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SECTION 01005  
SUMMARY OF WORK

PART 1 GENERAL

1.1 WORK DESCRIPTION:

The Contractor shall furnish all plant, labor, material, independent testing, equipment and supplies (except Government - furnished materials and/or equipment) and perform all operations necessary to complete the work, in accordance with the Task Order (T.O.) Drawings and Specifications.

Unless otherwise specified, references in this specification or on the Task Order drawings to other specifications, codes, standards or manuals, which are a part of this Specification, but not included herein, shall be the latest edition of these publications, including any amendments and revisions, in effect as of the date of this Specification. In general all work shall be in compliance with the applicable sections of 29 CFR 1910- General Industry Safety Standards and the U.S. Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1-1 and any other applicable local, state, and federal safety regulations.

1.2 WORK INCLUDED:

The Scope of this project is defined as providing construction activities as described herein and as detailed by the technical specifications of each Task Order. Attached is a list of Technical Specifications which are representative of most of the work to be performed.

The contractor shall provide, upon receipt of a Task Order, all labor, materials, supplies, parts (to include system components), plant, supervision, equipment, and related services, (except when specified as Government furnished), to maintain, renovate, repair, add/alter, and/or construct real property facilities at Southern California locations including installations under the jurisdiction or that become under the jurisdiction of Los Angeles District during the life of this contract, including the Western Region Bureau of Prisons. The work shall be as specified in this document as well as each of the Task Orders and shall be performed in strict accordance with all terms, conditions, special contract requirements, specifications, drawings, attachments, and exhibits contained in the contract and task order or incorporated by reference. The attached list of technical specifications is representative of the work to be performed.

The contractor's responsibility shall include all contractor planning, programming, administration, and management necessary to provide all tasks ( i.e. maintenance, repair, and/or construction and related services) as specified. The work shall be conducted by the Contractor in strict accordance with the contract and all applicable Federal, State, local laws, regulations, codes, or directives. The Contractor shall provide related services such as but not limited to preparing and submitting required reports, performing administrative work, and submitting necessary information as specified under this contract and within each task order. The contractor shall insure that all work provided meets or exceeds the scope of work for each task order, and any special specifications included with the individual task order or included in any applicable documents.

The full text of these Corps of Engineers Guide Specifications (CEGS) can be found on the internet at:

<http://www.hnd.usace.army.mil/techinfo/gspec.htm>

1.2.1 DESCRIPTION

The Government will provide a scope of work to the contractor detailing the task to be accomplished. The detail provided will vary from performance specifications to complete design documents, depending on the complexity of the project. The Contractor will be required to use the information provided by the Government and submit a complete proposal regardless of how much information is provided by the Government. The proposal shall include a complete breakdown of all plant, labor, equipment, and materials as well as sketches when applicable to clearly show what work is included with the proposal.

1.3 SCHEDULES FOR CONSTRUCTION CONTRACTS

The Contractor shall complete all work and services under this contract in accordance with schedules established in each task order. The Contractor shall provide schedules for construction activities as required in each T. O. The required schedule may be a Network Analysis as described in SECTION 01311 NETWORK ANALYSIS SYSTEM, or may be a bar chart. The schedule shall be submitted and approved prior to the start of on site work. All information indicated for each activity, including but not limited to: identification and description, duration, value, and source of work. Activities may be added, rearranged, or replaced with more detailed activities if desired, but no activities may be deleted. The Contractor must include the Accident Prevention Plan, the Contractor Quality Control Plan, the Temporary Facilities Layout Plan, Approved Utility Outages, Road Closures, As-built Drawings, and other submissions required by the contract, and allow time for Contracting Officer approval. The purpose of the schedule is to assure the Contracting Officer that the Contractor has adequately planned the

execution of the project to evaluate progress during the Contract period, and to provide the basis for determining amounts of progress payments and to determine any adjustments to task order time, if required.

#### 1.4 QUALITY CONTROL

The contractor shall prepare for approval a Contractor Quality Control Plan and conduct CQC activities as required by Section 01440. All materials and equipment furnished and installed by the Contractor shall be new. All materials, equipment, and installations shall be accessible for inspection and approval by the Contracting Officer during any phase of construction, fabrication, manufacture, and erection or testing. See SECTION 01440: CONTRACTOR QUALITY CONTROL.

#### 1.5 STANDARD PRODUCTS

Reference the "Materials and Workmanship" clause of the contract. The materials and equipment furnished by the Contractor shall be standard products of manufacturers regularly engaged in the production of the type of materials and equipment required and shall be of the manufacturer's latest standard designs. Where two or more units of the same type and class of material or equipment are required, the units shall be the product of the same manufacturer, and shall be identical insofar as possible. The component parts of a unit of equipment need not be the products of the same manufacturer.

The items specified have been selected because of inherent technical characteristics, availability, and in many cases because of dimensional/size considerations. The Contractor, at the Contractor's option and in accordance with the clauses of this contract, may substitute manufacturers provided that all specified characteristics are met by the substitute and that prior approval of the Contracting Officer is obtained.

#### 1.6 REPAIR OF DAMAGES

Construction materials and equipment, shall be protected from damage at all times during shipping, handling, storage, construction and installation.

#### 1.7 SUBMITTALS:

Shop drawings and Vendor Data: Copies of shop drawings and/or vendor's data, as required by SECTION 01300: SUBMITTALS and each Task Order. Technical Specifications and Submittal Register (Eng FORM 4288) for materials and equipment to be furnished by the Contractor shall be submitted by the Contractor for approval by the Contracting Officer. Submittal requirements shall include but are not limited to:

As-Built Drawings: The Contractor shall maintain a current, complete set of drawings. Three copies of as-built drawings (prints) or one drawing set with one electronic media shall be submitted to the Contracting Officer before final acceptance.

Manufacturer's Operation and Maintenance Manuals: The Contractor shall furnish copies of installation, operation, and maintenance manuals, for operating equipment and systems, as required by the Technical Specifications and the Submittal Register (Eng FORM 4288) as required by each Task Order.

Manuals shall be complete and shall include instruction and sufficient data for lubricating, start-up sequence, operating instructions, special test procedures or instructions recommended by the manufacturer, maintenance procedures, a complete parts list and recommended list of spare parts for electrically operated equipment.

Material Safety Data Sheets: The Contractor shall submit to the Contracting Officer for approval prior to start of work on each T. O., material safety data sheets for all substances indicated by either the Manufacturer, the State of California, or other state in which the work is to be performed, as hazardous or determined to be hazardous to health or the environment.

Construction Quality Control Program Plan: The Contractor shall provide and maintain an effective quality control program which details procedures to ensure compliance with Task Order drawings and specifications. See SECTION 01440 CONTRACTOR QUALITY CONTROL.

#### PART 2 PRODUCTS:

New Materials and Equipment: All materials and equipment received by the Contractor in a damaged condition, shall be repaired or replaced by the Contractor. Materials and equipment damaged by the Contractor shall be repaired or replaced by the Contractor at no cost to the Government. All materials furnished by the Contractor shall be new and unused unless approved by the Contracting Officer.

Equipment and Components: All equipment and structural supports shall be designed and installed to meet the current Seismic Zone requirements described in the Uniform Building Code (UBC).

#### 2.1 EXISTING MATERIALS, EQUIPMENT, AND STRUCTURES

Existing materials, equipment and structures, including paint and protective coatings, involved under these Task Orders shall be thoroughly inspected by the Contractor before starting any work. Any defects or damages, the repair of which are not covered under this Task Order Specifications or Drawings, shall

be reported in writing to the Contracting Officer by the Contractor.

#### 2.2 GOVERNMENT FURNISHED MATERIALS (GFE):

GFE will be identified in each Task Order. Except as specifically identified, the Government will not furnish material, labor, or equipment to the contractor, nor is the contractor entitled to the use of government facilities and equipment in the execution of the task orders.

#### 2.3 HAZARDOUS CHEMICALS AND SUBSTANCES

The Contractor shall comply with all applicable requirements of 29 CFR 1910.1200, Hazard Communication Standard. Material Safety Data Sheets as required by this standard shall be submitted for information (see paragraph SUBMITTALS) as part of the contractor's safety program. Should the contractor encounter hazardous substances in the execution of the task order that were not identified, it shall immediately notify the Contracting Officer.

#### 2.4 MATERIALS AND EQUIPMENT

As required by Contract Clause "Materials and Workmanship" and the specific technical portions of the task order, all material and equipment shall be new and of type most suitable to the required installation. Materials shall be delivered to the site in manufacturer's sealed containers as appropriate. Any damaged materials shall be repaired or replaced by the contractor at no cost to the Government.

#### 2.5 PERMITS

The Contractor is responsible for identifying and obtaining all permits from Federal, State, local, or installation agencies.

#### 2.6 STAFFING APPROVALS

The contractor shall maintain a management staff with comparable ability and experience to the staff listed in the management proposal. Any changes from the proposed and accepted management staff must be approved by the Contracting Officer. A request for a change to the approved staff must be submitted in writing. A current qualification statement must be included in the request for approval.

Resumes that have been previously submitted to the Government need not be a part of the individual task order proposal.

#### 2.7 CONTRACTOR RESPONSIBILITIES

Following contract award and the award of any task order and as requested by the Contracting Officer, the Contractor shall:

Attend a preconstruction conference with the Contracting Officer's Authorized Representative for review of the task order requirements.

Begin work in accordance with the approved work plan following the approved work schedule. As work progresses, the Contractor shall meet the following requirements:

Adhere to the approved plan for site safety and health, prepared and submitted in accordance EM 385-1-1 and the basic contract requirements, incorporating the site specific information for the task order.

Adhere to the approved quality control program, prepared and submitted as required by the basic contract and by the task order.

Prepare and certify a comprehensive work schedule based on the proposed work plan.

Perform the work required by the task order in accordance with the work plan previously submitted and approved.

When required by the task order, conduct tests of systems/equipment and obtain Government inspection/approval/validation.

Prepare operation and maintenance manuals, for the systems or equipment as required by the task order.

Prepare a training program and train Government personnel in operation and maintenance of modified system/equipment as required by the task order.

Provide written equipment and construction warranties for all equipment and installations as required by the basic contract.

The Contractor shall perform all work in such a manner as to minimize the pollution of air, water, or land and to control noise and dust within reasonable limits and in accordance with federal, state, and local environmental laws. Refer to section Environmental Protection for requirements for the generic

plan required by the basic contract as well as the site specific plans required by each task order.

When work is in areas suspected of containing asbestos or lead-based paint, the contractor shall notify the Contracting Officer IMMEDIATELY. If asbestos and/or lead-based paint are encountered during the course of a project, work shall cease IMMEDIATELY and the Contracting Officer shall be notified.

The Contractor shall not publicly disclose any data generated or reviewed under this contract. The contractor shall refer all requests for information concerning site conditions to the Contracting Officer for comment.

### PART 3 CONSTRUCTION AND INSTALLATION:

#### 3.1 GENERAL:

Materials and equipment shall be erected or installed only by qualified personnel who are regularly engaged in the trades required to complete the work. The contract drawings show the general arrangement and space allocation of the equipment specified. It shall be the Contractor's responsibility to verify changes in conditions or rearrangements necessary because of substitutions for specified materials or equipment. Where rearrangements are necessary the Contractor shall, before construction or installation, prepare and submit drawings of the proposed rearrangement for approval. It is the Contractor's responsibility to field verify all measurements on the contract drawings.

#### 3.2 COORDINATION OF WORK:

Where new work and existing facilities are shown on the Drawings, but are not located precisely by dimensions, the Contractor shall be responsible for proper location and clearances and for correcting discrepancies and interfaces in the work which are a result of the Contractor's operations. Work done by one trade that must be integrated with work of other trades shall be laid out with due regard to the work done, or to be done, by other trades; particularly if the work done by one trade depends upon completion or proper installation of work done by other trades. The Contractor shall cooperate in coordinating Contractor work with work being done by others, if the work done by others must be integrated with the Contractor's work.

#### 3.3 WORKMANSHIP:

Where new work and existing facilities are shown on the Drawings, but are not located precisely by dimensions, the Contractor shall be responsible for proper location and clearances and for correcting discrepancies and interfaces in the work. Work done by one trade that must be integrated with work of other trades shall be laid out with due regard to the work done or to be done by other trades, particularly if the work done by one trade depends upon completion or proper installation of work done by other trades. The Contractor shall cooperate and properly coordinate the work of his subcontractors with work being done by others. All work shall be done in a skillful and workmanlike manner in accordance with Contract Clause MATERIAL AND WORKMANSHIP.

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02975 07/97 SEALING OF CRACKS IN BITUMINOUS PAVEMENTS  
sealing cracks in bituminous pavements

02980 08/97 PATCHING OF RIGID PAVEMENTS  
patching of rigid pavements

02981 11/97 GROOVING FOR AIRFIELD PAVEMENTS  
providing grooves in airfield pavements to increase the safe performance of aircraft

02985 12/97 SLABJACKING RIGID PAVEMENTS  
slabjacking rigid pavements for roads, streets, parking areas, airfield and other general  
applications

**DIVISION 03 - CONCRETE**

03100 05/98 STRUCTURAL CONCRETE FORMWORK  
 formwork for cast-in-place concrete and will be used with Section 03300 CAST-IN-PLACE  
 STRUCTURAL CONCRETE. Formwork for architectural cast-in-place concrete is specified in Section 03330  
 CAST-IN-PLACE ARCHITECTURAL CONCRETE.

