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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01090

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## SECTION 01090

## SOURCES FOR REFERENCE PUBLICATIONS

## PART 1 GENERAL

## 1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the sponsoring organization, e.g.

UL 1 (1993; Rev thru Jan 1995) Flexible Metal Conduit. However, when the sponsoring organization has not assigned a number to a document, an identifying number has been assigned for convenience, e.g. UL's unnumbered 1995 edition of their Building Materials Directory is identified as UL-01 (1995) Building Materials Directory. The sponsoring organization number (UL 1) can be distinguished from an assigned identifying number (UL-01) by the lack of a dash mark (-) in the sponsoring organization assigned number.

## 1.2 ORDERING INFORMATION

The addresses of the organizations whose publications 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 sponsoring organization should be ordered from the source by title rather than by number.

## ACI INTERNATIONAL (ACI)

P.O. Box 9094  
Farmington Hills, MI 48333-9094  
Ph: 248-848-3700  
Fax: 248-848-3801  
Internet: <http://www.aci-int.org>

## 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: 301-504-5454 Internet: <http://www.ams.usda.gov/lsg/ls-sd.htm>  
e-mail: [james\\_p\\_tripplitt@usda.gov](mailto:james_p_tripplitt@usda.gov)

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.aashto.org](http://www.aashto.org)

NOTE: AASHTO documents with numbers beginning with M or T are available only in Standard Specifications for Transportation Materials and Methods of Sampling and Testing, 1998 @\$289.00\X

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

11 West 42nd St  
New York, NY 10036  
Ph: 212-642-4900  
Fax: 212-398-0023  
Internet: [www.ansi.org/](http://www.ansi.org/)

Note: Documents beginning with the letter "S" can be ordered from:  
Acoustical Society of America  
P. O. Box 1020  
Sweickley, PA 15143-9998  
Ph: 412-741-1979  
Fax: 412-741-0609  
Internet:

AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA)

1250 I St., NW, Suite 500  
Washington, DC 20005  
Ph: 202-789-2900 Ext 3010  
FAX: 202-789-1893

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
Ph: 610-832-9500  
Fax: 610-832-9555  
Internet: [www.astm.org](http://www.astm.org)

NOTE: The annual ASTM Book of Standards (66 Vol) is available for \$3500.00. Prices of individual standards vary.

AMERICAN SOCIETY OF SANITARY ENGINEERING FOR PLUMBING AND SANITARY RESEARCH (ASSE)

28901 Clemens Rd, Ste 100, Westlake, OH 44145  
Ph: 440-835-3040  
Fax: 440-835-3488  
E-mail: [asse@ix.netcom.com](mailto:asse@ix.netcom.com)

AMERICAN WATER WORKS ASSOCIATION(AWWA)

6666 West Quincy  
Denver, CO 80235  
Ph: 800-926-7337

Fax: 303-795-1989  
Internet: [www.awwa.org](http://www.awwa.org)

## ASME INTERNATIONAL (ASME)

Three Park Avenue  
New York, NY 10016-5990  
Ph: 212-591-7722  
Fax: 212-591-7674  
Internet: [www.asme.org](http://www.asme.org)

## CODE OF FEDERAL REGULATIONS (CFR)

Order from:  
Government Printing Office  
Washington, DC 20402  
Ph: 202-512-1800  
Fax: 202-275-7703  
Internet: <http://www.pls.com:8001/his/cfr.html>

## COMMERCIAL ITEM DESCRIPTIONS (CID)

Order from:  
General Services Administration  
Federal Supply Service Bureau  
470 E L'Enfant Plaza, S.W.  
Washington, DC 20407  
Ph: 202-619-8925  
Internet: <http://pub.fss.gsa.gov/h1-pub.html>

## CONCRETE REINFORCING STEEL INSTITUTE (CRSI)

933 No. Plum Grove Rd.  
Schaumburg, IL 60173-4758  
Ph: 847-517-1200  
Fax: 847-517-1206  
Internet: <http://www.crsi.org>

## CORPS OF ENGINEERS (COE)

Order 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: 601-634-2571  
Fax: 601-634-2506  
NOTE: COE Handbook for Concrete and Cement (Documents w/prefix  
CRD-C) (1949-present; 2 Vol) free to Government offices; \$10.00  
plus \$8.00 per yr for 4 qtrly supplements to others). Individual  
documents, single copies free. Order from address above.

## DEPARTMENT OF COMMERCE (DOC)

Order From:  
National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161  
Ph: 703-487-4600  
Fax: 703-321-8547  
Internet: <http://www.ntis.gov>

## ENGINEERING MANUALS (EM)

USACE Publications Depot  
Attn: CEIM-SP-D  
2803 52nd Avenue  
Hyattsville, MD 20781-1102  
Ph: 301-394-0081

## FEDERAL SPECIFICATIONS (FS)

Order from:  
General Services Administration  
Federal Supply Service Bureau  
470 L'Enfant Plaza, S.W.  
Washington, DC 20407  
Ph: 202-619-8925  
Fax: 202-619-8978  
Internet: <http://pub.fss.gsa.gov/>

## 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: <http://www.standards.ieee.org>  
E-mail: [customer.service@ieee.org](mailto:customer.service@ieee.org)

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: [//cssinfo.com/info/mss/html](http://cssinfo.com/info/mss/html)

## 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/>

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

One Batterymarch Park P.O. Box 9101

Quincy, MA 02269-9101

Ph: 800-344-3555

Fax: 800-593-6372

Internet: <http://www.nfpa.org>

NOTE: The complete set of 1997 NFPA National Fire Codes (13 Vol.) is available for \$835.00.

PLUMBING AND DRAINAGE INSTITUTE (PDI)

45 Bristol Dr., Suite 101.

South Easton, MA 02375

Ph: 508-230-3516

Fax: 508-230-3529

E-Mail: [pdhw@tiac.net](mailto:pdhw@tiac.net)

UNDERWRITERS LABORATORIES (UL)

333 Pfingsten Rd.

Northbrook, IL 60062-2096

Ph: 847-272-8800

Fax: 847-272-8129

Internet: <http://www.ul.com/>

Note: First price is for the standard only. Second price is for the standard including the Revision Subscription Service.

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## SECTION 01200

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## SECTION 01200

## GENERAL REQUIREMENTS

## PART 1 GENERAL

## 1.1 REFERENCES

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

## DEPARTMENT OF COMMERCE (DOC)

DOC PS 1 (1983) Construction and Industrial Plywood

## FEDERAL SPECIFICATIONS (FS)

FS FF-B-575 (Rev C) Bolts, Hexagon and Square

FS FF-N-105 (Rev B; Am 3, Int Am 4; Notice 1) Nails, Brads, Staples and Spikes: Wire, Cut and Wrought

FS FF-N-836 (Rev D; Am 2) Nut, Square, Hexagon, Cap, Slotted, Castle, Knurled, Welding and Single Ball Seat

FS MM-L-751 (Rev H) Lumber; Softwood

FS TT-P-001984 (Basic) Primer Coating, Latex Base, Exterior (Undercoat for Wood), White and Tints

## ENGINEERING MANUALS (EM)

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

## NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70 (1999) National Electrical Code

## 1.2 PROJECT FACILITIES

The Contractor shall construct and/or erect the following project facilities as soon as possible and not less than 15 calendar days after

notice to proceed.

#### 1.2.1 Construction Signs

The signs shall include the following:

- a. Project Signs: One Project Sign at location designated by the Contracting Officer.
- b. Warning Signs: Facing approaching traffic on all haul roads crossing under overhead power transmission lines.
- c. Hard Hat Signs: Ten hard hat signs at locations directed.

#### 1.2.2 Bulletin Board

Bulletin board shall be erected at the Contractor's office.

#### 1.2.3 Sanitary Facilities

Suitable sanitary facilities shall be provided and maintained by the Contractor.

### PART 2 PRODUCTS

#### 2.1 CONSTRUCTION SIGNS

##### 2.1.1 Materials

##### 2.1.1.1 Lumber

FS MM-L-751, and shall be seasoned Douglas Fir, S4S, Grade D or better except that posts, braces and spacers shall be construction Grade (WCLB).

##### 2.1.1.2 Plywood

DOC PS 1, grade A-C, Group 1, exterior type.

##### 2.1.1.3 Bolts, Nuts and Nails

Bolts shall conform to FS FF-B-575, nuts shall conform to FS FF-N-836, and nails shall conform to FS FF-N-105.

##### 2.1.1.4 Paints and Oils

Paints shall conform to FS TT-P-001984 for primer and FS TT-E-1510 for finish paint and lettering.

### PART 3 EXECUTION

#### 3.1 CONSTRUCTION OF SIGNS

##### 3.1.1 Project and Hard Hat Signs

Constructed as detailed in Figures 1, 1A, 2, 3 and Safety Signs. Decals for signs will be furnished by the Contracting Officer.

### 3.1.2 Warning Signs

Constructed of plywood not less than 1/2 inch thick and shall be securely bolted to the supports with the bottom of the sign face 3 feet above the ground. The sign face shall be 24 in. x 48 in., all letters shall be 4 in. in height, and the wording shall be: "WARNING: OVERHEAD TRANSMISSION LINES."

### 3.2 PAINTING SIGNS

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 2 finish coats of white paint. Except as otherwise indicated, lettering on all signs shall be black and sized as indicated.

### 3.3 BULLETIN BOARD

A weatherproof bulletin board, approximately 36 inches wide and 30 inches high, with hinged glass door shall be provided adjacent to or mounted on the Contractor's project office. If adjacent to the office, the bulletin board shall be securely mounted on no less than 2 posts. Bulletin board and posts shall be painted or have other approved factory finish. The bulletin board shall be easily accessible at all times and shall contain wage rates, equal opportunity notice, and such other items required to be posted.

### 3.4 CONTRACTOR'S OFFICE

Location of the Contractor's Office shall be as approved by the Contracting Officer. The Contractor's job site office shall be located so that people visiting, such as salespersons or personnel seeking employment, will not have to enter the construction work area to get to the office. No parking of private vehicles shall be permitted in the working areas except as otherwise approved. At approved locations, adequate parking areas shall be constructed for the Contractor's and subcontractor's employees. The office site and parking areas shall be adequately maintained in a clean condition and have suitable access, subject to the Contracting Officer's approval.

### 3.5 TEMPORARY ELECTRIC WIRING

#### 3.5.1 Electricity

All electric power required for construction of the work required by this contract and for testing electrical circuits and devices shall be Contractor-furnished. The project site is presently served by Southern California Edison (SCE). The Contractor shall make all arrangements with SCE for the required work. The location of all powerlines and all temporary connections for electricity shall be approved by the Contracting

Officer. The distribution system for the project, including substations, lines, connections and metering facilities shall be provided, connected, and maintained by the Contractor. The temporary electrical facilities for the project shall be removed by the Contractor prior to final acceptance of the construction, unless directed by the Contracting Officer to remain. All overhead electrical powerlines in the project area, whether existing or erected by the Contractor, shall meet the clearance requirements stated in Section 15 of the latest version of EM 385-1-1. Any existing overhead electrical powerlines in the project area that do not meet these requirements shall be brought in compliance by the Contractor. These requirements apply to all energized powerlines over all work, storage areas, and haul roads.

#### 3.5.2 Temporary Power and Lighting

The Contractor shall provide construction power facilities in accordance with the safety requirements of NFPA 70 and EM 385-1-1. The Contractor shall enforce all the safety requirements of electrical extensions for the work of all subcontractors. All work shall be accomplished by skilled electrical tradesmen in a workmanlike manner, as approved by the Contracting Officer.

#### 3.5.3 Construction Equipment

In addition to the requirements of EM 385-1-1, all temporary wiring conductors installed for operation of construction tools and equipment shall be either Type TW or THW contained in metal raceways, or may be multiconductor cord. Temporary wiring shall be secured above the ground or floor in a workmanlike manner and shall not present an obstacle to persons or equipment. Open wiring may only be used outside of buildings, and then only in strict accordance with the provisions of the National Electrical Code.

#### 3.5.4 Circuit Protection

All 15- and 20-ampere outlets which are not a part of the permanent wiring of a building or structure, shall have ground fault circuit interrupters (GFI) for personnel protection. GFI shall be provided for extension cords and for all permanent receptacles that are not properly grounded. A testing means shall be provided which will impose a measured fault of 5 milliamperes and result in tripping the GFI unit.

