

**Meeting minutes are to be considered as DRAFT until approved at next CSSC meeting.**

MEMORANDUM FOR RECORD

11 December 2001  
(Rev. 2 January 2002)

SUBJECT: Corps Specifications Steering Committee Meeting

The Specifications Steering Committee met 5 – 6 December 2001, at the LaQuinta hotel in Arlington, Texas. Attendance list and Agenda are attached as enclosures 1 and 2, respectively.

#### ANNOUNCEMENTS

Terms will expire for two district representatives for the CSSC in June. Tom Andre and Anil Nisargand will fulfill 4 year terms after the June 2002 meeting. The CSSC will need two new members. Freddie will send out Email to CSSC members requesting resumes for prospective new members by 20 May 2002. Previous members can be nominated again after 2 years.

The CSI show exhibits will be held 27 - 29 June, 2002 in Las Vegas, NV. The next CSSC meeting will be concurrent with the CSI convention (25 – 26 June, 2002).

The Infra-Structure Conference (ISC) is tentatively scheduled for 7-11 April 2003 at the Reno Hilton, in Reno NV. Planning needs to determine how many breakout rooms that will be needed, as well as agendas, invitees, vendors, etc. It looks like dam safety and specifications will be added to the conference. The hotel has a new exhibit area for the conference which is much larger than the 2001 ISC. CSSC estimated that approximately 70 people will participate in the Specifications breakout meetings.

Ray Duncan and John Horner will be instructors for next Prospect course on Specifications for Construction Contracts.

#### HQUSACE UPDATE

Larry Seals attended the Chiefs E&C meeting last week. Larry reported there were not any significant issues for specifications.

A Tri-service working group meeting will be held in January or February.

USACE deployed 139 people in support of FEMA missions related to the September 11 events.

HQ mailroom operation has been modified due to the discovery of anthrax transmission through the U. S. mail. The mailroom had been shut down and recently re-opened.

A new Engineer Regulation has been issued: ER 690-1-1212 – Professional Registration as a Selective Placement Factor. This ER is available on the USACE publications website (<http://www.usace.army.mil/inet/usace-docs/eng-regs/er690-1-1212/entire.pdf>).

This ER sets strong standards on when professional registration is required for a position, which has certain duties, and responsibilities that affect public safety, health and welfare. The regulation also strongly encourages professional registration for all USACE engineers, architects, landscape architects, surveyors, geologists, and related professions at the GS-12 level and above. The ER stipulates that certain engineering positions will require a PE license (except that current positions will be grand-fathered in). The ER also requires professional development. Ethics training hours are tracked by some states, as part of professional development hours (PDH).

Steve made a request that HQ clarify policy concerning classified electronic documents. Steve maintains web pages that includes links to TECHINFO and other sources of documents with unlimited distribution. OC and others have expressed concerns with potential for advertising sensitive information. For example, design criteria for barracks could be used for planning attacks on structures constructed to such standards. Larry Seals mentioned that reliability analysis or similar reports that disclose structural weaknesses may need to be marked for official use only.

Bob Fite, CECW-ET, is trying to eliminate mandates for metric design on Corps projects. The Federal Highway Administration has removed metric requirements. Some changes to the Div 01 guide specifications have been posted.

Rick Dahnke is working on language for Asbestos concerns in Gypsum Board and related products.

#### NAVY UPDATE

Technical updates are in progress for about 43 guide specifications. The updates are listed in Enclosure 3. Some of the updates will be completed in February. Funding for additional updates is dependent on value perceptions and quality of the editorial changes for these updates that are now in progress.

NASA has decided to merge their specifications into the UFGS. The Veterans Administration is considering discontinuing their guide specification database, and using UFGS.

When other agencies wish to add their sections to the UFGS, unique sections use the 5-digit filename, but sections similar to other existing sections use a suffix to identify agency specific sections. The current UFGS database file names include A or N suffixes to designate agency specific sections. An S maybe used to identify NASA sections. As work progresses to eliminate duplicate sections, two agencies may endorse one section, and drop the suffixes. The numbering system in SpecsIntact only recognizes 6 digits (01234A), so there is not a method for tracking multiple agency endorsement.

The Navy has included a statement in their RFP's for design-build that states products must meet the minimum standards in their guide specifications, although use of the guide specifications are not required for design-build. One Army district has required design-build projects use the UFGS, which inhibits the design-build concept.