03150 05/98 EXPANSION JOINTS, CONTRACTION JOINTS, AND WATERSTOPS  
 expansion joints, contraction joints and waterstops used in concrete construction. This guide  
 will be used in conjunction with Section 03300, CAST-IN-PLACE STRUCTURAL CONCRETE.

03200 09/97 CONCRETE REINFORCEMENT  
 concrete reinforcement, including welded wire fabric, for building construction in conjunction  
 with Section 03300 CAST-IN-PLACE STRUCTURAL CONCRETE

03300 09/95 CAST-IN-PLACE STRUCTURAL CONCRETE  
 cast-in-place concrete materials, mixing, placement, and finishes

03330 03/89 CAST-IN-PLACE ARCHITECTURAL CONCRETE  
 cast-in-place architectural concrete

03340 06/97 ROOF DECKING, CAST-IN-PLACE LOW DENSITY CONCRETE  
 low density cast-in-place concrete roof decking

03410 05/98 PRECAST/PRESTRESSED CONCRETE FLOOR AND ROOF UNITS  
 precast/prestressed concrete floor and roof units, single and double tees and hollow-core and  
 solid flat slabs

03413 05/98 PRECAST ARCHITECTURAL CONCRETE  
 precast architectural concrete units

03414 03/89 PRECAST ROOF DECKING  
 precast roof decking

03511 09/96 GYPSUM PLANK DECKING (CONTRACTOR'S OPTION)  
 gypsum plank systems for fire rated floor decks

03900 12/97 RESTORATION OF CONCRETE IN HISTORIC STRUCTURES  
 restoration of concrete in historic structures

**DIVISION 04 - MASONRY**

04200 07/92 MASONRY  
 reinforced and nonreinforced masonry

04255 07/92 NONBEARING MASONRY VENEER/STEEL STUD WALLS  
 nonbearing walls consisting of a masonry veneer wythe that is supported laterally by a  
 cold-formed steel framing system. The steel framing does not resist vertical and/or horizontal  
 loads in the plane of the wall

04900 05/97 RESTORATION AND CLEANING OF MASONRY IN HISTORIC STRUCTURES  
 restoration and cleaning of masonry in historic structures

**DIVISION 05 - METALS**

05055 11/88 WELDING, STRUCTURAL  
 welding of structural steel for buildings bridges and other structures

05061 01/89 ULTRASONIC INSPECTION OF WELDMENTS  
 ultrasonic inspections of weldments; including qualifications and procedures

05062 12/88 ULTRASONIC INSPECTION OF PLATES  
 ultrasonic inspection of rolled steel plates

05120 09/97 STRUCTURAL STEEL  
 structural steel for buildings and other structures

05210 11/88 STEEL JOISTS  
 open web, long span steel joists and joist girders

05300 10/89 STEEL DECKING  
 roof or floor steel deck construction

05500 07/97 MISCELLANEOUS METAL  
 miscellaneous metalwork for general building construction which is not part of Structural Steel  
 or Metal Deck

**DIVISION 06 - WOODS & PLASTICS**

- 06100 09/96 ROUGH CARPENTRY  
rough carpentry
- 06200 09/96 FINISH CARPENTRY  
finish carpentry

**DIVISION 07 - THERMAL & MOISTURE PROTECTION**

- 07111 09/96 ELASTOMERIC MEMBRANE WATERPROOFING  
elastomeric membrane waterproofing
- 07112 12/93 BITUMINOUS WATERPROOFING  
bituminous waterproofing for below grade use and other locations to be made watertight
- 07160 12/93 BITUMINOUS DAMPPROOFING  
bituminous dampproofing for above-grade use only to resist passage of moisture/water in the absence of hydrostatic pressure
- 07220 05/96 ROOF INSULATION  
insulation for use beneath built-up, modified bitumen, or single-ply roofing, EPDM or PVC elastomeric sheet membrane roofing
- 07240 06/93 EXTERIOR INSULATION AND FINISH SYSTEM  
exterior insulation and finish system which may be applied to concrete, brick, masonry, or to wood or metal frame construction
- 07310 02/95 SLATE ROOFING  
slate roofing on new construction and on historic buildings which require replacement, reinstallation, or repair of slate roofs
- 07311 07/94 ROOFING, STRIP SHINGLES  
asphalt strip shingles including roofing felt
- 07320 02/95 CLAY TILE ROOFING  
clay tile roofing on new construction and on historic buildings which require replacement, reinstallation, or repair of clay tile roofs
- 07412 07/97 NON-STRUCTURAL METAL ROOFING  
both factory color and mill finish Non-Structural Metal Roofing
- 07413 07/97 METAL SIDING  
both factory color and mill finish metal siding
- 07416 07/97 STRUCTURAL STANDING SEAM METAL ROOF (SSSMR) SYSTEM  
both factory color and mill finish SSSMR systems
- 07510 08/96 BUILT-UP ROOFING 4-ply,  
built-up roofing for use over pre-cast gypsum, light weight insulating concrete, structural concrete, wood, and insulation surfaces
- 07530 09/95 ELASTOMERIC ROOFING (EPDM)  
fully adhered, mechanically attached, or loose-laid and ballasted ethylene propylene-diene terpolymer (EPDM) elastomeric sheet roofing
- 07548 08/97 POLYVINYL CHLORIDE (PVC) ROOFING  
reinforced polyvinyl chloride roofing membrane; loose laid and ballasted, fully adhered, or mechanically fastened
- 07550 08/97 PROTECTED MEMBRANE ROOFING (PMR)  
protected membrane roof system
- 07551 01/98 MODIFIED BITUMEN ROOFING  
modified bitumen roofing
- 07570 01/98 SPRAYED POLYURETHANE FOAM (SPF) ROOFING  
urethane foam roofing systems with a fluid applied elastomeric protection coating
- 07600 10/94 SHEET METALWORK, GENERAL  
sheet metalwork for general building construction
- 07610 08/94 COPPER ROOF SYSTEM  
copper roof system applied to solid roof decking

07650 02/95 COPPER SHEET METAL FLASHING  
copper sheet metal used as flashing, including gutters and downspouts and for historic structures which require roof repairs

07720 11/93 ROOF VENTILATORS, GRAVITY-TYPE  
gravity-type roof ventilators including stationary, turbine, and ridge types

07810 05/98 SPRAY-APPLIED FIREPROOFING  
spray-applied fire protection

07840 05/98 FIRESTOPPING  
firestopping using fire resistant materials to form an effective barrier against the spread of fire, smoke and gases, and to maintain the integrity of fire resistance rated construction

07900 06/97 JOINT SEALING  
sealing of joints in building construction

**DIVISION 08 - DOORS & WINDOWS**

08110 02/95 STEEL DOORS AND FRAMES  
steel doors, sidelights, transoms and frames

08120 03/94 ALUMINUM DOORS AND FRAMES  
swing type aluminum doors and frames, adjacent sidelights, transoms, and adjoining window wall

08160 08/97 ALUMINUM SLIDING GLASS DOORS  
aluminum sliding glass doors

08210 05/97 WOOD DOORS  
interior and exterior wood doors including wood frames

08312 02/95 SLIDING METAL DOORS  
horizontal sliding steel doors used primarily for fire rated application

08330 06/97 OVERHEAD ROLLING DOORS  
overhead rolling doors for commercial use

08331 10/94 METAL ROLLING COUNTER DOORS  
metal rolling counter doors

08353 05/95 ACCORDION PARTITIONS, FOLDING DOORS, AND OPERABLE PARTITIONS  
accordion partitions, folding doors, and operable partitions

08360 08/97 SECTIONAL OVERHEAD DOORS  
industrial grade sectional overhead doors for use on warehouses, shop buildings, and similar facilities

08370 08/97 VERTICAL LIFT DOORS  
a multiple leaf (set one behind the other) vertical lift doors for use on maintenance shops and similar specialty openings where rough usage is anticipated

08390 11/97 BLAST RESISTANT DOORS  
manually operated swinging structural steel, reinforced concrete, and hollow metal blast resistant doors

08510 02/94 STEEL WINDOWS  
steel windows and their installation

08520 02/94 ALUMINUM WINDOWS  
aluminum windows and their installation

08521 02/95 ALUMINUM ENVIRONMENTAL CONTROL WINDOWS  
aluminum environmental control windows to be used for monumental type buildings or hospitals with year-round air-conditioning

08550 07/97 WOOD WINDOWS  
wood and clad wood; awning, casement, fixed, hopper, horizontal-sliding, single and double-hung windows

08560 07/97 POLYVINYL CHLORIDE (PVC) WINDOWS  
prefinished rigid polyvinyl chloride windows

08590 08/97 WOOD WINDOWS - REPAIR AND REHABILITATION  
repair and rehabilitation of wood windows in historic buildings

08700 03/96 BUILDERS' HARDWARE  
builders hardware for a wide range of applications

08810 05/97 GLASS AND GLAZING  
flat glass; annealed, heat-absorbing, light-reducing, patterned, wired, architectural laminated,  
solar-reflective, low-E, tempered, heat-strengthened, spandrels, fire/safety rated, mirrors, and  
control tower glass

08840 07/95 PLASTIC GLAZING  
plastic glazing for areas where glass breakage is probable and where safety is a factor

08850 07/92 FRAGMENT RETENTION FILM FOR GLASS  
transparent film at least 0.10 mm (0.004 inch thick (4 mil)) applied to the interior side of  
glass to reduce spalling and fragment dispersal

**DIVISION 09 - FINISHES**

09200 06/97 LATHING AND PLASTERING  
plasterwork for studs, furring and lathing, including steel framing

09215 11/95 VENEER PLASTER  
veneer plaster systems applied to a special gypsum base installed over a metal or wood framing  
system

09225 11/95 STUCCO  
stucco, including associated framing and lathing

09250 06/97 GYPSUM WALLBOARD  
gypsum board, including regular, foil backed, fire-resistant, and water-resistant types

09310 10/94 CERAMIC TILE  
ceramic tile for walls and floors, and marble thresholds

09411 01/96 BONDED TERRAZZO  
standard terrazzo bonded to concrete subfloor

09421 11/95 TERRAZZO TILE  
cast marble or granite terrazzo tile of various sizes and thicknesses)

09445 01/96 RESINOUS TERRAZZO FLOORING  
resinous terrazzo flooring and conductive resinous terrazzo flooring

09510 08/96 ACOUSTICAL CEILINGS  
acoustical ceiling tile, hangers, and suspension system grid for installation in commercial-type  
work

09620 01/98 RESILIENT ATHLETIC FLOORING  
resilient athletic flooring

09640 01/98 WOOD STRIP FLOORING  
wood strip flooring for gymnasiums, handball and squash courts, and other special purpose  
applications

09641 01/98 HARDWOOD PARQUET FLOORING  
parquet flooring installed over concrete slabs on grade and above grade

09650 07/96 RESILIENT FLOORING  
resilient floor coverings and base materials

09660 01/98 CONDUCTIVE VINYL FLOORING  
conductive vinyl tile over a concrete surface

09670 01/98 INDUSTRIAL RESIN-BASED FLOORING  
industrial resin-based flooring for areas of hard wear or where chemical spills are likely or  
for explosive and ammunition facilities

09680 09/96 CARPET  
broadloom and modular tile carpet

09720 01/98 WALLCOVERINGS  
wallcovering over gypsum wallboard, plaster, concrete, or masonry

09840 01/98 ACOUSTICAL WALL TREATMENT  
fabric covered acoustical wall panel systems

09873 07/92 INTERIOR TANK COATING  
coating the interior of tanks for storing petroleum fuel

09900 07/92 PAINTING, GENERAL  
painting of interior and exterior substrates, including masonry, metals and woods 09915 06/93  
COLOR SCHEDULE color of exterior and interior materials and products

09995 PREPARATION OF HISTORIC WOOD AND METAL SURFACES FOR PAINTING  
preparation for painting wood and metal surfaces in historic structures

**DIVISION 10 - SPECIALTIES**

10100 03/96 VISUAL COMMUNICATIONS SPECIALTIES  
visual communications specialties

10160 08/94 TOILET PARTITIONS  
toilet enclosures, room entrance screens, and urinal screens

10260 12/95 WALL AND CORNER PROTECTION  
corner guards, wall guards (bumper guards), door protectors, and wall panels

10270 01/97 RAISED FLOOR SYSTEM  
raised floor system

10430 06/98 EXTERIOR SIGNAGE  
common types of exterior signs, dimensional building letters, and metal plaques

10440 06/98 INTERIOR SIGNAGE  
common types of signs, dimensional letters, and metal plaques used inside buildings

