

## SECTION 01090

## SOURCES FOR REFERENCE PUBLICATIONS

## 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-1) by the dash mark (-).

## 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 48331  
Ph: 810-848-3700  
Fax: 810-848-3766

AGRICULTURAL MARKETING SERVICE (AMS)  
Seed Regulatory and Testing Branch  
USDA, AMS, LS Div.  
Bldg. 506, BARC-East  
Soil Conservation Rd.  
Beltsville, MD 20705  
Ph: 301-504-9430

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS  
(AASHTO)  
444 N. Capital St., NW, Suite 249  
Washington, DC 20001  
Ph: 202-624-5800  
Fax: 202-624-5806

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: <http://www.astm.org>

AMERICAN WATER WORKS ASSOCIATION (AWWA)  
6666 West Quincy  
Denver, CO 80235  
Ph: 800-926-7337  
Fax: 303-795-1989

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CDT)  
Publication Distribution Unit  
1900 Royal Oaks Dr.  
Sacramento, CA 95815  
Ph: 916-445-3520  
or 916-227-7000 (CA Transportation Lab) Fax: 916-324-8997

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: 708-517-1200  
Fax: 708-517-1206

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: 601-634-2355  
Fax: 601-634-2506

ENGINEERING MANUALS (EM)  
USACE Publications Depot  
Attn: CEIM-SP-D  
2803 52nd Avenue

Hyattsville, MD 20781-1102  
Ph: 301-394-0081

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

ENVIRONMENTAL PROTECTION AGENCY (EPA)  
Public Information Center  
401 M St., SW  
Washington, DC 20460  
Ph: 202-260-7751  
FAX: 202-260-6257  
Internet: <http://www.epa.gov>  
NOTE: Some documents are available only from National Technical  
Information Services (NTIS)  
5285 Port Royal Rd.  
Springfield, VA 22161  
Ph: 703-487-4600  
Fax: 703-321-8547  
Internet: <http://www.gov/ntis.gov>

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  
Internet: <http://pub.fss.gsa.gov/h1-pub.html>

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)  
Inquiries Room A903  
Administration Building  
Gaithersburg, MD 20899  
Ph: 301-975-3058  
Fax: 301-926-1630  
Order From:  
Superintendent of Documents  
U.S. Government Printing Office (GPO)  
Washington, DC 20402  
Ph: 202-512-1800  
Fax: 202-512-2250  
or  
National Technical Services (NTIS)  
5285 Port Royal Rd.  
Springfield, VA 22161  
Ph: 703-487-4600  
Fax: 703-321-8547  
Internet: <http://ww.gov/ntis.gov>

NATIONAL READY-MIXED CONCRETE ASSOCIATION (NRMCA)  
900 Spring St.  
Silver Spring, MD 20910  
Ph: 301-587-1400

Fax: 301-585-4219

STEEL STRUCTURES PAINTING COUNCIL (SSPC)  
40 24th Street, 6th Floor  
Pittsburgh, PA 15222-4643  
Ph: 412-281-2331  
Fax: 412-281-9992

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## SECTION 01130

## ENVIRONMENTAL PROTECTION

## 1 GENERAL

## 1.1 REFERENCES

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

## ENGINEERING MANUALS (EM)

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

## 1.2 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 01300 SUBMITTAL PROCEDURES:

## SD-08 Statements

Environmental Protection Plan; GA.

Submit plan detailing Contractor's environmental protection measures and procedures for this contract.

## 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 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. 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 15 calendar days of Notice of Award of the contract and at least 7 days prior to the Preconstruction Conference, 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 Protection of Features

The Contractor shall determine methods for the protection of features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archaeological and cultural resources.

##### 1.5.3 Procedures

The Contractor shall implement procedures to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall set out the procedures to be followed to

correct pollution of the environment due to accident, natural causes or environmental protection plan.

#### 1.5.4 Drawings

The Contractor shall include drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, stockpiles of earth materials, and disposal areas for excess earth material and unsatisfactory earth materials.

#### 1.5.5 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.

#### 1.5.6 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.

#### 1.5.7 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.

#### 1.5.8 Traffic Control Plan

The Contractor shall include a traffic control plan for the job site.

#### 1.5.9 Surface and Ground Water

The Contractor shall establish methods of protecting surface and ground water during construction activities.

#### 1.5.10 Work Area Plan

The Contractor shall include a work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The plan shall include measures for marking the limits of use areas.

### 1.6 SUBCONTRACTORS

Assurance of compliance with this section by subcontractors will be the responsibility of the Contractor.

### 1.7 PERMITS OBTAINED BY CORPS OF ENGINEERS

The Corps of Engineers will not obtain any permits for this project. See Contract Clause entitled "PERMITS AND RESPONSIBILITIES".

### 1.8 REGULATORY REQUIREMENTS

The Contractor shall comply with all state regulatory and statutory requirements.

## 2 PRODUCTS (NOT APPLICABLE)

## 3 EXECUTION

### 3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine his activities to areas defined by the contract drawings or specifications. Environmental protection shall be as stated in the following subparagraphs.

#### 3.1.1 Protection of Land Resources

Prior to the beginning of any construction, the Contracting Officer will identify all land resources to be preserved within the Contractor's work area. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, and land forms without special permission from the Contracting Officer. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless

specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

#### 3.1.1.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas where no work is to be performed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. Monuments and markers shall be protected before construction operations commence and during all construction operations. Where construction operations are to be conducted during darkness, the markers shall be visible during darkness. The Contractor shall convey to his personnel the purpose of marking and/or protection of all necessary objects.

#### 3.1.1.2 Protection of Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features to be preserved, indicated and defined on the drawings submitted by the Contractor as a part of the Environmental Protection Plan, shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. No trees greater than 6 inches in diameter shall be removed without approval by the Contracting Officer. The Contractor shall prevent landscape defacement and provide post-construction clean-up.

#### 3.1.1.3 Reduction of Exposure of Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated and specified. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils.

#### 3.1.1.4 Temporary Protection of Disturbed Areas

Such methods as necessary shall be utilized to effectively prevent erosion and control sedimentation, including but not limited to the following:

- (1) Retardation and Control of Runoff. Runoff from the construction site shall be controlled by construction of diversion ditches, benches, and berms to retard and divert runoff to protected drainage courses, and any measures required by area-wide plans approved under paragraph 208 of the Clean Water Act.

#### 3.1.1.5 Erosion and Sedimentation Control Devices

The Contractor shall construct or install all temporary and permanent erosion and sedimentation control features as necessary. Temporary erosion and sediment control measures such as berms, dikes, drains, sedimentation basins, grassing and mulching shall be maintained until permanent drainage and erosion control facilities are completed and operative.

#### 3.1.1.6 Location of Contractor Facilities

The Contractor's field offices, staging areas, stockpiles, storage, and temporary buildings shall be placed in areas designated on the contract drawings and approved by the Contracting Officer. Temporary movement or

relocation of Contractor facilities shall be made only on approval by the Contracting Officer.

#### 3.1.1.7 Disposal of Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. The Contractor shall maintain the staging areas in an orderly condition. Garbage, rubbish, and stockpiled materials shall not be allowed to accumulate in an unsightly fashion either inside or outside of the construction site. Also, the Contractor shall remove all wastes, piles, miscellaneous materials, including any contaminated soil, and equipment from the staging areas within ninety (90) days from completion of construction of this contract.

#### 3.1.1.8 Disposal of Chemical Wastes

Chemical wastes shall be removed from the site at the end of each shift and disposed of in accordance with Federal, State, and local regulations. Disposal containers for oil, solvents, hydraulic fluid, coolants and other filter and chemical wastes from maintenance activities shall be provided on-site within the staging areas. Disposal of these wastes shall be in accordance with California Administrative Code Title 22 regulations. Under no circumstance shall disposal occur on-site or within the project area. Disposal containers shall be covered and protected with secondary containment structures through the use of lined troughs or trays in the event of any leakage.

#### 3.1.1.9 Disposal of Discarded Materials

Discarded materials other than those which can be included in the solid waste category shall be handled as directed by the Contracting Officer.

#### 3.1.1.10 Equipment Maintenance

If equipment maintenance is conducted within the staging areas or the project reach, a site shall be designated for such purpose. The equipment maintenance area shall have appropriate signage and protection from soil contamination through the use of an impervious barrier.

#### 3.1.1.11 Storage Areas

All storage areas and containers for any fluids, including but not limited to oils, solvents, coolants and wastes, shall be covered and protected with secondary containment structures through the use of lined troughs or trays in the event that leakage from drums, barrels, cans or other primary structures occurs.

#### 3.1.1.12 Emergencies

The Contractor shall ensure that standard precautions in the operations of vehicles and machinery and in the handling of volatile substances by employees will be used to preclude any releases, spills or explosions during use and occupancy of the staging areas. In the unlikely event that a release, spill or explosion occurs, the Contractor shall respond to and clean up the emergency in the appropriate manner to prevent further risk to people and the environment. An emergency response plan shall be submitted

to the Contracting Officer no later than thirty (30) days after NTP. All spills shall be reported to the Contracting Officer in accordance with SECTION: GENERAL REQUIREMENTS, paragraph Notices.

### 3.1.2 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.

## 3.2 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

If during construction items of apparent archaeological or historical interest are discovered, they shall be left undisturbed and the Contractor shall report the find immediately to the Contracting Officer.

## 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. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities which are included in this contract.

(1) If directed by the Contracting Officer, the Contractor shall install a floating debris boom with a skirt not less than 18 inches deep shall be deployed around the complete over water perimeter of the project. This boom shall be placed in a manner that will prevent spills and floating objects from drifting away from the site.

(2) During the performance of the work, the Contractor shall institute and enforce procedures to prevent spills and floating debris from fouling the local waters. Should these procedures fail, the Contractor shall promptly clean up all spills and debris.