## APPROVAL OF MINUTES

Minutes for last meeting were approved. CSSC meeting minutes are posted on the TECHINFO page at <http://www.hnd.usace.army.mil/techinfo/cssc/history.htm>. Draft minutes have been posted between meetings. Steve suggested that draft minutes should be marked as draft before they are approved. A watermark could be added, or the hot link could be labeled as draft.

## SI-CCCB MEETING

The UMRL was a topic of lengthy discussion at the latest SI-CCCB meeting. Action was deferred until Jim Quinn could be contacted for clarification on the issue.

Development of the XML compliant SpecsIntact editor is continuing on schedule. A Beta test may be scheduled for May 2002. The SI programmers and SI Users group would like to have the beta testers attend the Kennedy Space Center. This would allow programmers to repair bugs on the spot, and the beta testers could verify debugging immediately. The onsite beta test would be completed in one week. Advantages of an on-site beta test are speed and efficiency.

CCB Disk 58 had some installation problems related to a corrupted file. CCB will send a replacement disk #58A to subscribers who request it .

The next SI-CCCB meeting is scheduled for 8 – 9 May 2002.

## SPECSINTACT USER'S GROUP MEETING

Many Corps customers do not use SpecsIntact. When these customers require an editable electronic copy of the specifications, the specifications are usually converted to MSWord format through WordSpec. The capability to convert SpecsIntact files to MSWord will be maintained.

File management within SpecsIntact was discussed. Sharing files between multiple people editing the specifications can cause confusion. SpecsIntact has some windows for organization between multiple users, but coordination of activities is still required. SpecsIntact has capability to Email files within the program, so the ability to share files is not a problem.

Some users are not satisfied with paragraph numbering limited to 4 levels. SpecsIntact will need additional programming to allow additional paragraph levels. No action will be taken until the new XML editor is released.

A "Print-Current-Page" option will be added to the SpecsIntact editor. SpecsIntact only has a print page range (from \_\_ to \_\_) in the print options. The "Print-Draft" feature is not WYSIWYG (What You See Is What You Get).

## SPECSINTACT

Ray Duncan feels an XML standard format is needed for construction specifications. This would allow processing any other standards from other organizations. CSI has not been interested in this. Navy Department's Office of the Chief Information Officer has published a guide on the use of Extensible Markup Language (XML) <http://www.fcw.com/fcw/articles/2001/1105/web-xml-11-07-01.asp>.

Hyper-links to reference standards in specifications could potentially have some implications concerning copyright infringements. Freddie Rush and Rick Dahnke will confer with HQUSACE Office of Council on this.

Microsoft Word included with Windows XP may have compatibility problems with WordSpec. WordSpec2 is a companion program that gives SpecsIntact users the ability to edit Job specifications in Word (version 97 and 2000). An older version of Word (pre-Windows XP) is required to run WordSpec. Two versions of Word can be installed on one computer.

There is a beta version of a new submittal program for people that are not RMS users. This allows access to all the RMS submittal data fields, whereas SpecsIntact only fills in the first 4 data fields (submittal description, type, GA/FIO, and reviewer). An Email from Tom Adams regarding formats affecting SI programming requirements for the stand-alone submittals program have been resolved.

A SpecsIntact presentation of the new 32-bit XML editor may be made at the CSSC meeting in June 2002 and Corps Infrastructure Conference. SpecsIntact changes only to be marketable to private sector are not allowed. Soliciting funding from private sources for SpecsIntact updates is not allowed.

Creating PDF files from SpecsIntact is also being improved by using features of Adobe Acrobat Distiller to include bookmarks and hyperlinks in the specifications. This will use embedded links to jump from TOC titles to the paragraphs. The document conversions from SpecsIntact to PDF and Word to PDF are not consistent.

## UFGS

Rick proposed a fee for service plan to fund the UFGS. RMS and SpecsIntact are funded under a similar fee-for-service plan. Guide specifications have been funded separate from other criteria (EM's, ER's, ETL's, etc.) because the guide specifications are not included in the Corps definition of criteria. The fee-for-service plan highlights the UFGS maintenance costs. Rick feels the pressure to cut costs of non-essential programs will increase. Other new programs, such as P2, are focusing attention away from criteria, and on issues such as PMBP. District input to what is funded under this program is very limited; and the majority of funding supports military programs. Larry suggested the Chiefs of Engineering should be involved, and the topic should be in the agenda for the E&C meetings. The quality of the UFGS and importance of this program should be determined by the Districts/users. Larry suggests HQ needs definite input from the field concerning the importance of criteria and guide specification maintenance. The distribution of fees was divided into 3 categories. The committee considered adding more categories, or using the rounded costs. The conclusion of the CSSC was that the fee-for-service

plan is workable, but may encounter some resistance. Rick will forward a listing of fee-for-service for each District, with an explanation of funding programs and costs, and reasons for the fee-for-service (stabilizes funding, ensures maintenance program for UFGS). The CSSC Division representatives will get feedback from their Districts.