10615 04/97 DEMOUNTABLE PARTITIONS  
ceiling height demountable gypsum board panel or metal faced panel partitions

10800 10/94 TOILET ACCESSORIES  
toilet accessories suitable for a wide variety of applications

10900 01/95 MANUFACTURED WARDROBES  
wood or steel wardrobes

**DIVISION 11 - EQUIPMENT**

11020 12/97 SECURITY VAULT DOOR  
vault door units meeting the protective storage criteria for classified materials

11022 12/88 DOORS; FIRE-INSULATED, RECORD-VAULT  
non-security type fire-insulated record-vault doors

11145 06/93 AVIATION FUELING SYSTEMS  
direct fueling systems for aircraft including helicopters

11162 11/88 LOADING DOCK LEVELER  
hydraulic and mechanical loading dock levelers

11181 02/90 INCINERATORS, GENERAL PURPOSE  
packaged, and modular field-erected; starved, and excess air incinerators having a capacity ranging from 1.05 MW (3.58 MBtuh) or 378 kg per hour (833 pounds per hour) 9 metric tons per day (10 TPD) up to 7.91 MW (27 MBtuh) or approximately 2.7 metric tons per hour (3 tons per hour) 68 metric tons per day (75 TPD) of Type 2 waste 10 MJ per kg (4300 Btu per pound), or the Joule (Btu) equivalent amount of Types 0, 1, or 3

11182 08/97 INCINERATORS, MEDICAL WASTE  
medical waste incinerators having a capacity ranging from 34 to 567 kg (75 to 1250 pounds) per hour

11211 12/88 PUMPS: WATER, CENTRIFUGAL  
centrifugal pumps - electric motor and internal combustion engine operated

11212 03/89 PUMPS: WATER, VERTICAL TURBINE  
line shaft and submersible vertical turbine pumping units and their appurtenances

11215 09/97 FANS/BLOWERS/PUMPS; OFF-GAS  
fans, blowers or vacuum pumps and drive units

11220 09/97 PRECIPITATION/COAGULATION/FLOCCULATION WATER TREATMENT

Precipitation/Coagulation /Flocculation (P/C/F) systems with flowrates ranging from 4 to 940 liters (1 to 250 gallons) per minute

- 11225 02/97 DOWNFLOW LIQUID ACTIVATED CARBON ADSORPTION UNITS  
systems to transfer organic contaminants from water to activated carbon adsorption media
- 11241 12/88 CHLORINE-FEEDING MACHINES (AUTOMATIC, SEMIAUTOMATIC AND MANUAL)  
chlorine feeding machines for the treatment of water or sewage
- 11242 6/97 CHEMICAL FEED SYSTEMS  
chemicals and controlled volume pumps and appurtenances
- 11250 02/89 WATER SOFTENERS, CATION-EXCHANGE (SODIUM CYCLE)  
fully automatic, semi-automatic, and manual water softening equipment
- 11301 11/91 AIR STRIPPING SYSTEMS  
systems to air strip volatile organic contaminants from water or wastewater
- 11310 11/90 PUMPS; SEWAGE AND SLUDGE  
sewage and sludge pumps for domestic type waste
- 11312 04/98 SIPHONS, DOSING  
automatic dosing siphons for sewage
- 11313 05/98 PNEUMATIC SEWAGE EJECTORS  
pneumatic sewage ejectors
- 11330 04/89 SEWAGE BAR SCREEN AND MECHANICAL SHREDDER  
sewage bar screen and mechanical shredder
- 11334 01/89 COMMINUTOR  
comminutor for use in sewage treatment plants normally handling domestic sewage
- 11350 11/89 SLUDGE-COLLECTING EQUIPMENT  
sludge collecting equipment
- 11360 02/94 PLATE AND FRAME FILTER PRESS SYSTEM  
for plate and frame filter presses
- 11365 06/90 TRICKLING FILTER  
a trickling filter for use in sewage treatment plants normally handling domestic sewage
- 11375 10/89 AIR SUPPLY AND DIFFUSION EQUIPMENT FOR SEWAGE TREATMENT  
air supply and diffusion equipment for sewage treatment plants
- 11376 03/93 ULTRAVIOLET DISINFECTION EQUIPMENT  
ultraviolet (UV) disinfection equipment for treatment of wastewater
- 11377 07/97 ADVANCED OXIDATION PROCESSES (AOP)  
liquid phase advanced oxidation processes using titanium dioxide or hydrogen peroxide and/or ozone with or without ultraviolet light
- 11380 12/89 SLUDGE-DIGESTER GAS, HEATING, AND MIXING SYSTEM  
sludge-digester gas, heating, and mixing system for sewage treatment plants
- 11390 12/89 PREFABRICATED BIOCHEMICAL WASTEWATER TREATMENT PLANT  
prefabricated biochemical wastewater treatment plants up to 380,000 L per day (100,000 gpd) capacity
- 11391 06/96 CONTINUOUS LOOP REACTOR WASTEWATER TREATMENT SYSTEM  
continuous loop reactor wastewater treatment system
- 11393 05/94 FILTRATION SYSTEM  
filtration systems with capacity less than 750 liters (200 gallons) per minute
- 11400 02/97 FOOD SERVICE EQUIPMENT  
food service equipment
- 11500 02/89 AIR POLLUTION CONTROL  
air pollution control equipment and accessories for use with various pollutant emitters
- 11710 12/88 WARMING CABINETS, STERILIZERS, AND ASSOCIATED EQUIPMENT  
warming cabinets, sterilizers, and associated equipment

**DIVISION 12 - FURNISHINGS**

- 12320 05/98 CABINETS AND COUNTERTOPS  
cabinets and countertops
- 12335 10/94 CASEWORK FOR MEDICAL AND DENTAL FACILITIES  
metal and wood casework for medical and dental facilities
- 12490 01/98 WINDOW TREATMENT  
window blinds, shades, curtain hardware, and curtains
- 12705 10/97 PREWIRED WORKSTATIONS  
open office systems prewired workstations
- 12710 02/96 THEATER CHAIRS  
upholstered theater chairs

**DIVISION 13 - SPECIAL CONSTRUCTION**

- 13080 07/95 SEISMIC PROTECTION FOR MECHANICAL, ELECTRICAL EQUIPMENT  
seismic protective elements for protection of mechanical and electrical equipment, building piping, conduit, and exterior utilities
- 13090 01/94 X-RAY SHIELDING  
x-ray shielding for medical and dental radiation facilities
- 13110 11/97 CATHODIC PROTECTION SYSTEM (SACRIFICIAL ANODE)  
a cathodic protection system utilizing continuous flow direct current from sacrificial anodes
- 13111 11/97 CATHODIC PROTECTION SYSTEM (STEEL WATER TANKS)  
a cathodic protection system to protect against corrosion by producing a direct current from anodes to the metal to be protected
- 13112 11/97 CATHODIC PROTECTION SYSTEM (IMPRESSED CURRENT)  
a cathodic protection system using impressed current anodes
- 13120 10/91 STANDARD METAL BUILDING SYSTEMS  
standard metal building systems designed in accordance with MBMA "Low Rise Building Systems Manual"; these buildings have an eave height equal to or less than 6 m (20 feet), or have rigid spans less than or equal to 25 m (80 feet)
- 13121 10/91 SPECIAL PURPOSE METAL BUILDING SYSTEMS  
special purpose metal building systems designed by the manufacturer to meet loadings specified by the Government; these buildings have an eave height greater than 6 meters (20 feet) or rigid frame spans greater than 24 meters (80 feet)
- 13202 05/97 FUEL STORAGE SYSTEMS  
fuel storage and dispensing systems
- 13203 08/93 TIGHTNESS TESTING OF UNDERGROUND FUEL SYSTEMS  
tightness testing procedures of existing underground fuel storage tanks and related piping systems
- 13206 11/88 STEEL STANDPIPES AND GROUND STORAGE RESERVOIRS  
steel standpipes and ground storage tanks for water supply system
- 13210 01/89 ELEVATED STEEL WATER TANK  
elevated steel water tank 380 to 1890 kL (100,000 to 500,000 gallon) capacity
- 13211 07/89 PRESSURE VESSELS FOR STORAGE OF COMPRESSED GASES pressure vessels for the storage of compressed gases
- 13234 10/89 FLOATING COVER FOR SLUDGE-DIGESTION TANKS  
floating cover for sludge-digestion tank
- 13280 05/98 ASBESTOS ABATEMENT  
removal, encapsulation, encasement, enclosure or repair of friable and nonfriable asbestos-containing material during the demolition, alteration, renovation, or maintenance of structures, substrates, equipment or portions thereof that contain asbestos; and transportation, disposal, storage, containment of, and housekeeping activities on the site at which these activities are performed
- 13290 03/89 COMPOSTING TOILET  
packaged composting toilets that can be used for human waste treatment at remote sites where a power source (AC or DC) is provided but water is not
- 13420 11/97 SELF-ACTING BLAST VALVES

self-acting blast valves used for blast protection of supply and exhaust air systems

- 13600 09/90 SOLAR WATER HEATING EQUIPMENT  
solar domestic and service water heating equipment
- 13720 05/98 ELECTRONIC SECURITY SYSTEM  
an intrusion detection and electronic entry control system
- 13721 03/97 SMALL INTRUSION DETECTION SYSTEM  
small intrusion detection systems (32 zones or less) which provide operator interaction and dynamic process manipulation, including overall system supervision, and control
- 13814 04/89 BUILDING PREPARATION FOR ENERGY MONITORING AND CONTROL SYSTEMS (EMCS)  
building preparation for energy monitoring and control systems
- 13820 03/98 MULTI-BUILDING EXPANSION OF ENERGY MONITORING AND CONTROL SYSTEMS  
expansion of an existing Energy Monitoring and Control System (EMCS)
- 13852 11/97 FIRE ALARM REPORTING SYSTEM, RADIO TYPE  
for radio transmitted fire alarm reporting systems
- 13853 11/97 CENTRAL FIRE ALARM SYSTEM, DIGITAL ALARM COMMUNICATOR TYPE  
digital alarm communicator type central fire alarm systems
- 13920 03/98 FIRE PUMPS  
fire pumps
- 13930 04/98 WET PIPE SPRINKLER SYSTEM, FIRE PROTECTION  
wet pipe fire protection sprinkler systems
- 13935 04/98 DRY PIPE SPRINKLER SYSTEM, FIRE PROTECTION  
dry pipe fire protection sprinkler systems
- 13945 04/98 PREACTION AND DELUGE SPRINKLER SYSTEMS, FIRE PROTECTION  
preaction and deluge fire protection sprinkler systems
- 13955 03/98 AQUEOUS FILM-FORMING FOAM (AFFF) FIRE PROTECTION SYSTEM  
foam-water AFFF fire protection sprinkler and nozzle systems
- 13958 10/91 FORCED ENTRY RESISTANT COMPONENTS  
forced entry resistant door assemblies, window assemblies, louvers, pass-through drawers, and prefabricated guardhouses
- 13965 03/98 WET CHEMICAL FIRE EXTINGUISHING SYSTEM  
wet chemical fire extinguishing systems that protect kitchen equipment and exhaust system
- 13970 07/91 BULLET-RESISTANT COMPONENTS  
bullet resistant components including doors, windows, louvers, gunports, pass drawers, deal trays, and speaking apertures

**DIVISION 14 - CONVEYING SYSTEMS**

- 14210 10/93 ELEVATORS, ELECTRIC  
electric passenger and freight elevators, and associated controls, door hardware and installation
- 14240 10/93 ELEVATORS, HYDRAULIC  
hydraulic passenger and freight elevators, and related equipment
- 14580 03/89 PNEUMATIC-TUBE SYSTEM  
computer controlled pneumatic tube system
- 14630 05/93 OVERHEAD ELECTRIC CRANES  
electric overhead traveling cranes with capacities of 27 metric tons (30 tons) or less, suitable for indoor or outdoor use in hazardous or non-hazardous environments