(3) At the end of each work shift, loose materials on the piers and debris in the water shall be removed and disposed of off site.

(4) Should the Contractor lose, dump, throw overboard, sink or misplace material, plant, machinery appliance that may be dangerous to navigation, or cause pollution of the waters, the Contractor shall give immediate notice to the Contracting Officer and, if required shall boom, buoy or otherwise mark the location of the incident until the obstruction or pollution problem is removed. Should the Contractor refuse, neglect or delay compliance with these requirements, the necessary removal and cleanup may be accomplished by other forces and the costs of this removal and cleanup may be deducted from the monies due or to become due the Contractor.

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

All water areas affected by construction activities shall be monitored by the Contractor.

### 3.4 PROTECTION OF FISH AND WILDLIFE RESOURCES

The Contractor shall keep construction activities under surveillance, management and control to minimize interference with, disturbance to and damage of fish and wildlife. Species that require specific attention along with measures for their protection shall be listed by the Contractor prior to beginning of construction operations.

### 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.

##### 3.5.1.1 Dust Control

In compliance with SCAQMD Rule 403, the Contractor shall ensure that fugitive dust throughout the staging areas shall be controlled by the use of a watering truck as necessary, and/or the use of an environmentally safe chemical dust suppressant. Controls shall be applied to all on-site unpaved roads and ramps, stockpile areas, actively excavated or exposed sites, and all areas that may be temporarily inactive but include exposed (unvegetated) or disturbed surfaces.

##### 3.5.1.2 High Winds

In compliance with SCAQMD Rule 403, the Contractor shall ensure that all grading and excavation should be curtailed during periods of high winds (e.g. over 25 miles per hour) if dust is being generated and cannot be controlled by watering alone.

##### 3.5.1.3 Offsite Transportation

In compliance with SCAQMD Rule 403, the Contractor shall ensure that all materials transported offsite shall be sufficiently watered or covered to prevent excessive fugitive dust.

##### 3.5.1.4 Heavy Equipment

The Contractor shall ensure that mobile heavy equipment (e.g. scrapers, earth movers, haul trucks) on unpaved surfaces shall be limited to an on-site speed that avoids dust impacts offsite.

### 3.5.2 Hydrocarbons and Carbon Monoxide

Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times.

### 3.5.3 Odors

Odors shall be controlled at all times for all construction activities, processing and preparation of materials.

### 3.5.4 Monitoring Air Quality

All areas where air quality may be affected by the construction activities shall be monitored by the Contractor.

## 3.6 NOISE

The Contractor shall ensure that all construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be located as far as practicable from dwellings and shall be equipped with properly operating and maintained mufflers.

## 3.7 TESTS

The Contractor shall establish and maintain quality control for environmental protection operations to assure compliance with contract requirements and maintain records of environmental quality control activities for all construction operations, including, but not limited to the following items. The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances and corrective action taken. Three copies of these records and tests, as well as the records of corrective action taken, shall be furnished the Government as directed by the Contracting Officer.

## 3.8 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.

## 3.9 POST CONSTRUCTION CLEANUP

When the project is completed and prior to final acceptance, the Contractor shall remove all construction equipment, materials, vehicles, trash, debris and miscellaneous property of the Contractor and subcontractors, and employees of the Contractor and subcontractors from the site and restore all the areas used by the Contractor and subcontractors to the condition they were in prior to the Contractor occupying the site.

### 3.10 RESTORATION OF LANDSCAPE DAMAGE

The Contractor shall restore all landscape features damaged or destroyed during construction operations. Such restoration shall be in accordance with the plans submitted for approval by the Contracting Officer.

### 3.11 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.

### 3.12 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in environmental protection and pollution control. The training 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.

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## SECTION 01200

## GENERAL REQUIREMENTS

## 1 GENERAL

## 1.1 REFERENCES

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

## ENGINEERING MANUALS (EM)

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

## FEDERAL SPECIFICATIONS (FS)

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

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

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-E-529 (Rev G) Enamel, Alkyd, Semi-Gloss

FS TT-P-25 (Rev E; Am 2) Primer Coating, Exterior (Undercoat for Wood, Ready-Mixed, White and Tints)

## NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

NIST PS 1 (1983) Construction and Industrial Plywood

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-13 Certificates

Required Insurance; FIO.

### 1.3 PROJECT ENGINEER'S OFFICES AND LABORATORY

The Contractor shall provide the following office facilities for the project engineer:

#### 1.3.1 Office Trailer

The Contractor shall supply and maintain an adequate supply of cooled drinking water for the existing 36 x 60-foot and 24 x 60-foot office trailers located in the Contractor's staging area. Sewer, telephone, and electrical service shall be provided and maintained. The cost for sewer, water, and telephone usage will be the responsibility of the Government. The Contractor shall also provide security lighting for the Project Engineer's Office and Laboratory Buildings.

#### 1.3.2 Cleaning and Janitorial Services

The Contractor shall provide cleaning and janitorial services for the trailers and laboratory for the duration of the contract. Service shall be provided three times a week and all cleaning and janitorial materials (including paper towels, toilet paper and hand soap) shall be provided by the Contractor. Trash service shall also be provided (3 cy trash dumpster with weekly pick-ups).

#### 1.3.3 Fenced Parking Area

The Contractor shall provide fencing around the Project Engineer's Office, Laboratory, and parking area as directed by the Contracting Officer. Fencing shall be a woven wire fence approximately 6 feet high with a 10-foot wide lockable gate accessible from a road or street. The fenced area shall be of sufficient size to permit ease in the parking of vehicles and a 10 foot clearance around both structures.

### 1.4 AVAILABILITY AND USE OF UTILITY SERVICES

#### 1.4.1 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer.

#### 1.4.2 Telephone

The Contractor shall make arrangements and pay all costs for telephone facilities desired.

### 1.5 BULLETIN BOARD AND CONSTRUCTION SIGNS

#### 1.5.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is

completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

## 1.5.2 Construction Signs

### 1.5.2.1 Materials

#### 1.5.2.1.1 Lumber

Lumber shall conform to **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).

#### 1.5.2.1.2 Plywood

Plywood shall conform to **NIST PS 1**, grade A-C, Group 1, exterior type.

#### 1.5.2.1.3 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**.

#### 1.5.2.1.4 Paints and Oils

Paints shall conform to **FS TT-P-25** for primer and **FS TT-E-529** for finish paint and lettering.

### 1.5.2.2 Construction

#### 1.5.2.2.1 Project and Hard Hat Signs

The Contractor shall construct and erect five (5) project signs and six (6) hard hat signs at locations designated by the Contracting Officer. The signs shall be constructed as detailed on Figures 1, 2, and 3 located at the end of this section. Decals and safety signs will be furnished by the Contracting Officer. The signs shall be erected within 15 days after receipt of the notice to proceed. Upon completion of the project, the signs shall be removed from the site.

#### 1.5.2.2.2 Warning Signs

Warning signs shall be installed facing approaching traffic on all roads crossing under overhead power transmission lines. The signs shall be 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 2 x 4 feet, all letters shall be 4 inches in height, and the wording shall be: "WARNING: OVERHEAD TRANSMISSION LINES."

### 1.5.2.3 Painting

All exposed surfaces and edges of plywood shall be given one coat of linseed oil and be wiped prior to applying primer. All exposed surfaces of signs and supports shall be given one coat of primer and 2 finish coats of white paint. Except as otherwise indicated, lettering on all signs shall be black and sized as indicated.

## 1.6 MAINTENANCE OF PROJECT FACILITIES

The Contractor shall perform all activities necessary to maintain in good condition the project facilities, flood control facilities, and recreation facilities including all trails and all aesthetic features including all trees, shrubs, other plant materials and irrigation pipes, heads, etc. within the project right-of-way throughout the life of the project. Upon completion of work under this contract, the contractor-furnished facilities covered under this section will remain the property of the Contractor and shall be removed from the site at his expense.

### 1.6.1 Flood Facilities

#### 1.6.1.1 Weed Abatement

The Contractor shall perform all weed abatement activities needed for the channel slope, backslopes, and maintenance roads.

#### 1.6.1.2 Debris Removal

The Contractor shall perform all debris removals, silt removals, etc. necessary for the proper functioning of the flood control facilities.

### 1.6.2 Recreation Facilities

In conformance with the County of Orange's Public Property Encroachment Permit the Contractor shall regularly sweep and keep free of sand, the bicycle trail detours.

### 1.6.3 Aesthetic Features

The Contractor shall replace in-kind any and all damaged and/or broken irrigation pipes, heads, etc which result from the Contractor's construction activities at no additional cost to the Government.

### 1.6.4 Staging Areas

Prior to closure of the staging area just upstream of Imperial Highway, the portion of the row of trees and shrubs removed directly for access and indirectly for the staging area use shall be replaced in kind (i.e., same type, container size and maturity) at no additional cost to the Government.

## 1.7 PROTECTION AND MAINTENANCE OF TRAFFIC

The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be

responsible for the repair of any damage to roads caused by construction operations.

#### 1.8 SCRAP MATERIAL

Materials indicated to be removed and not indicated to be salvaged, stored or reinstalled are designated as scrap and 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.

#### 1.9 SALVAGE MATERIALS

All materials removed and indicated to be either stored or reinstalled are designated as salvaged materials. Any salvaged materials which are excess upon completion of the work and are not indicated to be stored shall become the property of the Contractor.

#### 1.10 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.

#### 1.11 PUBLIC UTILITIES, NOTICES, AND RESTRICTIONS

##### 1.11.1 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 owner for such damage caused by his operations.

##### 1.11.2 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 clause of the contract: PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS of the CONTRACT CLAUSES. 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.

