE.;

ASTM A 121 zinc-coated, Class 1, 12 gauge wire with 12-1/2 gauge 4-point barbs spaced no more than 5 inches on center.

## 2.2 HARDWARE CLOTH

See SECTION 02831C.

## 2.3 METAL POSTS;

ASTM A 702 zinc-coated, T-section. Length as indicated (7ft.minimum), studded steel post contructed in accordance with the manufacturers' recommedation.

## 2.4 ACCESSORIES;

ASTM A 702.

2.5 PADLOCKS;

ASTM F 883, Type EPB, Size 44.4 mm (1-3/4 inch). Padlocks shall be keyed alike and each lock shall be furnished with two keys.

PART 3 EXECUTION

3.1 GENERAL

Fence shall be installed to the lines and grades indicated in each Delivery Order. The area on either side of the fence line shall be cleared to the extent indicated in each Delivery Order. Line posts shall be spaced equidistant at intervals not exceeding 3.05 meters (10 feet). Terminal (corner, gate, and pull) posts shall be set at abrupt changes in vertical and horizontal alignment. Fabric shall be continuous between terminal posts; however, runs between terminal posts shall not exceed 152.4 meters (500 feet).

3.2 POSTS

Posts shall be set plumb and in alignment. Posts shall be set in earth or concrete as indicated, to a depth of 2ft-6in (2 ½ ft) below top of grade. Concrete shall be in accordance with SECTION 03300A.

3.3 WIRE

Wire shall be installed on the side of the post indicated. Wire shall be pulled taut to provide a smooth uniform appearance, free from sag. Wire shall be fastened to line posts at approximately 381 mm (15 inch) intervals unless indicated otherwise.

HARDWARE CLOTH

See SECTION 02831C for material and fastening details.

3.4 GATES

Standard metal gate assemblies with frame and fittings necessary for complete installation shall be furnished as shown. Latches, stops, and keepers shall be provided as required and installed as recommended by the manufacturer.

-- End of Section --

INDEX

SECTION 02831C

FENCE, DESERT TORTOISE

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS

**PART 2 PRODUCTS**

2.1 HARDWARE CLOTH
2.2 GATES
2.3 CONCRETE

**PART 3 EXECUTION**

3.1 GENERAL
3.2 HARDWARE CLOTH
3.3 GATES

SECTION 02831C

FENCE, DESERT TORTOISE

## PART 1 GENERAL

### 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM A 116 | (1988) Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric |

### 1.2 SUBMITTALS

1.2.1 SD-04, Drawings. GA

Drawings shall show post sizes and sections; post setting and vracing, gate details, details of attachment of favric, and any other details required to erect the fence along the lines indecated.

1.2.2 Material GA

Hardware Cloth, Galvanized.

## PART 2 PRODUCTS

2.1 Hardware Cloth, Galvanized, 1/4x1/4x36", 23 GA. minimum.

2.2 Gates; Gates shall be the type shown, gates and frames shall be constructed in accordance with the manufacturers' recommendation.

2.3 Concrete shall be in accordance with Section 03300a.

## PART 3 EXECUTION

### 3.1 GENERAL

Fence shall be installed to the lines and grades indicated in each Task Order. The area on either side of the fence line shall be cleared to the extent indicated.

## 3.2 HARDWARE CLOTH

Hardware Cloth shall be continuous between terminal posts. Care shall be taken during backfill to insure that Hardware Cloth is not damaged.

## 3.4 GATES

Standard metal gate assemblies with frame and fittings necessary for complete installation shall be furnished as shown. Hardware Cloth and Concrete Barrier Strip shall be installed in accordance with the attached sketchs as indicated in each Task Order.

-- End of Section --

# INDEX

## SECTION 02831D

## ARCHED / ANGLED STYLE HIGH SECURITY FENCE

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS

**PART 2 PRODUCTS**

2.1 MATERIALS
2.1.1 FENCE FABRIC (LOWER SECTION)
2.1.2 FENCE FABRIC (MID AND UPPER SECTION)
2.1.3 GATES
2.1.4 POSTS
2.1.5 BRACES AND RAILS
2.1.6 ACCESSORIES
2.1.7 CONCRETE
2.1.8 PADLOCKS

**PART 3 EXECUTION**

3.1 GENERAL
3.2 EXCAVATION
3.3 POSTS
3.4 RAILS
3.5 BRACES AND TRUSS RODS
3.6 EXPANDED METAL LATH
3.7 GATES
3.8 GROUNDING

# SECTION 02831D

# ARCHED / ANGLED STYLE HIGH SECURITY FENCE

## PART 1 GENERAL

### 1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM A 153 | (1996) Zinc-Coated (Hot Dip) on Iron and Steel Hardware |
| ASTM A 392 | (1991b) Zinc-Coated Chain-Link Fence Fabric |
| ASTM A 478 | (1995a) Chromium-Nickel Stainless and Heat-Resisting Steel Weaving and Knitting Wire |
| ASTM A 491 | (1994) Aluminum-Coated Steel Chain-Link Fence Fabric |
| ASTM A 569 | (1993) Steel, Carbon (15% maximum), Hot Rolled Sheet and Strip Commercial Quality |
| ASTM A 585 | (1992) Aluminum-Coated Steel Barbed Wire |
| ASTM F 626 | (1994a) Fence Fittings |
| ASTM F 669 | (1992) Strength Requirements for Metal Posts and Rails for Industrial Chain-Link Fence (Heavy) |
| ASTM F 900 | (1994) Industrial and Commercial Swing Gates |
| ASTM F 1043 | (1995) Strength and Protective Coatings on Metal Industrial Chain-Link Fence Framework |
| ASTM F 1083 | (1993) Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded for Fence Structures |
| ASTM F 1184 | (1994) Industrial and Commercial Horizontal Slide Gates |
| ASTM F 1267 | (1991) Metal, Expanded Steel |

AMERICAN WELDING SOCIETY (AWS)

| | |
|---|---|
| AWS WZC | (1972) Welding Zinc-Coated Steels |

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-13 Certificates

Fence Posts; GA
Stiffeners; GA
Fence Fabric; GA
Attaching Hardware; GA

Statement signed by an official authorized to certify on behalf of the manufacturer attesting that the fence and component materials meet the specified requirements.

# PART 2 PRODUCTS

## 2.1 MATERIALS

### 2.1.1 Fence Fabric (Lower Section)

#### 2.1.1.1 High Density Expanded Metal, 1/2" mesh, 13 gauge.

ASTM A569, Carbon Steel, hot-dipped galvanized, with a minimum coating weight of 610 grams (2.0 ounces) of zinc per square meter (foot) of coated surface. Fabric shall be minimum 2.8 lbs/sf after hot-dip galvanizing per ASTM F 1267 for Type I, Class 2, Grade A minimum coating thickness. Fence fabric shall contain a maximum carbon content of 15%, resulting in a typical tensile strength of 62,000/72,000 PSI and a typical yield point of 48,000 PSI. Panels shall be pre-formed to the required radius to match curve of the fence posts when used above 8'-0".