#### 3.6 UNSATISFACTORY AND SCRAP MATERIAL

Materials characterized as unsatisfactory soil in accordance with Section 02200 EXCAVATION and materials indicated to be removed and not indicated to be salvaged, stored or reinstalled are designated as scrap shall become the property of the Contractor and be removed from the site of work. The Contractor by signing this contract hereby acknowledges that he made due allowance for value, if any, of such scrap in the contract price.

#### 3.7 ARCHAEOLOGICAL FINDINGS DURING CONSTRUCTION

Should the Contractor or any of his employees in the performance of this contract find or uncover any archaeological remains, he shall notify the Project Engineer immediately. Such notifications will be a brief statement in writing giving the location and nature of the findings. Should the discovery site require archaeological studies resulting in delays and/or additional work, the Contractor will be compensated by an equitable adjustment under the CONTRACT CLAUSES of the contract.

### 3.8 PROTECTION OF EXISTING WORK

Before beginning any cutting or removal work, the Contractor shall carefully survey the existing work and examine the drawings and specifications to determine the extent of the work. The Contractor shall take all necessary precautions to insure against damage to such work to remain in place, to be reused, or to remain the property of the Government, and any damage to such work shall be repaired or replaced as approved by the Contracting Officer at no additional cost to the Government. The Contractor shall carefully coordinate the work of this section with all other work and construct and maintain shoring, bracing and supports, as required. The Contractor shall insure that structural elements are not overloaded and be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under any part of this contract.

### 3.9 PUBLIC UTILITIES, NOTICES, AND RESTRICTIONS

#### 3.9.1 General

The approximate location of all railroads, pipe lines, power and communication lines, and other utilities known to exist within the limits of the work are indicated on the drawings. The sizes, locations, and names of owners of such utilities are given from available information, but their accuracy is not guaranteed. Except as otherwise indicated on the drawings, all existing utilities will be left in place and the Contractor shall conduct his operations in such a manner that the utilities will be protected from damage at all times, or arrangements shall be made by the Contractor for their relocation at the Contractor's own expense. The Contractor shall be responsible for any damage to utilities known to exist and shall reimburse the owners for such damage caused by his operations.

#### 3.9.2 Relocation or Removal

Utilities to be relocated or removed not as part of this contract are designated "To be Relocated by Others" or "To be Removed by Others", respectively. Utilities shown on the plans and not so designated will be left in place and be subject to the provisions of the CONTRACT CLAUSE: PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS.

The Contractor may make arrangements with the owner for the temporary relocation and restoration of utilities not designated to be relocated, or for additional work in excess of the work needed to relocate utilities designated for relocation at no additional cost to the Government.

#### 3.9.3 Utilities Not Shown

If the Contractor encounters, within the construction limits of the entire project, utilities not shown on the plans and not visible as of the date of this contract and if such utilities will interfere with construction operations, he shall immediately notify the Contracting Officer in writing to enable a determination by the Contracting Officer as to the necessity for removal or relocation. If such utilities are left in place, removed or relocated, as directed by the Contracting Officer, the Contractor shall be entitled to an equitable adjustment for any additional work or delay.

#### 3.9.4 Coordination

The Contractor shall consult and cooperate with the owner of utilities that are to be relocated or removed by others to establish a mutual performance schedule and to enable coordination of such work with the construction work. These consultations shall be held as soon as possible after award of the contract or sufficiently in advance of anticipated interference with construction operations to provide required time for the removal or relocation of affected utilities.

#### 3.9.5 Notices

##### 3.9.5.1 Utilities To be Relocated or Protected

The Contractor shall notify the Contracting Officer, in writing, 14 calendar days prior to starting work on any utility to be relocated or protected. On each relocation, notification shall include dates on which the Contractor plans excavation, by-pass work, removal work and/or installation work, as applicable. The Contractor shall also notify the following representatives of utility owners not less than 30 days, unless otherwise specified, prior to start of work in the vicinity of their respective utilities.

Underground Service Alert of Southern California  
(714) 528-0322  
(800) 227-2600

CALTRANS  
Scott Neff  
(909) 383-6483

Riverside County Flood Control/Water Conservation District  
Steve Thomas  
(909) 955-1299

City of Lake Elsinore  
Ray O'Donnell - City Engineer  
(909) 674-3124

Elsinore Water District  
Steve Cordilla, Water Operations Manager  
(909) 674-2168

Elsinore Valley Municipal Water District  
Phillip Miller, District Engineer

(909) 674-3146

Southern California Edison Company  
Les Montgomery, Project Manager  
(909) 928-8237

General Telephone Exchange  
Marilyn Cripe, Network Engineer  
(909)929-9493

Mediaone Cable  
Ken Hansen  
(909) 270-3371

Southern California Gas Company  
Dan Orr  
(900)335-7847

#### 3.9.5.2 Existing Bench Marks and R/W Markers

The Contractor shall notify the Contracting Officer, in writing, 7 days in advance of the time he proposes to remove any bench mark or right-of-way marker.

#### 3.9.5.3 Disposal Site

There are no on-site permanent disposal sites. El Sobrante is a landfill available in the vicinity. Their address is 10910 Dawson Canyon Road, Corona, CA.

#### 3.9.5.4 Spill Reporting

The Contractor shall notify the Contracting Officer immediately after any spill, regardless of quantity, including all personnel exposures. The Contractor shall submit a written notification not later than 7 calendar days after the initial notification. The written notification shall include the following:

- a. Item spilled, leaked or releases in an unauthorized manner (Identification, Quantity and Manifest Numbers).
- b. Whether the amount spilled, leaked or released in an unauthorized manner is EPA reportable and, if reported, a copy of the report.
- c. Exact location of the spill, leak or unauthorized release.
- d. Nature of exposure to personnel.
- e. Containment procedures initiated.

- f. Anticipated cleanup and disposal procedure.
- g. Disposal location of spill, leak or unauthorized release residue.

### 3.9.6 Restrictions

#### 3.9.6.1 Representatives of Other Agencies

Personnel representing owners and agencies may be present for various portions of the work. However, the Contractor will be responsible only to the Contracting Officer.

#### 3.9.6.2 Traffic Control and Detour Plan

The Contractor shall develop a Traffic Control and Detour Plan and obtain an approval from the CALTRANS and City of Lake Elsinore prior to construction. The plan shall include vehicular detour plans, details of truck haul routes, details of roadway restriping and signage for vehicular circulation, and parking details.

#### 3.9.6.3 Existing Roads

The work shall be planned in such a manner that traffic on the existing roads outside actual construction areas and through the construction area shall be maintained at all times. The work area shall be examined carefully relative to the order and scope of work to be performed, with respect to the limiting provisions of the plans and specifications. The construction schedule shall be prepared giving full consideration to not impacting and to maintaining traffic on existing roads outside and through the construction area. Additional work on the existing roads may be done by others during the life of this contract.

#### 3.9.6.4 Access and Haul Roads

Plans shall be submitted for approval for all proposed access and haul roads, whether within or outside the limits of the construction area, at least 15 calendar days prior to construction of such roads. The plans shall indicate width of road, direction of traffic, road markings, type of guardrail, curves, grades, runouts, and other information in sufficient detail for studying safety of the proposed roads. Haul roads shall be proposed so that use of existing residential streets and roads are minimized.

#### 3.9.6.5 Public and Private Access Roads

When it is necessary for heavy equipment to operate on or to cross project roads or arterial roads, flaggers, signs, lights and/or other necessary safeguards shall be furnished to safely control and direct the flow of traffic. When it is necessary to operate on existing roads outside the construction area, all necessary permits shall be obtained from the appropriate private or public authority. Work shall be conducted in such manner so as to minimize obstruction and inconvenience to traffic on existing roads outside the construction limits. Spillage of earth, dusty materials, boulders, and mud on project roads or other road will not be

permitted. If spillage cannot be prevented, the spillage shall be immediately removed and such areas shall be kept clear throughout the workday. At the conclusion of each workday, such traveled areas shall be cleared of spillage, boulders, and mud.

#### 3.9.6.6 Maintenance of Roads

All haul and access roads, within the construction area, including the borrow areas, shall be maintained to provide vehicular access for the Government's vehicles and the Contractor's vehicles and equipment. Road maintenance shall include rock/mud slides, washouts, and any incident which would restrict vehicular/equipment access. Prior to any alterations of any road alignment, the Contractor shall receive an approval from the Contracting Officer. Road maintenance and alterations shall be performed by the Contractor at no additional cost to the Government.

#### 3.9.6.7 Traffic Safety

In accordance with CONTRACT CLAUSE: ACCIDENT PREVENTION, signs, barricades, and warning devices shall be provided, installed, and maintained as are required for protection of vehicular traffic at any location where operations interfere with public roads. Signs, barricades, lights, and signals, shall be in conformance with Part VI of the U.S. Department of Transportation Manual on Uniform Traffic Control Devices for Streets and Highways.

#### 3.9.6.8 Rock and Gravel

Rock and gravel for use on haul roads and other facilities may be obtained from any source within the excavation limits inside the project boundaries not designated for other use. The use of any such source shall be subject to approval by the Contracting Officer.

#### 3.9.6.9 Temporary Culverts.

Temporary culverts shall be provided as required for road drainage. Temporary culverts shall be corrugated metal pipe of adequate diameter. Exact locations of the temporary culverts shall be subject to approval by the Contracting Officer.

- a. All culverts within the construction area, including the borrow areas, shall be maintained to provide unrestricted flow through the culverts. Culvert maintenance shall include debris cleaning, repair of failures, and extension of culverts due to road alterations. Culvert maintenance shall be performed by the Contractor at no additional cost to the Government.

#### 3.9.6.10 Police, Highway Patrol, and Fire Department.

Police, Highway Patrol, and Fire Department shall be notified by the Contractor whenever a street is to be closed to traffic. If the closing is to be of long duration, a single notification to each department on the last working day before closing will be sufficient. A single notification

shall then be made at the time the street is again opened to traffic. If the closing is to be of short duration or if different sections of the streets are to be closed at different times, notifications shall be made on a day-to-day basis.

#### 3.9.7 Working Hours.

The Contractor shall restrict all construction activities to the following schedule:

|                    |                        |
|--------------------|------------------------|
| Monday thru Friday | 7:00 a.m. to 7:00 p.m. |
| Saturday           | 8:00 a.m. to 7:00 p.m. |

No work will be permitted on Sundays or Federal Holidays without the prior written approval from the Contracting Officer.

#### 3.9.8 Environmental Work Restrictions.

Noise from construction and construction related activities shall not exceed 60 decibel within 1,000 feet of environmentally sensitive habitat areas to the least Bell's vireo between April 1 and September 15. An environmental monitor (to be provided by the Government under separate contract) will monitor all construction activities which may emit noise levels exceeding 60 decibel from April 1 to September 15. Also reference Specifications Section: ENVIRONMENTAL PROTECTION for additional restrictions.

#### 3.9.9 Construction Water.

The Contractor shall be responsible for obtaining water for construction and irrigation maintenance purposes at no additional cost to the Government.

#### 3.9.10 Lighting.

The Contractor shall provide a minimum of 5 foot-candle lighting intensity for all construction areas during work hours.

#### 3.9.11 Identification of Vehicles.

All the Contractor's vehicles shall display suitable permanent identification.

#### 3.9.12 Construction Method Observation.

Any construction method, plant, or piece of equipment used on this contract shall not be considered proprietary, and can be inspected or photographed at any time by the Government, regulatory agencies, or any group approved by the Government.

#### 3.9.13 Contractor's Equipment.

The planned method of transportation and operation of cranes and other heavy equipment to be used in the performance of this contract shall be submitted for approval by the Contracting Officer. The plan shall include

the type, size, loadings of equipment, the proposed transportation routes, and work areas to be used on the project.

### 3.10 PUBLIC SAFETY.

Attention is directed to the CONTRACT CLAUSE: PERMITS AND RESPONSIBILITIES.

The Contractor shall provide temporary fencing, barricades, and/or guards, as required, to provide protection in the interest of public safety.

Whenever the Contractor's operations create a condition hazardous to the public, he shall furnish at his own expense and without cost to the Government, such flagmen and guards as are necessary to give adequate warning to the public of any dangerous conditions to be encountered and he shall furnish, erect, or maintain such fences, barricades, lights, signs and other devices as are necessary to prevent accidents and avoid damage or injury to the public. Flagmen and guards, while on duty and assigned to give warning and safety devices shall conform to applicable city, county, and state requirements. Should the Contractor appear to be neglectful or negligent in furnishing adequate warning and protection measures, the Contracting Officer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the Contractor without additional cost to the Government. Should the Contracting Officer point out the inadequacy of warning and protective measures, such action of the Contracting Officer shall not relieve the Contractor from any responsibility for public safety or abrogate his obligation to furnish and pay for those devices. The installation of any general illumination shall not relieve the Contractor of his responsibility for furnishing and maintaining any protective facility.