### 1.11.3 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.

### 1.11.4 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.

### 1.11.5 Notices

#### 1.11.5.1 Utilities To be Relocated or Protected

Unless otherwise specified, the Contractor shall notify the Contracting Officer, in writing, 30 calendar days prior to starting work on any utility to be protected. On each protection, notification shall include dates on which the Contractor plans excavation, and construction work, as applicable. The Contractor shall also notify the following representatives of utility owners not less than 14 days, unless otherwise specified, prior to start of work in the vicinity of their respective utilities:

County Sanitation District of Orange County (CSDOC)  
10844 Ellis Avenue Fountain Valley, CA 92708  
Mr. Charles Windsor  
Telephone: (714) 962-2411, EXT: 5052  
(714) 962-2411, EXT: 220 (Sat/Emergency)

Orange County Public Facilities & Resources Department (PFRD)  
1152 E. Fruit Street Santa Ana, CA 92701  
Mr. David Marshall  
Telephone: (714) 567-7801

Orange County Water District  
10500 Ellis Avenue Fountain Valley, CA 92728  
Mr. Steve Conklin  
Telephone: (714) 378-3211 (Mon-Fri)  
(714) 378-3200 (Sat-Emergency)

Southern California Gas Company  
ML 8286 Box 3249 Los Angeles, CA 90051-1249  
Mr. Larry Jacquez  
Telephone: (213) 689-4169 (Mon-Fri)  
(213) 881-8113 (Sat/Emergency)

Southern California Edison Company

500 N. State College Suite 750 Orange, CA 92668  
Mr. Mark Meizner  
Telephone: (714) 939-4736 (Mon-Fri)  
(714) 646-2914 (Sat/Emergency)

Pacific Bell  
3939 E. Coronado Anaheim, CA 92807  
Mr. Ian Mac Innes  
Telephone: (714) 666-5715

City of Anaheim  
Mr. Mark Komoto  
Telephone: (714) 254-5259

#### 1.11.5.2 Permanent Utility Relocations by Others

Except as otherwise specified, the Contractor shall notify the Contracting Officer, in writing, not less than 14 days in advance of the date on which he will complete trenching, excavation, fill or rough grading, as applicable, at each location where such completed work is required for temporary or permanent relocations by others. The Contractor shall allow a period of 14 calendar days at each relocation, after which time the Contractor may resume his operations.

#### 1.11.5.3 Metropolitan Water District

The Contractor shall notify the Metropolitan Water District (MWD) at least two (2) working days (Monday through Thursday) prior to any work in the vicinity of MWD facilities and rights-of-way. The P.O.C. for MWD is Mr. Naushad Aurangzeb, Operations Maintenance Branch, (909) 392-2418.

#### 1.11.5.4 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.

#### 1.11.5.5 Spill Reporting

The Contractor shall notify the Contracting Officer immediately after all spills, 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 released 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 procedures.

g. Disposal location of spill, leak or unauthorized release residue.

#### 1.11.6 Restrictions

##### 1.11.6.1 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.

##### 1.11.6.2 Road Crossings

The Contractor will not be permitted to cross existing paved roadways and residential roadways with construction equipment except at approved marked crossings. The Contractor shall maintain the crossings in accordance with applicable state, county, and city regulations.

##### 1.11.6.3 Bicycle Trail

The Contractor shall keep the paved bicycle trail and detour open at all times during construction.

##### 1.11.6.4 Working Hours

The Contractor shall restrict all construction activities, including warming equipment, to the following schedule:

Monday through Friday	7 a.m. to 6:30 p.m.
Saturday	8 a.m. to 6 p.m.

Access to the job site will be allowed 30 minutes prior to starting time unless otherwise approved by the Contracting Officer. No work will be permitted on Sundays or Federal Holidays.

##### 1.11.6.5 Water Spreading Operations

The Contractor shall coordinate with the Orange County Water District (OCWD) to minimize impacts to their daily water spreading operations as defined in paragraph: Restrictions in SECTION: DIVERSION AND CONTROL OF WATER.

##### 1.11.6.6 Offsite Disposal

The excess excavated material which is not utilized may be disposed at a site owned by the R. J. Noble. A fee is required. Contact Jim Grace of R.J. Noble Company at (714) 637-1550. The Contractor is not required to use this location as a disposal site, if he has other suitable alternatives.

##### 1.11.6.7 Special Considerations

Special considerations for the period between 1 November and 15 April.

a. Material shall not be stockpiled in the channel above the existing, pre-construction invert.

- b. All channel sideslopes shall be protected by either the existing, pre-construction slope protection or the Santa Ana River project design slope protection.
- c. The channel invert shall be graded level across the channel. No exposed levee toe trenches shall be left in the channel.
- d. There shall be no openings left in the channel levees.
- e. Channel invert excavation shall not leave the channel sideslopes or slope protection exposed to either direct erosion, undercutting or head cutting.

#### 1.12 PUBLIC SAFETY

Attention is directed to the CONTRACT CLAUSE: PERMITS AND RESPONSIBILITIES. The Contractor shall furnish, install, maintain and remove temporary fencing, barricades, and/or guards, as required, to provide protection in the interest of public safety and in conformance with applicable Federal, State, and local laws and ordinances. As a minimum, this will include an 8-foot chain-link fence which completely encloses each and every part of the project (except at the disposal area) which the Contractor worked in or is working on. The plan of this temporary fencing shall be furnished to the Contracting Officer for approval and the fence erected prior to commencement of any work. 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.

#### 1.13 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) and the Corps of Engineers General Safety and Health Requirements Manual, EM 385-1-1, are both applicable to this contract. The most stringent requirement of the two standards will be applicable.

## 1.14 PERMITS

### 1.14.1 General

Reference is made to the clause of the contract entitled "Permits and Responsibilities," which obligates the Contractor to obtain all required licenses and permits, including, but not necessarily limited to the following specified hereinbelow.

### 1.14.2 Public Property Permit

A public property permit from the Orange County Environmental Management Agency (OCEMA) has been issued. The OCEMA point of contact is Mr. Bob Sullivan, telephone (714) 834-5714. The Contractor shall comply with all permit requirements. A copy of this permit is attached at the end of this section.

### 1.14.3 NPDES Permit

The Contractor shall obtain a NPDES Storm Water Discharge Permit from the California State Water Resources Control Board, Division of Water Quality. Each covered construction activity must obtain coverage under this permit by submitting a Notice of Intent (NOI) to the State Board. The NOI must be sent to State Water Resources Control Board; Division of Water Quality; Attention: Storm Water Permit Unit; P.O. Box 1977; Sacramento CA 95812-1977.

## 1.15 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.

### 1.15.1 Term

Insurance shall be in force the first day of the term of this contract. The Contractor shall cause its insurance carrier(s) to furnish the U.S. Army Corps of Engineers and the Orange County Flood control District by direct mail, Certificates of Insurance showing that such insurance is in full force and effect.

### 1.15.2 Clauses

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 Department of the Army, Los Angeles District, Corps of Engineers, P.O. Box 532711, Los Angeles, California 90053-2325; and the County of Orange, Public Facilities & Resources Department, Attention: Dick Runge, Public Works, 300 N. Flower, P.O. Box 4048, Santa Ana, California 92702."
- b. "All rights of subrogation are hereby waived against the U.S. Army Corps of Engineers, the County of Orange, Orange County Flood Control District, the City of Anaheim, the City of Yorba Linda, 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 Orange, Orange County Flood Control District, the City of Anaheim, and the City of Yorba Linda,

<u>Coverage</u>	<u>LIABILITY INSURANCE</u>	<u>Minimum Limits</u>
Comprehensive General Liability including Completed Operations, Products, Broad Form Property Damage Endorsement, Full Blanket Contractual Coverage, and Comprehensive Automobile Liability		\$10,000,000.00 combined single limit per occurrence
Worker's Compensation		Statutory

1.15.3 Liability Insurance

Any liability insurance required by this Contract shall not contain exclusions or endorsements which eliminate or limit coverage for the following:

- a. Claims of liability for bodily injury or property damage caused by, resulting from, attributable or contributed to, or aggravated by the subsidence or other movement of soils or land as a result of landslide, consolidation, expansion, creep, shifting, sinking, or mud flow;
- b. Claims of liability for bodily injury or property damage caused by, resulting from, attributable or contributed to, or aggravated by the actual, alleged, or threatened discharge, dispersal, release or escape of any pollutants, as defined by law;
- c. Completed Operations coverage;
- d. Products coverage;
- e. Broad Form Property Damage coverage;
- f. Blanket Contractual coverage.

1.15.4 Worker's Compensation

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

"It is agreed that any insurance maintained by the County of Orange, Orange County Flood Control District, 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.

The Contractor shall indemnify and hold the Government, County of Orange, Orange County Flood Control District, the City of Anaheim, the City of Yorba Linda, and their elected and appointed officials, officers, agents, employees and independent contractors free and harmless from any liability whatsoever, based or asserted upon any act or omission of the Contractor, its elected and appointed officials, officers, agents, employees, subcontractors and independent contractors, for property damage, bodily injury, or death (Contractor's employees included) or any other element of damage of any kind or nature, relating or in anywise connected with or arising from its responsibilities in connection therewith of the Contractor's performance under the terms of this Contract. The Contractor shall defend, at its expense, including without limitation, attorney fees, expert fees and investigation expenses, the Government, County of Orange, Orange County Flood Control District, the City of Anaheim, the City of Yorba Linda, their elected and appointed officials, officers, agents, employees and independent contractors in any legal action based upon such alleged acts of omission. The obligations to indemnify and hold the Government, County of Orange, Orange County Flood Control District, the City of Anaheim, the City of Yorba Linda, their elected and appointed officials, officers, agents, employees and independent contractors free and harmless herein shall survive until any and all claims, actions and causes of action with respect to any and all alleged acts or omissions are fully and finally barred by the applicable status of limitations.