*Note: This fabric may be used for full height of fence, when required, as identified in the individual Task Order.

### 2.1.2 Fence Fabric (Mid Section and Upper Section)

#### 2.1.2.1 Standard Expanded Metal, 1/2" mesh, 13 gauge. (Upper Section)

ASTM A569, Carbon Steel, hot-dipped galvanized, with a minimum coating weight of 610 grams (2.0 ounces) of zinc per square meter (foot) of coated surface. Fabric shall be minimum 1.7 lbs/sf after hot-dip galvanizing per ASTM F 1267 for Type I, Class 2, Grade A minimum coating thickness. Fence fabric shall contain a maximum carbon content of 15%, resulting in a typical tensile strength of 62,000/72,000 PSI and a typical yield point of 48,000 PSI. Panels shall be pre-formed to the required radius to match curve of the fence posts.

2.1.2.2 Standard Expanded Metal, 3/4" mesh, 9 gauge. (Mid Section)

ASTM A569, Carbon Steel, hot-dipped galvanized, with a minimum coating weight of 610 grams (2.0 ounces) of zinc per square meter (foot) of coated surface. Fabric shall be minimum 1.95 lbs/sf after hot-dip galvanizing per ASTM F 1267 for Type I, Class 2, Grade A minimum coating thickness. Fence fabric shall contain a maximum carbon content of 15%, resulting in a typical tensile strength of 62,000/72,000 PSI and a typical yield point of 48,000 PSI. Panels shall be pre-formed to the required radius to match curve of the fence posts.

2.1.2.3 Fence Fabric 3/8" x 3/8" Chain Link, 9 gauge. (Upper Section)

ASTM 491--ASTM A817, Type I, aluminized wire with minimum coating weight of 107 grams (0.35 ounces) per square meter (foot) of coated surface. Fabric shall be fabricated of 9 gauge wire woven in 3/8" x 3/8" mesh. Unless otherwise noted, fabric shall be knuckled on the top and bottom selvage.

2.1.3 Gates

2.1.3.1 Swing Gates shall be the type and swing shown. Gate frames shall conform to strength and coating requirements of ASTM F 1083 for Group IA, steel pipe, with external coating Type A, gates shall be fabricated in strict accordance with the contract drawings. Gate fabric shall be attached to the gate frame by method standard with the manufacturer. Latches, hinges, stops, keepers, rollers, and other hardware items shall be furnished as required for the operation of the gate. Latches shall be arranged for padlocking so that the padlock will be accessible from both sides of the gate. Stops shall be provided for holding the gates in the open position.

2.1.3.2 Horizontal Slide Gates shall be a complete assembly including sliding gate, support columns, overhead track assembly, bottom guide assembly and locking assembly. Gates shall be fabricated with mitered, welded, weather tight joints of hot-dipped galvanized construction. Overhead track shall be enclosed and bottom gate guides shall be employed in such a manner as to prevent the gate from being pushed away from gate guide posts when the gate is in the closed position. Gates shall be manufactured and installed in accordance with the contract drawings.

2.1.4 Posts

ASTM F 1083, zinc-coated. Group IA, with external coating Type A steel pipe. Group IC steel pipe, zinc-coated with external coating Type A or Type B. Formed steel sections shall meet the strength and coating requirements of ASTM F 1043. Sizes shall be as shown on the drawings. Line posts and terminal (corner, gate, and pull) posts selected shall be of the same designation throughout the fence. Gate post shall be for the gate type specified and fabricated in strict accordance with the contract drawings.

2.1.5 Braces and Rails

ASTM F 1083, zinc-coated, Group IA, steel pipe, size NPS 1-5/8. Group IC steel pipe, zinc-coated, shall meet the strength and coating requirements of ASTM F 1043.

2.1.6 Accessories **NOTE: Clips are not allowed on security fences.**

ASTM F 626. Ferrous accessories shall be zinc or aluminum coated. Truss rods shall be furnished for each terminal post. Truss rods shall be provided with turnbuckles or other equivalent provisions for adjustment. Miscellaneous hardware coatings shall conform to ASTM A 153 unless modified herein.

2.1.7 Concrete

ASTM C 94, using 19 mm (3/4 inch) maximum size aggregate, and having minimum compressive strength of 21 MPa (3000 psi) at 28 days. (See SECTION 03300A)

2.1.8 Padlocks

ASTM F 883, Type PO1, Grade 2, Size 44.4 mm (1-3/4 inch). Padlocks shall be keyed alike and each lock shall be furnished with two keys.

PART 3 EXECUTION

3.1 GENERAL

Fence shall be installed to the lines and grades indicated. The area on either side of the fence line shall be cleared to the extent indicated. Line posts shall be spaced equidistant at intervals not exceeding the spacing indicated on the drawing for the type of fence being installed. Terminal (corner, gate, and pull) posts shall be set at abrupt changes in vertical and horizontal alignment. Damage to the galvanized surface due to welding shall be repaired with "repair sticks" of zinc-cadmium alloys or zinc-tin-lead alloys per AWS WZC. Upper Section fabric must overlap the lower fabric 3" to 6". Where panels meet at a rail, the lower panel will be between the upper panel and the rail. Top edge of the upper fabric shall extend a minimum of 4" beyond the post caps.

3.2 EXCAVATION

When required in the individual Task Order, the continuous reinforced concrete grade beam 1'-3"x 4'-6" will be used in native soil. If solid rock is encountered, the hole in the rock shall be 1 1/2" larger than the sleeve diameter (ie. 4 1/2"pipe=6"hole), and be drilled to a total depth to produce the lesser of the following dimensions: 4 1/2' total depth or 20" depth into solid rock.

3.3 POSTS

Posts shall be set in sleeves and be plumb and in alignment. Posts/sleeves shall be set in concrete to the depth indicated on the drawings. Concrete shall be allowed to cure for 72 hours prior to attachment of any item to the posts.

3.4 RAILS

### 3.4.1 Top and Intermediate Rails

Top and intermediate rails shall be supported at each post to form a continuous brace between terminal posts. Sections of top rail shall be joined using methods shown on the contract drawings as specified in the individual Delivery Order.

### 3.4.2 Bottom Rail

The bottom rail shall be installed in accordance with details provided in the contract drawings, and as specified in the individual Delivery Order.