### 3.11 OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) STANDARDS.

The OCCUPATIONAL SAFETY and HEALTH ACT (OSHA) STANDARDS for CONSTRUCTION (Title 29, Code of Federal Regulations Part 1926 as revised from time to time), the California OCC. SAF. HEA. ACT (CAL-OSHA) STANDARDS FOR CONSTRUCTION, and the Corps of Engineers General Safety and Health Requirements Manual, EM 385-1-1, are all applicable to this contract. The most stringent requirement of the three standards will be applicable.

#### 3.11.1 Accident Reporting.

All mishaps shall be reported to the Corps of Engineers as follows:

- a. Report immediately for fatal injury, and/or three or more persons admitted to a hospital, and/or property damage in excess of \$200,000.
- b. Report within 12 hours of occurrence for all other incidents.
- c. All incidents shall be reported to the Resident Engineer (Mr. Dan Moore, (909)981-5571), and to the Corps Safety Officer (Mr. Tom Sallender, (909)794-7704), and to the Corps Safety Manager (Mr. Chuck Huston, (213) 280-8563, pager: (213) 447-2068).

In accordance with EM 385-1-1, the Contractor shall submit a written summary of worker's compensation claims which have been filled by worker's

in connection with work on the project. The summary shall be submitted at the time when the work is approximately 50 percent complete and at project completion. The summary shall include all subcontractors. The Contractor's and subcontractor's compensation insurance carrier shall certify that the summaries are "correct and true"

### 3.12 WATER CONTAMINATION.

In order to prevent contamination of ground water and water along waterways, all refuse, oil, greases, and other petroleum products; all toxic materials; all cement or concrete; or water containing such materials shall be disposed of in a manner to prevent their entry into the ground water or water. The Contractor shall submit a plan to the Contracting Officer for containment of all water contamination. The Contractor shall update the plan as the terrain changes during construction. Use of impervious aprons and containment areas are required for handling of lubrication, fuel, and other toxic fluids from fueling and washing of vehicles.

### 3.13 PERMITS.

#### 3.13.1 General.

Reference is made to the article of the contract entitled "Permits and Responsibilities", which obligates the Contractor to obtain all required licenses and permits. Also reference Specifications Section: ENVIRONMENTAL PROTECTION for additional permit requirements.

#### 3.13.2 National Pollutant Discharge Elimination System (NPDES) Permit.

The project requires an NPDES permit from the California State Water Resources Control Board, Division of Water Quality. The general permit requires development and implementation of Storm Water Pollution Prevention Plan (SWPPP), which shall be maintained on-site throughout the construction period. A copy of a plan shall be furnished by the Contractor to the Government for approval. The Contractor shall maintain a current copy of the plan on-site, and shall comply with all provisions of the plan, including updating and monitoring the plans effectiveness. Modifications to the plan as necessary to reflect Contractor's construction methods shall be submitted by the Contractor to the Government for approval.

#### 3.13.3 Encroachment Permits for Culvert Installation.

Permits are required from CALTRANS and the City of Lake Elsinore to construct the project culverts under HWY 74 and Baker Street, respectively.

### 3.14 CONTRACTOR SAFETY PERSONNEL REQUIREMENT.

#### 3.14.1 Safety Personnel

Full-time, on-site, safety coverage by the Contractor shall be required at all times during this contract. The Contractor shall employ at the project site to cover all hours of work at least one Safety and Occupational Health Professional or Safety Technician per shift, to manage the Contractor's

accident prevention program. A Safety and Occupational Health Professional shall manage the overall Safety program. The principal safety person (the Safety Professional) shall report to and work directly for the Contractors on-site top manager, higher level official, or corporate safety office. The Safety and Health staff shall have the authority to take immediate steps to correct unsafe or unhealthful conditions. The presence of a Safety and Health person will not abrogate safety responsibilities of other personnel.

#### 3.14.2 Qualifications for Safety and Health Professional.

(a) Shall have a degree in engineering or safety in at least a four year program from an accredited school and in addition, shall have been engaged in safety and occupational health for at least two (2) years, no time being credited to these two (2) years unless at least fifty (50) percent of the time each year was devoted to safety and occupational health; or

(b) Shall have legal registration as a Professional Engineer, Certified Safety Professional, or a Certified Safety Manager, and, in addition, shall have been engaged in safety and occupational health for at least one (1) year no time being credited to this one (1) year experience unless at least fifty (50) percent of the time was devoted to safety and occupational health; or

(c) Shall have degree other than that specified in (a) above and, in addition, shall have been engaged in safety and occupational health for at least three (3) years' no time being credited to these three (3) years unless at least fifty (50) percent of the time each year was devoted to safety and occupational health; or

(d) In lieu of a degree, shall have been engaged in safety and occupational health for at least five (5) years, no time being credited to these five (5) years unless at least fifty (50) percent of the time each year was devoted to safety and occupational health;

(e) First aid work is not creditable experience.

#### 3.14.3 Qualification for Safety and Health Technicians.

(a) A bachelors degree in safety or an associated discipline and currently employed in a safety position; or

(b) An associate degree in Safety or an associated discipline, three years field experience in Safety, and currently employed in a safety position; or

(c) Five years field experience in safety or an associated discipline and currently employed in a safety position.

(d) First Aid work is not creditable experience.

#### 3.14.4 Resume Submittal

The name and qualifications of nominated safety persons shall be furnished to the Contracting Officer (in resume format) for acceptability. A functional description of duties shall be provided prior to the pre-work conference. In addition, a copy of a letter from an authorized official of the Contractor which describes the duties and authority of the safety professional, including delegating sufficient authority to stop work to immediately correct the unsafe or unhealthful conditions.

### 3.15 NOTICE OF PARTNERSHIP.

The Government intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractors. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance and intended to achieve completion within budget, on schedule, and in accordance with plans and specifications. This partnership would be bilateral in makeup, and participation will be totally voluntary. Any cost associated with effectuating this partnership will be agreed to by both parties and will be shared equally. To implement this partnership initiative it is anticipated that within 60 days of Notice to Proceed the Contractor's on-site project manager and the Government's Resident Engineer would attend a two day partnership development seminar/team building workshop together with the Contractor's key on-site staff and key Government personnel. Follow-up workshop of 1 to 2 days duration would be held periodically throughout the duration of the contract as agreed to by the Contractor and Government.

### 3.16 AS-BUILT DRAWINGS.

#### 3.16.1 General.

The Contractor shall prepare and furnish the as-built drawings for the project. The as-built drawings 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 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. The drawings shall show the following information, but not be limited thereto:

(a) 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.

(b) The location and dimensions of any changes within the building or structures.

- (c) Correct grade or alignment of roads, channels, structures or utilities if any changes were made from contract plans.
- (d) Correct elevations if changes were made in site grading.
- (e) 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, dimensions of equipment foundations, etc.
- (f) The topography and grades of all drainage installed or affected as a part of the project construction.
- (g) All changes or modifications which result from the final inspection.
- (h) Where contract drawings or specifications allow options, only the option selected for construction shall be shown on the as-built drawings.

### 3.16.2 Preliminary As-Built Drawings.

The Contractor shall maintain one (1) set of full size, blue-line prints marked up in red to show the as-built conditions. This set of as-built prints shall be kept current and available at the job site at all times. All changes from what is shown on the contract plans, whether it be from changes requested by the Contracting Officer or resulting from 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 marked-up as-built prints will be jointly inspected for accuracy and completeness by the Contracting Officer and Contractor prior to submission of each monthly pay estimate. Information to be included on these preliminary drawings shall conform to the requirements as stated above. Any and all as-built modifications shall be reflected on all sheets affected by the modifications.

#### 3.16.2.1 Review Submittal.

Not later than 14 calendar days after acceptance of the project by the Government, the Contractor shall deliver to the Contracting Officer one (1) full size set of blue-line drawings marked up to depict the 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.

### 3.16.3 Computer Drawing Files (CADD)

#### 3.16.3.1 General.

The Contractor shall develop the final computer file as-built drawings from the approved preliminary drawings. The computer files shall be delivered in MicroStation file format DGN, a Computer Aided Design and Drafting

(CADD) program. Drawings shall be prepared in general accordance with the Los Angeles District manual "Standards Manual for U.S. Army Corps of Engineers Computer-Aided Design and Drafting (CADD) Systems".

#### 3.16.3.2 Original contract CADD files.

The Government will provide all the computerized drawing files, along with a listing and description of the file contents, used to produce plans to advertise this contract. The Contractor shall be responsible for downloading the computer files via one of the two methods described below.

(a) Receiving data via the Corps' file server. A formal request for the project files shall be submitted two (2) weeks in advance of the anticipated downloading. The project files, in MicroStation (CADD) binary format, will then be stored on the file server for a period of two (2) weeks for the Contractor to retrieve via modem. The Contractor will be provided all relevant information regarding access to the server via modem or Internet address.

Receiving data through tape media. The Government will provide all project drawing files on a CD-ROM format.

#### 3.16.3.3 Delivery.

Prior to finalizing the plans, two sets of drawings shall initially be provided to the Contracting Officer for review and approval. The Contracting Officer shall complete his review within ten (10) working days.

Upon final approval, the Contractor shall furnish two (2) full size sets and two (2) half size sets of the final as-built plans on reproducible mylars, and the computerized project files in MicroStation file format DGN on CD ROM. All project files, whether revised or not, shall be provided to the Contracting Officer.

#### 3.17 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (ER 415-1-15, 31 OCT 89)

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

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

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

b. The following 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.

MONTHLY ANTICIPATED ADVERSE WEATHER DAYS  
Work Days Based on five (5) Day Work Week

| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5   | 4   | 3   | 2   | 3   | 7   | 14  | 13  | 7   | 4   | 2   | 4   |

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

3.18 REQUIRED INSURANCE

Contractor shall maintain insurance in full force and effect throughout the term of this contract. The policy or policies of insurance maintained by Contractor shall provide the limits and coverages as set forth herein below.

Insurance shall be in force the first day of the term of this contract.

Each insurance policy required by this Contract shall contain the following clauses:

- a. "This insurance shall not be canceled, limited in scope of coverage or nonrenewed until after thirty (30) days written notice has been given to Riverside County, Flood Control And Water Conservation District, 1995 Market Street, Riverside, CA 92501-1719.
- b. "All rights of subrogation are hereby waived against the County of Riverside, and the members of the Board of Supervisors and elective or appointive officers or employees, when acting within the scope of their employment or appointment, and County Districts and their Board or Commissions which are governed by the County Board of Supervisors.
- c. "As respects operation of the named insured performed on behalf of

the Government, the following are added as additional insureds:  
The County of Riverside.

LIABILITY INSURANCE

| <u>Coverage</u>   | <u>Minimum Limits</u>                    |
|---|--|
| Comprehensive General Liability including Completed Operations, occurrence.<br>Broad Form Property Damage Endorsement, and Comprehensive Automobile Liability | \$1,000,000.00 combined single limit per |
| Worker's Compensation   | Statutory                                |

3.18.1 Worker's Compensation

Each liability and worker's compensation insurance policy required by this contract shall contain clause numbers 13.18 (a.) and (c.) above, and the following clause:

"It is agreed that any insurance maintained by the County of Los Angeles will apply in excess of, and not contribute with, insurance provided by this policy."