#### 1.16 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 with no change in contract price. 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 one or two day partnership development seminar/team building workshop together with the Contractor's key on-site staff and key Government personnel. Follow-up workshops of 1 to 2 days duration would be held periodically throughout the duration of the contract as agreed to by the Contractor and Government.

#### 2 PRODUCTS

#### 3 EXECUTION

-- End of Section --

# COUNTY PROPERTY ENCROACHMENT PERMIT

INSPECTION PHONE:  
**567-7800**

Inspection office shall be notified at least TWO (2) WORK DAYS PRIOR TO commencing permitted use. FAILURE TO OBTAIN INSPECTION SHALL VOID THIS PERMIT.

## RIDER

**COUNTY OF ORANGE**  
PUBLIC FACILITIES & RESOURCES DEPARTMENT  
COUNTY PROPERTY PERMITS  
Main Office-300 North Flower Street, Room 122  
SANTA ANA, CALIFORNIA 92703-5001  
OR-P.O. BOX 4048, SANTA ANA, CA 92702-4048  
PHONE: 834-3432 or 834-5238  
FAX: (714) 835-7425

PERMIT NO. 90-00570 FC  
91-01633 HT  
RIDER NO. 11  
EFFECTIVE DATE February 1, 1999  
See Special Provision "P"  
EXPIRATION DATE \_\_\_\_\_

**PERMITTEE**

Department of the Army  
Los Angeles District Corps of Engineers  
Post Office Box 2711  
Los Angeles, CA 90053-2325

TYPE	FACILITY NAME	NUMBER
	Santa Ana River Channel	E01

Contact Person \_\_\_\_\_ Telephone No. \_\_\_\_\_

**THE FOLLOWING CHANGES ARE HEREBY MADE TO THE ORIGINAL PERMIT:**

Temporary access within Orange County Flood Control District's Santa Ana River Channel right-of-way in conjunction with the construction of Reach 8 of the Santa Ana River Mainstream Project, per provisions attached, and to the satisfaction of EMA inspection personnel.

PWO# F68210, H68010 ALL OTHER TERMS AND CONDITIONS OF THE ORIGINAL PERMIT TO REMAIN IN FORCE Computer Coding /26

**LOCATION OF WORK:**

**Santa Ana River Channel from Imperial Highway to Weir Canyon Road**  
**Reach 8**

770:740:741

Thos. Bros.

Anaheim AREA

**CONSIDERATION:** \$ 0.00 (2061)  
Permit Fees \$ 0.00 (2075) Surety Government TOTAL \$ 0.00

Cash \_\_\_\_\_ Amount \_\_\_\_\_ Check No. \_\_\_\_\_ Amount \_\_\_\_\_ Receipt \_\_\_\_\_ Date \_\_\_\_\_ Trust Fund \_\_\_\_\_ Invoice \_\_\_\_\_

Cash \_\_\_\_\_ Amount \_\_\_\_\_ Check No. \_\_\_\_\_ Amount \_\_\_\_\_ Receipt \_\_\_\_\_ Date \_\_\_\_\_ Trust Fund \_\_\_\_\_ Invoice \_\_\_\_\_

Fees paid by \_\_\_\_\_

Contractor \_\_\_\_\_

Engineer: \_\_\_\_\_

**INSPECTION: PW/Construction**

**CC: PW/Operations**

**PERMITTEE'S ACCEPTANCE**

**COUNTY APPROVAL**

\_\_\_\_\_  
Permittee

DB  
\_\_\_\_\_  
Date



## SPECIAL PROVISIONS

By acceptance of this permit, permittee agrees to the following:

A. Permittee shall in writing notify:

David N. Marshall, Manager  
PFRD/Construction Division  
P.O. Box 4048  
Santa Ana, CA 92702 4048

of any preconstruction meeting(s) for this project not less than five(5) working days prior to the meeting(s).

- B. Permittee shall limit all construction activities to the area within the Santa Ana River Project (SARP) Construction Zone from Imperial Highway (SR-90) to approximately 2000' upstream of Weir Canyon Road. Lateral boundaries of the construction zone are defined in the Reach 8 construction plans and are mutually agreed upon between County and permittee.
- C. The granting of the permitted use shall be non-exclusive. The County reserves the right to grant to others permission to use the above right of way.
- D. The Santa Ana River maintenance roads and accesses and bicycle and riding and hiking trail systems are to remain open at all times, or Permittee shall construct adequate detours for the bicycle trail and the riding and hiking trail through and/or around the construction area according to the plan provided in the Reach 8 construction plans and specifications. Permittee shall provide adequate signing, striping, flagging and maintenance to ensure safe, unobstructed maintenance and recreational traffic through/around construction zone. Permittee shall maintain all detour trails free of dust/debris at all times.
- E. Permittee shall apply in writing and obtain written County approval of ingress and egress locations. Permittee shall not leave vehicles or equipment or stockpile any material upon any portion of SAR right of way without written permission of the County Inspector.
- F. Permittee shall notify County inspector by telephone (Contact: Dennis Brown, Construction Inspector; Tel. 714-567-7840) of all locations within the Santa Ana River Reach 8 construction zone where Permittee or its contractors intend to leave/park vehicles, construction vehicles or equipment, or stockpile any materials or aggregates; in order for County to inspect and document the condition of the site prior to the use described above.
- G. This permit may be REVOKED or SUSPENDED by mutual agreement between County and Permittee for reasons in the best interests of the County and Permittee, including violation of permit provisions or other applicable rules and regulations. In the event of a revocation or suspension, permittee shall immediately cease all operations and restore County right of way as directed by County Inspector. The Permittee shall not resume his operations within the

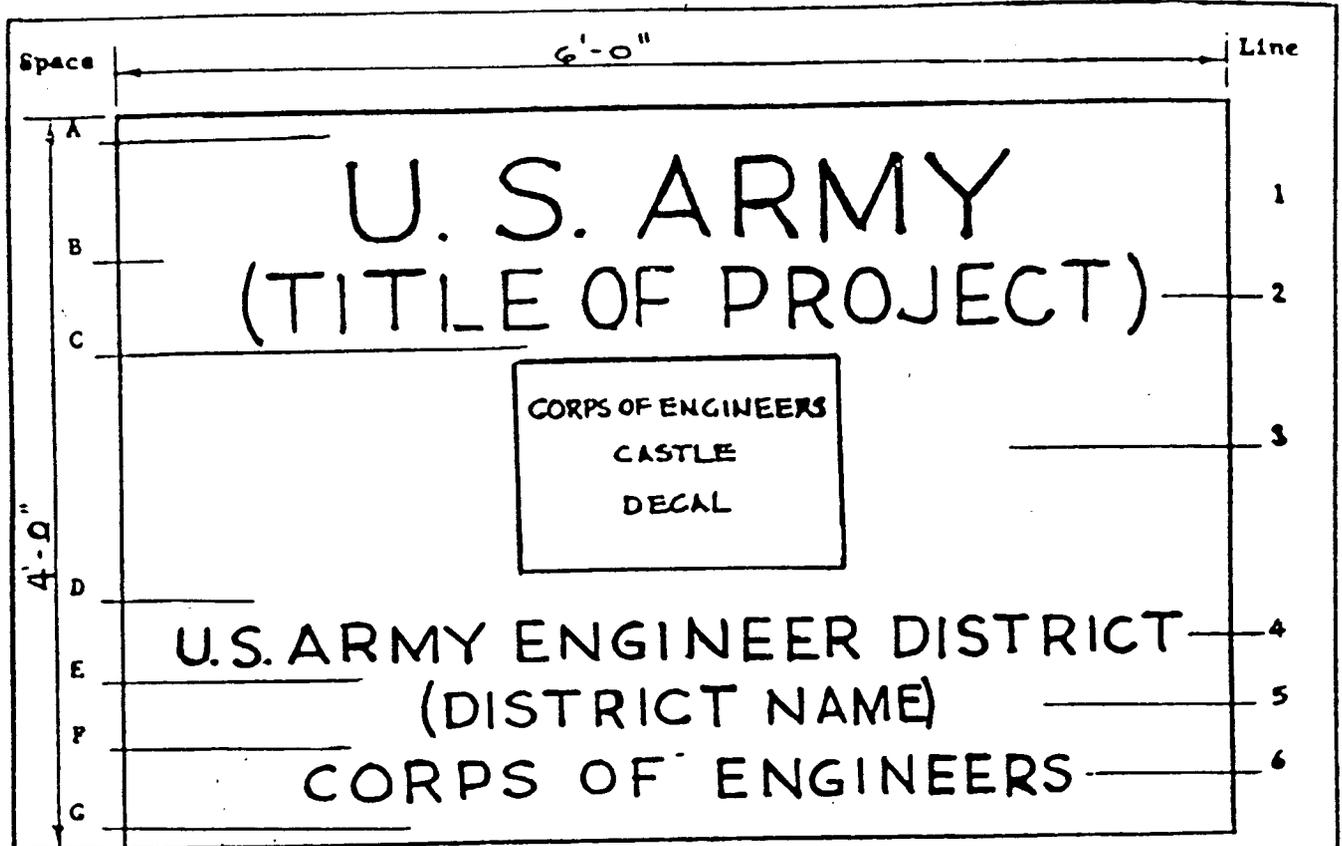
area where rights were suspended without mutual agreement between County and Permittee.