## 3.5 BRACES AND TRUSS RODS

Braces and truss rods shall be installed as indicated and in conformance with the standard practice for the fence furnished.

## 3.6 EXPANDED METAL LATH

Expanded metal lath shall be installed utilizing all pre-punched galvanized fittings with slotted holes as indicated in the contract drawings. Alternate attachment methods may be used, per manufacturers printed instructions, if government approval is received prior to installation. Expanded metal lath shall be installed on the side of the post indicated. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Fabric and tension bands shall be fastened to line posts spaced at 12 inches on center maximum, and fastened to all rails and lower fabric at 6 inches on center maximum. Fabric shall be cut by untwisting and removing pickets. Splicing shall be accomplished by weaving a single picket into the ends of the rolls to be joined. The bottom of the installed fabric shall overlap the lower fabric 4-6 inches. After the fabric installation is complete, the fabric shall be exercised by applying a 222 Newtons (50 pound) push-pull force at the center of the fabric between posts. The use of a 222 Newtons (50 pound) pull at the center of the panel shall cause fabric deflection of not more than 63.5 mm (2.5 inches) when pulling fabric from the post side of the fence. Every second fence panel shall meet this requirement. All failed panels shall be resecured and retested at the Contractor's expense.

## 3.7 GATES

Gates shall be installed at the locations shown. Hinged gates shall be mounted to swing as indicated. Latches, stops, and keepers shall be installed as required. Slide gates shall be installed in accordance with the attached drawings. Padlocks shall be attached to gates or gate posts with chains. Hinge pins and hardware shall be welded or otherwise secured to prevent removal.

## 3.8 GROUNDING

Fences crossed by power lines of 600 volts or more shall be grounded at or near the point of crossing and at distances not exceeding 45 m (150 feet) on each side of crossing. Ground conductor shall consist of No. 8 AWG solid copper wire. Grounding electrodes shall be 19 mm

(3/4 inch)by 3.05 m (10 foot) long copper-clad steel rod. Electrodes shall be driven into the earth so that the top of the electrode is at least 152 mm (6 inches) below the grade. Where driving is impracticable, electrodes shall be buried a minimum of 305 mm (12 inches) deep and radially from the fence. The top of the electrode shall be not less than 0.6 m (2 feet) or more than 2.4 m (8 feet) from the fence. Ground conductor shall be clamped to the fence and electrodes with bronze grounding clamps to create electrical continuity between fence posts, fence fabric, and ground rods. After installation the total resistance of fence to ground shall not be greater than 25 ohms.

-- End of Section --

INDEX

SECTION 03300A

CONCRETE, MINOR CONSTRUCTION

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS
1.3 GENERAL REQUIREMENTS

**PART 2 PRODUCTS**

2.1 CONCRETE INGREDIENTS
2.2 CURING MATERIALS
2.3 EMBEDED ITEMS
2.4 FORM MATERIALS
2.5 REINFORCEMENT
2.6 WATER

**PART 3 EXECUTION**

3.1 PREPARATION OF SURFACES
3.2 FORMWORK
3.3 INSTALLATION OF REINFORCEMENT
3.4 INSTALLATION OF EMBEDDED ITEMS
3.5 BATCHING, MIXING AND TRANSPORTING CONCRETE
3.6 CONCRETE PLACEMENT
3.7 CONSOLIDATION
3.8 WEATHER LIMITATIONS
3.9 CONSTRUCTION JOINTS
3.10 FINISHING
3.11 CURING AND PROTECTION

SECTION 03300A

CONCRETE, MINOR CONSTRUCTION
08/90

# PART 1 GENERAL

## 1.1 REFERENCES

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

ACI INTERNATIONAL (ACI)

| | | |
|---|---|---|
| ACI 318/318R | (1989; Rev 1992; Errata) | Building Code Requirements for Reinforced Concrete |

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | | |
|---|---|---|
| ASTM C 94 | (1994) | Ready-Mixed Concrete |
| ASTM C 309 | (1993) | Liquid Membrane-Forming Compounds for Curing Concrete |

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-13 Certificates

Cementitious Materials; GA.

Cement, pozzolan, and ground iron blast-furnace slag will be accepted on the basis of manufacturer's certification of compliance, accompanied by mill test reports attesting that the materials meet the requirements of the specification under which it is furnished. No cement, pozzolan, or slag shall be used until notice of acceptance has been given by the Contracting Officer. Cement, pozzolan, and slag may be subjected to check testing by the Government from samples obtained at the mill, at transfer points, or at the project site.

## 1.3 GENERAL REQUIREMENTS

### 1.3.1 Strength Requirements

Structural concrete for all work shall have a 28-day compressive strength of 3000 psi.

1.3.3 Special Properties

Concrete may contain other admixtures, such as water reducers, superplasticizers, or set retarding agents to provide special properties to the concrete, if approved.

1.3.4 Slump

Slump shall be within the following limits:

| Structural Element | Slump in inches Minimum | Maximum |
|---|---|---|
| Walls, columns and beams | 2 | 4 |
| Foundation walls, substructure walls, footings, pavement, and slabs | 1 | 3 |
| Any structural concrete approved for placement by pumping | None | 6 |

PART 2 PRODUCTS

2.1 CONCRETE INGREDIENTS

Concrete shall conform to ASTM C 94;

2.2 CURING MATERIALS

Curing materials shall be burlap, impervious sheets, or membrane-forming compounds.

2.3 EMBEDDED ITEMS

Embedded items shall be of the size and type indicated or as needed for the application.

2.4 FORM MATERIALS

Forms for concrete surfaces shall be metal, plywood, or hardboard capable of producing the required surface without adverse effect on the concrete. Form coating shall be nonstaining form oil or form release agent that will not adversely affect the concrete surfaces or impair subsequent applications to the concrete.

## 2.5 REINFORCEMENT

Bar reinforcement shall be deformed, Grade 40 or Grade 60 billet steel conforming to ASTM A 615. Mesh reinforcement shall be welded steel wire fabric with wires at right angles to each other.

## 2.6 WATER

Water shall be potable.

# PART 3 EXECUTION

## 3.1 PREPARATION OF SURFACES

Surfaces to receive concrete shall be clean and free from frost, ice, mud, and water. Surfaces shall be moist but without free water when the concrete is placed.

## 3.2 FORMWORK

Formwork shall be mortar-tight, properly aligned, and adequately supported to produce concrete conforming accurately to the indicated shapes, lines, dimensions, and with surfaces free of offsets, waviness, or bulges. Form surfaces shall be thoroughly cleaned and coated before each use. Forms shall be removed at a time and in a manner that will not injure the concrete.