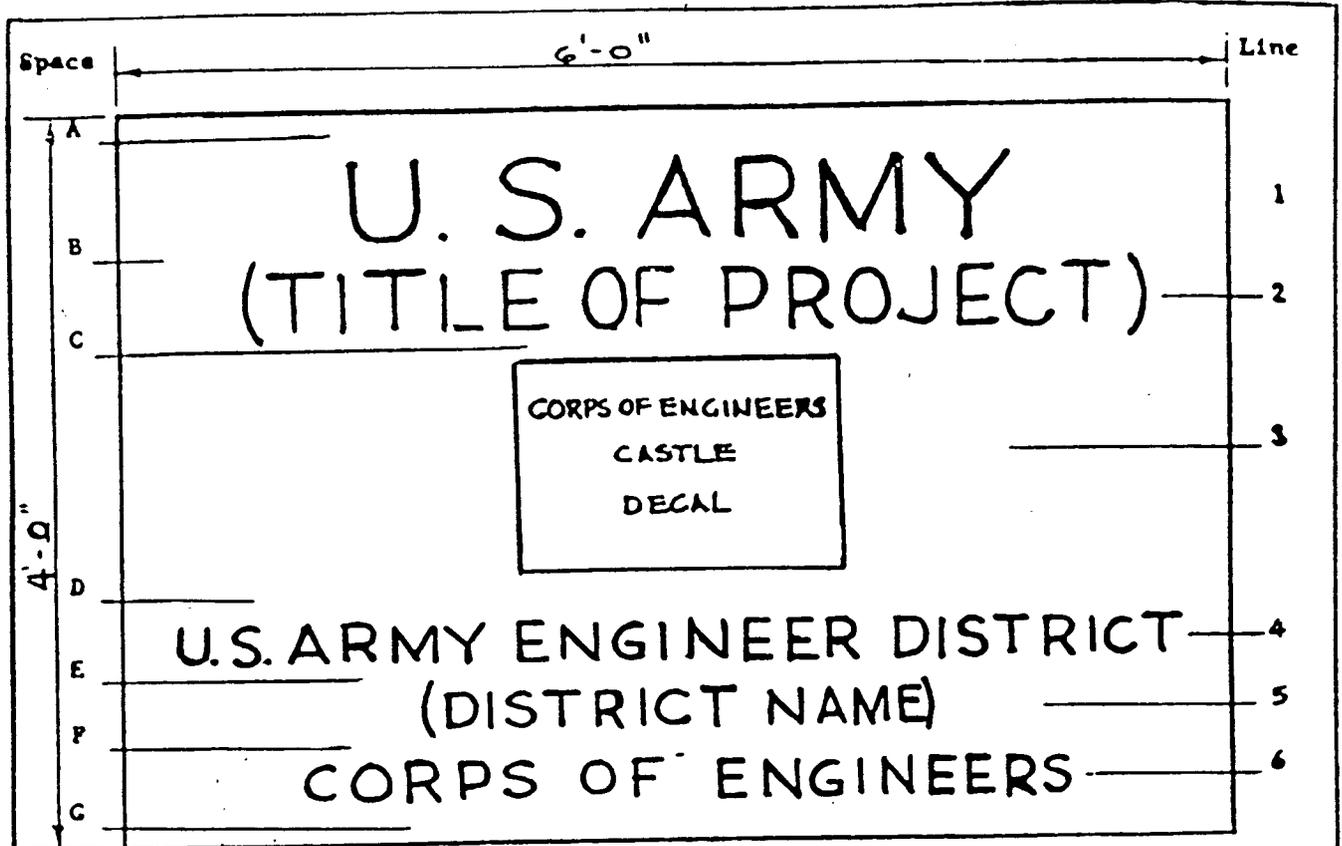
The procuring of such required policies of insurance shall not be construed to limit Contractor's liability hereunder not to fulfill the indemnification provisions and requirements of this Contract.

Contractor agrees to indemnify and save harmless agency, its officers, and employees from and against any and all claims, demands, losses, defense costs, or liability of any kind or nature which Agency, its officers, agents and employees may sustain or incur or which may be imposed upon them for injury to or death of persons, or damage to property as a result of, arising out of, or in any manner connected with Contractors performance under the terms of this contract, excepting only liability arising out of the sole negligence of agency.

3.19 POST-CONSTRUCTION CLEANUP AND OBLITERATION.

The Contractor shall obliterate all signs of temporary construction facilities such as haul roads, access roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the Contracting Officer. Excavation, filling, regrading and plowing of roadways and other construction areas will require the areas to be restored to project requirements subject to the approval of the Contracting Officer.

-- End of Section --



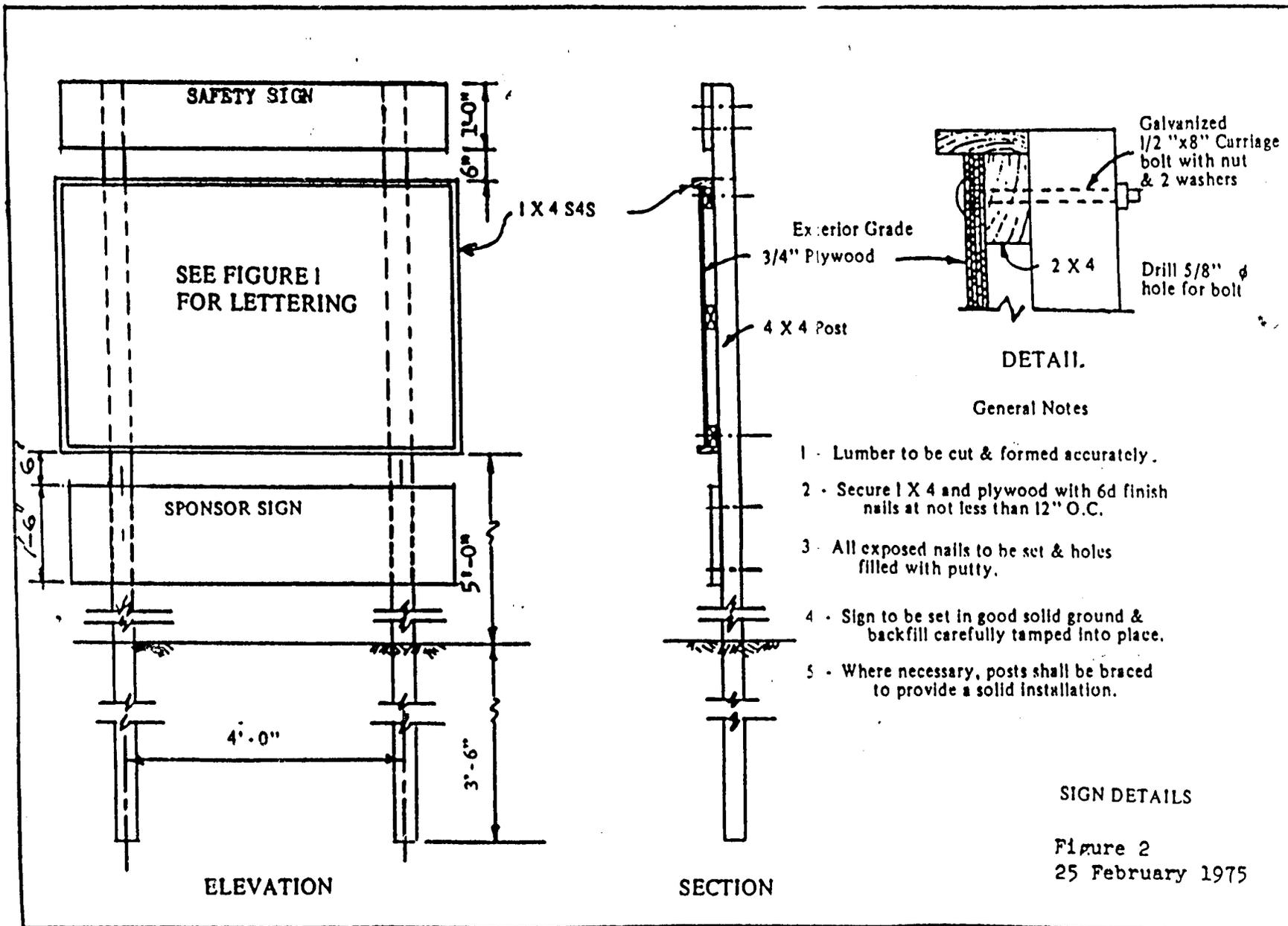
SCHEDULE

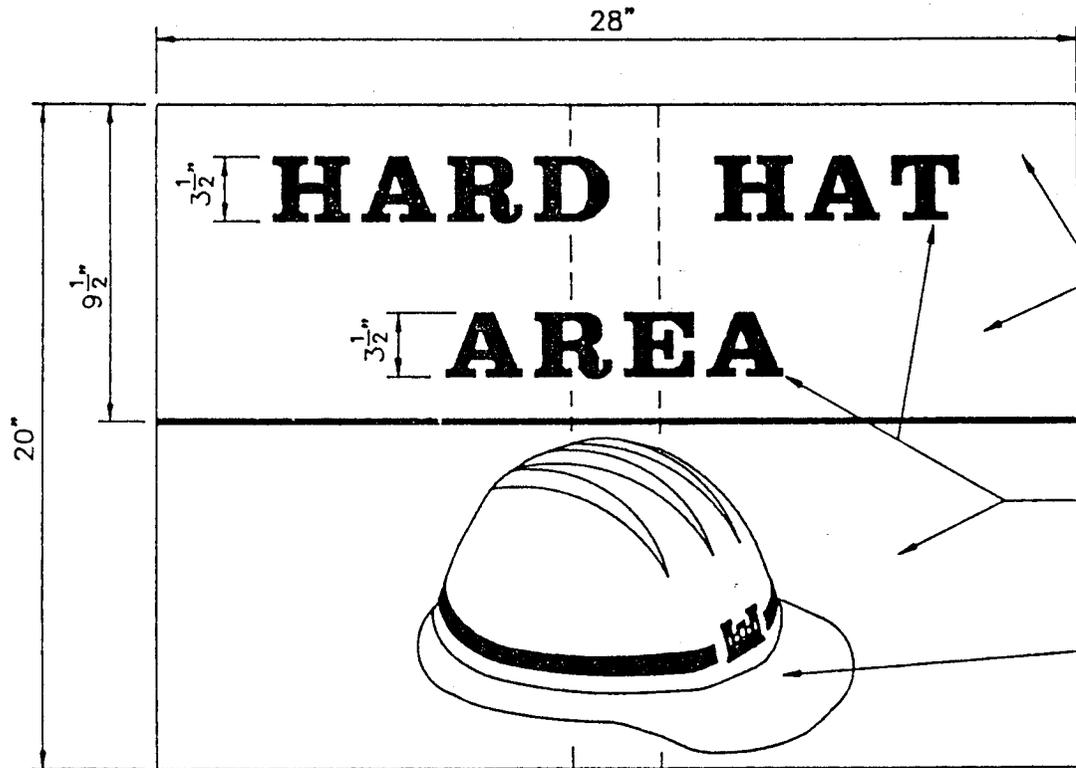
| <u>Space</u> | <u>Height</u> | <u>Line</u> | <u>Description</u>                   | <u>Letter Height</u> | <u>Stroke</u> |
|--------------|---------------|-------------|--------------------------------------|----------------------|---------------|
| A            | 3"            | 1           | U. S. ARMY                           | 5 1/2"               | 7/8"          |
| B            | 2"            | 2           | PROJECT NOMENCLATURE                 | 4"                   | 5/8"          |
| C            | 2"            | 3           | CORPS OF ENGINEERS CASTLE<br>(DECAL) | 1 1/2"               | --            |
| D            | 3"            | 4           | U. S. ARMY ENGINEER DISTRICT         | 2 3/4"               | 3/8"          |
| E            | 2"            | 5           | DISTRICT NAME                        | 2 1/4"               | 1/4"          |
| F            | 2"            | 6           | CORPS OF ENGINEERS                   | 2 1/2"               | 3/8"          |
| G            | 3"            |             |                                      |                      |               |

Lettering Color -- Black

PROJECT SIGN  
(Army-Civil Works)

Figure 1  
14 August 1972





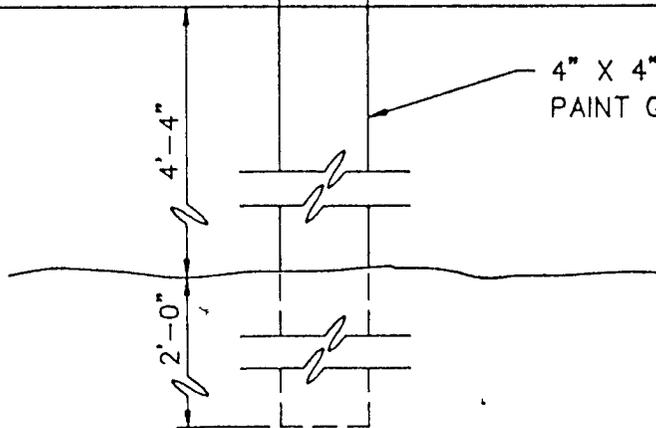
WHITE:  
PAINT BACK OF SIGN WHITE

GREEN

HARD HAT DECAL FURNISHED  
BY GOVERNMENT



4" X 4" POST  
PAINT GREEN



GENERAL NOTES:

1. Green & White Paint shall be opaque glossy as specified in ANSI Standard Z53.1.
2. Bolt Sign to post w/2 1/2" dia. Carriage Bolts.

