

The Southern Fried Architect

(A clear, complete, concise, and mostly correct, view of stuff happening in the design/construction industry)

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NIBS to Consider *MasterFormat* 2004 for NCS

The External Libraries Work Group of the NIBS National CAD Standard Project Committee plans to submit a recommendation that *MasterFormat* 2004 be incorporated by reference into the national standard. CSI is already working on NCS Version 3.0. *MasterFormat* 2004 will affect the Notations, Symbols, and Code Conventions modules of NCS.

MFETT Moves to Expand Numbering Options

Members of the CSI / CSC *MasterFormat* Expansion Task Team (MFETT) met in San Antonio, Texas in July to discuss concerns with the spaces used in the numbering of *MasterFormat* 2004. When the dust cleared, the task team settled on a preferred graphic display format and two recommended optional graphic display formats. All of these formats are based around the idea that the spaces in *MasterFormat* numbers are essentially meaningless in terms of what numbers are represented. Digits reproduced below represent the levels represented by each pair of numbers.

11 22 33.44 Preferred Format

11 2233.44 Optional Format

112233.44 Optional Format

The MFETT will recommend the latter format for use in file naming; like the others it may be used in text as well.

CSI Project Resource Manual Available this Month

The new *Project Resource Manual: CSI Manual of Practice* or PRM as it is known is due to be available this month. With a price tag of more than \$200 it's not cheap, but priced comparably with other technical documents from other organizations. To order, call CSI Member/Customer Service at 1.800.689.2900 or at CSINet.org on the web.

AIA Discusses *MasterFormat* 2004 Endorsement

In July, a meeting was held at AIA headquarters with representatives from the AIA, CSI, NIBS, McGraw-Hill, ASHRAE, AGC, ARCOM, and others to discuss support and endorsement of *MasterFormat* 2004. Everyone agreed on the need for one organizational system for the information produced by the entire construction industry. After about 2 hours of discussion, the meeting adjourned with a decision by all parties to act together and formalize their cooperation in the *MasterFormat* education process. It's anticipated that other participants will be invited into this process in future. While the specifics of this agreement need to be worked out, this attendee believes that this cooperation is another step to continuing to bring the entire industry together.

Sticks + Stones

SFA - Section B

Welcome to another issue of *Sticks + Stones*, where we provide marginally professional advice to our readers based on our many years of creating and observing problems in the construction industry. This month **S+S** will continue to review some tradition construction practices or work results using those great new *MasterFormat* 2004 numbers and titles. Below are a few things that we thought you might like to know.

32 31 19 – Decorative Metal Fences and Gates



They say that everything is bigger in Texas, but our old friend J. Peter Jordan, CSI of Houston sent us this photo of some gates that were not quite big enough to fit the opening. We believe these should be classified as decorative metal fences and gates because security gates actually meet in the center. Come to think about it, most decorative gates meet as well.

35 59 13 – Marine Fenders



MasterFormat 2004 greatly expands the classification system beyond building construction. Marine and waterway construction is one of the new divisions.

So the next time we dock our boat in the middle of the forest, we will try to remember to use our marine fenders. Even though fending off stress is hard to do when you miss the boat dock, it's still better than impaling your boat on a tree.

William Rakatansky, CSI, AIA sent us this photograph of his recent boating experiences.

32 18 23.26 – Natural Field Sport Surfacing



Our good friend Paul Doherty, CSI, AIA, of TMG Real Estate Technology in San Diego, CA, sent us this photo of the Olympic soccer field in Athens to illustrate the creativity of those darned Greeks. It seems that this new soccer field surface is just about as natural as they come.

I can't believe the folks in Atlanta didn't think of this first. The summer Olympic Games should be very interesting to watch.

Technically Speaking

SFA - Section C

Tar and Feathering: On the Road for a better *MasterFormat*

In August, we'll be staying home mostly to deal with our creditors, but we'll hit the road again in September for more fun. Below are our stops in the early fall.

Sept 13	CSI Minneapolis	Minneapolis, MN
Sept 15	CSI St. Louis	St. Louis, MO
Sept 16	CSI Indianapolis	Indianapolis, IN
Sept 23	CSI Southeast Region Conference	Marietta, GA
Sept 24	CSI Southeast Region Conference	Marietta, GA
Sept 28	AIA Documents in North Carolina	Greensboro, NC

Understanding *MasterFormat* 2004 Terminology

This month, we continue to compare terminology used in *MasterFormat* 2004 and the current AIA Contract Documents. It was surprising to us that the B141 and A201 both address bidding but are silent on negotiations as a means of construction procurement. We also didn't understand the difference between the terms "bidding requirements" used in B141 and "bidding information" used in B151. Next month we'll look at terms that describe the project manual and its contents.