## 3.3 INSTALLATION OF REINFORCEMENT

Reinforcement shall be fabricated to the required shapes. Reinforcement shall be interrupted 50 mm (2 inches) on each side of expansion joints. Reinforcement shall be accurately positioned and secured in place.

## 3.4 INSTALLATION OF EMBEDDED ITEMS

Embedded items shall be free from oil, loose scale or rust, and paint. Embedded items shall be installed at the locations indicated and required to serve the intended purpose. Voids in sleeves, slots and inserts shall be filled with readily removable material to prevent the entry of concrete.

## 3.5 BATCHING, MIXING AND TRANSPORTING CONCRETE

The work shall conform to ACI 318/318R part Construction Requirements, except as otherwise specified.

## 3.6 CONCRETE PLACEMENT

Concrete shall be handled from mixer to forms in a continuous manner until the approved unit of operation is completed. Placing will not be permitted when the sun, heat, wind, or limitations

of facilities furnished by the Contractor prevent proper consolidation, finishing and curing. Concrete to receive other construction shall be screeded to the proper level to avoid excessive shimming or grouting.

## 3.7 CONSOLIDATION

Immediately after placing, each layer of concrete shall be consolidated by internal vibrators, except for slabs 100 mm (4 inches) or less.

## 3.8 WEATHER LIMITATIONS

Special protection measures, approved by the Contracting Officer, shall be used if freezing temperatures are anticipated before the expiration of the specified curing period. The temperature of the concrete placed during warm weather shall not exceed 30 degrees C (85 degrees F) except where an approved retarder is used. The mixing water and/or aggregates shall be cooled, if necessary, to maintain a satisfactory placing temperature.

## 3.9 CONSTRUCTION JOINTS

Construction joints shall be located as indicated or approved. Where concrete work is interrupted by weather, end of work shift or other similar type of delay, location and type of construction joint shall be subject to approval of the Contracting Officer.

## 3.10 FINISHING CONCRETE

### 3.10.1 Unformed Surfaces

### 3.10.2 Rough-Slab Finish

Slabs to receive fill or mortar setting beds shall be screeded with straightedges immediately after consolidation to bring the surface to the required finish level with no coarse aggregate visible.

## 3.11 CURING AND PROTECTION

### 3.11.1 General

Immediately after placement, concrete shall be protected from premature drying extremes in temperatures, rapid temperature change, mechanical injury and injury from rain and flowing water. Air and forms in contact with concrete shall be maintained at a temperature above 10 degrees C (50 degrees F) for the first 3 days and at a temperature above 0 degrees C (32 degrees F) for the remainder of the specified curing period.

### 3.11.2 Moist Curing

Concrete to be moist-cured shall be maintained continuously wet for the entire curing period. If

water or curing materials used stains or discolors concrete surfaces which are to be permanently exposed, the concrete surfaces shall be cleaned. When wooden forms are left in place during curing, they shall be kept wet at all times. If the forms are removed before the end of the curing period, curing shall be carried out as on unformed surfaces, using suitable materials.

-- End of Section --

INDEX

SECTION 04200A

CONCRETE MASONARY UNITS

**PART 1 GENERAL**

1.1 REFERENCES
1.2 SUBMITTALS
1.3 DELIVERY, HANDLING AND STORAGE

**PART 2 PRODUCTS**

2.1 GENERAL REQUIREMENTS
2.2 CONCRETE BRICK
2.3 CONCRETE MASONARY UNIT (CMU)
2.4 MORTAR
2.5 GROUT
2.6 ANCHORS, TIES, AND BAR POSITIONERS
2.7 JOINT REINFORCEMENT
2.8 REINFORCING STEEL BARS AND RODS
2.9 CONTROL JOINT KEYS
2.10 EXPANSION-JOINT MATERIAL

**PART 3 EXECUTION**

3.1 ENVIRONMENTAL REQUIREMENTS
3.2 LAYING MASONARY UNITS
3.3 MORTAR
3.4 REINFORCING STEEL
3.5 JOINT REINFORCEMENT
3.6 PLACING GOUT
3.7 BOND BEAMS
3.8 CONTROL JOINTS
3.9 POINTING AND CLEANING

SECTION 04200A

CONCRETE MASONRY UNITS
01/94

# PART 1 GENERAL

## 1.1 REFERENCES

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

ACI INTERNATIONAL (ACI)

| | |
|---|---|
| ACI SP-66 | (1994) ACI Detailing Manual |

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

| | |
|---|---|
| ASTM A 82 | (1994) Steel Wire, Plain, for Concrete Reinforcement |
| ASTM A 153 | (1996) Zinc Coating (Hot-Dip) on Iron and Steel Hardware |
| ASTM A 615 | (1995) Deformed and Plain Billet-Steel Bars for Concrete Reinforcement |
| ASTM C 55 | (1995) Concrete Building Brick |
| ASTM C 90 | (1995) Loadbearing Concrete Masonry Units |
| ASTM C 91 | (1995) Masonry Cement |
| ASTM C 126 | (1994) Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units |
| ASTM C 129 | (1995) Nonloadbearing Concrete Masonry Units |
| ASTM C 270 | (1995) Mortar for Unit Masonry |
| ASTM C 476 | (1991) Grout for Masonry |
| ASTM C 494 | (1992) Chemical Admixtures for Concrete |
| ASTM C 744 | (1995) Prefaced Concrete and Calcium Silicate Masonry Units |
| ASTM D 2287 | (1992) Nonrigid Vinyl Chloride Polymer and Copolymer Molding and Extrusion Compounds |

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01300 SUBMITTAL

PROCEDURES:

SD-01 Data

Split Face Concrete Masonry Units; GA.

Manufacturer's descriptive data.

SD-04 Drawings

Masonry Work; GA.

Drawings including wall openings greater than one masonry unit in area. No approval will be given to the shop drawings until the Contractor certifies that all openings, including those for mechanical and electrical service, are shown. If, during construction, additional masonry openings are required, the approved shop drawings shall be resubmitted with the additional openings shown along with the proposed changes. Location of these additional openings shall be clearly highlighted. Reinforcement bending shall conform to the requirements of ACI SP-66.

SD-08 Statements

Cold Weather Installation; GA.

SD-09 Reports

Masonry Cement; GA.

Test reports from an approved independent laboratory. Test reports on a previously tested material shall be certified as the same as that proposed for use in this project.

SD-13 Certificates

Concrete Masonry Units (CMU); FIO.
Split Face Concrete Masonry Units; FIO.
Control Joint Keys; FIO.
Anchors, Ties, and Bar Positioners; FIO.
Expansion-Joint Materials; FIO.
Joint Reinforcement; FIO.
Reinforcing Steel Bars and Rods; FIO.

Masonry Cement; FIO.
Precast Concrete Items; FIO.
Mortar Admixtures; FIO.
Grout Admixtures; FIO.