- H. This permit shall be limited to the normal working days and hours as specified in the U.S. Army Corps of Engineers' Lower Santa Ana River Reach 8 Construction Specifications, Section 01200. Any deviations from this work schedule shall be submitted to the County inspector for approval.
- I. Permittee is responsible for coordination of permitted work with County inspectors. Permittee shall submit a schedule to County, which shall contain calendar-dated breakdown of the operations to be conducted within County's right-of way.
- J. Permittee shall notify County Inspector two (2) days prior to commencement of work activities within SARP Construction Zone defined herein.
- K. Permittee shall maintain and enforce a safety program that meets or exceeds all Corps of Engineers' safety requirements.
- L. Permittee shall coordinate all work and scheduling thereof with any other contractors working within the limits of the Santa Ana River Reach 8 Construction Zone.
- M. Permittee acknowledges its responsibility to carry or require its contractor to carry adequate workers' compensation, public liability and property damage insurance coverage.
- N. All work outside of the Santa Ana River right-of way shall be coordinated with the proper agencies.
- O. Permittee acknowledges the accessibility and condition of the channel roadways and agrees to repair OCFCD's roadways and replace fencing, if removed, to the satisfaction of OCFCD's inspector and to the condition as existed prior to the commencement of permitted use. All gates and fencing shall be secured at the end of each working day.
- P. This permit shall become void if the permitted use is abandoned for a period exceeding one (1) year.
- Q. Permittee's contractor shall provide for the free flow of water in the flood control channel at all times. Permittee shall be responsible for the negligent and the wrongful acts of the Permittee, its employees, and its agents or representatives as specified under the Federal Tort Claims Act, Title 28, United States Code, as amended, and other Federal and State laws which may apply as determined by a Federal Court of competent jurisdiction.
- R. Permittee shall adhere to all mitigation measures stipulated in Negative Declaration No. IP 94-242-Amended.
- S. Permittee shall provide a 24-hour emergency phone number in case emergency repairs or action are required by County inspection personnel.
- T. Permittee acknowledges that all other terms and conditions of the original permit (90-00570 FC/91-01633 HT) shall remain in force.

- U. If any portion of the bicycle, riding and hiking facilities within the permitted area are to be reduced in width from existing dimensions, the permittee shall submit and obtain County approval of a traffic control plan that complies with EMA Regional Bikeway Detour Guidelines and County Property Permits Special Provisions.
- V. Permittee shall not obstruct authorized vehicular (including maintenance vehicles), bicycle, equestrian and pedestrian access to the site (except for approved trail detours); nor shall permittee interfere with any County maintenance activity within the permitted area.
- W. Permittee shall maintain dust control throughout the permitted area at all times.
- X. Permittee shall provide advisory signs throughout the permitted construction zone identifying the work being performed as The Santa Ana River Mainstream Project Reach 8. The signs shall also include a local telephone number where trail users and/or general public can obtain information regarding the project or register complaints.
- Y. Permittee shall protect in place any existing shrubs, trees or other plant materials that are not specified to be removed in the Reach 8 Construction Plans within the Santa Ana River Reach 8 Construction Zone. Permittee shall maintain all protected existing vegetation throughout the project construction period, to the satisfaction of County inspector. Maintenance shall include but not be limited to all watering, feeding, pruning and pest control needed to maintain the vegetation in a healthy, living condition. Permittee shall replace in kind and size, at Permittee's expense, any damaged or lost plant material to the satisfaction of County inspector. Within Reach 8, County shall have maintenance responsibility for landscaping which is outside of the construction zone.
- Z. Permittee may use the area delineated in Reach 8 Construction Plan Sheets C-12 and C-13 as a staging area. Staging area use may include placement of temporary office trailers, parking of authorized vehicles, storage of construction materials, storage of reasonable quantities {at the discretion of County inspectors) of sand, soil, rock or other aggregates needed during construction. During construction, permittee shall maintain these designated staging areas according to the conditions stipulated in Negative Declaration No. IP 94 242, to the satisfaction of County inspectors. Permittee shall, by appointment only, make the designated staging areas available to County inspector for inspection/monitoring of environmental mitigation measures stipulated in negative declaration No. IP 94-242.
- AA. Ingress and egress to and from these designated staging areas shall be accomplished within the river right of-way using the existing Santa Ana River accesses.
- BB. Within the designated staging areas, prior to and after occupying or using the sites, Permittee shall have the following soil tests conducted by a State of California certified laboratory and submit the results to County:
  1. Agricultural Suitability test (for pH, salts, SAR and Boron).
  2. Test method EPA-8240 for hydrocarbon products.

Samples should be obtained at surface and at a depth of 5' below existing ground and a minimum of one sampling location shall be used for each acre of land. Should a comparison of test results before and after staging show an increase in tested contaminants, Permittee shall remediate the area to its pre-staging condition, which might include removing and replace the contaminated soils, at Permittee's expense to the satisfaction of County inspector. All conditions stipulated in Negative Declaration No. IP 94 242 also apply to restoration of the staging areas and shall be performed by permittee to the satisfaction of County inspector.

- CC. All excess soil materials within the Santa Ana River right-of-way in Reach 8 are the property of the Orange County Flood Control District (OCFCD). (Excess soil material refers to all sand, silt, gravel or other classification or combination of soil which is in surplus to what is needed to balance the earth quantities in Reach 8) . NO soil material from the Santa Ana River right of-way shall be removed without the express written authorization from OCFCD and under OCFCD inspection. (Contact: David N. Marshall, Manager, Construction Division; Tel. 714 567-7838).
- DD. Permittee shall prevent any soil contamination resulting from vehicles, equipment, materials, and construction activities (including but not limited to concrete/rock crushing - recycling, staging areas, etc.). Should County inspector determine the contamination has occurred, Permittee shall restore the damaged area at Permittee's expense to the satisfaction of County inspector.
- EE. Permittee shall not cause compaction of the soil nor leave any debris created or unearthed by the construction activity in the areas to be landscaped. Should this occur, Permittee shall correct the condition (i.e., decompact the soil to a depth of 10" to a maximum relative compaction of 75%, or remove any debris, rock etc.) at Permittee's expense to the satisfaction of County inspectors.