<i>MasterFormat</i> 2004	AIA B141-97	AIA B151-97	AIA A201-97
Procurement Forms -Bid Forms -Proposal Forms	bidding or proposal forms	bidding forms	Contractor's bid
Procurement Requirements -Solicitation -Advertisements and Invitations -Instructions for Procurement -Instructions to Bidders -Instructions to Proposers -Available Information -Procurement Forms and Supplements	proposal documents bidding documents bidding and procurement information proposal requirements bidding requirements bidding or negotiations	bidding information bidding or negotiations	bidding requirements advertisement or invitation to bid Instructions to Bidders

MasterFormat 2004 In Action

In July, the MFETT met and made some decisions on the options for the display of numbers in text document such as a project manual (*see the front page of this edition of the SFA* – "MFETT Moves to Expand Numbering Options" – Ed.). Below, we are presenting one of the optional numbering formats for your review. We believe folks need to consider all the options to help make a knowledge-based decision rather than an emotional decision. At this meeting, the task team also discussed the recommended format for a table of contents in a project manual. The example below shows two sample project manual tables of contents, one shown as published using *MasterFormat* 1988 and the second shown using *MasterFormat* 2004. This project was a new facility for SteriGenics International and won a 1993 CSI Specifications Competition Honor Award.

MasterFormat 1988
TABLE OF CONTENTS

Number **Title**

INTRODUCTORY INFORMATION

- 00001 Title Page
- 00002 Certification
- 00003 Table of Contents
- 00004 List of Drawings

BIDDING REQUIREMENTS

- 00020 Invitation to Bid
- 00100 Instructions to Bidders
- 00220 Information Available to Bidders
- 00301 Bid Form
- 00410 Bid Security Form

CONTRACT FORMS

- 00500 Agreement Form
- 00600 Bonds

CONDITIONS OF THE CONTRACT

- 00700 General Conditions of the Contract
- 00801 Supplementary Conditions
- 00815 Cost of Change Worksheet
- 00901 Addenda

DIVISION 1 GENERAL REQUIREMENTS

- 01010 Summary of Work
- 01019 Contract Considerations
- 01039 Coordination and Meetings
- 01300 Submittals
- 01400 Quality Control
- 01500 Construction Facilities and Temporary Control
- 01600 Material and Equipment
- 01650 Starting of Systems
- 01700 Contract Closeout

MasterFormat 2004
TABLE OF CONTENTS

Number **Title**

PROCUREMENT AND CONTRACTING REQUIREMENTS

DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

INTRODUCTORY INFORMATION

- 00 0101 Project Title Page
- 00 0105 Certifications Page
- 00 0110 Table of Contents
- 00 0115 List of Drawing Sheets

PROCUREMENT REQUIREMENTS

- 00 1116 Invitation to Bid
- 00 2113 Instructions to Bidders
- 00 3100 Available Project Information
- 00 4113 Bid Form-Stipulated Sum (Single-Prime Contract)
- 00 4313 Bid Security Form

CONTRACTING REQUIREMENTS

- 00 5213 Agreement Form - Stipulated Sum (Single- Prime Contract)
- 00 6113 Performance and Payment Bond Form
- 00 6355 Proposal Worksheet Detail Form
- 00 7213 General Conditions - Stipulated Sum (Single-Prime Contract)
- 00 7300 Supplementary Conditions
- 00 9113 Addenda

SPECIFICATIONS

GENERAL REQUIREMENTS

DIVISION 01 GENERAL REQUIREMENTS

- 01 1100 Summary of Work
- 01 2000 Price and Payment Procedures
- 01 3100 Project Management and Coordination
- 01 3300 Submittal Procedures
- 01 4500 Quality Control
- 01 5000 Temporary Facilities and Controls
- 01 6000 Product Requirements
- 01 7500 Starting and Adjusting
- 01 7700 Closeout Procedures

DIVISION 2 SITEWORK

- 02110 Site Clearing
- 02205 Soil Materials
- 02207 Aggregate Materials
- 02211 Rough Grading
- 02222 Excavating
- 02223 Backfilling
- 02225 Trenching
- 02229 Rock Removal
- 02510 Asphaltic Concrete Paving
- 02520 Portland Cement Concrete Paving
- 02722 Site Storm Sewerage Systems
- 02936 Seeding

DIVISION 3 CONCRETE

- 03100 Concrete Formwork
- 03200 Concrete Reinforcing
- 03300 Cast-In-Place Concrete
- 03370 Concrete Curing