Certificates of compliance stating that the materials meet the specified requirements.

SD-14 Samples

Split Face Concrete Masonry Units; GA.

Capping Block, 2"; GA.

Color samples of three standard units and one unit for each type of special shape. Units shall show the full range of color and texture.

Anchors, Ties, and Bar Positioners; GA.

Two of each type used.

Expansion-Joint Material; GA.

One piece of each type used.

Joint Reinforcement; GA.

One piece of each type used, including corner and wall intersection pieces, showing at least two cross wires.

## 1.3 DELIVERY, HANDLING AND STORAGE

Materials shall be delivered, handled, stored, and protected to avoid chipping, breakage, and contact with soil or contaminating material.

### 1.3.1 Masonry Units

Concrete masonry units shall be covered or protected from inclement weather and shall conform to the moisture content as specified in ASTM C 90 when delivered to the jobsite. In addition, prefaced concrete units shall be stored with their finish surfaces covered.

### 1.3.2 Reinforcement, Anchors, and Ties

Steel reinforcing bars, coated anchors, ties, and joint reinforcement shall be stored above the ground. Steel reinforcing bars and uncoated ties shall be free of loose mill scale and rust.

1.3.3 Cementitious Materials, Sand and Aggregates

Cementitious and other packaged materials shall be delivered in unopened containers, plainly marked and labeled with manufacturers' names and brands. Cementitious material shall be stored in dry, weathertight enclosures or be completely covered. Cement shall be handled in a manner that will prevent the inclusion of foreign materials and damage by water or dampness. Sand and aggregates shall be stored in a manner to prevent contamination or segregation.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

The source of materials which will affect the appearance of the finished work shall not be changed after the work has started except with Contracting Officer's approval.

2.2 CONCRETE BRICK

Not Applicable

2.3 CONCRETE MASONRY UNITS (CMU)

Masonry units shall conform to ASTM C 90 ,and shall be Split Face with integral color. The color shall be Angelus Block #200, Medium Weight, Orange,CA Plant, or equal.

2.3.1 Aggregates

Lightweight aggregates and blends of lightweight and heavier aggregates in proportions used in producing the units, shall comply with the following requirements when tested for stain-producing iron compounds in accordance with ASTM C 641: by visual classification method, the iron stain deposited on the filter paper shall not exceed the "light stain" classification.

2.3.2.1 Architectural Units

Units shall have patterned face shell. Face shell pattern shall be split faced. Units shall be integrally colored during manufacture. Color shall be Angelus Block #200, Medium Weight, Orange Plant, CA or equal. Patterned face shell shall be properly aligned in the completed wall.

2.4 MORTAR

Mortar shall be Type S or N in accordance with the proportion specification of ASTM C 270 except Type S cement-lime mortar proportions shall be 1 part cement, 1/2 part lime and 4-1/2 parts aggregate; Type N cement-lime mortar proportions shall be 1 part cement, 1 part lime and 6 parts aggregate; when masonry cement ASTM C 91 is used the maximum air content shall be limited to 12 percent and performance equal to cement-lime mortar shall be verified.

### 2.4.1 Admixtures

In cold weather, a non-chloride based accelerating admixture may be used subject to approval of the Contracting Officer. Accelerating admixture shall be non-corrosive, contain less than 0.2 percent chlorides, and conform to ASTM C 494, Type C.

### 2.4.2 Coloring

Mortar coloring shall be added to the mortar used for exposed masonry surfaces to produce a uniform color matching the color of the block. Mortar coloring shall not exceed 3 percent of the weight of cement for carbon black and 10 percent of the weight of cement for all other pigments. Mortar coloring shall be chemically inert, of finely ground limeproof pigment, and furnished in accurately pre-measured and packaged units that can be added to a measured amount of cement.

## 2.5 GROUT

Grout shall conform to ASTM C 476. Cement used in grout shall have a low alkali content. Grout slump shall be between 200 and 250 mm. (8 and 10 inches.) Grout shall be used subject to the limitations of Table III. Proportions shall not be changed and materials with different physical or chemical characteristics shall not be used in grout for the work unless additional evidence is furnished that the grout meet the specified requirements.

### 2.5.1 Admixtures

In cold weather, a non-chloride based accelerating admixture may be used subject to approval of the Contracting Officer. Accelerating admixture shall be non-corrosive, contain less than 0.2 percent chlorides, and conform to ASTM C 494, Type C.

## 2.6 ANCHORS, TIES, AND BAR POSITIONERS

Anchors and ties shall be fabricated without drips or crimps and shall be zinc-coated in accordance with ASTM A 153, Class B-2. Steel wire used for anchors and ties shall be fabricated from steel wire conforming to ASTM A 82. Anchors and ties shall be sized to provide a minimum of 16 mm (5/8 inch) mortar cover from either face.

### 2.6.1 Wire Mesh Ties

Wire mesh for tying 100 mm (4 inch) thick concrete masonry unit partitions to other intersecting masonry partitions shall be 13 mm (1/2 inch) mesh of minimum 16 gauge steel wire. Minimum lengths shall be not less than 300 mm. (12 inches.)

### 2.6.2 Adjustable Anchors

Adjustable anchors shall be 5 mm (3/16 inch) diameter steel wire, triangular-shaped. Anchors attached to steel shall be 8 mm (5/16 inch) diameter steel bars placed to provide 2 mm

(1/16inch) play between flexible anchors and structural steel members. Spacers shall be welded to rods and columns. Equivalent welded-on steel anchor rods or shapes standard with the flexible-anchor manufacturer may be furnished when approved. Welds shall be cleaned and given one coat of zinc-rich touch up paint.

2.6.3 Bar Positioners

Bar positioners, used to prevent displacement of reinforcing bars during the course of construction, shall be factory fabricated from 9 gauge steel wire or equivalent, and coated with a hot-dip galvanized finish. Not more than one wire shall cross the cell.

## 2.7 JOINT REINFORCEMENT

Joint reinforcement shall be factory fabricated from steel wire conforming to ASTM A 82, welded construction. Tack welding will not be acceptable in reinforcement used for wall ties. Wire shall have zinc coating conforming to ASTM A 153, Class B-2. All wires shall be a minimum of 9 gauge. Reinforcement shall be ladder type design, having one longitudinal wire in the mortar bed of each face shell for hollow units and one wire for solid units. Joint reinforcement shall be placed a minimum of 16 mm (5/8 inch) cover from either face. The distance between crosswires shall not exceed 400 mm (16 inches). Joint reinforcement for straight runs shall be furnished in flat sections not less than 3 m (10 feet) long. Joint reinforcement shall be provided with factory formed corners and intersections. If approved for use, joint reinforcement may be furnished with adjustable wall tie features.