#### MVK TECHNICAL REPRESENTATIVES

HQUSACE has funding for Technical representatives in FY02.

CEHND has started automatic updates for references in UFGS on a limited basis, and will go to updating of complete masters about March 2002. This will reduce the time commitments from the technical representatives.

#### VIECON

A volume of Email occurred last summer regarding Vicksburg technical representatives investigating proprietary systems for packaging and transmitting large MicroStation files for reviews during the construction phase. The Email was mostly clarification of misunderstandings. No new issues on this.

#### PROJNET

Rick provided a demonstration of the ProjNet web site, <http://65.204.17.188/projnet/home/version1/index.cfm>. Eventually this address will change to [www.projnet.org](http://www.projnet.org). The ProjNet site includes Dr. Checks, and the Criteria Management System (CMS). Joe Miller will ask for modifying the administrative read/write rights for the CMS.

#### UPDATING REFERENCES IN UFGS

Jim Quinn presented a Power Point presentation on automatic updating of references. This process is defined in Mil Standard 3007. Jim will monitor suggested section updates that result from the automatic reference updates. The period for scheduled automatic reference updates will initially be quarterly, but may be adjusted based on experience. Jim will send the list of references that change each quarter to the Tech proponents and the CSSC committee members. The CSSC members can forward as they wish. A general notice will be included on the TECHINFO page summarizing the change in procedure. Technical proponents will be given 3 things for notification of auto updates:

- List of references in the UMRL that have changed,
- Link to the reverse reference list, to tell what sections are involved,
- Instructions in Email on how to use the reverse reference list.

#### SUSTAINABLE DESIGN AND DEVELOPMENT (SDD)

CECW-ET issued a memorandum in June 2001 to Division and District commanders regarding SDD. The SDD criteria is to maximize land use. Contrarily, terrorism resistance criteria is to spread out.

## STATUS UPDATES

Joint ER on Plans and Specifications - Baltimore District will initiate work in Jan 02 for approximately 3 months. \$25k has been appropriated for this work.

Rock and Soil Anchors - Final edit has been sent to HQUSACE for approval. Per Rick Dahnke, previous approval subject to comments can be considered approval if comments were addressed. Navy has reviewed it without comment. HNC will process the final guide specification for publishing. This document will be published with the December 2001 database update.

Roller compacted concrete is 75% complete. Completion date is 1 March 2002.

Concrete – Tolerance table replacement in sections 03301 and 03307 is complete. A study was completed to consolidate sections 03300 and 03301 into one. Next study is dependent on FY02 funding Meng K. Lee is the technical proponent. Meng has outstanding issues with revisions to the Concrete Handbook, which was updated by WES.

02325 Dredging - Completion date 30 June 02. A meeting is scheduled in Jacksonville Dec/Jan. Don Carmen is the author. Don will be asked to a post message on the Corps Dredging newsgroup for reviews and status.

02382 Articulating Concrete Block Revetment - A final draft is out for review.

## CSI MASTER FORMAT

SAD (Steve Goodin and Bruce Pastorini) submitted 2 proposals for organizing specifications. Much of the first proposal was related to meeting CSI Master Format for Divisions 00 and 01. Don Carmen was instrumental in getting the current organization including sections 00100, 0600, 00700, 00800. It was note that the Navy, Army, NRCS, and other government agencies have different organizations for Div 00 clauses, suggesting there is room for further refinement. Committee agreed to have Don Carmen evaluate proposal 1.

Proposal 2 suggested adding additional Div 01 sections. There are many CSI breakouts for Div 01 sections not included in UFGS. Much of this input is likely regionalized. Committee agreed to review what divisions/districts are including in div 01 sections. Jim will review Jacksonville masters on their web page at <http://www.saj.usace.army.mil/cadd/endcweb.htm> , the Sacramento masters at <http://www.cbbs.spk.usace.army.mil/cbbsdocs/Specifications/spk-spec.html>, and the St. Paul masters on an FTP site at <ftp://ftp.mvp.usace.army.mil/pub/> - District Specifications. At one time, the Tulsa District and the New Orleans Districts also posted district master specifications. Doug Crum made a proposal that Corps policy should address local masters.