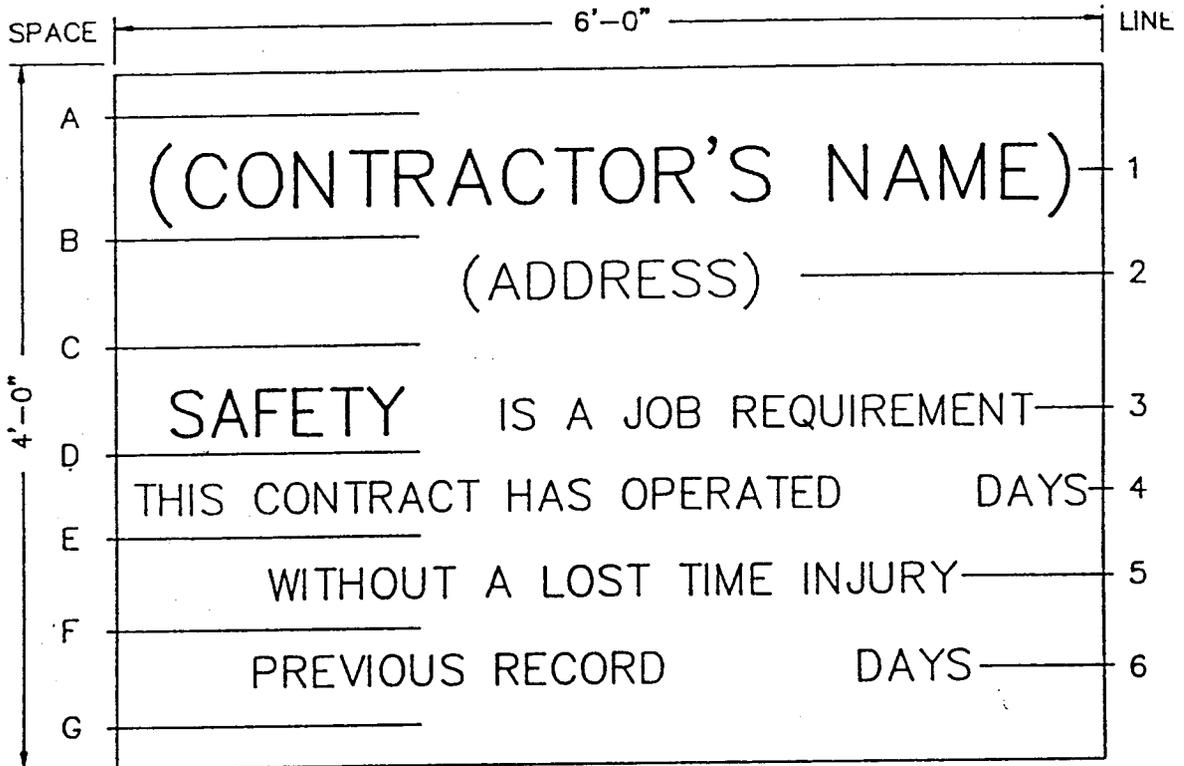
STANDARD DETAIL  
**HARD HAT SIGN**

U.S. ARMY ENGINEER DISTRICT  
SACRAMENTO

Drawn T. Tufts  
Checked R. Simmons

Not to Scale  
NOV. 1987

File No. 80-25-774



### SCHEDULE

| <u>SPACE</u> | <u>HEIGHT</u> | <u>LINE</u> | <u>DISCRIPTION</u>                 | <u>LETTER HEIGHT</u> |
|--------------|---------------|-------------|------------------------------------|----------------------|
| A            | 5"            | 1           | CONTRACTOR'S NAME                  | 5"                   |
| B            | 3"            | 2           | ADDRESS                            | 3"                   |
| C            | 6"            | 3           | <b>SAFETY</b> IS A JOB REQUIREMENT | 4 1/2" & 3"          |
| D            | 3"            | 4           | ALL LETTERING                      | 3"                   |
| E            | 3"            | 5           | ALL LETTERING                      | 3"                   |
| F            | 3"            | 6           | ALL LETTERING                      | 3"                   |
| G            | 5"            |             |                                    |                      |

NOTE:

LETTERING SHALL BE BLACK No. 27038, FEDERAL STANDARD 595.  
SIGN SHALL BE INSTALLED IN THE SAME MANNER  
AS THE PROJECT SIGN.

STANDARD DETAIL  
**SAFETY SIGN**  
U S ARMY ENGINEER DISTRICT  
SACRAMENTO

Drawn T. Tufts Not to Scale  
Checked R. Simmons NOV. 1987  
File number 80-25-707

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-- End of Section Table of Contents --

## SECTION 01270

## MEASUREMENT AND PAYMENT

## PART 1 GENERAL

## 1.1 DIVERSION AND CONTROL OF WATER

Payment for Diversion and Control of Water will be made at the applicable contract price, which payment shall constitute full compensation for diverting and controlling the water, complete.

## 1.2 CLEAR SITE AND REMOVE OBSTRUCTIONS

Payment for Clear Site and Remove Obstructions will be made at the applicable contract price, which payment shall constitute full compensation for clearing and grubbing within the rights-of-way and at fill sites inside the construction easement and removal of all indicated obstructions within the project limits. Except as otherwise specified, payment includes all applicable earthwork; removing and plugging abandoned lines; concrete plugging of existing two 24-inch diameter CMP culverts under Baker Street; removal of existing asphalt pavement, stone, reinforced concrete, fencing, grouted stone work; removal of miscellaneous trash and debris; removal of vegetation; removal of side drains, pipes and poles; removal of materials for salvage; protection, replacement or restoration of utilities, fences, walls and features indicated to remain; and the disposal of all materials.

## 1.3 EXCAVATION

## 1.3.1 Measurement

## 1.3.1.1 Excavation

A survey of the site shall be made prior to commencement of work, and all measurements will be based on this survey without regard to any changes in the site that may be made between the excavation lines and grades indicated on the drawings or staked in the field and the ground surfaces as indicated by the above mentioned survey. The actual slopes as excavated may be greater or less than those indicated or staked, depending on the materials excavated and methods used in performing the work, but such alterations shall not change the measurement for payment from the original lines as specified herein. The quantity of directed excavation necessary for the removal of unsatisfactory foundation material as specified shall be included in the measurement of the excavation where the unsatisfactory soils are encountered. Quantities will be computed in cubic yards by the average end area method and the planimeter will be considered a precise instrument for measurement of plotted cross sections. All excavation outside of excavation lines shown on the drawings will be considered as being for convenience of the Contractor.

## 1.3.2 Payment

#### 1.3.2.1 Excavation, Pond

Payment for Excavation, Pond will be made at the applicable contract price, which payment shall constitute full compensation for excavation to the lines and grades for pond construction and disposal of excavated materials, including the 6-inch stripping of topsoil in new landscaping areas northwest of HWY 74, complete.

#### 1.3.2.2 Excavation, Meandering Channel

Payment for Excavation, Meandering Channel will be made at the applicable contract price, which payment shall constitute full compensation for excavation to the lines and grade for the meandering channel, including the confluence construction with existing Temescal Creek, and disposal of excavated materials, complete.

#### 1.3.2.3 Unsatisfactory Soils

No separate payment will be made for the excavation and disposal of unsatisfactory soils. When such excavation is directed, payment therefore will be included in the applicable contract price for the items of work under which the unsatisfactory soils are encountered. When there is no applicable contract item an adjustment will be made.

#### 1.3.2.4 Excavation for Structures

No separate payment will be made for excavation for structures. All costs, therefore, shall be included in the applicable contract price for the items to which the work applies.

#### 1.3.2.5 Trenches

No separate payment will be made for excavation of pipe trenches. All costs in connection therewith shall be included in the applicable contract prices for the items to which the work applies.

### 1.4 FILLS

#### 1.4.1 Measurement

Measurement for payment for fills will be made between the excavation and structure lines and the fill limit lines, or between the ground lines and fill lines, as indicated or staked in the field. Quantities will be computed in cubic yards by the average end area method and the planimeter will be considered a precise instrument for measuring plotted cross sections.

#### 1.4.2 Payment

##### 1.4.2.1 Compacted Fill

Payment for Compacted Fill will be made at the applicable contract price, which payment shall constitute full compensation for obtaining, placing and

compacting the fill.

#### 1.4.2.2 Fill for Structures

No separate payment will be made for fill or backfill about structures. All such costs shall be included in the applicable contract prices for the items to which the work applies.

#### 1.4.2.3 Trenches

No separate payment will be made for backfilling of pipelines. All costs in connection therewith shall be included in the contract price for the items to which the work applies.

#### 1.4.2.4 Subgrade Preparation

No separate payment will be made for subgrade preparation and all costs in connection therewith shall be included in the contract prices for the items to which the work applies.

#### 1.4.2.5 Directed Overcut

Backfill for directed overcut, except unsatisfactory material, will be measured and paid for at the applicable contract price for the type of fill placed therein. When there is no applicable contract item, an adjustment in the contract price will be made.

#### 1.4.2.6 Borrow

No separate payment will be made for borrow.

#### 1.5 HWY 74 CULVERT

Payment for Hwy 74 Culvert will be made at the applicable contract price, which payment shall constitute full compensation for constructing the culvert, including earthwork, cement sand slurry backfill, concrete, steel reinforcement, inlet structure, pipe, and outlet structure, 4-foot high fencing, object marker, traffic detours, protection of existing pipelines and utilities, and protection of existing landscaping, complete. The earthwork included shall be only that earthwork which is located outside the limits of earthwork for which other payment is provided.

#### 1.6 BAKER STREET CULVERT

Payment for Baker Street Culvert will be made at the applicable contract price, which payment shall constitute full compensation for constructing the culvert, complete, including earthwork, concrete, steel reinforcement, inlet structure, pipe, and outlet structure, 4-foot high fencing, object marker, traffic detours, protection of existing pipelines and utilities, and protection of existing landscaping, complete. The earthwork included shall be only that earthwork which is located outside the limits of earthwork for which other payment is provided.

#### 1.7 STONE

### 1.7.1 Measurement

The quantity of stone of various sizes to be paid for will be the number of tons (2,000 pounds), determined by scale weights, acceptably placed within the lines and grades shown on the drawings or directed by the Contracting Officer.

### 1.7.2 Payment

#### 1.7.2.1 Stone

Payment for Stone used in stone protection and grouted stone weirs will be made at the applicable contract price, which payment shall constitute full compensation for obtaining and placing the stone, complete.

## 1.8 GROUTING STONE WEIRS

### 1.8.1 Measurement

The quantity of grout to be paid for will be measured to the nearest cubic yard by weighing all ingredients, including cement, in trial batches of grout and converting each batch to absolute volume. The volume determined and the number of batches of grout of corresponding proportions acceptable placed in the work shall be used to determine the quantity of grout.

### 1.8.2 Payment

Payment for Grouting Stone Weirs will be made at the applicable contract price, which payment shall constitute full compensation for materials including Portland Cement, mixing, transporting placing, finishing, and curing grout used for grouting stone weirs, complete

## 1.9 FENCING

### 1.9.1 Measurement

Measurement of Fencing, will be to the nearest linear foot horizontally along the centerline from end-to-end of each type of fence in place. Fencing on inlet and outlet structures, retaining walls, and temporary fencing will not be included in the measurement.

### 1.9.2 Cable Fencing

Payment for Cable Fencing will be made at the applicable contract price, which payment shall constitute full compensation for the fencing, complete in place, including concrete footing, post, cable, hardware, and painting.

### 1.9.3 Chainlink Fencing

Payment for Chainlink Fencing will be made at the applicable contract price, which payment shall constitute full compensation for the fencing, complete in place, including concrete footing, post, chainlink fabric, and hardware.

### 1.10 GATES AND BARRICADES

Payment for Gates and Barricades will be made at the applicable contract price which payment shall constitute full compensation for providing and installing the gates and barricades, as shown and directed complete in place.

### 1.11 GEOTEXTILE

#### 1.11.1 Measurement

Installed geotextiles will be measured for payment in place to the nearest square yard of protected area as delineated in the drawings.

#### 1.11.2 Payment

Payment shall be made at the contract unit price and shall constitute full compensation to the contractor for providing all plant, labor, material, and equipment and performing all operations necessary for the complete and satisfactory installation of the geotextile. The following items are included in the contract unit price for "geotextile" and shall not be counted a second time in the process of determining the extent of geotextile placed: Material and associated equipment and operation used in laps, seams, or extra length; securing pins and associated material, equipment, and operations; and material and associated equipment and operations used to provide cushioning layer of sand or gravel or both to permit increase in allowable drop height of stone. No payment will be made for geotextiles replaced because of waste, contamination, damage, repair, or due to contractor fault or negligence.