## 2.8 REINFORCING STEEL BARS AND RODS

Reinforcing steel bars and rods shall conform to ASTM A 615, Grade 60.

## 2.9 CONTROL JOINT KEYS

Control joint keys shall be a factory fabricated solid section of natural or synthetic rubber (or combination thereof) conforming to ASTM D 2000 or polyvinyl chloride conforming to ASTM D 2287. The control joint key shall be flexible at a temperature of minus 34 degrees C (minus 30 degrees F) after five hours exposure, and shall have a durometer hardness of not less than 70 when tested in accordance with ASTM D 2240.

## 2.10 EXPANSION-JOINT MATERIALS

Backer rod and sealant shall be adequate to accommodate joint compression equal to 50 percent of the width of the joint. The backer rod shall be compressible rod stock of polyethylene foam, polyurethane foam, butyl rubber foam, or other flexible, nonabsorptive material as recommended by the sealant manufacturer. Sealant shall conform to Section 07920 JOINT SEALING.

## PART 3 EXECUTION

### 3.1 ENVIRONMENTAL REQUIREMENTS

#### 3.1.1 Hot Weather Installation

The following precautions shall be taken if masonry is erected when the ambient air temperature is more than 37 degrees C (99 degrees F) in the shade and the relative humidity is less than 50 percent. All masonry materials shall be shaded from direct sunlight; mortar beds shall be spread no more than 1.2 m (4 feet) ahead of masonry; masonry units shall be set within one minute of spreading mortar; and after erection, masonry shall be protected from direct exposure to wind and sun for 48 hours.

#### 3.1.2 Cold Weather Installation

Before erecting masonry when ambient temperature or mean daily air temperature falls below 4 degrees C, (40 degrees F,) a written statement of proposed cold weather construction procedures shall be submitted for approval. The following precautions shall be taken during all cold weather erection.

##### 3.1.2.1 Preparation

Ice or snow formed on the masonry bed shall be thawed by the application of heat. Heat shall be applied carefully until the top surface of the masonry is dry to the touch. Sections of masonry deemed frozen and damaged shall be removed before continuing construction of those sections.

a. Air Temperature 4 to 0 degrees C^. (40 to 32 Degrees F~). Sand or mixing water shall be heated to produce mortar temperatures between 4 and 49 degrees C. (40 and 120 degrees F.)

b. Air Temperature 0 to minus 4 degrees C^. (32 to 25 Degrees F) Sand and mixing water shall be heated to produce mortar temperatures between 4 and 49 degrees C. (40 and 120 degrees F.) Temperature of mortar on boards shall be maintained above freezing.

c. Air Temperature minus 4 to minus 7 degrees C^. (25 to 20 Degrees F). Sand and mixing water shall be heated to provide mortar temperatures between 4 and 49 degrees C. (40 and 120 degrees F.) Temperature of mortar on boards shall be maintained above freezing. Sources of heat shall be used on both sides of walls under construction. Windbreaks shall be employed when wind is in excess of 24 km/hour. (15 mph.)

##### 3.1.2.2 Completed Masonry and Masonry Not Being Worked On

a. Mean daily air temperature 4 degrees C to 0 degrees C. (40 to 32 degrees F.) Masonry shall be protected from rain or snow for 24 hours by covering with weather-resistive membrane.

b. Mean daily air temperature 0 degrees C to minus 4 degrees C. (32 to 25 degrees F.)

## 3.2 LAYING MASONRY UNITS

Masonry units shall be laid in the indicated bond pattern. Each unit shall be adjusted to its final position while mortar is still soft and plastic. Units that have been disturbed after the mortar has stiffened shall be removed, cleaned, and relaid with fresh mortar. Air spaces, cavities, chases, expansion joints, and spaces to be grouted shall be kept free from mortar and other debris. Units used in exposed masonry surfaces shall be free from chipped edges or other imperfections detracting from the appearance of the finished work. Vertical joints shall be kept plumb. Units being laid and surfaces to receive units shall be free of water film and frost. Solid units shall be laid in a nonfurrowed full bed of mortar. Units shall be shoved into place so that the vertical joints are tight. Vertical joints of the vertical face shells of concrete masonry units, except where indicated at control, expansion, and isolation joints, shall be completely filled with mortar. Mortar will be permitted to protrude up to 13 mm (1/2 inch) into the space or cells to be grouted. Means shall be provided to prevent mortar from dropping into the space below. Collar joints shall be filled with mortar or grout during the laying of the facing wythe, and filling shall not lag the laying of the facing wythe by more than 200 mm. (8 inches.)

### 3.2.3 Concrete Masonry Units

Units in piers, pilasters, columns, starting courses on footings, solid foundation walls, lintels, and beams, and where cells are to be filled with grout shall be full bedded in mortar under both face shells and webs. Other units shall be full bedded under both face shells. Foundation walls below grade shall be grouted solid.

### 3.2.4 Tolerances

Masonry shall be laid plumb, true to line, with courses level. Bond pattern shall be kept plumb throughout. Corners shall be square unless noted otherwise. Except for walls constructed of prefaced concrete masonry units, masonry shall be laid within the following tolerances (plus or minus unless otherwise noted):

TABLE II

TOLERANCES

Variation from the plumb in the lines and surfaces of columns, walls and arises

| | |
|---|---|
| In adjacent masonry units | 1/8 inch |
| In 10 feet | 1/4 inch |
| In 20 feet | 3/8 inch |
| In 40 feet or more | 1/2 inch |

Variations from the plumb for external corners, expansion joints, and other conspicuous lines

| | |
|---|---|
| In 20 feet | 1/4 inch |
| In 40 feet or more | 1/2 inch |

Variations from horizontal lines

| | |
|---|---|
| In 10 feet | 1/4 inch |
| In 20 feet | 3/8 inch |
| In 40 feet or more | 1/2 inch |

Variations in cross sectional dimensions of columns and in thickness of walls

| | |
|---|---|
| Minus | 1/4 inch |
| Plus | 1/2 inch |

3.2.5 Cutting and Fitting

Full units of the proper size shall be used wherever possible, in lieu of cut units. Cutting and fitting, including that required to accommodate the work of others, shall be done by masonry mechanics using power masonry saws. Concrete masonry units may be wet or dry cut. Wet cut units, before being placed in the work, shall be dried to the same surface-dry appearance as uncut units being laid in the wall. Cut edges shall be clean, true and sharp. Openings in the masonry shall be made carefully so that wall plates, cover plates or escutcheons required by the installation will completely conceal the openings and will have bottoms parallel with the masonry bed joints. Reinforced masonry lintels shall be provided above openings over 300 mm (12 in.) wide for pipes, ducts, cable trays, and other wall penetrations, unless steel sleeves are used.