Both of these proposals are scheduled to be placed on the CSSC June 02 agenda.



ENCLOSURE 1

CORPS SPECIFICATIONS STEERING COMMITTEE  
MEETING ATTENDANCE  
Dallas (Arlington), Texas  
5 – 6 December 2001

<u>Name</u>	<u>Organization</u>	<u>Phone</u>
Andrew Petallides	NAD-MT-E	718-765-7085
Hon-Ping Chee, (Bingo)	POD-CW-T	808-438-6965
Rick Dahnke	CECW -ETE	202-761-4125
Steven P. Freitas	SPK-ED-M	916-557-7296
Joe Miller	NWD-MT-E	402-697-2649
Steven Goodin	CESAD-MT	404-562-5115
Jim Quinn	HND-ED-ES	256-895-1821
Carl Kersten	NAVFAC	757-322-4210
Tom Andre	LRP-ED-DT	412-395-7306
Larry Seals	LRD-MT-E	513-684-3071
Freddie Rush	MVD-TD-TE	601-634-5936
Doug Crum	MVP-ED-D	651-290-5645
David Barber	SWD-MTE	214-767-2385
Ray Duncan (Thursday)	Spec Consultants, Inc.	601-638-8958

## ENCLOSURE 2

### AGENDA CORPS SPECIFICATIONS STEERING COMMITTEE

#### WEDNESDAY, 5 DECEMBER 2001

0800 - 0805	Announcements	Rush
0805 - 0810	Review Agenda	Rush
0810 - 0820	HQUSACE Update	Baldi/Dahnke
0820 - 0830	Navy Update	Kersten
0830 - 0840	Approve Minutes of Previous Meeting	CSSC
0840 - 0910	SICCCB Update/SI Users Group	Quinn/Freitas
0910 - 0945	Funding/UFGS Fee-for-Service	Dahnke
0945 - 1000	Break	
1000 - 1015	MVK Tech Reps	CSSC
1015 - 1045	Bulk Purchase of Standards	Dahnke
1045 - 1115	2003 InfraStructure Conf. CSSC	
1115 - 1130	Criteria Management System	Dahnke
1130 - 1245	Lunch	
1245 - 1330	Submittals/RMS/4288/Viecon	CSSC
1330 - 1345	Updating References	Quinn
1345 - 1415	Joint ER on Plans & Specs CSSC	
1415 - 1430	PROSPECT Course	Quinn/Rush
1430 - 1445	Break	
1445 - 1515	Sustainable Design/Develop.	CSSC
1515 - 1600	New Issues	CSSC

#### THURSDAY, 6 DECEMBER 2001

0800 - 0900	Status of UFGS (CW)	
	Rock & Soil Anchors GS	Andre
	Concrete Rehabilitation GS	Andre
	Roller Compacted Concrete	Dahnke
	Dredging GS	Rush
	UFGS 03300/03301A/03307A	Dahnke
	ACB Revetment GS	Crum
	Handbook of Concrete/Cement	Dahnke
0900 - 0930	New/Update UFGS	CSSC
0930 - 0945	Break	
0945 - 1015	Open Discussion/Next Meeting	CSSC
1045 - 1130	Summary and Recap	CSSC

For Quinn/Rush/Duncan/Horner/Hodgens

1130 - 1245	Lunch
1245 - 1445	PROSPECT Course Meeting
1445 - 1500	Break
1500 - 1700	PROSPECT Course Meeting