**DIVISION 15 - MECHANICAL**

- 15052 12/88 WELDING PRESSURE PIPING  
welding of piping and piping system components used for fluids and gases under pressure, including hydraulic systems
- 15080 03/98 THERMAL INSULATION FOR MECHANICAL SYSTEMS  
field applied thermal insulation on mechanical systems; interior and exterior; above and below

ground

- 15400 08/94 PLUMBING, GENERAL PURPOSE  
general purpose plumbing systems
- 15405 08/94 PLUMBING, HOSPITAL  
hospital plumbing systems
- 15488 01/89 GAS PIPING SYSTEMS  
low pressure (3.45 kPa (0.5 psig) maximum) gas systems conforming to NFPA 5 for nonindustrial uses
- 15495 03/89 HYDRAULIC FLUID POWER SYSTEMS  
requirements for hydraulic fluid power systems
- 15500 11/97 DESICCANT COOLING SYSTEMS  
desiccant cooling systems, both solid and liquid types, which offset the latent cooling load by removing moisture from the outside air before it reaches the cooling coil
- 15555 06/89 CENTRAL HIGH TEMPERATURE WATER (HTW) GENERATING PLANT AND AUXILIARIES  
high temperature water plants of capacities over 2,930 kW (10,000,000 Btuh), producing water at temperatures of 115 to 227 degrees C (240 to 440 degrees F) at pressures up to 2.8 MPa (400 psig)
- 15556 01/90 FORCED HOT WATER HEATING SYSTEMS USING WATER AND STEAM HEAT EXCHANGERS  
forced hot water heating system using a steam or high temperature water heat exchanger
- 15559 03/89 CENTRAL STEAM-GENERATING SYSTEM, COAL-FIRED  
coal-fired central steam-generating systems
- 15561 08/94 CENTRAL STEAM GENERATING SYSTEM - COMBINATION GAS AND OIL FIRED  
steam generation plants based on operating pressure above 200 kPa (30 psig) to a maximum of 1030 kPa (150 psig)
- 15562 07/89 HEATING AND UTILITIES SYSTEMS, CENTRAL STEAM  
two types of central steam heating systems and one type of central steam utilities system
- 15565 03/89 HEATING SYSTEM; GAS-FIRED HEATERS  
gas-fired heaters, including unit heaters, wall furnaces, and infrared heaters
- 15566 02/89 WARM AIR HEATING SYSTEMS  
warm air heating systems used primarily in barracks, offices and other similar applications
- 15569 05/95 WATER AND STEAM HEATING; OIL, GAS OR BOTH; UP TO 20 MBTUH  
packaged hot water and steam boiler systems (oil, gas or combination oil/gas fired) of up to 6000 kW (20,000,000 Btuh) output capacity. The hot water boiler systems operate at water temperatures below 120 degrees C (250 degrees F) and water working pressures less than 1100 kPa (160 psi). The steam heating systems operate up to 100 kPa (15 psig)
- 15650 07/92 CENTRAL REFRIGERATED AIR-CONDITIONING SYSTEM  
central refrigeration for built-up central-station air-conditioning system
- 15652 01/94 COLD STORAGE REFRIGERATION SYSTEMS  
refrigeration equipment for cold storage facilities
- 15653 09/93 AIR-CONDITIONING SYSTEM (UNITARY TYPE)  
single- and multi-zone air-conditioners, water-to-air and air-to-air heat pumps, condenser, humidifiers and cooling towers
- 15690 10/96 EVAPORATIVE COOLING SYSTEMS  
evaporative cooling systems
- 15775 07/92 FIELD-ERECTED HEAT PUMP SYSTEM  
field-erected heat pump systems, non-packaged factory units to be connected to a source of heat rejection
- 15845 02/89 ENERGY RECOVERY SYSTEMS  
energy recovery systems for power plant installations where a steady source of waste heat is available
- 15846 07/90 HEAT RECOVERY BOILERS  
fire-tube and water-tube heat recovery, steam generating boilers with individual capacities from 907 to 136,000 kg (2,000 to 300,000 pounds) of steam per hour
- 15848 10/96 THERMAL ENERGY STORAGE UNITS: ICE-ON-COIL  
ice-on-coil type thermal energy storage units

15895 02/94 AIR SUPPLY, DISTRIBUTION, VENTILATION, AND EXHAUST SYSTEM  
air supply, distribution, ventilation, and exhaust portion of an HVAC system

15940 06/89 OVERHEAD VEHICLE TAILPIPE [AND WELDING FUME] EXHAUST SYSTEM(S)  
exposed flexible tubing, overhead vehicle tailpipe and welding fume exhaust systems

15950 08/96 HEATING, VENTILATING AND AIR CONDITIONING (HVAC) CONTROL SYSTEMS  
heating, ventilating and air conditioning control systems

15951 01/94 DIRECT DIGITAL CONTROL FOR HVAC  
direct digital control for HVAC

15990 08/97 TESTING, ADJUSTING, AND BALANCING OF HVAC SYSTEMS  
the testing, adjusting, and balancing (TAB) of all heating, ventilating and air conditioning systems

15995 01/93 COMMISSIONING OF HVAC SYSTEMS  
commissioning of HVAC systems

**DIVISION 16 - ELECTRICAL**

16113 11/92 UNDERFLOOR DUCT SYSTEM  
underfloor duct systems for electrical and communications systems

16115 11/92 UNDERFLOOR RACEWAY SYSTEM (CELLULAR STEEL FLOOR)  
underfloor cellular steel raceway for electrical and communications systems

16263 05/94 DIESEL-GENERATOR SET STATIONARY 100-2500 KW, WITH AUXILIARIES  
requirements for stationary diesel-driven generator sets in the 100 to 2500 kilowatt capacity

16264 06/94 DIESEL-GENERATOR SET, STATIONARY 15-300 KW, STANDBY APPLICATIONS  
stationary diesel driven generator sets in the 15 to 300 kilowatt capacity for standby applications

16311 11/92 MAIN ELECTRIC SUPPLY STATION AND SUBSTATION  
main electric supply stations or substations having a nominal voltage class of 15 kV up to 115 kV

16370 01/93 ELECTRICAL DISTRIBUTION SYSTEM, AERIAL  
aerial electrical distribution systems using wood, steel, aluminum, and concrete poles

16375 11/92 ELECTRICAL DISTRIBUTION SYSTEM, UNDERGROUND  
underground electrical distribution systems

16410 12/97 AUTOMATIC TRANSFER AND BY-PASS/ISOLATION SWITCHES enclosures,  
by-pass/isolation switches, automatic transfer switches and time delays

16415 08/96 ELECTRICAL WORK, INTERIOR  
interior electrical work

16475 10/96 COORDINATED POWER SYSTEM PROTECTION  
the coordinated protection of power systems

16525 09/92 HELIPAD LIGHTING AND VISUAL NAVIGATION AIDS  
lighting and visual navigation aids for helipads

16526 09/92 AIRFIELD AND HELIPORT LIGHTING AND VISUAL NAVIGATION AIDS lighting and visual  
navigation aids for airfields and heliports

16528 02/95 EXTERIOR LIGHTING INCLUDING SECURITY AND CCTV APPLICATIONS  
lighting for roads, walks, security, and closed circuit television (CCTV) assessment

16610 02/95 UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM ABOVE 15 KVA CAPACITY  
requirements for static UPS to provide continuous ac power to critical loads and/or to improve the quality of ac power to critical loads

16650 05/96 ELECTROMAGNETIC (EM) SHIELDING  
electromagnetic shielded facilities.

16665 07/89 STATIC ELECTRICITY PROTECTION SYSTEM  
static electricity protection systems for various applications

16670 12/88 LIGHTNING PROTECTION SYSTEM  
lightning protection systems for buildings and other structures

16710 04/97 PREMISES DISTRIBUTION SYSTEM  
data and telephone signal distribution paths within premises (formerly called inside plant)

16711 05/98 TELEPHONE SYSTEM, OUTSIDE PLANT  
outside plant telephone system encompassing main distribution frame, outside cable, and associated hardware

16721 11/91 FIRE DETECTION AND ALARM SYSTEM  
fire detection and alarm systems

16750 07/89 NURSE CALL SYSTEM  
nurse call system for applications such as a one- or two-bed dispensary or a multibed hospital

16751 04/91 CLOSED CIRCUIT TELEVISION SYSTEMS  
closed circuit television systems

16755 02/92 RADIO PAGING SYSTEM  
signaling system for radio paging

16760 06/89 INTERCOMMUNICATION SYSTEM  
electronic intercommunication systems, including master and remote stations of the wired and wireless types

16766 04/89 CENTRAL DICTATION SYSTEM  
central dictation systems for use in medical facilities

16768 08/94 FIBER OPTIC DATA TRANSMISSION SYSTEM  
fiber optics data transmission systems

16770 07/89 RADIO AND PUBLIC ADDRESS SYSTEMS  
radio and public address systems

16781 04/89 MASTER ANTENNA TELEVISION SYSTEM  
master antenna television systems of various configurations

16790 03/89 STAND-ALONE ONE-WAY RADIO CONTROL SYSTEM  
stand-alone 1-way FM radio control systems. The control scheme consists of one-way control of equipment (i.e., there is no feedback to the control panel)

16792 12/96 WIRE LINE DATA TRANSMISSION SYSTEM  
underground, aerial, direct burial, and interior wire line data transmission systems for communication between a local device and a central processor, and covers the requirements for a half or full duplex wire line data transmission system (DTS)

16794 04/91 COAXIAL CABLE DATA TRANSMISSION MEDIA  
requirements for coaxial cable for two-way data transmission in a data acquisition system, and one way data transmission in a video system

16797 07/94 ONE-WAY FM RADIO CONTROL/UTILITY MONITORING & CONTROL SYSTEM (UMCS)  
1-way FM radio control systems for use with a UMCS

16798 03/89 TWO-WAY RADIO DATA TRANSMISSION SYSTEM  
2-way radio data transmission required for two-way communication with an EMCS

16935 09/96 UTILITY MONITORING AND CONTROL SYSTEM (UMCS)  
utility monitoring and control systems

--END OF SECTION--

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Sources for Reference Publications

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SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS  
09/98

NOTE: This guide specification provides a listing of organizations whose publications are referenced in other sections of the specifications. This guide specification is to be used in the preparation of project specifications in accordance with ER 1110-345-700. Comments and suggestions on this guide specification are welcome and should be directed to the proponent of the specification. A listing of proponents, including their organization designation and telephone number, is at URL <http://www.hnd.usace.army.mil/techinfo/index.htm>, and an electronic feedback page for submission of recommended changes is available at the same address. Use of electronic communication is encouraged.

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the sponsoring organization, e.g. UL 1 (1993; Rev thru Jan 1995) Flexible Metal Conduit. However, when the sponsoring organization has not assigned a number to a document, an identifying number has been assigned for convenience, e.g. UL's unnumbered 1995 edition of their Building Materials Directory is identified as UL-01 (1995) Building Materials Directory. The sponsoring organization number (UL 1) can be distinguished from an assigned identifying number (UL-01) by the lack of a dash mark (-) in the sponsoring organization assigned number.

1.2 ORDERING INFORMATION

NOTE: Sponsoring organization information was current as of the date of this section. This paragraph is automatically edited to fit the project when the project specifications are produced through SPECSINTACT; however, if publications of organizations in addition to those listed below are used in the project, such additional organizations must be added to this paragraph. 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.

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e-mail: [james\\_p\\_tripplitt@usda.gov](mailto:james_p_tripplitt@usda.gov)

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4301 North Fairfax Dr., Suite 425 ATTN: Pubs Dept. Arlington, VA 22203  
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NOTE: AASHTO documents with numbers beginning with M or T are available only in Standard Specifications for Transportation Materials and Methods of Sampling and Testing, 1997 @\$289.00

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[info@concrete-pipe.org](mailto:info@concrete-pipe.org)

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

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SECTION 01300

SUBMITTAL PROCEDURES

PART 1 GENERAL

The following requirements will be applicable for each Task Order (T. O.).

1.1 SUBMITTAL CLASSIFICATION/IDENTIFICATION

Throughout the specifications submittals may be identified with the prefix "SD" followed by a number. This number and prefix are for book keeping and record sorting in the system. The SD stands for submittal data and the number is a category, e.g., data, drawings, reports, etc. The submittal register shows either the title of the item being submitted or the number and title of the item being submitted. These numbers, if used, may be different in different sections of these specifications for items with the same title. Cost for providing submittals are included in the contractor's fully burdened labor rates and will not be priced separately.

1.1.1 SD-01 Data: Submittals which provide calculations, descriptions, or documentation regarding the work.

1.1.2 SD-04 Drawings: Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.

1.1.3 SD-06 Instructions: Preprinted material describing installation of a product, system or material, including special notices and material safety data sheets, if any, concerning impedances, hazards, and safety precautions.

1.1.4 SD-07 Schedules: Tabular lists showing location, feature, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

1.1.5 SD-08 Statements: A document, required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier Contractor, the purpose of which is to confirm the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verifications of quality.

1.1.6 SD-09 Reports: Reports of inspections or tests, including analysis and interpretation of test results. Each report shall be properly identified. Test methods used shall be identified and test results shall be recorded.

1.1.7 SD-13 Certificates: Statements signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting the product, system or material meets specified requirements.

The statements must be dated after award of this contract, must state the Contractor's name and address, must name the project/Task Order and location, and must list the specific requirements which are being certified.

1.1.8 SD-14 Samples: Samples, including both fabricated and un-fabricated physical examples of materials, products, and units of work as complete units or as portions of units of work.

1.1.9 SD-18 Records: Documentation to record compliance with technical or administrative requirements.

1.1.10 SD-19 Operation and Maintenance Manuals: Data which forms a part of an Operation and Maintenance manual.

1.1.11 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.1.11.1 Government Approved (GA)

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."