DIVISION 4 MASONRY

- 04100 Mortar and Masonry Grout
- 04270 Glass Unit Masonry
- 04300 Unit Masonry Systems

DIVISION 5 METALS

- 05120 Structural Steel
- 05210 Steel Joist
- 05311 Steel Roof Deck
- 04313 Steel Floor Deck
- 05500 Metal Fabrication
- 05510 Metal Stairs

DIVISION 6 WOOD AND PLASTICS

- 06114 Wood Blocking and Curbing
- 06200 Finish Carpentry

DIVISION 7 THERMAL AND MOISTURE PROTECTION

- 07120 Fluid Applied Waterproofing
- 07181 Water Repellent Coating
- 07212 Board Insulation
- 07213 Batt Insulation
- 07533 Elastomeric Sheet Roofing – Mechanical Attached – Conventional
- 07620 Sheet Metal Flashing and Trim
- 07724 Roof Hatches
- 07820 Metal Framed Skylights
- 07900 Joint Sealers

FACILITY CONSTRUCTION

DIVISION 02 EXISTING CONDITIONS

Not Used

DIVISION 03 CONCRETE

- 03 1000 Concrete Forming
- 03 2000 Concrete Reinforcing
- 03 3000 Cast-In-Place Concrete
- 03 3900 Concrete Curing

DIVISION 04 MASONRY

- 04 0513 Masonry Mortaring
- 04 2300 Glass Unit Masonry
- 04 2200 Concrete Unit Masonry

DIVISION 05 METALS

- 05 1200 Structural Steel Framing
- 05 2100 Steel Joist Framing
- 05 3113 Steel Floor Decking
- 05 3123 Steel Roof Decking
- 05 5000 Metal Fabrications
- 05 5100 Metal Stairs

DIVISION 06 WOOD, PLASTICS, AND COMPOSITES

- 06 1000 Rough Carpentry
- 06 2000 Finish Carpentry

DIVISION 07 THERMAL AND MOISTURE PROTECTION

- 07 1400 Fluid-Applied Waterproofing
- 07 1900 Water Repellents
- 07 2113 Board Insulation
- 07 2116 Blanket Insulation
- 07 5300 Elastomeric Membrane Roofing
- 07 6000 Flashing and Sheet Metal
- 07 7233 Roof Hatches
- 07 9200 Joint Sealants

<u>Number</u>	<u>Title</u>
DIVISION 8 DOORS AND WINDOWS	
08111	Standard Steel Doors
08112	Standard Steel Frames
08211	Flush Wood Doors
08331	Overhead Coiling Doors
08360	Section Overhead Doors
08410	Aluminum Entrances and Storefronts
08710	Door Hardware
08800	Glazing

DIVISION 9 FINISHES	
09260	Gypsum Board Systems
09300	Tile
09511	Suspended Acoustical Ceilings
09650	Resilient Flooring
09688	Carpet – Glue Down
09900	Painting
09956	Fabric Wallcovering

DIVISION 10	
10165	Metal Toilet Compartments
10522	Fire Extinguisher, Cabinets, and Accessories
10605	Wire Mesh Partitions
10800	Toilet and Bath Accessories

DIVISION 11	
11100	Loading Dock Equipment

DIVISION 12 FURNISHINGS	
Not Used	

DIVISION 13 SPECIAL CONSTRUCTION	
Not Used	

DIVISION 14 CONVEYING SYSTEMS	
Not Used	

<u>Number</u>	<u>Title</u>
DIVISION 08 OPENINGS	
08 1200	Metal Frames
08 1300	Metal Doors
08 1416	Flush Wood Doors
08 3323	Overhead Coiling Doors
08 3613	Sectional Doors
08 4113	Aluminum-Framed Entrances and Storefronts
08 6300	Metal-Framed Skylights
08 7100	Door Hardware
08 8000	Glazing

DIVISION 09 FINISHES	
09 2900	Gypsum Board
09 3000	Tiling
09 5100	Acoustical Ceilings
09 6500	Resilient Flooring
09 6800	Carpeting
09 7219	Textile Wall Covering
09 9000	Painting and Coating

DIVISION 10 SPECIALTIES	
10 2113.13	Metal Toilet Compartments
10 2213	Wire Mesh Partitions
10 2813	Toilet Accessories
10 4400	Fire Protection Specialties