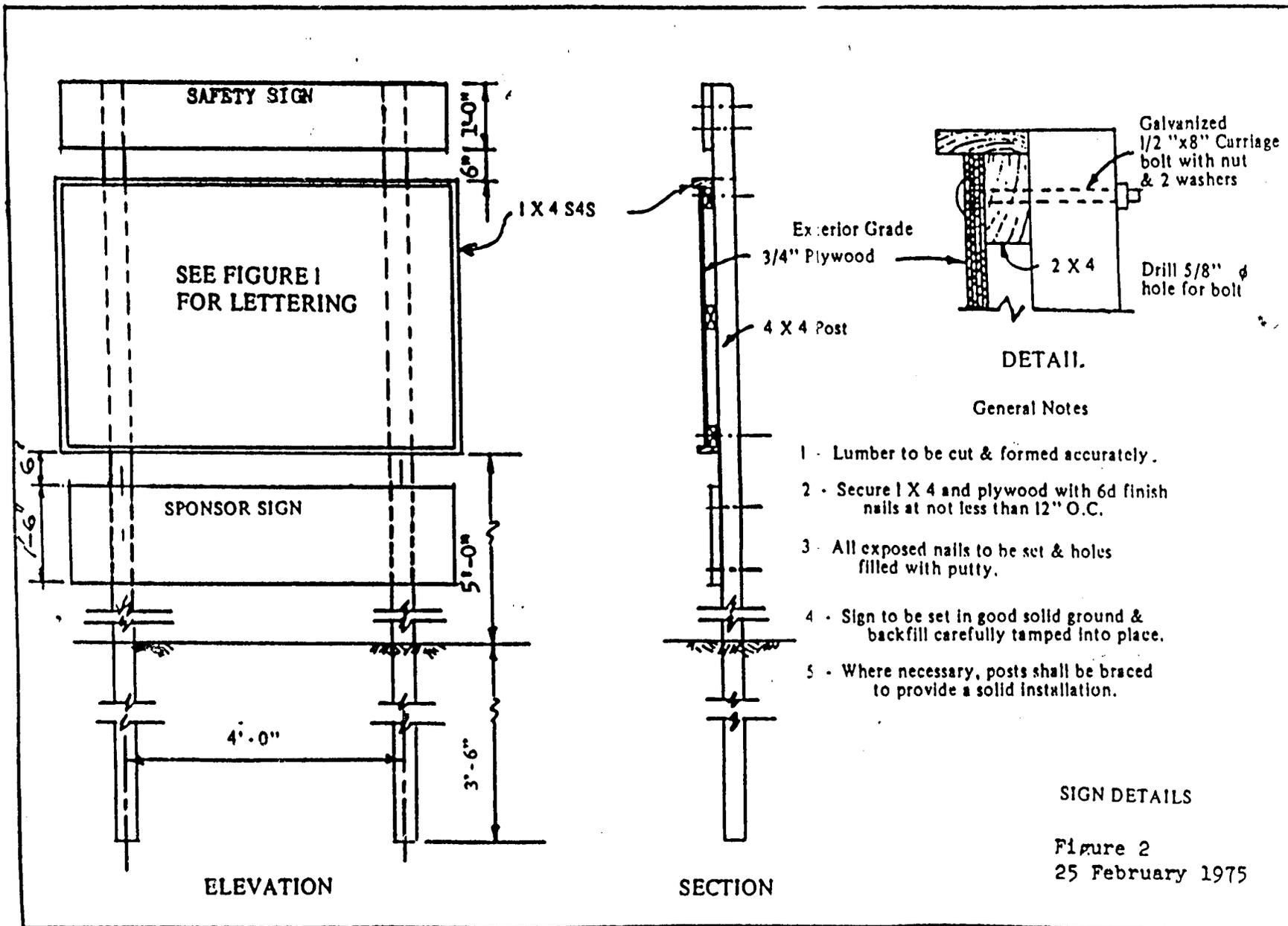
SCHEDULE

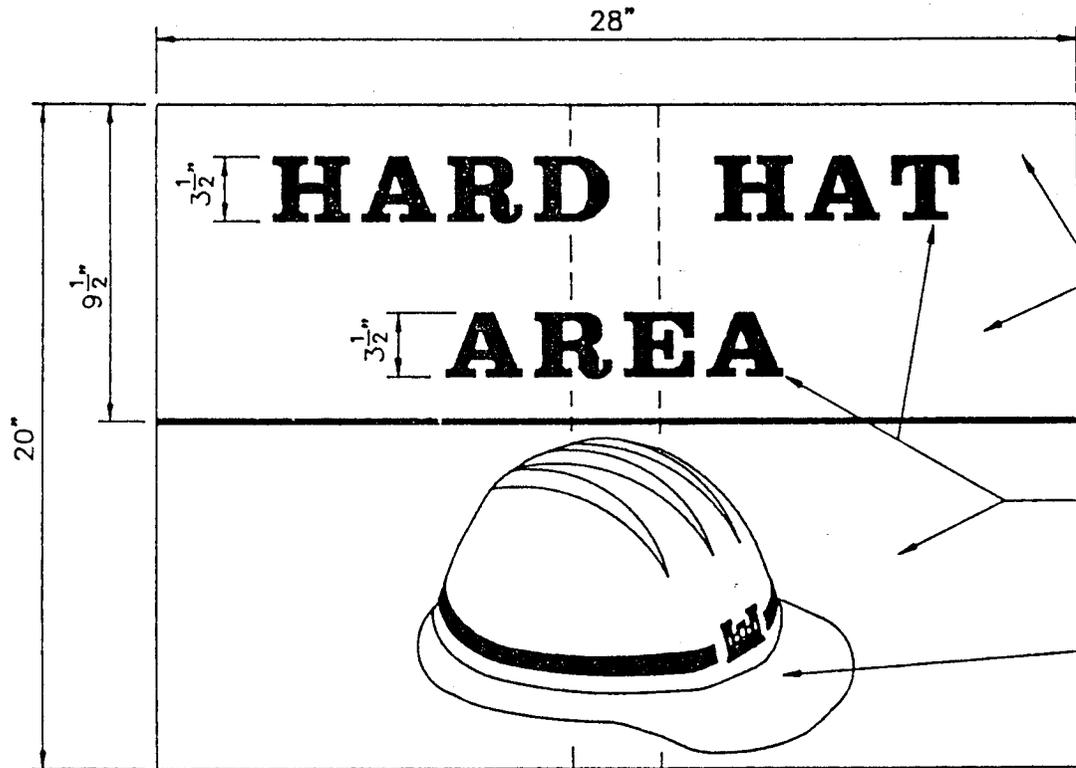
<u>Space</u>	<u>Height</u>	<u>Line</u>	<u>Description</u>	<u>Letter Height</u>	<u>Stroke</u>
A	3"	1	U. S. ARMY	5 1/2"	7/8"
B	2"	2	PROJECT NOMENCLATURE	4"	5/8"
C	2"	3	CORPS OF ENGINEERS CASTLE (DECAL)	1 1/2"	--
D	3"	4	U. S. ARMY ENGINEER DISTRICT	2 3/4"	3/8"
E	2"	5	DISTRICT NAME	2 1/4"	1/4"
F	2"	6	CORPS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

Lettering Color -- Black

PROJECT SIGN  
(Army-Civil Works)

Figure 1  
14 August 1972

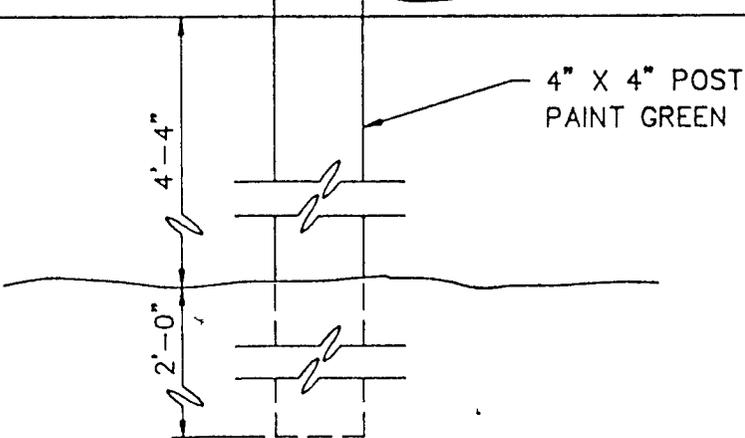




WHITE:  
PAINT BACK OF SIGN WHITE

GREEN

HARD HAT DECAL FURNISHED  
BY GOVERNMENT



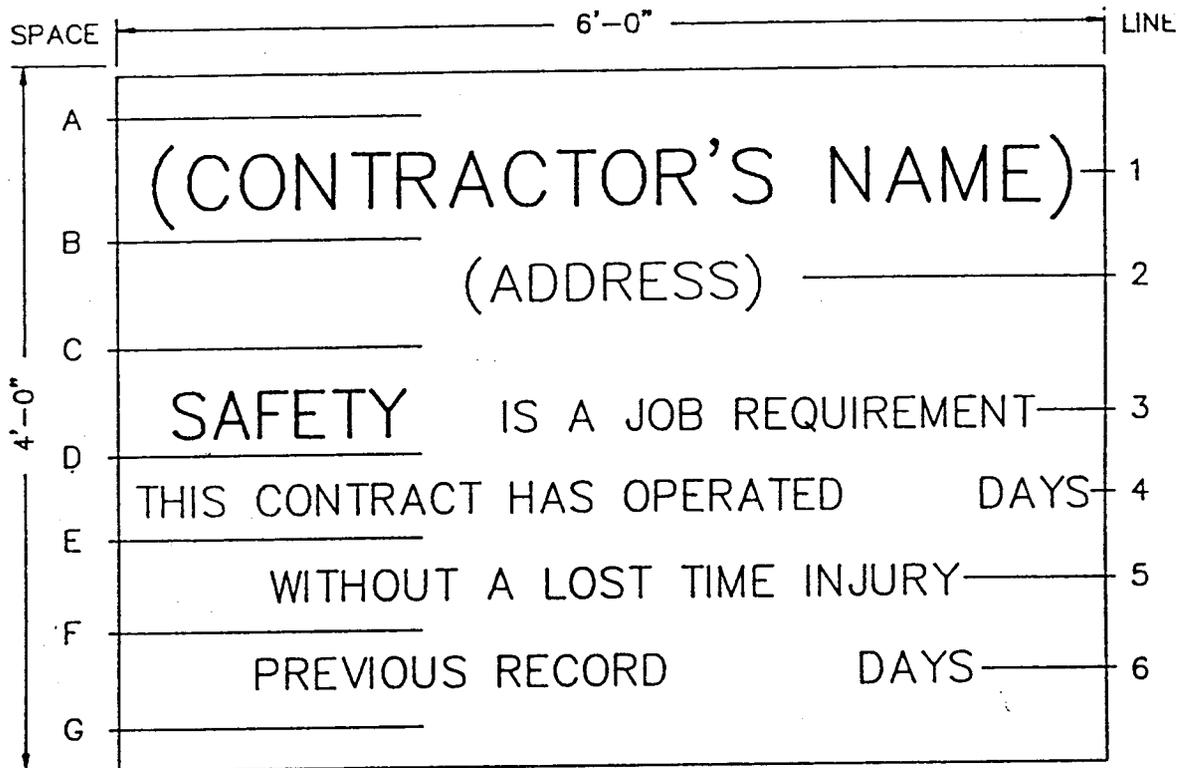
GENERAL NOTES:

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 Not to Scale  
Checked R. Simmons 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	SAFETY 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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## SECTION 01250

## MEASUREMENT AND PAYMENT

## 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 in the channel and other work areas, 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 channel 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; removal of existing asphalt pavement, flood control features (stone, reinforced concrete, removal of fencing, grouted stone work, and steel sheet pile); removal of end protections except those for which separate payment is provided; 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. Payment shall not include demolition of drop structures, drilling, grouting, and/or cleaning of exposed rebar for which separate payment is provided.

## 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, Channel

Payment for Excavation, Channel will be made at the applicable contract price, which payment shall constitute full compensation for excavation and disposal of excavated materials. This item includes the excavation for the levee slopes and access ramps.

#### 1.3.2.2 Excavation, Toe

Payment for Excavation, Toe will be made at the applicable contract price, which payment shall constitute full compensation for excavation and disposal of excavated materials.

#### 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, Levee

Payment for Compacted Fill, Levee 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 Backfill, Channel

Payment for Backfill, Channel will be made at the applicable contract price, which payment shall constitute full compensation for obtaining, placing and grading the fill, complete.

#### 1.4.2.3 Backfill, Toe

Payment for Backfill, Toe will be made at the applicable contract price, which payment shall constitute full compensation for placing and grading the fill, complete.

#### 1.4.2.4 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.

#### 1.4.2.5 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.

#### 1.4.2.6 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.

#### 1.4.2.7 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.

#### 1.4.2.8 Borrow

No separate payment will be made for borrow.

### 1.5 SIDE DRAINS

Payment for Side Drains will be made at the applicable contract price, which payment shall constitute full compensation for the side drains, complete, including earthwork, concrete, steel reinforcement, inlet structure, pipe, concrete collars, drainage gates, metal work, fencing, and outlet structure, 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 STONE PROTECTION

#### 1.6.1 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.

#### 1.6.2 Payment

##### 1.6.2.1 Grouted Stone

Payment for Grouted Stone will be made at the applicable contract price, which payment shall constitute full compensation for obtaining and placing the stone, complete. Payment shall not include stone for sewerline protection, pier nose scour protection, drop structures, nor grouting for which separate payment is provided.

#### 1.7 GROUTING STONE PROTECTION

##### 1.7.1 Measurement

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

##### 1.7.2 Payment

Payment for Grouting Stone Protection will be made at the applicable contract price, which payment shall constitute full compensation for mixing, transporting, placing, finishing, and curing grout for grouted stone, complete. Payment shall not include Portland Cement for which separate payment is provided.