3.2.6 Jointing

Joints shall be tooled when the mortar is thumbprint hard. Horizontal joints shall be tooled last. Joints shall be brushed to remove all loose and excess mortar. Mortar joints shall be finished as follows:

3.2.6.2 Tooled Joints

Joints in exposed exterior and interior masonry surfaces shall be tooled slightly concave . Joints shall be tooled with a jointer slightly larger than the joint width so that complete contact is made along the edges of the unit. Tooling shall be performed so that the mortar is compressed and the joint surface is sealed.

3.2.7 Prefaced Concrete Masonry Units

Prefaced concrete masonry units shall have a joint width of 10 mm (3/8 inch) wide on unfaced side and not less than 5 mm (3/16 inch) nor more than 6 mm (1/4 inch) wide on prefaced side. A 2" Capping Block with matching integral color shall be provided on top of the Masonry Wall.

3.2.8 Embedded Items

Spaces around built-in items shall be filled with mortar.

### 3.2.9 Unfinished Work

Unfinished work shall be stepped back for joining with new work. Toothing may be resorted to only when specifically approved. Loose mortar shall be removed and the exposed joints shall be thoroughly cleaned before laying new work.

### 3.2.10 Masonry Wall Intersections

Each course shall be masonry bonded at corners and elsewhere as shown. Masonry walls shall be anchored or tied together at corners and intersections with bond beam reinforcement and prefabricated corner or tee pieces of joint reinforcement as shown.

## 3.3 MORTAR

Mortar shall be mixed in a mechanically operated mortar mixer for at least 3 minutes, but not more than 5 minutes. Measurement of ingredients for mortar shall be by volume. Ingredients not in containers, such as sand, shall be accurately measured by the use of measuring boxes. Water shall be mixed with the dry ingredients in sufficient amount to provide a workable mixture which will adhere to the vertical surfaces of masonry units. Mortar that has stiffened because of loss of water through evaporation shall be retempered by adding water to restore the proper consistency and workability. Mortar that has reached its initial set or that has not been used within 2-1/2 hours after mixing shall be discarded.

## 3.4 REINFORCING STEEL

Reinforcement shall be cleaned of loose, flaky rust, scale, grease, mortar, grout, or other coating which might destroy or reduce its bond prior to placing grout. Reinforcement shall be placed prior to grouting. Unless otherwise indicated, vertical wall reinforcement shall extend to within 50 mm (2 inches) of tops of walls.

### 3.4.1 Positioning Bars

Vertical bars shall be accurately placed within the cells at the positions indicated on the drawings. A minimum clearance of 13 mm (1/2 inch) shall be maintained between the bars and masonry units. Minimum clearance between parallel bars shall be one diameter of the reinforcement. Vertical reinforcing may be held in place using bar positioners located near the ends of each bar and at intermediate intervals of not more than 192 diameters of the reinforcement. Column and pilaster ties shall be wired in position around the vertical steel. Ties shall be in contact with the vertical reinforcement and shall not be placed in horizontal bed joints.

### 3.4.2 Splices

Bars shall be lapped a minimum of 48 diameters of the reinforcement. Welded or mechanical connections shall develop at least 125 percent of the specified yield strength of the reinforcement.

## 3.5 JOINT REINFORCEMENT

Joint reinforcement shall be installed at 400 mm (16 inches) on center or as indicated. Reinforcement shall be lapped not less than 150 mm. (6 inches.) Prefabricated sections shall be installed at corners and wall intersections. The longitudinal wires of joint reinforcement shall be placed to provide not less than 16 mm (5/8 inch) cover to either face of the unit.

## 3.6 PLACING GROUT

Cells containing reinforcing bars shall be filled with grout. Hollow masonry units in walls or partitions supporting plumbing, heating, or other mechanical fixtures, voids at door and window jambs, and other indicated spaces shall be filled solid with grout. Cells under lintel bearings on each side of openings shall be filled solid with grout for full height of openings. Walls below grade, lintels, and bond beams shall be filled solid with grout. Units other than open end units may require grouting each course to preclude voids in the units. Grout not in place within 1-1/2 hours after water is first added to the batch shall be discarded. Sufficient time shall be allowed between grout lifts to preclude displacement or cracking of face shells of masonry units. If blowouts, flowouts, misalignment, or cracking of face shells should occur during construction, the wall shall be torn down and rebuilt.

### 3.6.1 Vertical Grout Barriers for Fully Grouted Walls

Grout barriers shall be provided not more than 10 m (30 feet) apart, or as required, to limit the horizontal flow of grout for each pour.

### 3.6.2 Grouting Equipment

#### 3.6.2.1 Grout Pumps

Pumping through aluminum tubes will not be permitted. Pumps shall be operated to produce a continuous stream of grout without air pockets, segregation, or contamination. Upon completion of each day's pumping, waste materials and debris shall be removed from the equipment, and disposed off site.

#### 3.6.2.2 Vibrators

Internal vibrators shall maintain a speed of not less than 5,000 impulses per minute when submerged in the grout. At least one spare vibrator shall be maintained at the site at all times. Vibrators shall be applied at uniformly spaced points not further apart than the visible effectiveness of the machine. Duration of vibration shall be limited to time necessary to produce satisfactory consolidation without causing segregation.

### 3.6.3 Grout Placement

Masonry shall be laid to the top of a pour before placing grout. Grout shall not be placed in

two-wythe solid unit masonry cavity until mortar joints have set for at least 3 days during hot weather and 5 days during cold damp weather. Grout shall not be placed in hollow unit masonry until mortar joints have set for at least 24 hours. Grout shall be placed using a hand bucket, concrete hopper, or grout pump to completely fill the grout spaces without segregation of the aggregates. Vibrators shall not be inserted into lower pours that are in a semi-solidified state. The height of grout pours and type of grout used shall be limited by the dimensions of grout spaces as indicated in Table III. Low-lift grout methods may be used on pours up to and including 1.5 m (5 feet) in height. High-lift grout methods shall be used on pours exceeding 1.5 m (5 feet) in height.

3.6.3.1 Low-Lift Method

Grout shall be placed at a rate that will not cause displacement of the masonry due to hydrostatic pressure of the grout. Mortar protruding more than 13 mm (1/2 inch) into the grout space shall be removed before beginning the grouting operation. Grout pours 300 mm (12inches) or less in height shall be consolidated by mechanical vibration or by puddling. Grout pours over 300 mm (12 inches) in height shall be consolidated by mechanical vibration and reconsolidated by mechanical vibration after initial water loss and settlement has occurred. Low-lift grout shall be used subject to the limitations of Table III.