DIVISION 11 EQUIPMENT	
11 1300	Loading Dock Equipment

DIVISIONS 12 - 19	
Not Used	

<u>Number</u>	<u>Title</u>
DIVISION 15 MECHANICAL	
15121	Piping Expansion Compensation
15140	Supports and Anchors
15170	Motors
15190	Mechanical Identification
15245	Vibration Isolation
15260	Piping Insulation
15280	Equipment Insulation
15290	Ductwork Insulation
15310	Fire Protection Piping
15325	Sprinkler System
15410	Plumbing Piping
15430	Plumbing Specialties
15440	Plumbing Fixtures
15450	Plumbing Equipment
15781	Package Rooftop Air Conditioning Units
15782	Package Terminal Air Conditioning Units
15860	Centrifugal Fans
15870	Power Ventilators
15890	Ductwork
15910	Ductwork Accessories
15940	Air Outlets and Inlets
15990	Testing, Adjusting and Balancing

DIVISION

<u>Number</u>	<u>Title</u>
FACILITY SERVICES	
DIVISION 20 – Reserved	
DIVISION 21 FIRE SUPPRESSION	
21 0500	Common Work Results for Fire Suppression
21 1300	Fire-Suppression Sprinkler Systems
DIVISION 22 PLUMBING	
22 0500	Common Work Results for Plumbing
22 0700	Plumbing Insulation
22 1000	Plumbing Piping and Pumps
22 3000	Plumbing Equipment
DIVISION 23 HEATING, VENTILATING, and AIR CONDITIONING	
23 0500	Common Work Results for HVAC
23 0593	Testing Adjusting and Balancing for HVAC
23 0713	Duct Insulation
23 3100	HVAC Ducts and Casings
23 3423	Centrifugal HVAC Fans
23 3423	HVAC Power Ventilators
23 3700	Air Outlets and Inlets
23 8100	Decentralized Unitary HVAC Equipment

DIVISION 24 INTEGRATED AUTOMATION

Not Used

<u>Number</u>	<u>Title</u>
DIVISION 16 ELECTRICAL	
16111	Conduit
16123	Building Wire and Cable
16130	Boxes
16141	Wiring Devices
16170	Grounding and Bonding
16180	Equipment Wiring systems
16190	Supporting Devices
16195	Electrical Identification
16421	Utility Service Entrance
16441	Enclosed Switches
16461	Dry Type Transformers
16470	Panelboards

<u>Number</u>	<u>Title</u>
DIVISION 26 ELECTRICAL	
26 0500	Common Work Results for Electrical
26 0526	Grounding and Bonding for Electrical Systems
26 0529	Hangers and Support for Electrical Systems
26 0533	Raceway and Boxes for Electrical Systems
26 1216	Dry-Type, Medium Voltage Transformers
26 2416	Panelboards
26 2726	Wiring Devices
26 2813	Fuses
26 2816	Enclosed Switches and Circuit Breakers
26 5000	Lighting Fixtures

16478 Enclosed Circuit Breakers
16477 Fuses
16485 Contactors
16510 Interior Luminaires
16721 Fire Alarm and Smoke Detection System
16741 Telephone Service, Pathways, and Wiring

END OF DOCUMENT

DIVISION 27 COMMUNICATION

27 0528 Pathways for Communications Systems
27 1000 Structured Cabling

DIVISION 28 ELECTRONIC SAFETY and SECURITY

28 3100 Fire Detection and Alarm

DIVISION 29 Reserved

SITE AND INFRASTRUCTURE

DIVISION 30 Reserved

DIVISION 31 EARTHWORK

31 1000 Site Clearing
31 2213 Rough Grading
31 2300 Excavation and Fill

DIVISION 32 EXTERIOR IMPROVEMENT

32 0513 Soils for Exterior Improvements
32 0516 Aggregates for Exterior Improvements
32 1216 Asphalt Paving
32 1313 Concrete Paving
32 9119 Seeding

DIVISION 33 UTILITIES

33 4000 Storm Drainage Utilities

DIVISION 34 - 39

Not Used

PROCESS EQUIPMENT

DIVISIONS 40 - 49

Not Used

END OF DOCUMENT

Other Stuff

SFA - Section D

SCIP Elects National Officers

The Specifications Consultants in Independent Practice announced their new national officers. Below is a list of the new officers who will each serve a two-year term.

President: John Regener, CSI, CCS, SCIP
Vice Presidents: Michael Chambers, FCSI, FAIA, CCS, SCIP
David Lorenzini, FCSI, AIA, CCS, SCIP
Dennis Hall, FCSI, AIA, CCS, SCIP
Secretary: Helga Brady, CSI, CCS, SCIP
Treasurer: David Metzger, CSI, FAIA, CCS, SCIP
Past-President: Kerin (Dane) Dodd-Hansen, CSI, AIA, CCS, SCIP

Good Advice

Our good friend Sheldon Wolfe, FCSI, AIA of Minneapolis sent us this good advice. We liked it so much we thought we would share it with our readers. You see, sharing is just one of the things we do best.