#### 1.8 PORTLAND CEMENT IN GROUTING STONE PROTECTION

##### 1.8.1 Measurement

Portland cement used for the grouting stone protection item will be measured for payment based upon the number of hundred weight (100 pounds) of portland cement used unless specifically excepted, wasted, or used for the convenience of the Contractor. The quantity to be paid for will be determined by multiplying the approved batch weight of Portland cement by the number of batches of grout placed within the pay lines and dividing by 100. No payment under this item will be made for Portland cement in any item to be paid for by lump sum basis.

##### 1.8.2 Payment

Payment for Portland Cement will be made at the applicable contract price, which payment shall constitute full compensation for providing the Portland cement.

#### 1.9 STABILIZER

Payment for Stabilizer will be made at the applicable contract price, which payment shall constitute full compensation for the stabilizer, complete, including grouted stone, portland cement, earthwork, derrick stone, bedding stone, and guide posts. The earthwork included shall be only that earthwork

which is located outside the limits of earthwork for which other payment is provided.

#### 1.10 DROP STRUCTURE

Payment for the Drop Structure will be made at the applicable contract price, which payment shall constitute full compensation for the concrete drop structure, complete, including demolition, earthwork, derrick stone, bedding stone, gravel drain, filter fabric, concrete, and steel reinforcing. The earthwork included shall be only that earthwork which is located outside the limits of earthwork for which other payment is provided.

#### 1.11 ASPHALT CONCRETE PAVEMENT

##### 1.11.1 Measurement

The unit measurement for the asphalt concrete pavement will be the ton (2,000 pounds). The Contractor shall weigh each load on a certified platform scale and furnish the Contracting Officer with duplicate Weighmaster's Certificates showing the actual net weights. One ticket shall be furnished to the plant inspector and one ticket to the inspector at the construction site. The bituminous mixture shall be weighed after mixing and no deduction will be made for the weight of bituminous material incorporated therein. Asphalt concrete used for the convenience of the Contractor will not be measured for payment.

##### 1.11.2 Payment

Payment for Asphalt Concrete Pavement will be made at the applicable contract price, which payment shall constitute full compensation for asphalt concrete surfacing, complete, including tack coat, subgrade preparation and appurtenant work. Payment will not include asphalt concrete pavement for detours for which separate payment is provided.

#### 1.12 PIER NOSE SCOUR PROTECTION

Payment for Pier Nose Scour Protection will be made at the applicable contract price, which payment shall constitute full compensation for the Pier Nose Scour Protection, complete, including applicable earthwork, derrick stone, and bedding stone, complete. The earthwork included shall be only that earthwork which is located outside the limits of earthwork for which separate payment is provided.

#### 1.13 CHAIN-LINK FENCING

Payment for Chain-Link Fencing will be made at the applicable contract price, which payment shall constitute full compensation for the fencing, complete in place. Fencing on side drain structures, retaining walls, and temporary fencing will not be included in the measurement.

#### 1.14 GATES

Payment for Gates will be made at the applicable contract price, which payment shall constitute full compensation for the gates, complete, including removing and reinstalling existing gates and driveway entrance fencing.

## 1.15 SEEDING

### 1.15.1 Measurement

The quantity of seeding to be paid for will be the square yards acceptable placed within the lines shown on the drawing.

### 1.15.2 Payment

Payment for Seeding will be made at the applicable contract price, which payment shall constitute full compensation for materials installation and establishment necessary for the work, complete in place.

## 1.16 FILTER FABRIC

No separate payment will be made for filter fabric. Cost for filter fabric shall be included with the applicable item for which payment is provided.

## 1.17 SCOUR GAGE

Payment for Scour Gage will be made at the applicable contract price, which payment shall constitute full compensation for materials, and installation necessary for the work, complete in place, including final location surveys.

## 1.18 SEWER LINE PROTECTION

Payment for Sewer Line Protection will be made at the applicable contract price, which payment shall constitute full compensation for sewer line protection, complete, including bedding stone, riprap, filter fabric, and applicable earthwork, complete.

## 1.19 BICYCLE TRAIL DETOUR

Payment for Bicycle Trail Detour will be made at the applicable contract price, which payment shall constitute full compensation for providing and maintaining the detours, including earthwork, temporary surfacing, striping, temporary barricades, fences, traffic control facilities, subsequent removal of the detour, disposal of the removed materials, restoration of the detour areas upon completion of the work, and the maintenance of the existing bicycle trail for the entire contract period. Payment also includes removal and disposal of asphalt trail around the staging area; and the construction and replacement of wooden fence.

## 1.20 STATION MARKINGS

Payment for Station Marking will be made at the applicable contract price, which payment shall constitute full compensation for materials, and installation necessary for the work, complete in place.

## 1.21 QUALITY ASSURANCE VEHICLES

Payment for Quality Assurance Vehicles will be made at the applicable contract price, which payment shall constitute full compensation for providing the vehicles and all labor and materials required for their operation and maintenance.

1.22 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 in Intergraph Microstation electronic file format.

2 PRODUCTS (NOT APPLICABLE)

3 EXECUTION (NOT APPLICABLE)

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## SECTION 01300

## SUBMITTAL PROCEDURES

## 1 GENERAL

## 1.1 SUBMITTAL CLASSIFICATION

Submittals are identified with submittal description (SD) numbers and are classified as follows:

## 1.1.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

## 1.1.2 Information Only

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

## 1.2 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

## 1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies 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.

## 1.4 WITHHOLDING OF PAYMENT

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

## 2 PRODUCTS (NOT APPLICABLE)

## 3 EXECUTION

### 3.1 GENERAL

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

### 3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; 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 "q" have been completed by the Government; the Contractor shall complete columns "a" and "r" through "t" 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 14 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

#### 3.5.1 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. Four (4) copies of the submittal will be retained by the Contracting Officer and two (2) 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> <p>_____ Approved</p> <p>_____ Approved with corrections as noted on submittal data and/or attached sheets(s).</p> <p>SIGNATURE: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>
---

-- End of Section --



## INSTRUCTIONS

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

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

- |   |   |
|---|---|
| A -- Approved as submitted.   | E -- Disapproved (See attached).  |
| B -- Approved, except as noted on drawings.   | F -- Receipt acknowledged.  |
| C -- Approved, except as noted on drawings.<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-R)





































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

CONTRACT NO.  
DACW09-99-B-0008

TITLE AND LOCATION

**LOWER SANTA ANA RIVER, Imperial Hwy to Weir Canyon Rd**

CONTRACTOR

SPECIFICATION SECTION

**03360**

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 aa.			
					DRAWINGS	INSTALLATIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT		APPROVAL NEEDED BY	MATERIAL NEEDED BY	DATE	SUBMIT TO GOVERNMENT	DATE						
					DATA	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	
			1.2	Aggregates						X							X										
			1.2	Mix Design						X							X										
			1.2	Portland Cement								X					X										
			1.2	Curing Materials								X					X										



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## SECTION 01440

## CONTRACTOR QUALITY CONTROL

## 1 GENERAL

## 1.1 REFERENCES

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

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740 (1994a) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E 329 (1993b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

## 1.2 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.

## 2 PRODUCTS (NOT APPLICABLE)

## 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 30 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 01300 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks and has separate control requirements. It could be identified by different trades or disciplines, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

### 3.2.3 Acceptance of Plan

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

### 3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

## 3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 14 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

### 3.4 QUALITY CONTROL ORGANIZATION

#### 3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

#### 3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 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.

#### 3.4.4 Additional Requirement

In addition to the requirements described above, the CQC System Manager shall have completed the course entitled "Construction Quality Management for Contractors". This course is offered periodically. Contact U.S. Army Corps of Engineers, Los Angeles District, Phil Strayhorn, (213) 452-3374 for information.

### 3.5 SUBMITTALS

Submittals shall be made as specified in Section 01300 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

### 3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

### 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 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 the Corps of Engineers Division Laboratory, f.o.b., at the following address:

For delivery by mail: Director  
South Pacific Division Laboratory

U.S. Army Corps of Engineers  
P.O. Box 37  
Sausalito, CA 94966

For other deliveries: Director  
South Pacific Division Laboratory  
U.S. Army Corps of Engineers  
Liberty Ship Way  
Sausalito, CA 94966

Coordination for each specific test, exact delivery location, and dates will be made through the Area 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.

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

3.11.1.1 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.

3.11.1.2 The management system is to be based on a computerized Network Analysis (Critical Path Method) operated by on-site personnel at terminals located in the Contractors's on-site office. On-site management shall be capable of using the system to address all project activities and resources on a real time interactive basis and be capable of rapidly evaluating alternative scenarios which will optimize project management. Evidence of technical expertise of on-site personnel with the proposed computerized Network Analysis System shall be submitted for Contracting Officer's approval prior to on-site work.

3.11.1.3 The Contractor shall resource load all work activities. As a minimum, resource loading shall identify equipment, management, skilled and unskilled labor requirements. The Contractor may at his option decide on greater detail for his own purposes, but if this option is elected, the system must be able to consolidate resources into the above defined categories for use by the Contracting Officer.

3.11.1.4 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.

3.11.1.5 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:

3.11.2.1 The complete network system consisting of the detailed network mathematical analysis (including on-site manpower loading schedule) and network logic diagrams 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 and via 3-1/2 HD (High Density) floppy disk to allow restoring on Government Computers in accordance with the Corps of Engineers Standard Data Exchange Format as described in ER 1-1-11.

3.11.2.2 The Contractor shall participate in a review and evaluation of the proposed network logic diagrams and mathematical analysis 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

3.11.3.1 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 precedent 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.

3.11.3.2 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.

3.11.3.3 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.

3.11.3.4 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.

3.11.3.5 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

3.11.4.1.1 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.

3.11.4.1.2 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.

3.11.4.1.3 An assembled logic diagram of the complete project shall be submitted with the initial NAS, 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.