1.1.11.2 For Information Only (FIO)

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

1.2 SUBMITTAL REVIEW AND APPROVAL

Before submission, Contractor shall review all submittals prepared by subcontractors, suppliers, and himself, for completeness, accuracy, and compliance with plans and specifications. Contractor shall not use red markings on submittals. Red markings are reserved for use by the Contracting Officer. Approval by Contractor shall be indicated on each drawing by an "Approved" stamp with Contractor's name, signature, and date. The Contractor shall have independent agents not associated with his organization to do the review. The review shall be done by a licensed architect or registered engineers in the appropriate disciplines of architectural, civil, structural, mechanical and electrical, as appropriate. The reviews shall be thorough and complete and authenticated by registered engineer's or architect's stamp. This administration of submittal review must be integrated into the Contractor's Quality Control Plan. The plan must delineate in precise detail how the Contractor intends to satisfy this requirement. This should include names of organizations, qualifications and names of individuals who will be doing the work with their qualifications/resumes. Supplier's or subcontractors certifications are not acceptable as meeting this requirement of independent review. Submittals not conforming to the requirements of this section will be returned to the Contractor for correction and resubmittal.

#### 1.3 GOVERNMENT APPROVED SUBMITTALS

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

#### 1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

#### 1.5 PAYMENT FOR ITEMS FOR WHICH A SUBMITTAL AND APPROVAL IS REQUIRED

In accordance with FAR 52.232-5, "Payment Under Fixed-Price Construction Contract", the Government shall make progress payments to the Contractor monthly based on estimates of work accomplished which meets the standards of quality established under the contract. On items for which submittals must be approved by the Contracting Officer, payment cannot be made for the item until the Government establishes that the item "meets the standards of quality" required by the contract. The Contractor shall not invoice for, nor shall the Government make payment for any item, for which submittal and approval is required, until the item has been submitted and approved as described herein.

### PART 2 PRODUCTS (Not Applicable)

### PART 3 EXECUTION

#### 3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken in accordance with paragraph 1.2 SUBMITTAL REVIEW AND APPROVAL. 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 sample of ENG Form 4288 listing representative items of equipment and materials for which submittals may be required by the specifications. Columns "d" through "p" have been completed by the Government. The Contractor shall complete columns "a," through "c," and "r" thru

"t" and return two (2) completed copies to the Contracting Officer for approval within thirty (30) calendar days after Notice to Proceed. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated. The Contractor will insure that any errors in draft ENG Form 4288 and any omissions are added prior to submission for approval.

### 3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 35 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

### 3.4 TRANSMITTAL FORM (ENG FORM 4025)

The Contractor shall complete ENG Form 4025, "Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance" and forward four (4) copies of same with each set of shop drawings, certificates of compliance, materials, fixtures and equipment lists submitted for approval. Three (3) copies of the ENG Form 4025 shall be submitted for information only data. No translucent or coated reproduced copies will be accepted.

Each item submitted shall be listed separately on the ENG Form 4025. For new submittals or resubmittals mark the appropriate box; or resubmittals also insert previous transmittal number. More specific instructions on the use of ENG Form 4025, "Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificates of Compliance" shall be furnished at the Preconstruction Conference. Blank ENG Forms 4025 will be furnished by the Contracting Officer on request. Shop drawings shall be either blue line or black line prints on a white background. Blueprints are not acceptable. Each submittal shall be identified with the Contractor's name, Contract Number, Transmittal Number, and Item Number to correspond with Item Number listed on ENG form 4288. The following identification shall be marked on submittals as applicable:

- Contract Number
- Project Title and Location
- Subcontractor's Name
- Supplier's Name or Manufacturer's Name
- Specification Section and Paragraph Number (Product or Execution Parts)
- Contract Drawing File Number
- Transmittal Number

### 3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

#### 3.5.1 Procedures

Submittals required by the CONTRACT CLAUSES and other non-technical parts of the contract are not included in this section. The Contractor shall submit to the Contracting Officer: four (4) copies for approval, and three (3) copies for information only, of all shop drawings, certificates of compliance, materials, fixtures and equipment lists called for under the various headings of these specifications. These drawings, certificates and lists shall be complete and detailed and, prior to submission, must be reviewed and certified correct by the Contractor as required by the Quality Control System paragraph of the Construction Quality Control Section. If approved by the Contracting Officer, three (3) sets of all submittals will be returned to the Contractor. Submittals for information only usually will be returned to the Contractor. Submittals for information only usually will not be returned. The Contractor is encouraged to submit paper documents that are printed/copied double-sided on recycled paper that has at least 20% postconsumer material.

#### (a) Resubmittals

(1) If a submittal is returned for correction or is not satisfactory and is disapproved by the Contracting Officer, the Contractor shall resubmit the corrected material in the same quantity, including reproduces as specified for the original submittal for approval within 14 days after receipt by him of the disapproved material.

#### 3.5.2 Deviations

For submittals which include proposed deviations, extensions of design and proposed changes to designs requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

### 3.6 SPARE PARTS LIST AND MAINTENANCE OPERATIONS MANUALS:

Within 30 calendar days after approval of shop drawings and equipment lists, the Contractor shall submit, to the Contracting Officer, 3 copies of spare parts lists and operating and maintenance manuals as required under the various headings of these specifications. One reproducible, unfolded copy shall be provided of all operating instructions, control diagrams, etc., that are larger than 8-1/2-inches by 11-inches; this does not apply to standard manufacturer's data.

(A) Spare parts lists shall contain the following listed information:

- (1) Quantity of parts required for 120 days and one year of operation.
- (2) Description of each spare part.
- (3) Drawing number and shop drawing reference.
- (4) Part equipment code number.
- (5) Unit price of each item.
- (6) Total price of all items.
- (7) Procurement lead time with particular attention to long lead times.
- (8) Name and address of nearest supplier.
- (9) Such remarks and data as the manufacturer may consider.
- (10) Complete parts list of all replaceable items.

(B) Operation, Maintenance, and Repair Manuals and Instructions:

(1) The requirements for furnishing operating, maintenance, and repair data/manuals and field instructions under this contract are specified in the Technical Specifications. The Contractor shall submit to the Contracting Officer, not later than 60 calendar days after the Notice to Proceed, an outline showing the proposed submittal date(s) of operation and maintenance manuals to be furnished the Government and the scheduled date(s) of all required field instructions to be provided by the Contractor furnished personnel or manufacturer's representatives. All operation and maintenance manuals must be furnished to the Contracting Officer not later than 60 calendar days prior to turnover of the facility to the Government.

(2) Failure on the part of the Contractor to comply with requirements of this clause will result in no further payment until all required O&M data/manuals are submitted and accepted.

(3) All O&M data/manuals submittal data shall be entered in a separate section of the master submittal register.

### 3.7 AS-BUILT DRAWINGS

(A) General: The Contractor shall send to Contracting Officer one (1) full set of reproducible construction record drawings (30" x 42" cronoflex or 3 mil double matte sheets) and two (2) copies of drawings on 3 1/2" floppy diskettes, in format compatible with AutoCad, Release 12. The as-built prints shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract set of drawings and a record of all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, all additional work not appearing on the contract drawings, and all changes which are made after final inspection of the contract work.

In the event the Contractor accomplishes additional work which changes the as-built conditions of the facility after submission of the as-built drawings, the Contractor shall furnish revised and/or additional drawings as required to depict as-built conditions. The requirements for these additional drawings will be the same as for the as-built drawings included in the original submission.

(B) Preliminary As-built Prints: The Contractor shall maintain one set of paper prints to show the as-built conditions. These as-built marked prints shall be kept current and available on the jobsite at all times. All changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. The as-built marked prints will be jointly inspected for accuracy and completeness by the Contracting Officer's representative and a responsible representative of the construction Contractor prior to submission of each monthly pay estimate. The prints shall show the following information, but not be limited there to:

(1) The location and description of any utility lines or other installations of any kind or description known to exist within the construction area. The location includes dimensions to permanent features.

(2) The location and dimensions of any changes within the building or structure.

(3) Correct grade or alignment of roads, structures or utilities if any changes were made from contract plans.

(4) Correct elevations if changes were made in site grading.

(5) Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

(6) The topography and grades of all drainage installed or affected as a part of the project construction.

(7) All changes or modifications which result from the final inspection.

(8) Options: Where contract drawings or specifications allow options, only the option selected for construction shall be shown on the as-built drawings.

(9) Submittal to Contracting Officer for review and Approval: Not later than 2 weeks before acceptance of the project by the Government, the Contractor shall deliver to the Contracting Officer one (1) full set of reproducible construction record drawings (30" x 42" cronoflex or 3 mil double matte sheets) and two (2) copies of drawings on 3-1/2" floppy diskettes, in format compatible with AutoCad, Release 12 and marked-up specifications complete with amendments, to depict as-built conditions. If upon review, the drawings are found to contain errors and/or omissions, they shall be returned to the Contractor for corrections. The Contractor shall complete the corrections and return the drawings to the Contracting Officer within ten (10) calendar days. If a satisfactory set of as-built drawings are not received within the time limits defined, no further payment will be made to the Contractor until this requirement is satisfied.

### 3.8 CONTROL OF SUBMITTALS

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

### 3.9 GOVERNMENT APPROVED (GA) SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Three (3) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Contractor.

### 3.10 FOR INFORMATION ONLY (FIO) 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.

### 3.11 STAMPS

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

CONTRACTOR  
(Firm Name)

\_\_\_\_\_ Approved

\_\_\_\_\_ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

----- End of Section -----



## 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)



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SECTION 01311

NETWORK ANALYSIS SYSTEM

PART 1 GENERAL

The following requirements will be applicable for each Task Order (T. O.).

1.1 DFARS 252.236-7012 CONTRACTOR PROJECT MANAGEMENT SYSTEM:

(a) General:

(1) The Contractor's Project Management System is included to assure adequate planning and execution of the work, to assist the Contracting Officer in appraising the reasonableness of the schedule, to evaluate progress of the work, to make progress payments, and to make decisions relative to time and/or cost adjustments which may result from changes in the work.

(2) The management system is to be based on a computerized Network Analysis System (Critical Path Method) operated by on-site or off-site personnel. Input data shall be coordinated with the Contracting Officer prior to the monthly update report.

(3) The Contractor's Project Management system is to be staffed and prepared pursuant to Contract Clauses, "SCHEDULE FOR CONSTRUCTION CONTRACTS", and "SUPERINTENDENCE BY THE CONTRACTOR". In preparing this system the Contractor assumes responsibility for conformance with contract requirements, planning, sequencing of work, and determining the construction means and methods.

(b) Basic System Requirements:

(1) This equipment shall be Year 2000 compliant and shall be able to accurately process date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, including leap year calculations, when used in accordance with the product documentation provided by the Contractor, provided that all products (e.g. hardware, software, firmware) used in combination with other information technology shall accurately process date/time data if the other information technology properly exchanges date/time data with it.

(2) The computerized Network Analysis System (NAS) must be capable of providing the following minimum on-site services: network analysis by IJ or precedence notation, progress and cost reports, network comparisons, super and subnetworks, resource reporting, report writer allowing flexible formatting and summarization, and graphical output using a dot matrix or laser printer. In preparing the NAS, the Contractor shall insure that it represents an accurate and efficient plan for accomplishing the work.

(3) The Contractor's project management system must be capable of at least weekly update and production of physical update reports, percent complete reports, and cost reports for payment purposes. Management effort required will include capability to analyze factors delaying progress and altering logic and durations on an interactive basis to maintain an up-to-date active management schedule.

(4) The Contractor may use either a network analysis system functionally equivalent to that used by the Contracting Officer or any other IBM compatible Critical Path Method (CPM) network analysis system. The Contracting Officer uses OPEN Plan Scheduling software by WELCOME Software Technology, 1325 South Dairy Ashford Road, Suite 125, Houston, Texas 77077, telephone (713) 558-0514. Should the Contractor select to use an alternate scheduling system, the data shall be in a format directly readable by OPEN Plan or in the "Standard Data Exchange Format" as defined in APPENDIX B of ER 1-1-11 dated 15 MAR 90. Copies of APPENDIX B are available upon request. In addition to the specified number of paper copies of reports and network diagrams, the Contractor is required to provide to the Contracting Officer one set of IBM compatible data diskettes (1.2 MB 5.25" double density disks or 1.44 MB 3.5" diskettes) of all required network analysis submissions and updates.

© Detailed System Requirements:

(1) The system shall consist of diagrams and accompanying mathematical analysis. Flexibility of formatting and summarization of reports will be provided by selecting and prioritizing from the following menu of information: activity number (Precedence System) or numbers (I,J notation), duration in work days, activity description, code relating to the party responsible for performing the work, cost, manpower, estimate or labor hours, list of major items of construction equipment with anticipated usage, cost item or pay item the activity is associated with, milestones, identification of submittal when applicable, early start date, late start date, early finish date, late finish date, anticipated start date, float, a list of all activities that precede or follow each activity, and the definable feature of work each activity is associated with.

(2) Windowing (chronologically selected portions of the network) specified for reports or diagrams must be possible. A network and logic diagram, will be provided for the initially approved network as well as each update which incorporated a logic change.