“By following the simple advice I read in an article, I have finally found inner peace. The article read: "The way to achieve inner peace is to finish all the things you've started."

So I looked around the house to see all the things I started and hadn't finished....and before leaving the house this morning I finished off a bottle of red wine, a bottle of white wine, the Bailey's, Kahlua, and Wild Turkey, the Prozac, some valium, some cheesecake, and a box of chocolates.

You have no idea how freakin' good I feel....

Please pass this on to those you feel are in need of Inner Peace...

A positive attitude may not solve all your problems, but it will annoy enough people to make it worth the effort.”

-Herm Albright

USGBC LEED 2.1 Exam

In late June, I had the opportunity to take the new LEED-NC exam. The knock on the old exam was that unless you were completely brain dead you were guaranteed to pass. Well, they solved that problem. The new exam took 4-1/2 hours and included questions on information that was not in the 2.1 Reference Guide. I guess that's one way of lowering the passing rate. After completing the grueling computerized exam, I learned that results would take 12 weeks, meaning that if I waited for the results, I couldn't sit for the old-style easy exam.

I talked to several others who took the exam, one was already LEED certified and just wanted to see what the new exam was all about. The results of this survey were unanimous: this exam was really tough! And although I don't mind tough, I certainly have a better idea as what to study the next time I take it.

CAD Book in the Works

Earlier this year, the AIA asked me about writing a book on the US National CAD Standard. After completing a lot of the stuff I had started but had not quite finished, I agreed and convinced Rick Green, Chair of the UDS Program to co-author the book with me. *The Architect's Guide to the US National CAD Standard* is scheduled to be published next year by John Wiley & Sons, assuming we ever finish it.

Editorial Section

SFA - Section E

A couple of months ago, our good friend Joy Davis asked me to write a short article for the *CSI NewsDigest*. Below is a reprint of that article, which will run in this month's issue. This article will also be the point of the CSI "Question of the Week" on the CSI web site for the week of August 7. To vote, go to www.csinet.org, click "Question of the Week" in the green bar at the top of the page, then click on the question and vote.

Understanding CSI Format

I wish I had a nickel for every time someone told me their documents are written in "CSI Format." Every time I hear this, I don't know whether to thank them for assisting me in providing construction information in a standard format or throw them out of the office. Since CSI does not recognize this term, what does "CSI Format" mean?

In the early and mid-1960's "CSI Format" was a part of the title of the document now known as *MasterFormat*. And even though CSI has not recognized this term since 1966, the construction industry has a very long memory. What's ironic is that most folks use it to mean *SectionFormat*, the 3-part organizational structure for a Document or Section within a project manual.

As part of my purpose in life is to straighten out other folks, just ask my two daughters; I think it's time for CSI to recognize that this phase is not going to go away. So in the spirit of "if you can't beat them, join them" we should define and embrace the phrase. After all, why would we want to fight a phrase that promotes the goals of the organization? CSI Format refers to the 3 format documents published by CSI/CSC and used as the industry standard for organizing a project manual. These documents are *MasterFormat*, *SectionFormat*, and *PageFormat*.

MasterFormat creates the organizational structure for organizing information by construction practices or "work results". It is this structure that is used for the organization of a project manual. It is currently undergoing its first major expansion in the last 40 years. The familiar 16-Division structure has been expanded to a 50-Division structure with 35 of these Divisions populated and the other 15 reserved for future use. The new numbers and titles were published online at CSINet.org in June and the printed document will be published in late fall.

SectionFormat is the industry standard for the organization of a Document or Section in a project manual, commonly referred to as "3 Part Format". This document, first published in 1969, provides not only an overall organizational structure for a Document/Section but also suggested Article titles and sequence. The current edition was published in 1992, but I am certain that we will see it updated in the next couple of years.

PageFormat is the industry standard for the organization of a Document/Section page in a project manual. First introduced in 1975, and the current edition was published in 1992.

I propose that, all 3 formats be known as "CSI Format" and that they work together to provide a logical and consistent structure for information within a project manual. This standardization makes the location and retrieval of construction information faster and easier for the document users, as well as helping to produce better projects for our clients. The real goal of CSI is to help folks understand how to make their documents compliant with "CSI Format."

Now that I have straightened you out on this subject, I want to discuss "Division 17."