### 1.12 WATER SUPPLY CONNECTION

#### 1.12.1 [Enter Appropriate Subpart Title Here]

Payment will be made for costs associated with providing all labor, materials, and equipment for installing a complete water supply connection. Payment will constitute full compensation for connection to the source of water, installation of associated appurtenances including 6-inch water supply line, 6-inch water meter, backflow prevention unit assembly, and flow sensor, coordinating with applicable regulatory agencies, and obtaining permits and paying for all fees associated with the connection and transfer of meter to Riverside County Flood Control District at the end of the contract.

### 1.13 IRRIGATION - TEMPORARY SYSTEM

Payment will be made for costs associated with providing all labor, materials, and equipment for installing and removing after maintenance period the temporary irrigation system. Payment will constitute full compensation for installing and removing the system beginning at the downstream side of the flow sensors, including leased or purchased main and lateral piping with associated components and fittings and sprinkler heads complete. Payment will include all connection costs for electrical system, irrigation controller, and water service fees. No item related to the irrigation system will remain on-site except as noted on plans for

abandonment. Removal will be conducted with care to prevent damage to maturing plant materials. If damage occurs by Contractor, Contracting Officer will determine mitigation for any damage caused. Damage repair will be the responsibility of the Contractor. Payment shall also include plugging the irrigation lines under Hwy 74 with concrete.

1.14 HYDROSEED MIX NO. 1 - WILLOW RIPARIAN WOODLAND

1.14.1 Measurement

Hydroseeding will be measured for payment by the acre based on the area actually sprayed in the field.

1.14.2 Payment

Payment will be made for costs associated with providing all labor, materials, and equipment for hydroseeding/hydromulching the designated willow riparian woodland area constituting full compensation for obtaining, mixing and spraying hydromulch, soil preparation, tillage, weed abatement, complete. Payment will not include seeding of areas required as a result of Contractor's negligence or damages caused by Contractor.

1.15 HYDROSEED MIX NO. 2 - UPLAND SCRUB

1.15.1 Measurement

Hydroseeding will be measured for payment by the acre based on the area actually sprayed in the field.

1.15.2 Payment

Payment will be made for costs associated with providing all labor, materials, and equipment for hydroseeding/hydromulching the designated upland scrub area constituting full compensation for obtaining, mixing and spraying hydromulch, soil preparation, tillage, weed abatement, complete. Payment will not include seeding of areas required as a result of Contractor's negligence or damages caused by Contractor.

1.16 HYDROSEED MIX NO. 3 - EMERGENT FRESH WATER MARSH

1.16.1 Measurement

Hydroseeding will be measured for payment by the acre based on the area actually sprayed in the field.

1.16.2 Payment

Payment will be made for costs associated with providing all labor, materials, and equipment for hydroseeding/hydromulching the designated emergent fresh water marsh area constituting full compensation for obtaining mixing and spraying hydromulch, soil preparation, tillage, weed abatement, complete. Payment will not include seeding of areas required as a result of Contractor's negligence or damages caused by Contractor.

## 1.17 PLANT MATERIAL - 1 GALLON SHRUBS

## 1.17.1 Measurement

One (1) gallon container shrubs will be measured for payment by the number actually installed and accepted.

## 1.17.2 Payment

Payment will be made for costs associated with providing all labor, materials, and equipment for installing one (1) gallon container shrubs constituting full compensation for obtaining, planting, and backfilling complete.

## 1.18 PLANT MATERIAL - 5 GALLON SHRUBS

## 1.18.1 Measurement

Five (5) gallon shrubs will be measured for payment by the number actually installed and accepted.

## 1.18.2 Payment

Payment will be made for costs associated with providing all labor, materials, and equipment for installing five (5) gallon container shrubs constituting full compensation for obtaining, planting, and backfilling complete.

## 1.19 PLANT MATERIAL - 1 GALLON TREES

## 1.19.1 Measurement

One (1) gallon container trees will be measured for payment by the number actually installed and accepted.

## 1.19.2 Payment

Payment will be made for costs associated with providing all labor, materials, and equipment for installing one (1) gallon container trees constituting full compensation for obtaining, planting, and backfilling complete.

## 1.20 PLANT MATERIAL - 5 GALLON TREES

## 1.20.1 Measurement

Five (5) gallon trees will be measured for payment by the number actually installed and accepted.

## 1.20.2 Payment

Payment will be made for costs associated with providing all labor,

materials, and equipment for installing five (5) gallon container trees constituting full compensation for obtaining, planting, and backfilling complete.

1.21 POST INSTALLATION MAINTENANCE - TEMPORARY IRRIGATION & PLANTING

Payment will be made for costs associated with providing all labor, materials, and equipment for maintaining a fully automatically operating temporary irrigation system and maintaining the newly planted areas constituting full compensation for the prescribed twelve (12) month guarantee period full coverage and including the cost of water and electricity for acceptable healthy plant conditions and weed-free areas and all necessary repairs.

1.22 POND AERATION SYSTEM

Payment for Pond Aeration System will be made at the applicable contract price, which payment shall constitute full compensation for providing all labor, materials, and installation necessary for the work, including foundation grading, concrete pads, pump, enclosures, tubing, diffusers, and electrical appurtenances complete, in place.

1.23 POST INSTALLATION MAINTENANCE OF POND AERATION SYSTEM

Payment for Post Installation Maintenance of Aeration System will be made at the applicable contract price, which payment shall constitute full compensation for cost associated with providing all labor, materials, and electricity to maintain and operate the aeration system for a twelve (12) month, complete.

1.24 ELECTRICAL CONNECTION

Payment for Electrical Connection will be made at the applicable contract price, which payment shall constitute full compensation for providing a functional permanent electrical power service connection and all electrical equipment, accessories, and materials. Payment will not be made for the electricity usage for which separate payment is provided.

1.25 AS-BUILT DRAWINGS

Payment for As-built drawings will be made at the applicable contract price, which payment shall constitute full compensation for all costs incurred by the Contractor in the preparation and furnishing of approved as-built drawings.

OPTION ITEM:

1.26 ADDITIONAL POST INSTALLATION MAINTENANCE - TEMPORARY IRRIGATION AREAS AND POND AERATION SYSTEM

Payment will be made for costs associated with providing all labor, materials, and equipment for maintaining a fully automatically operating temporary irrigation system and pond aeration system for an additional twelve (12) month period including the cost of water and electricity.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

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-- End of Section Table of Contents --

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

SD-19 Operation and Maintenance Manuals

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 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."

1.2.2 Information Only

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

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for 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 WITHHOLDING OF PAYMENT

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

#### PART 2 PRODUCTS (Not Applicable)

#### PART 3 EXECUTION

##### 3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

### 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; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 30 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. 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.

### 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 15 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 sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

### 3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

#### 3.5.1 Procedures

Contractor shall submit six (6) copies of submittals to the Contracting Officer.

#### 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 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

### 3.7 GOVERNMENT APPROVED 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. Two (2) copies of the submittal will be retained by the Contracting Officer and four (4) copies of the submittal will be returned to the Contractor.

### 3.8 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.

### 3.9 STAMPS

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

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

-- End of Section --





















**SUBMITTAL REGISTER**  
(ER 415 1-10)

CONTRACT NO.  
DACW09-00-B-0004

SPECIFICATION SECTION  
**02921**

TITLE AND LOCATION  
**GUNNERSON POND RESTORATION**

CONTRACTOR

| ACTIVITY NO. a. | TRANSMITTAL NO. b. | ITEM NO. c. | SPECIFICATION PARAGRAPH NUMBER d. | DESCRIPTION OF ITEM SUBMITTED e. | TYPE OF SUBMITTAL |             |           |            |         |              |         |         |           |     |             | CLASSIFICATION | CONTRACTOR SCHEDULE DATES |          |      |      | CONTRACTOR ACTION |      | GOVERNMENT ACTION |      | REMARKS |     |
|-----------------|--------------------|-------------|-----------------------------------|----------------------------------|-------------------|-------------|-----------|------------|---------|--------------|---------|---------|-----------|-----|-------------|----------------|---------------------------|----------|------|------|-------------------|------|-------------------|------|---------|-----|
|                 |                    |             |                                   |                                  | DRAWINGS          | INSTRUMENTS | SCHEDULES | STATEMENTS | REPORTS | CERTIFICATES | SAMPLES | RECORDS | MATERIALS | O&M | INFORMATION |                | GOVERNMENT                | REVIEWER | DATE | DATE | DATE              | DATE | DATE              | DATE |         |     |
|                 |                    |             |                                   |                                  | f.                | g.          | h.        | i.         | j.      | k.           | l.      | m.      | n.        | o.  | p.          | q.             | r.                        | s.       | t.   | u.   | v.                | w.   | x.                | y.   | z.      | aa. |
|                 |                    |             | 1.2                               | Equipment                        | X                 |             |           |            |         |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 1.2                               | Surface Erosion Control Material | X                 |             |           |            |         |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 1.2                               | Chemical Treatment Material      | X                 |             |           |            |         |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 1.2                               | Equipment                        |                   |             | X         |            |         |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 1.3.1                             | Delivery                         |                   |             |           | X          |         |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 3.2.1                             | Finished Grade and Topsoil       |                   |             |           | X          |         |              |         |         |           |     |             | X              |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 1.2                               | Topsoil                          |                   |             |           | X          |         |              |         |         |           |     |             | X              |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 3.1.3                             | Equipment Calibration            |                   |             |           |            | X       |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 2.1                               | Seed                             |                   |             |           |            | X       |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 2.2                               | Fertilizer                       |                   |             |           |            | X       |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 1.2                               | Organic Material                 |                   |             |           |            | X       |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 2.5                               | Mulch                            |                   |             |           |            | X       |              |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 2.5                               | Mulch                            |                   |             |           |            |         | X            |         |         |           |     | X           |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 3.4                               | Quantity Check                   |                   |             |           |            |         |              |         |         | X         | X   |             |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 3.7                               | Seed Establishment Period        |                   |             |           |            |         |              |         |         | X         | X   |             |                |                           |          |      |      |                   |      |                   |      |         |     |
|                 |                    |             | 3.7.3.3                           | Maintenance Record               |                   |             |           |            |         |              |         | X       | X         |     |             |                |                           |          |      |      |                   |      |                   |      |         |     |







**SUBMITTAL REGISTER**  
(ER 415 1-10)

CONTRACT NO.  
DACW09-00-B-0004

TITLE AND LOCATION

**GUNNERSON POND RESTORATION**

CONTRACTOR

SPECIFICATION SECTION

**03307**

| ACTIVITY NO.<br>a. | TRANSMITTAL NO.<br>b. | ITEM NO.<br>c. | SPECIFICATION PARAGRAPH NUMBER<br>d. | DESCRIPTION OF ITEM SUBMITTED<br>e. | TYPE OF SUBMITTAL |             |           |            |         |              |         |         |     |                  |            | CLASSIFICATION | CONTRACTOR SCHEDULE DATES |         |          | CONTRACTOR ACTION |                      | GOVERNMENT ACTION |    | REMARKS<br>aa. |    |  |
|--------------------|-----------------------|----------------|--------------------------------------|-------------------------------------|-------------------|-------------|-----------|------------|---------|--------------|---------|---------|-----|------------------|------------|----------------|---------------------------|---------|----------|-------------------|----------------------|-------------------|----|----------------|----|--|
|                    |                       |                |                                      |                                     | DRAWINGS          | INSTRUMENTS | SCHEDULES | STATEMENTS | REPORTS | CERTIFICATES | SAMPLES | RECORDS | O&M | INFORMATION ONLY | GOVERNMENT |                | APPROVED                  | REMOVED | REVIEWER | DATE              | SUBMIT TO GOVERNMENT | DATE              |    |                |    |  |
|                    |                       |                |                                      |                                     | f.                | g.          | h.        | i.         | j.      | k.           | l.      | m.      | n.  | o.               | p.         | q.             | r.                        | s.      | t.       | u.                | v.                   | w.                | x. | y.             | z. |  |
|                    |                       |                | 2.1.3.1                              | Air-Entraining Admixture            | X                 |             |           |            |         |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 1.3                                  | Accelerating Admixture              | X                 |             |           |            |         |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 2.1.5                                | Curing Materials                    | X                 |             |           |            |         |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 3.1.5.3                              | Batching and Mixing Equipment       | X                 |             |           |            |         |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 3.2                                  | Conveying and Placing Concrete      | X                 |             |           |            |         |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 1.3                                  | Formwork                            |                   |             |           |            | X       |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 2.1.2                                | Aggregates                          |                   |             |           |            | X       |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 1.2.3                                | Concrete Mixture Proportions        |                   |             |           |            | X       |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 1.3                                  | Grout Mixture Proportions           |                   |             |           |            | X       |              |         |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 2.1.1                                | Cementitious Materials              |                   |             |           |            |         |              |         | X       |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |
|                    |                       |                | 2.1.2                                | Aggregates                          |                   |             |           |            |         |              | X       |         |     |                  | X          |                |                           |         |          |                   |                      |                   |    |                |    |  |







## INSTRUCTIONS

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

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

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

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

Reverse of ENG Form 4025

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## SECTION 01354

## ENVIRONMENTAL PROTECTION

## PART 1 GENERAL

## 1.1 REFERENCES

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

## CODE OF FEDERAL REGULATIONS (CFR)

40 CFR 261 Identification and Listing of Hazardous Waste

## ENGINEERING MANUALS (EM)

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

## 1.2 DEFINITIONS

Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of plant or animal communities; or degrade the environment from an aesthetic, cultural or historic perspective. Environmental protection is the prevention/control of pollution and habitat disruption that may occur during construction. The control of environmental pollution and damage requires consideration of air, water, land, biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive materials; and other pollutants.