(3) In addition to construction activities, the schedule shall include activities for submittal of materials, samples, shop drawings, operation and maintenance manuals, master equipment lists, spare parts lists, and other related documents. Also included shall be activities for the procurement of all major materials and equipment, including fabrication and delivery, installation and testing. Of particular interest shall be material and equipment procurement items that are expected to be critical to the progress of actual construction. Government activities, such as, review and approval of materials, equipment, testing, and other actions that affect construction progress shall be shown.

(4) The Contractor shall resource load all construction 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.

(5) The Contractor shall incorporate any and all milestone and contract required events which may be specified elsewhere within these specifications. Should milestone events not be specifically identified by the Government within these specifications, the Contractor shall identify at least five percent (5%) of the network activities and designate them as milestone activities.

(6) Logic Diagrams:

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

(b) Detailed networks need not be time 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 following activities.

© A logic diagram of the complete project shall be submitted with the initial NAS, showing each activity number or numbers, duration, description, with the critical path easily identified. Update diagrams will be provided as required by logic changes (but not more frequently than the monthly update).

(7) Each activity, except Government activities and nonpaid activities, such as, the preparation of submittals and master equipment lists, shall be assigned a corresponding monetary value. The value shall be based upon a cost estimate made for each activity and shall represent all the elements of cost, i.e., labor, equipment, materials, overhead, and profit. The cost of each activity shall be identified to the appropriate contract bid item. Upon approval of the schedule, activity values shall be frozen and no changes in the value of any activity shall be permitted without formal approval from the Contracting Officer. The cost estimate for each activity shall be submitted to the Contracting Officer. These activity values shall equal the contract amount.

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

(d). Submission and approval of the system shall be as follows:

(1). The Contractor shall submit for review and approval a description of the type and capabilities of the computerized network system proposed to be used. Submission shall be within three (3) calendar days of the notice to proceed.

(2). A detailed network defining the Contractor's planned operations during the first sixty (60) calendar days of the contract shall be submitted within fifteen (15) days of the notice to proceed. The first sixty (60) days of the preliminary schedule is a fragmentary network (sub-network) of the total contract schedule and shall conform in all respects with the details and requirements for diagrams and mathematical analysis as specified. The Contractor's general approach for the remainder of the project shall be shown. At midmonth the Contractor shall submit an updated network of actual progress on this network for partial payment. This report shall contain costs of activities completed or partially completed with a tabulation of total earnings.

(3). The complete network system consisting of the detailed network mathematical analysis (including on-site manpower loading schedule and equipment schedule) and network diagrams shall be submitted for approval within (30) calendar days after receipt of the notice to proceed.

(4). The Contractor shall participate in a review and evaluation of the proposed network 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, directing the work, reporting progress, and requesting payment for work accomplished.

(e). Network Modifications:

(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 allowed under one or more of the Contract Clauses entitled "CHANGES", "DIFFERING SITE CONDITIONS", "DEFAULT" (Fixed Price Construction), "SUSPENSION OF WORK", or other applicable clauses, as a condition precedent to granting a time extension, the Contractor shall submit a time proposal in the format of a subnet diagram showing the activities affected by the delay.

(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 a subnet of activities affected by the change shall be submitted.

(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 the impact on contract completion can be shown. The contract completion date is fixed, and will be amended only by modifications which include time and are signed by the Contracting Officer.

(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 in the next monthly update after approval of the Contracting Officer.

(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 work on schedule, the Contractor shall be directed to revise the schedule and submit it for approval within seven (7) Calendar days of direction.

(f). Reports:

(1). Monthly update reports will be submitted at midmonth showing current 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 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.

(2). 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). A narrative report shall be submitted with the 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 that scheduled milestone and completion dates 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 measures 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 concurrency of work efforts.

(4). 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. As a 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 of 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.

(g). Payment Requests:

(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 total of dollar value of work completed for the project.

(2). The first payment shall not be made until the preliminary schedule has been approved by the Contracting Officer and the second payment shall not be made until the full schedule has been approved by the Contracting Officer. If, in the judgement of the Contracting Officer, the Contractor fails or refuses to provide an approved schedule and other progress data specified, the Contractor shall be deemed not to have provided the required information upon which payments may be made.

(3). Activities submitted for payment shall be based on the approved network activities and monetary amount. No payment shall be made for activities that have not been performed in accordance with the approved logic.

(4). Payment for activities conducted when previously dependent activities have not been completed or accepted due to quality defects may be withheld at the discretion of the Contracting Officer.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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SECTION 01430(GEN)

ENVIRONMENTAL PROTECTION

1. GENERAL

The requirements of this section will be applicable for each Task Order (T.O.). This section may vary in content depending on the facility on which the T.O. will be executed.

1.1 DEFINITIONS

For the purpose of this specification environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. The control of environment pollution requires consideration of air, water, and land, and involves noise, solid waste-management and management of radiant energy and radioactive materials, as well as other pollutants.

2. APPLICABLE PUBLICATIONS

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

U. S. Army, Corps of Engineers Publication:

EM 385-1-1 Safety and Health Requirements Manual (1 Oct 1992)

3. APPLICABLE REGULATIONS

In order to prevent, and to provide for abatement and control of, any environmental pollution arising from the construction activities of the Contractor and his subcontractor in the performance of this contract, they shall comply with all applicable Federal, State, and local laws, and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, and elsewhere in the contract specifications.

(A) Environmental compliance and monitoring.

(1) General:

All construction activity performed are subject to federal environmental laws including, but not limited to: The National Environmental Policy Act (NEPA); The National Historic Preservation Act (NHPA); Endangered Species Act; Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response Liability and Compensation Act (CERCLA); Clean Water Act (CWA); Clean Air Act (CAA); Safe Drinking Water Act (SDWA), and applicable state, regional, and local equivalents. The Contractor is responsible for compliance with these laws.

(2) Local/Regional Air Quality Boards:

The Contractor shall comply with all Local/Regional Air Pollution Control District (APCD) rules and regulations for construction within that county/region. These include, but are not limited to, the following:

(a) All demolition, site clearing, rough grading, landscape grading, excavation, backfilling, and trenching shall comply with the applicable APCD Rules.

(b) All coating/painting operations shall comply with applicable Air Pollution Control District (APCD) Rules.

(c) All construction of new or modified air-conditioning systems shall comply with the applicable APCD Rules.

(d) All operations with solvents shall comply with the applicable APCD Rules.

(e) All sandblasting/corrosion control operations shall comply with the applicable APCD Rules. All sandblasting equipment must be permitted with a valid Permit to Operate (PTO) from the APCD. Only abrasives which are certified for use in sandblasting operations by the State's Air Resources Board Advisory may be used.

(3) Hazardous materials:

(a) The Contractor shall be responsible for the removal, storage, transportation, and disposal of all hazardous waste and designated waste in accordance with applicable federal, state, and local regulations. Copies of all analyses and manifests shall be given to the government inspector at the time of removal from the site and after the disposal facility accepts and signs for the waste. Hazardous waste manifests will be signed only by an appropriate county official. Suspected hazardous materials encountered during excavation and construction will require immediate notification of the Contracting Officer's Representative for examination, possible sampling, and guidance for management.

If hazardous or designated waste is identified after award, a negotiated equitable adjustment will be made to the contract.

(b) Any electrical equipment removed, maintained or repaired as part of this Contract shall be tested for polychlorinated biphenyls (PCBs), a regulated hazardous waste. Testing and laboratory analyses shall be paid for by the Contractor. Testing, removal, storage, transportation and disposal of this material shall follow federal, and state guidelines. This may include but is not limited to the following: 40 CFR 761.

© When removing any underground storage tanks, the Contractor may be required to obtain an "Application for Permit to Remove" from the Local/Regional County Health Care Service.

#### 4. NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any non-compliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it was determined that the Contractor was in compliance in accordance with FAR 52.212-12, see Section 00700.

#### 5. SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor.

#### 6. IMPLEMENTATION

Prior to commencement of the work the Contractor will:

(A) Submit in writing his proposals for implementing this section for environmental pollution control;

(B) Meet with representatives of the Contracting Officer to develop mutual understandings relative to compliance with this provision and administration of the environmental pollution control program.

#### 7. PROTECTION OF LAND RESOURCES

It is intended that the land resources within the project boundaries and outside the limits of permanent work performed under this contract be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the appearance of the project. Insofar as possible, the Contractor shall confine his construction activities to areas defined by the plans or specifications. Contractor's attention is directed to the requirements of paragraph, PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS; paragraph, OPERATIONS AND STORAGE AREAS; and paragraph, CLEANING UP, of the CONTRACT CLAUSES, Section 00700.

(A) It is intended that the natural and cultural resources within the project boundaries and outside the limits of permanent work performed under this contract be preserved in their present condition or be restored to pre-construction conditions. The Contractor shall confine project-related activities to areas defined by the plans or specifications. The Contractor shall mark the construction limits using 36-inch stakes placed no further than 25 feet apart. These stakes must remain in place for the duration of the project. After staking, the construction limits will be inspected and must be approved by Contracting Officer's Representative. The Contractor shall brief all employees and subcontractors on the purpose of the stakes. Any encroachment outside the staked area may result in project delays and increased environmental costs for which the Contractor shall be liable.

#### 8. ARCHAEOLOGICAL FINDINGS DURING CONSTRUCTION

There are no known archaeological remains at any presumed project site. Should any skeletons, artifacts, or other archaeological remains be uncovered, the Contractor shall suspend operations at the site of discovery and continue operations in other areas. The Contractor shall notify the Contracting Officer's Representative immediately of the findings. Included with the notification shall be a brief statement to the Contracting Officer of the location and the findings. Should the discovery site require archaeological studies resulting in delays and/or additional work, the Contractor will be compensated by an adjustment under the CONTRACT CLAUSES, Section 00700, of the contract.

#### 9. BURNING RUBBISH AND DEBRIS

Open burning of rubbish, debris and other combustibles will not be permitted on any of the project

sites or facilities.

#### 10. DUST CONTROL

The Contractor shall provide an acceptable plan for preventing the generation of dust due to his operation in construction zones, along haul routes, in equipment parking areas, and in waste areas. This plan may consist of water sprinkling or an equivalent service.

#### 11. NOISE POLLUTION

The Contractor shall maintain all noise levels within the following limits and regulations:

(A) All vehicles shall have operational noise suppression systems (e.g. mufflers).

(B) Noise levels shall comply with OSHA Standards for the State Model Community Noise Control Ordinance.

© Construction operations which generate excessive noise levels shall be prohibited between the hours of 7:00 P.M. and 7:00 A.M. without prior approval by the Contracting Officer.

#### 12. EMISSION CONTROL

The Contractor shall see that all his vehicles and stationary piston-engine-powered equipment have emission control systems in conformance with Federal, State, and local regulations, as specified in 40 CFR 60 and 40 CFR 85-86 (and later amendments); in the rules and regulations of the Local/Regional Air Pollution Control District. These emission control systems shall be operational and well maintained at all times. In addition, transfer and storage systems that carry or contain volatile liquids or solids or that generate particulates shall be constructed and operated to minimize escape of vapors and particulates and shall comply in this regard with regulations of the U.S. Environmental Protection Agency, the applicable State, Local and Regional Air Pollution Control Districts.

#### 13. MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

During the construction period the Contractor shall conduct adequate training courses for his supervisory maintenance personnel (down to and including foreman) including initial instructions of at least 30 minutes and continuing instructions at appropriate times but in no case less than 30 minutes per month. The curriculum shall include but not be limited to the following topics:

(A) Methods of detection and avoiding pollution;

(B) Familiarity with environmental standards both statutory and contractual;

© Installation and care of vegetation covers, plants, and other facilities to prevent and correct environmental pollution.

(D) Instruction in the recognition of archaeological resources.

-----End of Section-----

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SECTION 01440

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

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

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause entitled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

In addition to any Quality Control documents that are required as a part of the proposal submission documents specified elsewhere, the Contractor shall furnish for review by the Government, not later than 15 days after receipt of Notice of Award, the Contractor's Corporate Quality Control (CCQC) 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 for Task Orders. Construction will be permitted to begin only after approval of the CCQC Plan. Construction on specific Task Orders will be permitted to begin on each Task Order only after approval of the task order specific Contractor Quality Control (CQC) Plan.

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 corporate officer assigned responsibility for Quality Control.

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. Corporate Policy for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents.

e. Corporate Policy for control, verification, and acceptance testing procedures for tests which may be required by the individual task orders.

f. Corporate Policy for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Corporate Policy for tracking construction deficiencies from identification through acceptable corrective action, including verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. Corporate Policy for listing of definable features of work to include a definition of definable features. The listing of definable features of work will be agreed upon during the coordination meeting of each task order.

### 3.2.3 Acceptance of Plan

Show Corporate Policy for the acceptance of the CQC Plan and revisions thereto necessary to assure 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.

### 3.2.5 Project Specific CQC Plans

Project specific CQC plans shall be a requirement of each Task Order.

## 3.3 COORDINATION MEETING

State Corporate Policy showing an understanding of the CQC Coordination Meeting to include system details, forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, meeting minutes and the interrelationship of Contractor's Management and control with the Government's Quality Assurance.