TABLE III

POUR HEIGHT AND TYPE OF GROUT FOR VARIOUS GROUT SPACE DIMENSIONS

| Maximum Grout Pour Height (feet) (4) | Grout Type | Grouting Procedure | Minimum Dimensions of the Total Clear Areas Within Grout Spaces and Cells (in.) (1,2) Multiwythe Masonry (3) | Hollow-unit Masonry |
|---|---|---|---|---|
| 1 | Fine | Low Lift | 3/4 | 1-1/2 x 2 |
| 5 | Fine | Low Lift | 2 | 2 x 3 |
| 8 | Fine | High Lift | 2 | 2 x 3 |
| 12 | Fine | High Lift | 2-1/2 | 2-1/2 x 3 |
| 24 | Fine | High Lift | 3 | 3 x 3 |
| 1 | Coarse | Low Lift | 1-1/2 | 1-1/2 x 3 |
| 5 | Coarse | Low Lift | 2 | 2-1/2 x 3 |
| 8 | Coarse | High Lift | 2 | 3 x 3 |
| 12 | Coarse | High Lift | 2-1/2 | 3 x 3 |
| 24 | Coarse | High Lift | 3 | 3 x 4 |

Notes:

(1) The actual grout space or cell dimension must be larger than the sum of the following items:

a) The required minimum dimensions of total clear areas given in the table above;

b) The width of any mortar projections within the space;
c) The horizontal projections of the diameters of the horizontal reinforcing bars within a cross section of the grout space or cell.

(2) The minimum dimensions of the total clear areas shall be made up of one or more open areas, with at least one area being 20 mm (3/4 inch) or greater in width.

(3) For grouting spaces between masonry wythes.

(4) Where only cells of hollow masonry units containing reinforcement are grouted, the maximum height of the pour shall not exceed the distance between horizontal bond beams.

## 3.8 CONTROL JOINTS

Control joints shall be provided as indicated and shall be constructed in accordance with the details shown on the drawings. In single wythe exterior masonry walls, the exterior control joints shall be raked to a depth of 20 mm; (3/4 inch;) backer rod and sealant shall be installed in accordance with Section 07920 JOINT SEALING.

## 3.9 POINTING AND CLEANING

After mortar joints have attained their initial set, but prior to hardening, mortar and grout daubs or splashings shall be completely removed from masonry-unit surfaces that will be exposed or painted. Before completion of the work, defects in joints of masonry to be exposed or painted shall be raked out as necessary, filled with mortar, and tooled to match existing joints. Immediately after grout work is completed, scum and stains which have percolated through the masonry work shall be removed using a high pressure stream of water and a stiff bristled brush. Masonry surfaces shall not be cleaned, other than removing excess surface mortar, until mortar in joints has hardened. Masonry surfaces shall be left clean, free of mortar daubs, dirt, stain, and discoloration, including scum from cleaning operations, and with tight mortar joints throughout. Metal tools and metal brushes shall not be used for cleaning. Prefaced concrete masonry unit surfaces shall be cleaned with soap powder and clean water applied with stiff fiber brushes. Excess mortar shall be removed with wood paddles. Metal cleaning tools, metal brushes, abrasive powders, and acid solutions shall not be used. At the completion of cleaning operations, the surfaces shall be rinsed with clean water. In areas of traffic within the building, a barricade of wood supported by framing lumber shall be erected to protect the units. In other areas, a heavy kraft-type building paper shall be taped over the units until final acceptance.

--End of Section--

INDEX

SECTION 07920A

CAULKING AND SEALANTS

**PART 1 GENERAL**

1.1 REFERENCES
1.2 GENERAL REQUIREMENTS
1.3 SUBMITTALS
1.4 ENVIRONMENTAL REQUIREMENTS
1.5 DELIVERY AND STORAGE

**PART 2 PRODUCTS**

2.1 MATERIALS
2.2 BACKSTOP MATERIALS

**PART 3 EXECUTION**

3.1 SURFACE PREPARATION
3.2 APPLICATION
3.3 CLEANING

## 1.5 DELIVERY AND STORAGE

Materials shall be delivered to the job in the manufacturer's original unopened containers. Caulking compound or components outdated as indicated by shelf life shall not be used. Materials shall be carefully handled and stored to prevent inclusion of foreign materials or exposure to temperatures exceeding 90 degrees F.

# PART 2 PRODUCTS

## 2.1 MATERIALS

### 2.1.5 No. 6 Sealant

No. 6 sealant shall be a one-component latex sealing compound conforming to ASTM C 834.

### 2.1.6 No. 7 Sealant

No. 7 sealant shall be a polyisobutylene-based or isoprene-isobutylene-based pressure-sensitive tape or bead as specified or shown, conforming to Section 807.1 of AAMA 800-86.

### 2.1.7 No. 10 Sealant

No. 10 sealant shall be treated-type foamed-urethane strip saturated with a butylene waterproofing material or asphalt-impregnated foamed-polyurethane strip and shall be capable of sealing out moisture and weather when compressed to the extent recommended by the manufacturer for the capability of the joint. The sealant shall be furnished in the proper width to obtain the degree of compression required when installed in the joint.

## 2.2 BACKSTOP MATERIAL

Backstop materials shall be as recommended by the sealant manufacturer.

# PART 3 EXECUTION

## 3.1 SURFACE PREPARATION

### 3.1.1 General

The surfaces of joints to be sealed shall be dry. Oil, grease, dirt, chalk, particles of mortar, dust, loose rust, loose mill scale, and other foreign substances shall be removed from all joint surfaces to be sealed. Oil and grease shall be removed with solvent and surfaces shall be wiped with clean cloths.

### 3.1.2 Concrete and Masonry Surfaces

Where surfaces have been treated with curing compounds, oil, or other such materials, the materials shall be removed by sandblasting or wire brushing. Laitance, efflorescence and loose mortar shall be removed from the joint cavity.

## 3.2 APPLICATION

### 3.2.1 Backstops

The back or bottom of joints constructed deeper than indicated shall be packed tightly with backstop material to provide a joint of the depth indicated. Where necessary to provide a backstop for caulking compound, the joint shall be packed tightly with rope yarn.

### 3.2.2 Primer

Primer shall be used on concrete masonry units, wood, or other porous surfaces in accordance with instructions furnished with the sealant. Primer shall be applied to the joint surfaces to be sealed. Surfaces adjacent to joints shall not receive primer.

### 3.2.3 Caulk and Sealant

Caulk and sealant shall be applied as recommended by the manufacturer.

## 3.3 CLEANING

The surfaces adjoining the caulked and sealed joints shall be cleaned of smears and other soiling resulting from the caulking and sealing application as work progresses.

-- End of Section --