## 1.3 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Environmental Protection Plan; GA. Retention Pond Removal Plan; GA

Submit an Environmental Protection Plan. The Government will consider an interim plan for the first 30 days of operations. GA

Submit plan detailing Contractor's procedures for testing and removal of retention pond sediment. GA

#### 1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction.

##### 1.4.1 Protection of Features

This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984). The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause which are not specially identified on the drawings as environmental features requiring protection. The Contractor shall protect those environmental features, indicated specially on the drawings, in spite of interference which their preservation may cause to the Contractor's work under the contract.

##### 1.4.2 Permits

This section supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES to the extent that the Government has already obtained environmental permits. The Government has obtained a 1601 Streambed Alteration Agreement from the California Department of Fish and Game and a 401 certification from the Regional Water Quality Control Board.

The contractor shall comply with the terms, and conditions of these permits. The contractor shall also comply with other environmental commitments made by the Government as specified in this section.

##### 1.4.2.1 National Pollutant Discharge Elimination System (NPDES) Permit

The Contractor shall obtain a NPDES Construction Storm Water Permit from the State Water Resources Board, which requires that a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and maintained on-site throughout the construction period. With a minimum of two (2) days prior to the start of construction activities, the Contractor shall submit a Notice of Intent (NOI) to:

State Water Resources Control Board  
Division of Water Quality  
ATTN: Storm Water Permit Unit  
P.O. Box 1977  
Sacramento, CA 95812-1977  
(916) 657-1146

Copies of the NOI and SWPPP shall be provided to the Contracting Officer.

##### 1.4.3 Special Environmental Requirements

The Contractor shall comply with the special environmental requirements included in paragraph 3.1.2 of this section. These special environmental requirements are an outgrowth of environmental commitments made by the

Government during the project development.

#### 1.4.4 Environmental Assessment of Contract Deviations

The Contract specifications have been prepared to comply with the special conditions and mitigation measures of an environmental nature which were established during the planning and development of this project. The Contractor is advised that deviations from the drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, alternate access routes, etc.) could result in the requirement for the Government to reanalyze the project from an environmental standpoint. Any deviations from the construction methods and procedures indicated by the plans and specifications which may have an environmental impact will require an extended review, processing, and approval time by the Government. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

#### 1.5 ENVIRONMENTAL PROTECTION PLAN

Within 20 calendar days of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan not later than 30 calendar days after receipt of the Notice to Proceed. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions which the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The environmental protection plan shall include, but not be limited to, the following:

##### 1.5.1 List of State and Local Laws and Regulations

The Contractor shall provide as part of the Environmental Protection Plan a list of all State and local environmental laws and regulations which apply to the construction operations under the Contract.

##### 1.5.2 Spill Control Plan

The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

- a. The name of the individual who will be responsible for implementing and supervising the containment and cleanup.
- b. Training requirements for Contractor's personnel and methods of accomplishing the training.
- c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.
- d. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
- e. The methods and procedures to be used for expeditious contaminant cleanup.
- f. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

#### 1.5.3 Recycling and Waste Minimization Plan

The Contractor shall submit a Recycling and Waste Minimization Plan as a part of the Environmental Protection Plan. The plan shall detail the Contractor's actions to comply with the following recycling and waste minimization requirements:

- a. The Contractor shall participate in State and local government sponsored recycling programs to reduce the volume of solid waste materials at the source.
- b. The Contractor shall ensure that all trash cans and waste disposal dumpsters are kept covered and secured in order to minimize the attraction to pest and nuisance wildlife species.

#### 1.5.4 Contaminant Prevention Plan

As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

#### 1.5.5 Environmental Monitoring

The Contractor shall include in the plan the details of environmental monitoring requirements under the laws and regulations and a description of how this monitoring will be accomplished. A biological monitor (to be provided by the Government under separate contract) shall be on site to ensure compliance with the terms and conditions of permits and special environmental requirements, paragraph 3.1.2. The biological monitor shall work with the Contractor to delineate all construction zones, including roads, borrow sites, temporary stockpile areas, and staging areas prior to clearing and grubbing. The biological monitor shall monitor dewatering operations, and diversions, among other duties, to ensure no permanent or temporary harm results to adjacent riparian vegetation or other environmentally sensitive resources. Verbal and written communication between the biological monitor and the Contractor shall occur through the Contracting Officer. The Contractor shall not take direction from the biological monitor, but from the Contracting Officer. The biological monitor, through the Contracting Officer or his representative, has the authority to temporarily halt work that directly or indirectly impacts known or discovered biological resources in or adjacent to environmental sensitive areas.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS

3.1.1 Tree Protection

No ropes, cables, or guys shall be fastened to or attached to any tree(s) for anchorage unless specifically authorized by the Contracting Officer. Where such special use is permitted, the Contractor shall provide effective protection to prevent damage to the tree and other land and vegetative resources. Unless specifically authorized by the Contracting Officer, no construction equipment or materials shall be placed or used within the drip line of trees shown on the drawings to be saved. No excavation or fill shall be permitted within the drip line of trees to be saved except as shown on the drawings.

All construction zones, including roads, borrow sites, temporary stockpile areas, and staging areas adjacent to designated environmentally sensitive areas shall be kept to a minimum. Environmentally sensitive areas shall be identified and conspicuously flagged by the Contractor in consultation with the biological monitor prior to any ground disturbance activities and shall be off limits to all construction personnel and equipment. All construction activities shall be confined to the designated work areas.

3.1.2 Environmental Commitments

The Contractor shall comply with and implement, as applicable, the environmental commitments included herein. These environmental commitments have been made by the Government and are documented in public record. Copies of the relevant environmental documents shall be furnished to the Contractor following contact award. The Contractor shall review and become familiar with such documents prior to the commencement of any ground

disturbing or related construction activities.

a. The Contractor shall ensure that no adverse impacts occur to existing mitigation sites and "Environmentally Sensitive Areas" identified on the contract drawings. These areas include, but are not limited to, the 6.8-acre Collier Marsh, the willow riparian vegetation bounded by Baker Road and State Highway 74, and the 20-acre willow riparian woodland site adjacent to Temescal Wash. Existing fencing around the 20-acre riparian site shall remain intact throughout the duration of the construction period. Any diversion of water currently being released to the 20-acre mitigation site shall not result in plant stress or in jeopardizing the short-term or long-term viability of the vegetation.

b. To ensure the long-term survivability of the planted willow riparian woodland vegetation, nursery grown plant material shall be planted at an elevation such that groundwater is within 10 feet of the finished ground surface elevation. Furthermore, a temporary irrigation system shall be installed, operated and maintained by the Contractor during the first 12 months of the plant establishment period to provide supplemental watering to the plantings.

c. Exotic, non-native, and nuisance weedy species that are not inadvertently removed during clearing, grubbing and excavation activities shall be removed and disposed of off-site. Removal of such species shall be undertaken in such a manner that no native vegetation (including topgrowth and roots) is harmed, damaged, desiccated or removed during and after these weed eradication operations. Eradication techniques shall adhere to industry standards and protocol, including the use of EPA-registered herbicides. Subsequent to construction, on-going maintenance for the restoration project shall target the removal and control of exotic, non-native and nuisance weedy species within the project area.

d. A qualified field biologist (to be provided by the Government under separate contract) with construction monitoring experience, applied knowledge in Southern California wetland and willow riparian communities, and direct field experience in identifying least Bell's vireo and southwestern willow flycatcher shall monitor construction work and the revegetation operations.

e. No construction activities shall result in the permanent or temporary modification, loss or removal of riparian habitat existing within the designated environmentally sensitive areas. The Contractor shall confine all construction work to the conspicuously flagged construction zones and shall not allow any personnel or equipment to enter the environmentally sensitive areas without the written approval of the Contracting Officer.

f. Construction work shall be restricted during the period 01 April through 15 September as follows: Light-duty construction work that does not exceed 60 dbh within 1000 feet of the environmentally sensitive areas will be allowed during the period 01 April to 15 September. From September 15 through 01 April there are no

restrictions to the construction work, so long as the designated environmentally sensitive areas are not disturbed.

### 3.1.3 U.S. Department of Agriculture (USDA) Quarantined Considerations

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

### 3.1.4 Commercial Borrow

Prior to bringing commercially obtained borrow material onsite, the Contractor shall provide the Contracting Officer with the location of the pit or pits, the names of the owners and operators, and the types and estimated quantities of materials to be obtained from each source.

### 3.1.5 Compacted Fill Areas

Compacted fill on Government property shall be made only in those areas designated on the contract drawings. Hazardous, toxic, and radiological wastes (HTRW) shall not be used in compacted fill and shall be disposed in compliance with environmental regulations off-site. Compacted fill operations shall be managed and controlled to prevent erosion of soil or sediment from entering nearby waters or wetlands. The operations shall be developed and managed in accordance with the grading plan shown on the drawings or as approved by the Contracting Officer.

### 3.1.6 Disposal of Solid Wastes

Solid waste is rubbish, debris, waste materials, garbage, and other discarded solid materials (excluding clearing debris and hazardous waste as defined in following paragraphs). Solid waste shall be placed in containers and disposed on a regular schedule. All handling and disposal shall be conducted in such a way as to prevent spillage and contamination. The Contractor shall transport all solid waste off Government property and dispose in compliance with Federal, State, and local requirements.

Clearing debris is trees, tree stumps, tree trimmings, and shrubs, and leaves, vegetative matter, excavated natural materials (e.g., dirt, sand, and rock), and demolition products (e.g., brick, concrete, glass, and metals).

a. The Contractor shall collect trees, tree stumps, tree trimmings, shrubs, leaves, and other vegetative matter; and shall transport from Government property for proper disposal in compliance with Federal, State, and local requirements. The Contractor shall segregate the matter where appropriate for proper disposal. Untreated and unpainted scrap lumber may be disposed of with this debris where appropriate.

b. Excavated natural materials which meets specifications Section:

EARTHWORK or EXCAVATION, TRENCHING AND BACKFILLING FOR UTILITIES SYSTEMS shall be placed in the designated area on the drawings

c. Demolition products shall be transported from Government property for proper disposal in compliance with Federal, State, and local requirements.

### 3.1.7 Disposal of Contractor Generated Hazardous Wastes

Hazardous wastes are wastes as defined in 40 CFR 261, and as defined by applicable State and local regulations. Hazardous waste generated by construction activities shall be removed from the work area and be disposed in compliance with Federal, State, and local requirements. The Contractor shall segregate hazardous waste from other materials and wastes, and shall protect it from the weather by placing it in a safe covered location; precautionary measures against accidental spillage such as berming or other appropriate measures shall be taken. Hazardous waste shall be removed from Government property within 60 days. Hazardous waste shall not be dumped onto the ground, into storm sewers or open water courses, or into the sanitary sewer system.

### 3.1.8 Fuels and Lubricants

Fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants and waste oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with Federal, State, and local laws and regulations.

## 3.2 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

### 3.2.1 Discovered Historic, Archaeological, and Cultural Resources

If during construction activities, items are observed that may have historic or archaeological value (e.g., Native American human remains or associated objects are discovered), such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall prevent his employees from trespassing on, removing, or otherwise disturbing such resources.