## 3.4 QUALITY CONTROL ORGANIZATION

### 3.4.1 General

State Corporate Policy concerning the QC Organization to include the CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. Discuss the Contractor's CQC organization to include on site control, authority to take any action necessary to ensure compliance with the contract.

### 3.4.2 CQC System Manager

The Contractor shall identify the Corporate CQC System Manager (CCQCSM), an individual within his organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CCQC System Manager shall knowledgeable of construction techniques and problems. This CCQC System Manager shall be available at all times during construction and will be employed by the prime Contractor.

### 3.4.3 Additional Requirement

In addition to the above, the CCQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors" within 90 days of the contract award. This course is periodically offered quarterly by the Los Angeles District, contact the Contracting Officer or the Construction Support Section (Phil Strayhorn at 213-452-3374) for more information.

### 3.4.4 Organizational Changes

Corporate Policy concerning staffing the CQC organization to include the necessity to make changes to the CQC staff.

## 3.5 SUBMITTALS

Corporate Policy concerning submittals.

## 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. Demonstrate corporate commitment to the three phases of control which shall be conducted by the CQC System Manager for each definable feature of work.

## 3.7 TESTS

### 3.7.1 Testing Procedure

State Corporate Policy on Testing as it applies to construction to be accomplished under the various task orders.

Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government.

### 3.7.2 Testing Laboratories

#### 3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

#### 3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

### 3.7.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

### 3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials will be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Commercial Laboratory as identified by the Corps of Engineers Contracting Officer for each Task Order.

Coordination for each specific test, exact delivery location, and dates will be made through the Contracting Officer. The Contractor shall only submit those samples which are specifically designated to be sent to the Corps of Engineers designated testing laboratory. Notify the Contracting Officer's Representative at least 14 days prior to delivery of samples.

## 3.8 COMPLETION INSPECTION

Show Corporate policy concerning completion inspection of each task order.

## 3.9 DOCUMENTATION

State the Corporate policy on maintaining current records providing factual evidence that required quality control activities and/or tests have been performed to include subcontractors and suppliers. Discuss documentation in the following areas:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications / drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications / drawings requirements.
- f. Submittals reviewed, with contract reference, by whom, and action taken.
- g. Off-site surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- I. Instructions given/received and conflicts in plans and / or specifications.

- j. Contractor's verification statement.
- k. Daily QC reports

3.9.1 IMPLEMENTATION OF GOVERNMENTS RESIDENT MANAGEMENT SYSTEM (RMS):

The Contractor shall utilize a Government furnished CQC Daily Report Form or a Government-furnished CQC Program Module (A computerized executable file which is DOS based and operates on a minimum 80386 IBM-compatible computers). The Program Module, if specified by the individual task order, includes a Daily CQC Reporting System form which must be used. If not specified, the CQC Daily Report Form provided by the Government is required. This form may be in addition to other Contractor desired reporting forms. However, all other such reporting forms shall be consolidated into this one Government furnished Daily CQC Report form. If the Program Module is not specified, the Contractor will also be required to complete Government-Furnished Input Forms which lists, but is not limited to, Prime Contractor staffing; letter codes; planned cumulative progress earnings; subcontractor information showing trade, name, address, and 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 Contractors activities; and submittal information relating to specification section, description, activity number, review period and expected procurement period. The sum of all activity values shall equal the contract amount, and all Bid Items shall be separately identified, in accordance with the PRICING SCHEDULE. These forms 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. If the Program Module is specified, the same information will be required to be submitted in electronic format to the Contracting Officer. The required information must be completed to the satisfaction of the Contracting Officer prior to any contract payment.

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

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

c. Payments will be processed using the Resident Management System.

3.10 NOTIFICATION OF NONCOMPLIANCE

Discuss the need for the Contracting Officer to notify the Contractor of any detected noncompliance with the foregoing requirements and the action to be taken to remedy the non-compliances.

3.11 CONSTRUCTION CONTROL MANUAL

In addition to the requirements specified in the various Technical Specifications hereinafter, test procedures and minimum number of tests will be performed in accordance with SPK PAM 415-1-2, "Construction Control Manual". Neither the specified minimum number of tests nor the lack of them shall in any way limit or relieve the Contractor of his responsibility to perform adequate tests to assure compliance with the quality requirements of these specifications. The referenced standards listed in this Construction Control Manual shall be of the latest issue otherwise specified.

The "Construction Control Manual" may be examined in the following office locations, and will be furnished to the Contractor:

Corps of Engineers  
Los Angeles District  
Construction Management Section  
300 N. Los Angeles St., Rm 6101  
Los Angeles, California

Corps of Engineers  
High Desert Area Office  
352 E. Ave., K-4  
Lancaster, California

-- End of Section --

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SECTION 01500

GENERAL CONDITIONS

1.1 GENERAL REQUIREMENTS

The requirements of this section will be applicable for each Task Order (T. O.).

1.1.1 Site Plan

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

1.1.2 Identification of Employees

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works. For projects within the confines of the Bureau of Prisons Facilities, employees must be U.S. citizens and submit to a background check thru the NCIC. Other secured facilities will have similar requirements.

1.1.3 Employee Parking

Contractor employees shall park privately owned vehicles in an area designated by the Contracting Officer. This area will be within reasonable walking distance of the construction site. Contractor employee parking shall not interfere with existing and established parking requirements of the government/military installation. On projects involving non-government/non-military facilities, parking will be as permitted within the ordinances of the community.

1.2 AVAILABILITY AND USE OF UTILITY SERVICES

1.2.1 Military Facilities

1.2.1.1 Payment for Utility Services

The Government will make all reasonably required utilities available to the Contractor from existing outlets and supplies at no charge, except communications. The Contractor shall carefully conserve any utilities furnished without charge.

1.2.1.2 Meters and Temporary Connections

The Contractor, at its expense, in accordance with applicable codes and in a manner satisfactory to the Contracting Officer, shall provide and maintain necessary temporary connections, distribution lines, and meter bases (Government will provide meters) required to measure the amount of each utility used. The Contractor shall notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that the service provider can verify compliance with codes and approve final connections. Under no circumstance shall the Contractor make the final electrical connection until approved by the Contracting Officer.

1.2.1.3 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel.

1.2.1.4 Telephone

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

1.2.2 Non-Military Facilities

1.2.2.1 Contractor will make all utility arrangements with the local utilities. All costs will be the responsibility of the Contractor.

1.3 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

1.3.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin

board not less than 915 by 1220 mm (36 by 48 inches) in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract or otherwise provided by the Contracting Officer, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

#### 1.3.2 Project and Safety Signs

(a) General:

The Contractor shall construct and erect one project sign, one safety sign and a minimum of two (2) hard hat signs at locations designated by the Contracting Officer. The signs shall conform to the requirements of the drawings attached at the end of this section. The signs shall be erected as soon as possible and within 15 days after date of commencement of work under this contract. The date required by the safety sign shall be corrected daily.

(b) Materials:

(1) Lumber shall conform to DOC PS 20 and grading rules of applicable grading agencies, WCLIB or WHPA. Grade shall be "Standard" or better Douglas Fir, S4S and shall be stamped S-Dry.

(2) Plywood: Plywood shall conform to DOC PS 1, Grade AC, Group 1, Exterior.

(3) Bolts, Nuts and Nails: Bolts shall be galvanized and conform to Industry Standards. Nuts shall conform to industry standards.

(4) Type of paint for primer, finish coats, lettering and color of signs and lettering shall be indicated below. Safety signs shall be painted the same colors as the project sign. Hard hat signs shall be painted as indicated on the attached drawing.

(a) Primer as indicated on Standard Drawing.

(b) Air Force Projects: Finish coats: Background shall be Decatron (Glidden) *English Tudor* with Spectratone white lettering or computer generated white vinyl letters.

(c) Army, Marine and Other Projects: Background shall be exterior white with black lettering.

(c) Construction:

(1) Signs shall be constructed as detailed on attached drawings.

(2) Painting: All exposed surfaces and edges of plywood shall be given one coat of linseed oil and be wiped prior to applying primer. All exposed surfaces of signs and supports shall be given one coat of primer and one finish coat of paint colors as indicated above. All lettering shall be sized as indicated. Width of letter stroke shall be 1/6 of the letter height, except as noted.

(d) Maintenance and Disposal:

The Contractor shall maintain the signs in good condition throughout the life of the project. Signs shall remain the property of the Contractor and upon completion of the project, removed from the site.

#### 1.4 PROTECTION AND MAINTENANCE OF TRAFFIC

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

##### 1.4.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at

all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

#### 1.4.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

#### 1.5 CONTRACTOR'S TEMPORARY FACILITIES

##### 1.5.1 Administrative Field Offices

As required by the Task Order the Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

##### 1.5.2 Storage Area

The Contractor shall construct a temporary 1.8 meter (6 foot) high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored brown, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. At the end of each work day mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area.

##### 1.5.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer will designate another or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but shall be within the military boundaries. Fencing of materials or equipment will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government.

##### 1.5.4 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

##### 1.5.5 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse with construction equipment or other vehicles grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

##### 1.5.6 New Building

In the event a new building is constructed for the temporary project field office, it shall be a minimum 3.6 meters (12 feet) in width, 4.9 meters (16 feet) in length and have a minimum of 2.1 meters (7 feet) headroom. It shall be equipped with approved electrical wiring, at least one double convenience outlet and the required switches and fuses to provide 110-120 volt power. It shall be provided with a work table with stool, desk with chair, two additional chairs, and one legal size file cabinet that can be locked. The building shall be waterproof, shall be supplied with heater, shall have a minimum of two doors, electric lights, a telephone, a battery operated smoke detector alarm, a sufficient number of adjustable windows for adequate light and ventilation, and a supply of approved drinking water. Approved sanitary facilities shall be furnished. The windows and doors shall be screened and the doors provided with dead bolt type locking devices or a padlock and heavy duty hasp bolted to the door. Door hinge pins shall be non-removable. The windows shall be arranged to open and

to be securely fastened from the inside. Glass panels in windows shall be protected by bars or heavy mesh screens to prevent easy access to the building through these panels. In warm weather, air conditioning capable of maintaining the office at 50 percent relative humidity and a room temperature 11 degrees C (20 degrees F) below the outside temperature when the outside temperature is 35 degrees C, (95 degrees F,) shall be furnished. Any new building erected for a temporary field office shall be maintained by the Contractor during the life of the contract and upon completion and acceptance of the work shall become the property of the Contractor and shall be removed from the site. All charges for telephone service for the temporary field office shall be borne by the Contractor, including long distance charges up to a maximum of \$75.00 per month.

#### 1.5.7 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office.

#### 1.6 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER:

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE, SECTION 00700, entitled "DEFAULT (FIXED-PRICE CONSTRUCTION)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

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

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

3. A schedule of monthly anticipated adverse weather delays, based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. This schedule will accompany the Task Order. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. Adverse weather days were determined based on the following four elements:

- Precipitation greater than or equal to .10 inch.
- Minimum temperature less than or equal to 32 degrees F.
- Maximum temperature greater than or equal to 100 degrees F.
- Surface wind greater than or equal to 20 MPH.