ENCLOSURE 3 – Navy UFGS Updates

PROPOSED UFGS		EXISTING SUBJECT MATTER SPECIFICATIONS			
NUMBER	TITLE	NAVY		ARMY	
		NUMBER	TITLE	NUMBER	TITLE
07511	BUILT-UP ROOFING (AGGREGATE SURFACED)	07511N	BUILT-UP ROOFING (AGGREGATE SURFACED)	07510A	BUILT-UP ROOFING
07550	MODIFIED BITUMINOUS MEMBRANE ROOFING	L-07550N	MODIFIED BITUMINOUS MEMBRANE ROOFING	07511A	MODIFIED BITUMINOUS ROOFING
15080	MECHANICAL INSULATION	L-01508n	MECHANICAL INSULATION	15080A	THERMAL INSULATION FOR MECHANICAL SYSTEMS
15081	EXTERIOR PIPING	15081N	EXTERIOR PIPING INSULATION	15080A	THERMAL INSULATION FOR MECHANICAL SYSTEMS
16272	THREE-PHASE PAD MOUNTED TRANSFORMERS	16272N	THREE-PHASE PAD MOUNTED TRANSFORMERS	16375A	ELECTRICAL DISTRIBUTION SYSTEM, UNDERGROUND
16402	INTERIOR DISTRIBUTION SYSTEM	16402N	INTERIOR DISTRIBUTION SYSTEM	16120A	INSULATED WIRE AND CABLE
				16403A	MOTOR CONTROL CENTERS, SWITCHBOARDS AND PANELBOARDS
				16415A	ELECTRICAL WORK, INTERIOR
02315	EXCAVATION AND FILL	02315N	EXCAVATION AND FILL	02315A	EXCAVATION, FILLING AND BACKFILLING FOR BUILDINGS
03300	CAST-IN-PLACE CONCRETE	03300N	CAST-IN-PLACE CONCRETE	03300A	CAST-IN-PLACE STRUCTURAL CONCRETE
				03301A	CAST-IN-PLACE STRUCTURAL CONCRETE FOR CIVIL WORKS
07600	FLASHING AND SHEET METAL	07600N	FLASHING AND SHEET METAL	07600A	SHEET METALWORK, GENERAL
07311	ASPHALT SHINGLES	07311N	ASPHALT SHINGLES	07311A	ROOFING, STRIP SHINGLES
15400	PLUMBING SYSTEMS	L-15400N	PLUMBING SYSTEMS	15400A	PLUMBING, GENERAL PURPOSE
16510	INTERIOR LIGHTING	16510N	INTERIOR LIGHTING	16415A	ELECTRICAL WORK, INTERIOR
16710	STRUCTURED TELECOMMUNICATIONS CABLING AND PATHWAY SYSTEM	16710N	STRUCTURED TELECOMMUNICATIONS CABLING AND PATHWAY SYSTEM	16710A	PREMISES DISTRIBUTION SYSTEM
05120	STRUCTURAL STEEL	05120N	STRUCTURAL STEEL	05120A	STRUCTURAL STEEL
05210	STEEL JOISTS [AND JOIST GIRDERS]	05210N	STEEL JOISTS [AND JOIST GIRDERS]	05210A	STEEL JOISTS
07410	METAL ROOFING AND WALL PANELS	07410N	METAL ROOFING AND WALL PANELS	07412A	NON-STRUCTURAL METAL ROOFING
				07413A	METAL SIDING
07611	STEEL STANDING SEAM ROOFING	07416N	STEEL STANDING SEAM ROOFING	07416A	STRUCTURAL STANDING SEAM METAL ROOF
16520	EXTERIOR LIGHTING	16520N	EXTERIOR LIGHTING	16528A	EXTERIOR LIGHTING INCLUDING SECURITY AND CCTV APPLICATIONS
02461	WOOD MARINE PILES	02461N	WOOD MARINE PILES	02461A	ROUND TIMBER PILES FOR HYDRAULIC STRUCTURES