## 3.3 PROTECTION OF WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

### 3.3.1 Wastewater

Wastewater directly derived from construction activities shall not be discharged before being treated to remove pollutants. Wastewater shall be collected and placed in retention ponds so the suspended materials can settle. See paragraph RETENTION POND REMOVAL for disposal procedures.

### 3.3.2 Monitoring of Water Areas Affected by Construction Activities

The Contractor shall perform discharge monitoring, inspections, stormwater sampling and testing, reporting, and record keeping as set forth in the permit conditions that are attached to this section.

## 3.4 PROTECTION OF FISH AND WILDLIFE RESOURCES

### 3.4.1 Flagging of Environmentally Sensitive Areas

Prior to the commencement of ground disturbing activities the Contractor shall conspicuously flag all known and discovered environmentally sensitive areas within and immediately adjacent to the construction zone. These flagged areas shall be off limits to all construction personnel and equipment. Subsequent to flagging, the Contracting Officer and biological monitor shall approve the accuracy and completeness of the flagging prior to the Contractor commencing any ground disturbing work.

### 3.4.2 Protection of Wildlife

The Contractor shall comply with the construction work restriction in paragraph 3.1.2f during the period 01 April to 15 September to avoid indirect effects on the endangered least Bell's vireo. This requirement is stipulated as part of the National Environmental Policy Act (NEPA) commitments and as a condition of the Endangered Species Act (ESA) Section 7 informal consultation.

### 3.4.3 Protection of Riparian Vegetation from Dewatering and Diversion Operations

Construction operations for dewatering, removal of cofferdams, tailrace excavation, channel construction, diversion, and tunnel closure shall be controlled at all times to limit the impact of water turbidity and groundwater levels on the habitat for wildlife, particularly in and adjacent to the designated "Environmentally Sensitive Areas". The Contractor shall ensure construction operations for dewatering, diversion and channel construction shall not impair, stress, harm, remove or modify existing vegetation within the designated "Environmentally Sensitive Areas".

## 3.5 PROTECTION OF AIR RESOURCES

Special management techniques as set out below shall be implemented to control air pollution by the construction activities. These techniques supplement the requirements of Federal, State, and local laws and regulations; and the safety requirements under this Contract. If any of the following techniques conflict with the requirements of Federal, State, or local laws or regulations, or safety requirements under this contract, then those requirements shall be followed in lieu of the following.

### 3.5.1 Particulates

Airborne particulates, including dust particles, from construction activities and processing and preparation of materials shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain all excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, disposal sites, borrow areas, and all other work areas free from airborne dust which would cause a hazard or nuisance.

### 3.6 INSPECTION

If the Contracting Officer notifies the Contractor in writing of any observed noncompliance with contract requirements or Federal, State, or local laws, regulations, or permits, the Contractor shall inform the Contracting Officer of proposed corrective action and take such action to correct the noncompliance. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action is taken. No time extensions will be granted or costs or damages allowed to the Contractor for any such suspension.

### 3.7 RETENTION POND REMOVAL

The Contractor shall develop a retention pond removal plan and provide it to the Contracting Officer 45 days prior to removal work. The plan shall address testing the sediment collected in the retention pond and the method of removal of the sediment. The plan shall comply with Federal, State, and local transport and disposal regulations. The Contractor shall remove and dispose of the retention pond sediment in accordance with the approved plan.

### 3.8 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed pollution control facilities and portable pollution control devices for the duration of the Contract or for the length of time construction activities create the particular pollutant.

### 3.9 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel monthly.

The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities (vegetative covers, etc.), and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall also be discussed. Other items to be discussed shall include recognition and protection of archaeological sites and artifacts.

-- End of Section --

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## SECTION 01440

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## SECTION 01440

## CONTRACTOR QUALITY CONTROL

## PART 1 GENERAL

## 1.1 PAYMENT

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

## PART 2 PRODUCTS (NOT APPLICABLE)

## PART 3 EXECUTION

## 3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause 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 20 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. The Government will consider an interim plan for the first 15 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

## 3.2.2 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: 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 3 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 no other duties. 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 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: 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 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

### 3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

### 3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to

the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon 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 of \$675.00 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 a Corps of Engineers approved testing laboratory.

Coordination for each specific test, exact delivery location, and dates will be made through the Los Angeles Project Office.

### 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. 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 the contract clause entitled "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.
- k. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 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 CONTRACTOR PROJECT MANAGEMENT SYSTEM.

#### 3.11.1 General.

- a. The Contractor project Management System is included to assure adequate planning and execution of the work, to assist the Contracting Officer on appraising the reasonableness of the schedule, to evaluate progress of the work, and make progress payments, and to make decisions relative to time and/or cost adjustments which may result from changes in the work.
- b. The Contractor shall incorporate any and all milestone and contract required events which may be specified elsewhere within these specifications. Should milestone events be not specifically identified by the Government within these specifications, the Contractor shall identify

at least five percent of the network activities and designate them as milestone activities.

c. The Contractor Project Management System is to be staffed and prepared pursuant of CONTRACT CLAUSE: SCHEDULE FOR CONSTRUCTION CONTRACTS, and CONTRACT CLAUSE: SUPERINTENDENT BY THE CONTRACTOR. In preparing this system the Contractor assume responsibility for conformance with contract requirements, planning, sequencing of work, and determining the construction means and methods.

### 3.11.2 Submission and Approval.

Submission and approval of the system shall be as follows:

a. The complete network shall be submitted for approval within thirty (30) calendar days after receipt of Notice to Proceed. This shall be submitted in assembled hardcopy paper format.

b. The Contractor shall participate in a review and evaluation of the proposed network logic diagrams by the Contracting Officer. Any revisions necessary as a result of this review shall be resubmitted for approval of the Contracting Officer within three (3) calendar days after the conference. The approved schedule shall be used by the Contractor for planning, organizing and directing the work, reporting progress, and requesting payment for work accomplished.

### 3.11.3 Network Modifications.

a. In those cases where the contract performance is delayed due to causes beyond the control of the Contractor, and a time extension may be allowable under one or more of the CONTRACT CLAUSES: CHANGES, or DIFFERING SITE CONDITIONS, or DEFAULT (FIXED PRICE CONSTRUCTION), or SUSPENSION OF WORK, or other applicable clauses, as a condition recedent to granting a time extension, the Contractor shall submit a time proposal in such format as to identify the specific subnet diagram and activities affected.

b. Change order proposals shall include description or listing of all proposed changes to the network, by activity, and demonstrate the effect on the contract required completion date. A complete list of activities changed and subnet of activities affected by the change shall be submitted.

c. Float or slack is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the NAS schedule. Float or slack is not time for the exclusive use or benefit of either the Government or the Contractor. Extensions of time for performance may be granted to the extent that equitable time adjustment for the activities affected exceed the total float or where otherwise justified, effect on contract completion can be shown. The contract completion date is fixed, and will be amended only if the modifications which include time are signed by the Contracting Officer.

d. Rapid resolution of change orders and the granting of other time extensions where authorized by the Contracting Officer is a critical part of the overall management system. Implementation of all justified activity

and logic changes shall be made and reflected on the next monthly update after approval of the Contracting Officer.

e. If, in the opinion of the Contracting Officer, the current schedule no longer accurately reflects the Contractor's real plan for accomplishing the work, or no longer reflects a viable way of finishing the work on schedule, the Contractor shall be directed to revise the schedule and submit it for approval within seven (7) calendar days of direction.

#### 3.11.4 Logic Diagrams and Reports

##### 3.11.4.1 Logic diagrams.

a. Logic diagrams shall show the order and interdependency of activities and sequence in which the work is to be accomplished as planned by the Contractor.

b. Detailed networks need not be timed scaled, but drafted to have a continuous flow from left to right, showing how the start of a given activity is dependent on the completion of preceding activities, and how its completion restricts the start of the following activities.

c. An assembled logic diagram of the complete project shall be submitted, showing each activity's identifying numbers, duration and description, with the critical path easily identified. Updated assembled diagrams will be provided as required by logic changes (but not more frequently than the monthly update). The logic diagram shall be plotted on architectural size E paper.

##### 3.11.4.2 Reports.

a. After the network approval, the Contractor shall review and evaluate the actual progress with the Contracting Officer's representative on a weekly basis, and submit any updated weekly reports three (3) workdays after the meeting.

b. Monthly update reports will be submitted at midmonth showing status and actual start and finish dates of project activities, and will be capable of comparing the current status with the approved base schedule. Each monthly update report shall be uniquely identified and shall be stored on the Contractor's computer until the final pay estimate is processed. The content of the monthly update shall be flexible to show items listed in the menu. The midmonth report shall be used for partial payments.

c. A narrative report shall be submitted with midmonth report indicating current and anticipated problems, delaying factors, and conditions that are impacting the Contractor's work effort. An analysis showing the reasons for the delay/gain and their impact upon the current schedule shall be included. When it is apparent the scheduled milestone(s) and completion date(s) will not be met, the Contractor shall propose specific methods he intends to implement to bring the project back on schedule at no cost to the Government. Such measure may include but are not limited to:

a. Increasing construction manpower in such quantities and crafts as

will substantially eliminate the backlog of work effort.

b. Increasing the number of working hours per shift; shifts per workday; workdays per week; the amount of construction equipment; or any combination thereof.

c. Rescheduling of activities to achieve maximum practical concurrence of work shifts.

d. The Contractor shall implement such procedures as may be necessary for the active participation by his subcontractors in preparing and updating the schedule. Subcontractors shall be provided with schedules which identify the interfaces of their work with the work of others. At minimum, the Contractor shall provide bar graphs to each major subcontractor showing activity times with plots on an Early Start basis. Copies of these schedules shall also be provided to the Contracting Officer. The relationship between subcontractor and interdependency or work shall be managed by the Contractor. When these interdependencies are violated or impaired, the Contractor shall identify the problem, resolve it, and provide the information to the Contracting Officer as part of the monthly report.

#### 3.11.5 Payment Requests.

a. The monthly update report shall be used as a basis for the monthly partial pay estimate. The report will state the cost, actual percent complete, and current value of partially completed or completed work. Subtotals from subnets representing separate areas of construction will be given, along with a grand dollar value of work completed for the project.

b. The first payment shall not be made until the Network Analysis Schedule has been approved by the Contracting Officer. If, in the judgment of the Contracting Officer, The Contractor fails or refuses to provide an approved schedule and other progress or input data specified, the Contractor shall be deemed not to have provided the required information upon which progress payments may be made, and no payment request will be honored.

c. Activities submitted for payment shall be based on the approved network activities and monetary amount. No payment shall be made for activities conducted in deviation of the approved logic.

d. Payment for activities conducted when previously dependent activities have not been completed or accepted due to quality defects shall be restricted at the discretion of the Contracting Officer, and may be the basis for a resubmittal of the logic diagram.

#### 3.12 IMPLEMENTATION OF GOVERNMENT RESIDENT MANAGEMENT SYSTEM

The Contractor shall utilize a Government furnished CQC Daily Report Form. This form may be in addition to other Contractor desired reporting forms. However, all other such reporting forms shall be consolidated into this one Government furnished Daily CQC Report form. The Contractor will also be required to complete Government-Furnished Input Forms which lists, but is not limited to, Prime Contractor staffing; letter codes; planned cumulative

progress earnings; subcontractor information showing trade, name, address, and activity information; required Quality Control tests tied to individual activities; planned User Schooling tied to specific specification paragraphs and Contractor activities; and submittal information relating to specification section, description, activity number, review period and expected procurement period. The sum of all activity values shall equal the contract amount, and all Bid Items and Options shall be separately identified, in accordance with the Bidding Schedule prior to any contract payment (except for Bonds, Insurance and/or Mobilization, as approved by the Contracting Officer) and shall be updated as required.

a. During the course of the contract, the Contractor will receive various Quality Assurance comments from the Government that will reflect corrections needed to Contractor activities or reflect outstanding or future items needing the attention of the Contractor. The Contractor will acknowledge receipt of these comments by specific number reference on his Daily CQC Report and will also reflect on his Daily CQC Report when these items are specifically completed or corrected.

b. The Contractor's schedule system shall include, as specific and separate activities, all Preparatory Phase Meetings (inspections); all O&M Manuals; and all Test Plans of Electrical and Mechanical Equipment or Systems that require validation testing or instructions to Government Representatives.

c. The Contracting Officer can provide information regarding training on the use of the RMS system.

-- End of Section --