#### 1.7 GOVERNMENT FIELD OFFICE (NOT USED)

#### 1.8 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

#### 1.9 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 1.07 meters (42 inches) high, supported and tightly secured to steel posts located on maximum 3 meters (10 foot) centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

#### 1.10 CLEANUP

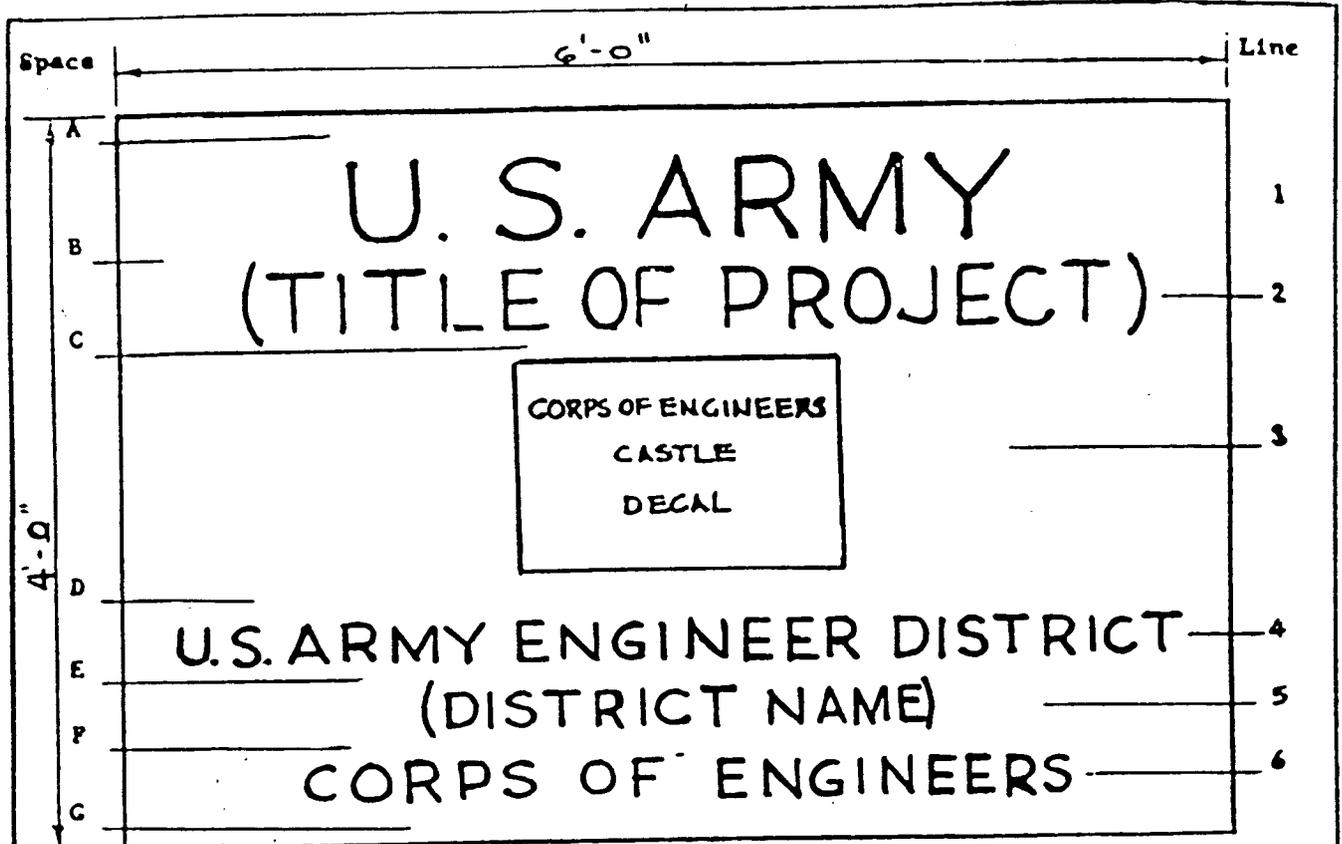
Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

#### 1.11 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area

restored to its original condition, including top soil and seeding as necessary.

-- End of Section --



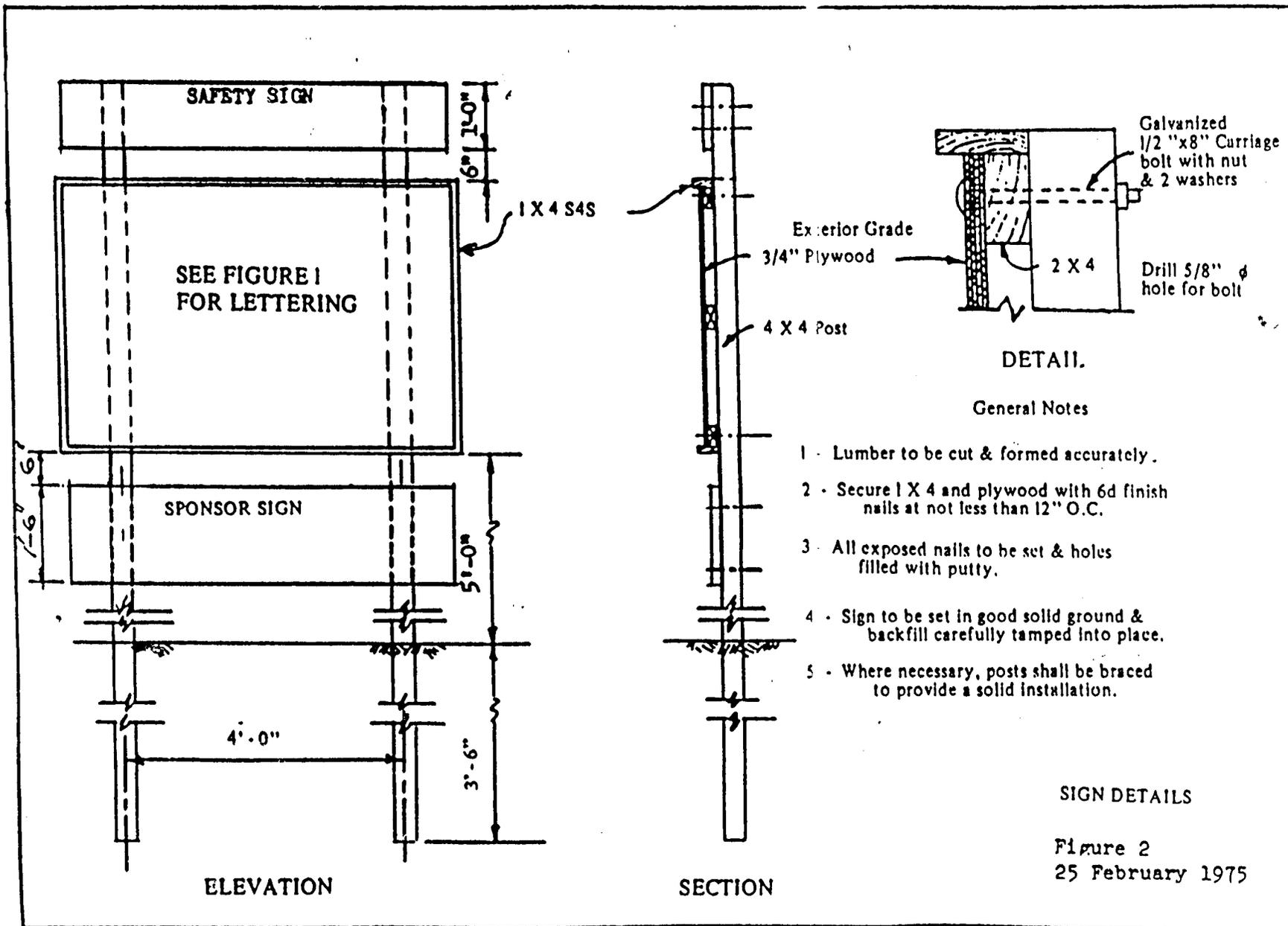
SCHEDULE

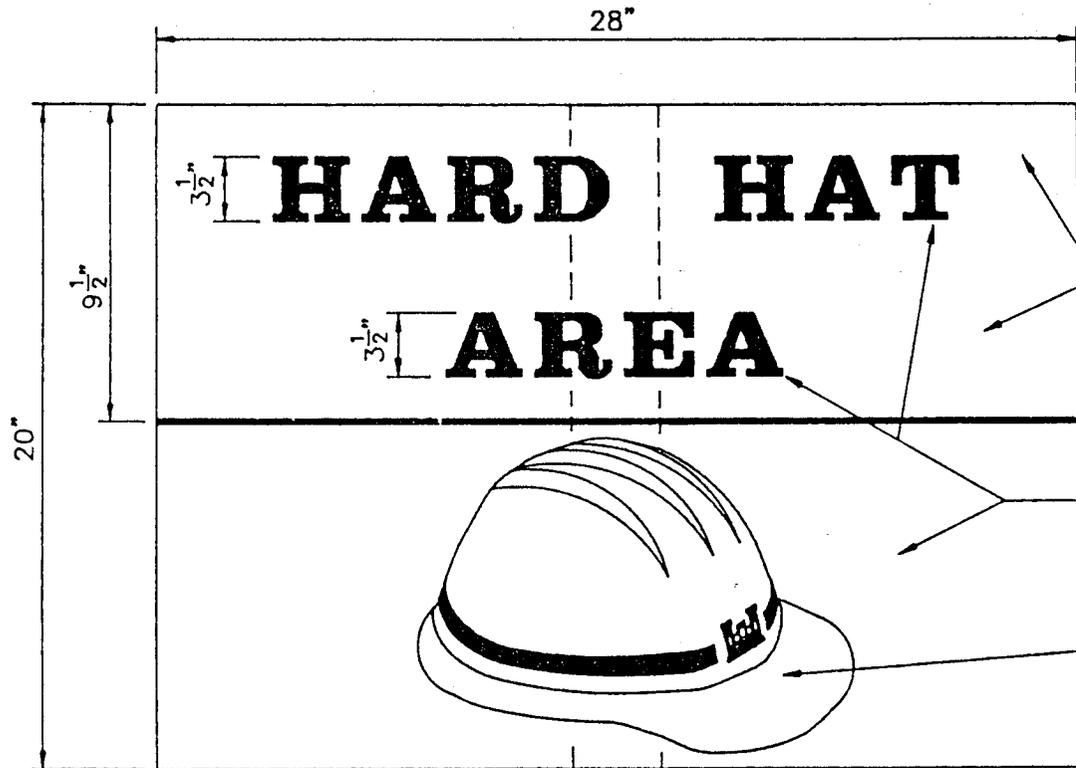
<u>Space</u>	<u>Height</u>	<u>Line</u>	<u>Description</u>	<u>Letter Height</u>	<u>Stroke</u>
A	3"	1	U. S. ARMY	5 1/2"	7/8"
B	2"	2	PROJECT NOMENCLATURE	4"	5/8"
C	2"	3	CORPS OF ENGINEERS CASTLE (DECAL)	1 1/2"	--
D	3"	4	U. S. ARMY ENGINEER DISTRICT	2 3/4"	3/8"
E	2"	5	DISTRICT NAME	2 1/4"	1/4"
F	2"	6	CORPS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

4" X 4" POST  
PAINT GREEN

GENERAL NOTES:

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

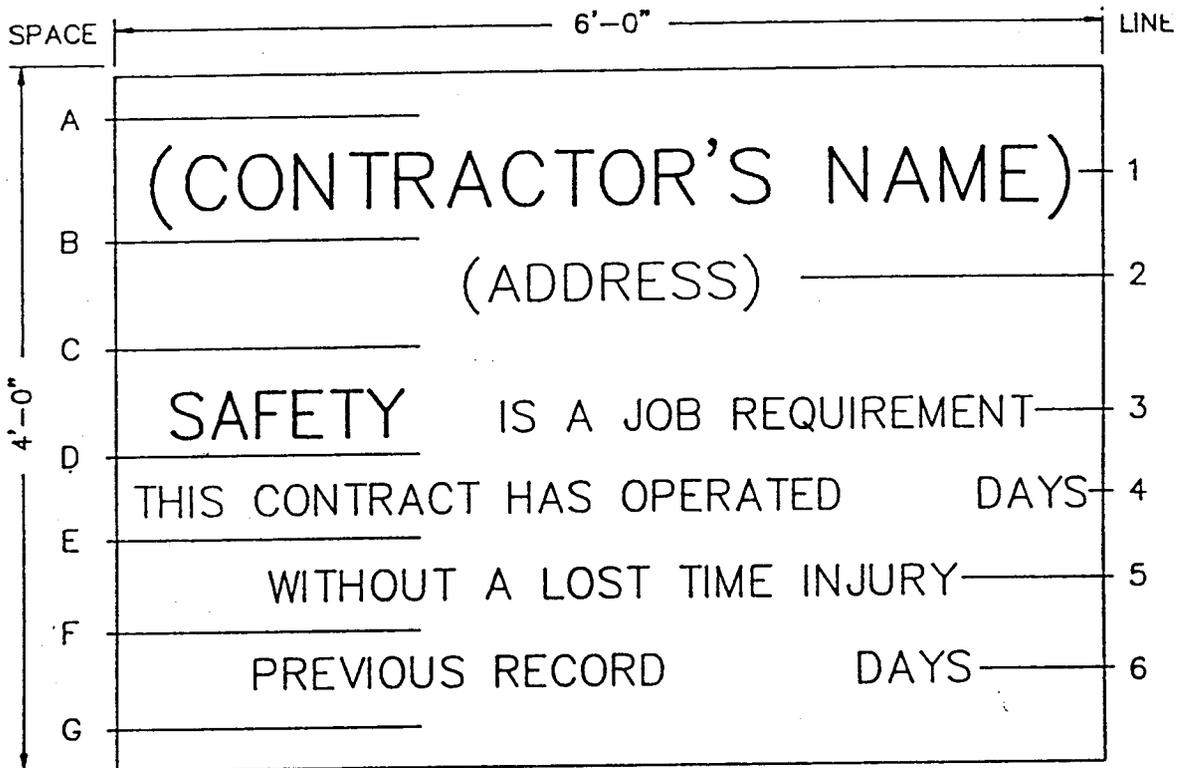
STANDARD DETAIL  
**HARD HAT SIGN**

U.S. ARMY ENGINEER DISTRICT  
SACRAMENTO

Drawn T. Tufts  
Checked R. Simmons

Not to Scale  
NOV. 1987

File No. 80-25-774



### SCHEDULE

<u>SPACE</u>	<u>HEIGHT</u>	<u>LINE</u>	<u>DISCRIPTION</u>	<u>LETTER HEIGHT</u>
A	5"	1	CONTRACTOR'S NAME	5"
B	3"	2	ADDRESS	3"
C	6"	3	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