15181	CHILLED, CONDENSER, OR DUAL SERVICE WATER PIPING	15181N	CHILLED, CONDENSER, OR DUAL SERVICE WATER PIPING	15181A	CHILLED AND CONDENSER WATER PIPING AND ACCESSORIES
16442	SWITCHBOARDS AND SWITCHGEAR	16442N	SWITCHBOARDS AND SWITCHGEAR	16311A	MAIN ELECTRIC SUPPLY STATION AND SUBSTATION
02821	CHAIN LINK FENCES AND GATES	02821N	CHAIN LINK FENCES AND GATES	02821A	FENCING
13121	PREENGINEERED METAL BUILDINGS	13121N	PREENGINEERED METAL BUILDINGS	13120A	STANDARD METAL BUILDING SYSTEMS
				13121A	METAL BUILDING SYSTEMS (MINOR REQUIREMENTS)
02115	REMOVAL AND DISPOSAL OF UNDERGROUND STORAGE TANKS	02115N	REMOVAL AND DISPOSAL OF UNDERGROUND STORAGE TANKS	02115A	UNDERGROUND STORAGE TANK REMOVAL
02460	STEEL H PILES	02460N	STEEL H PILES	02463A	STEEL H-PILES FOR CIVIL WORKS
02510	WATER DISTRIBUTION	02510N	WATER DISTRIBUTION	02510A	WATER DISTRIBUTION SYSTEM
07220	ROOF AND DECK INSULATION	07220N	ROOF AND DECK INSULATION	07220A	ROOF INSULATION
07536	ETHYLENE PROPYLENE DIENE MONOMER (EPDM) ROOFING	07536N	ETHYLENE PROPYLENE DIENE MONOMER (EPDM) ROOFING	07530A	ELASTOMERIC ROOFING (EPDM)
07571	FOAMED ROOFING	07571N	FOAMED ROOFING	07570A	SPRAYED POLYURETHANE FOAM (SPF) ROOFING
		07572N	COATINGS FOR FOAMED ROOFING		
07320	ROOF TILES	07320N	ROOF TILES	07320A	CLAY TILE ROOFING
02554	EXTERIOR ABOVEGROUND STEAM DISTRIBUTION	02554N	EXTERIOR ABOVEGROUND STEAM DISTRIBUTION	02554A	ABOVEGROUND HEAT DISTRIBUTION SYSTEM
15217	MEDICAL GAS AND VACUUM PIPING	15217N	MEDICAL GAS AND VACUUM PIPING	15405A	PLUMBING, HOSPITAL
15411	HOSPITAL PLUMBING FIXTURES	15411N	HOSPITAL PLUMBING FIXTURES	15405A	PLUMBING, HOSPITAL
15514	LOW PRESSURE WATER HEATING BOILERS (UNDER 800,000 BTU/HR OUTPUT)	15514N	LOW PRESSURE WATER HEATING BOILERS (UNDER 800,000 BTU/HR OUTPUT)	15569A	WATER AND STEAM HEATING; OIL, GAS OR BOTH; UP TO 20 MBTUH
15515	LOW PRESSURE WATER HEATING BOILERS (OVER 800,000 BTU/HR OUTPUT)	15515N	LOW PRESSURE WATER HEATING BOILERS (OVER 800,000 BTU/HR OUTPUT)	15569A	WATER AND STEAM HEATING; OIL, GAS OR BOTH; UP TO 20 MBTUH
15601	CENTRAL REFRIGERATION EQUIPMENT FOR AIR CONDITIONING	15601N	CENTRAL REFRIGERATION EQUIPMENT FOR AIR CONDITIONING	15620A	LIQUID CHILLERS
		15700-L	HEATING, VENTILATING, AND COOLING SYSTEMS	15645A	COOLING TOWER
15720	AIR HANDLING UNITS	15720N	AIR HANDLING UNITS	15895A	AIR SUPPLY, DISTRIBUTION, VENTILATION, AND EXHAUST SYSTEM
		15700-L	HEATING, VENTILATING, AND COOLING SYSTEMS		
15810	DUCTWORK AND DUCTWORK ACCESSORIES	15810N	DUCTWORK AND DUCTWORK ACCESSORIES	15895A	AIR SUPPLY, DISTRIBUTION, VENTILATION, AND EXHAUST SYSTEM
		15700-L	HEATING, VENTILATING, AND COOLING SYSTEMS		
16721	TELEPHONE DISTRIBUTION SYSTEM, OUTSIDE PLANT	16721N	TELEPHONE DISTRIBUTION SYSTEM, OUTSIDE PLANT	16711A	TELEPHONE SYSTEM, OUTSIDE PLANT

16302	UNDERGROUND TRANSMISSION AND DISTRIBUTION	16302N 16303-L	UNDERGROUND TRANSMISSION AND DISTRIBUTION UNDERGROUND ELECTRICAL WORK	16375A	ELECTRICAL DISTRIBUTION SYSTEM, UNDERGROUND
16410	AUTOMATIC TRANSFER SWITCHES	16410N	AUTOMATIC TRANSFER SWITCHES	16410A	AUTOMATIC TRANSFER SWITCH AND BY-PASS/ISOLATION SWITCH
16301	OVERHEAD TRANSMISSION AND DISTRIBUTION	16301N	OVERHEAD TRANSMISSION AND DISTRIBUTION	16370A	ELECTRICAL DISTRIBUTION SYSTEM, AERIAL
16360	SECONDARY UNIT SUBSTATIONS	16360N 16361N	SECONDARY UNIT SUBSTATIONS PRIMARY UNIT SUBSTATION	16311A	MAIN ELECTRICAL SUPPLY STATION AND SUBSTATION