3.11.4.1.4 In addition to the detailed schedule, a summary schedule shall be developed by the Contractor. The summary schedule shall consist of minimum thirty (30) activities and maximum of 100 activities, and be updated monthly.

#### 3.11.4.2 Reports

3.11.4.2.1 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.

3.11.4.2.2 Three (3) weekly reports, selected from specific items of the menu will be required, for specified time window of the project (such as the next two weeks). These reports must be flexible in format, allowing generation of reports relating specifically to critical work areas, or areas of particular interest. The Government will identify the subject of the requested reports for the following week at a weekly review meeting. All activities involving the Government that affect progress will be coded to allow a separate report.

3.11.4.2.3 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.

3.11.4.2.4 A meeting shall be held three (3) workdays before the delivery of the midmonth report to discuss all input data. If the Contractor desires to make changes in his method of operation and scheduling, he shall clearly present the proposed changes.

3.11.4.2.5 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.

3.11.4.2.6 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

3.11.5.1 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.

3.11.5.2 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.

3.11.5.3 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.

3.11.5.4 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 FOR CONTRACTOR QUALITY CONTROL OF CONTRACT

The contractor shall utilize a Government furnished CQC Programming Module (A computerized executable file which is DOS based and operates on a minimum of 80386 IBM compatible computers). The contractor must use the CQC module and provide updates from this module on electronic format. The Module includes a Daily CQC Reporting System form which must also be used. 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 specified Daily CQC Report Form. The Contractor will also be required to complete Government-Furnished Module elements which includes, but is not limited to Prime Contractor staffing; letter codes; planned cumulative progress earnings; subcontractor information showing trade, name, address, point-of-contact, and insurance expiration dates; definable features of work; pay activity and activity information; required Quality Control tests tied to individual activities; planned User Schooling tied to specific specification paragraphs and contractor activities; Installed Property Listing, Transfer Property Listing 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, Options and Additives shall be separately identified, in accordance with the "Bidding Schedule". Bid Items may include multiple Activities, but Activities may only be assigned to one such Bid Item. This Module shall be completed to the satisfaction of the Contracting Officer prior to any contract payment (except for Bonds, Insurance and/or Mobilization, as approved by the Contracting Officer) and shall be updated as required.

(1) 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 to permit Government verification.

(2) 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.

(3) The Contracting Officer can provide information regarding training on the use of the RMS system.

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## SECTION 01500

## QUALITY ASSURANCE

## 1 GENERAL

## 1.1 QUALITY ASSURANCE VEHICLES

The Contractor shall furnish vehicles for use by Government personnel during the contract period. The vehicles shall be new 4 door model Chevrolet mini-Blazers, or equal, 4x4, equipped with high floatation all terrain tires, automatic transmission, air conditioning, AM/FM radio, heavy duty suspension, and other appropriate options for use in heavy duty off road conditions. One vehicle shall be a 9 passenger model suburban, or equal. The vehicles shall be suitable for the intended purpose and shall remain the property of the Contractor and be removed from the site at the completion of the contract.

## 1.1.1 Delivery

The Contractor shall deliver the vehicles within thirty (30) days after receipt of the Notice to Proceed.

## 1.1.2 Licenses and Fees

The Contractor shall be responsible for all vehicles registration fees, licenses, and inspections required by the State of California throughout the contract period. The vehicles shall be licensed for highway use.

## 1.1.3 Maintenance

Upon delivery of the vehicles, and continuing throughout the duration of the contract, complete maintenance shall be provided for the Contractor-furnished vehicles. Quality of services shall be to the normal standards of commercial service stations. Servicing and/or repairs of vehicles shall be started when the vehicle is received at the Contractor's service area and completed with reasonable promptness. Maintenance shall consist of the regular furnishing of gas and oil in the vehicle, washing, steam cleaning, lubrication consisting of 2,000-mile lube, 4,000-mile oil and filter change, or more if recommended by the vehicle manufacturer, tire services and any major or minor repair of body or fenders, transmission, rear-end, engine, brakes, steering, front-end, radiator, etc. All necessary parts and supplies, and consumables shall be Contractor-furnished. The vehicles shall be washed and the interior of all vehicles shall be cleaned every week and the motor and undercarriage shall be steam cleaned as directed. Whenever gas or oil is furnished, windshields shall be washed, tires inflated to proper pressure, brake fluid level checked and filled if necessary, and the battery filled to proper levels. Gasoline and oil shall be of the quality recommended by the vehicle manufacturer. The Contractor may elect to contract with a local commercial service station and/or service garage in the immediate local vicinity of the river to provide these maintenance services, so long as all of the above required services can be provided. If more than 2 of the Contractor-furnished vehicles are being serviced at any particular time, the Contractor shall immediately provide a replacement vehicle of equal quality as a replacement.

#### 1.1.4 Storage of Vehicles

Open parking space for quality assurance vehicles shall be located convenient to the Santa Ana project office. The parking area shall be enclosed with a chain link fence approximately 6 feet high with a 10-foot wide lockable gate, accessible at all times. The fenced area shall be of sufficient size to permit ease in the parking of vehicles. Materials for fence and gate need not be new provided they are adequate for the intended use.

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## SECTION 01702

## AS-BUILT DRAWINGS

## 1 GENERAL

## 1.1 REFERENCES

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

## CORPS OF ENGINEERS ENGINEERING MANUAL (EM)

EM 1110-1-1807 (1990) Standards Manual for U.S. Army Corps of Engineers Computer-Aided Design and Drafting (CADD) Systems

## 1.2 SUBMITTALS

Data listed in PART 3 of this section shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES. Due dates shall be as indicated in applicable paragraphs and all submittals shall be completed before final payment will be made.

## SD-04 Drawings

As-built Drawings; GA

## 2 PRODUCTS (NOT APPLICABLE)

## 3 EXECUTION

## 3.1 AS-BUILT FIELD DATA

## 3.1.1 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 actually used in the construction shall be shown on the as-built drawings. The option not used shall be deleted.

### 3.1.2 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. Failure to keep the As-Built Field Data current shall be sufficient justification to withhold a retained percentage from the 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.

#### 3.1.2.1 Submittal of the As-Built Field Data

One (1) full size set of marked up drawings with the as-built field data shall be submitted to the Contracting Officer for review and approval a minimum of 20 calendar days prior to the date of final inspection. If review of the preliminary as-built drawings reveals errors and/or omissions, the drawings will be returned to the Contractor for corrections. The Contractor shall make all corrections and return the drawings to the Contracting Officer within 10 calendar days of receipt.

### 3.2 AS-BUILT ELECTRONIC FILE DRAWINGS

#### 3.2.2 General

No later than 30 days after final acceptance a complete set of as-built drawings shall be submitted in Intergraph MicroStation electronic file format. The as-built drawings shall be done in a quality equal to that of the originals. Line work, line weights, and lettering, and use of symbols shall be the same as the original line work, line weights, and lettering, and symbols. If additional drawings are required they shall be prepared in electronic file format under the same guidance. When final revisions have been completed, each drawing shall be identified with the words "AS-BUILT" in block letters at least 3/8-inch high placed above the title block if space permits, or if not, below the title block between the border and the trim line. The date of completion and the words "REVISED AS-BUILT" shall be placed in the revision block above the latest revision notation.

#### 3.2.1 Original Files

Upon Contractor's request the Government will provide the Contractor one set of Intergraph MicroStation electronic file format contract drawings, to be used for as-built drawings. The electronic file drawings will be available on CD-ROM media, 3-1/2 inch high density magnetic disks, or an 8-mm data cartridge (Contractor's choice).

#### 3.2.1 Electronic File Submittal Requirements

##### 3.2.3.1 File Submittals

The MicroStation electronic file(s) deliverable shall be in MicroStation version 5.0 'DGN' binary format. All support files required to display or plot the file(s) in the same manner as they were developed shall be delivered along with the files. These files include but are not limited to Font Libraries, Pen Tables, and Referenced files.

##### 3.2.3.2 Drawing Format

Layering shall be performed in accordance with EM 1110-1-1807 Standards Manual for U.S. Army Corps of Engineers Computer-Aided Design and Drafting (CADD) Systems. An explanatory list of which layer is used at which drawing and an explanatory list of all layers which do not conform to the guidelines shall be provided with each submittal.

##### 3.2.1.1 Electronic File Deliverable Media

All electronic files shall be submitted on MS-DOS FAT or extended FAT format 3-1/2 inch 1.44 MB micro-floppy disks or on CD-ROM media. Two complete sets of disks shall be submitted along with one complete set of prints taken from the disks. Each disk shall be clearly marked with typewritten self-adhesive disk labels which shall contain the following information: Contractor's firm name, project name and location, submittal type (AS-BUILT), the name of each file contained within the disk or archive file, the format and version/release number of each file, a disk number indicating the numeric sequence of the disk in the submittal along with the total number of disks in the submittal, and date the disk was made. If CD-ROM media is chosen, the electronic files shall be delivered on ISO 9660 format CD-ROM media. Due to the limited ability to mark on CD-ROM media, only the

Contractor's firm name, project name and location, submittal type (AS-BUILT) and date will be required. Each submittal shall be accompanied by a hard copy transmittal sheet that contains the above information along with a description of each file provided in the submittal.

### 3.3 FINAL AS-BUILT DRAWINGS

The final as-built record drawings shall be completed and returned together with the approved preliminary as-built drawings to the Contracting Officer within 30 calendar days of final acceptance. The Contracting Officer will review all final as-built record drawings for accuracy and conformance to the drafting standards and other requirements contained in DIVISION 1 GENERAL REQUIREMENTS. The drawings shall be returned to the Contractor if corrections are necessary. The Contractor shall make all corrections and shall return the drawings to the Contracting Officer within 7 calendar days of receipt. 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 electronic as-built project files. All project files, whether revised or not, shall be provided to the Contracting Officer.

-- End of Section --