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The poster is for a CE Academy webinar event. It features a dark blue background with a sunset over water. The text is arranged in a circular layout. At the top right is the CSI Little Rock Chapter logo. The main text is in white and yellow. The event details are in a yellow oval. The list of states is in black. The available credits are in black. The registration information is at the bottom.

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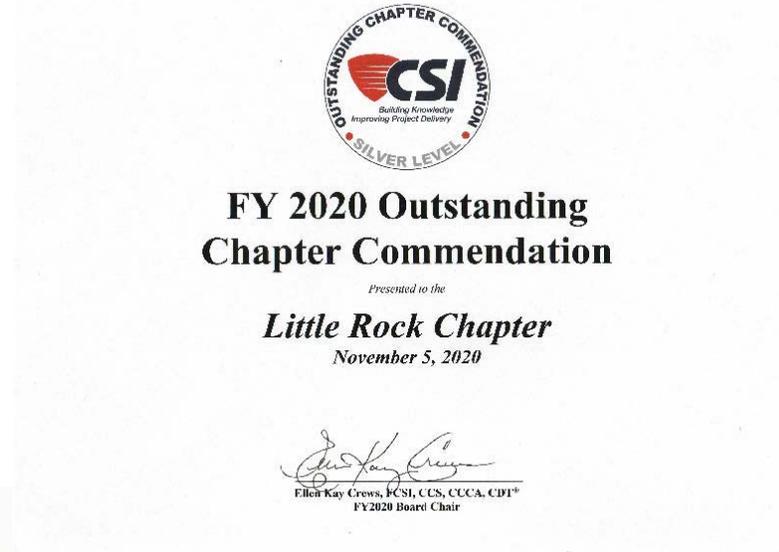
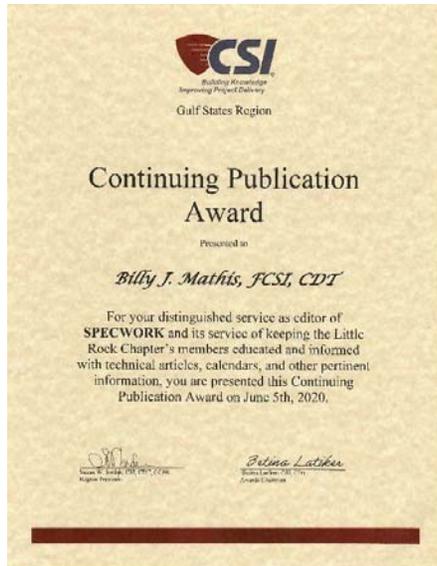


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2020 Little Rock Chapter, CSI Region and Institute Awards Received





President's Thinking

By Billy J. Mathis, FCSI, CDT

Well, here we sit, closing in on the final months of one of the strangest years I personally have ever lived through. There have been a lot of weird days and even weeks in the last 64 years I have been alive, but nothing can even hold a candle to this year. We started out so good. Things were burning along and it looked like we were headed for a banner year again. We had heard something about an outbreak in China, but we had heard about these before (Avian Flu, etc). We just weren't concerned. Then it spread, first to Europe, then to the USA. Then all hell broke loose. We went into quarantine. Working from home, not having contact with anyone outside of "Zoom" and hoping that the US could survive this pandemic and keep moving forward.

Here we are now, six months into the pandemic. Depending on where you are, you are either still working from home or going to work on some sort of schedule. We still have very limited contact with other people and even the Border with Canada is closed.....not by us. We wear masks, except for those who feel that wearing a mask and protecting all those around themselves is an infringement of their rights, we wash our hands many times a day and sanitize them even more. We clean our work and play areas constantly, and

we work to adjust to the "new normal" we are experiencing. We are also facing impacts on our work environment such as a reduction in hours, working from home non-stop, and even some people losing their jobs altogether.

Well I guess the next question everyone is where do we go from here. I feel we are pretty much approaching the bottom of this pandemic. Everywhere you look, people are locking down or not doing anything special, and yet the number of cases continues to climb. What I can say is that we will never accomplish anything if we don't move forward and stop the "finger pointing" and "blame gaming". In the movie "The Martian" – Matt Damon's character, when talking to a bunch of recruits, says (and I am paraphrasing) that the excrement is going to hit the oscillating air mover (gotta keep it clean for publication) and when it does you are going to feel it is all over. You can either lie there and die or you can begin to work the problem. You solve one thing at a time and if you solve enough things you get to go home. This is how I feel. We need to move forward, solve one issue at a time and someday in the near future (I hope) we get to return to some semblance of normal. I honestly don't think we will go back to the way it was, but we can get close. Remember this -

**“Your attitude is critical to success. If you expect things to be difficult, it will always be easier to solve problems, overcome adversity, and have an enthusiastic energy about how you go about and enjoy your work.”
– Nick Saban**

“Don't let the expectations and opinions of other people affect your decisions. It's your life, not theirs. Do what matters most to you; do what makes you feel alive and happy. Don't let the expectations and ideas of others limit who you are. If you let others tell you who you are, you are living their reality — not yours. There is more to life than pleasing people. There is much more to life than following others' prescribed path. There is so much more to life than what you experience right now. You need to decide who you are for yourself. Become a whole being. Adventure.” - — Roy T. Bennett

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[Meeting and greeting](#) with fellow members at Construct 2018?

Guiding others studying for the CSI certification exams – lead an [online study group](#)?

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See how you can volunteer today on the [Volunteer Portal](#).

If you have any questions about volunteering, please email volunteer@csinet.org.



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MONDAY, NOVEMBER 2, 2020 | 1:00 PM CST

Security Pass Thru Combinations

The course teaches about bullet resistant and secure pass thru windows and equipment to keep employees safe in hospitals, banks, pharmacies and all public domains. The course will instruct upon the varying levels of bullet resistant protection, anti-theft, various window tints, shades and security levels.

Learning Objectives:

1. Define & clarify the types of bullet resistant protection levels.
2. Evaluate & recognize where and when to specify security windows and pass thru devices.
3. Specify correct products to support the design criteria.
4. Distinguish the differences of fire-rated applications along with added security measures and how they overlap.

MONDAY, NOVEMBER 2, 2020 | 2:00 PM CST

Kitchen Cabinets

A study of the US cabinet market and cabinet construction methods including substrates, composition, hardware, and finishes

Learning Objectives:

1. Understand the categories that go in to making up the domestic kitchen cabinet market
2. Identify and compare various substrates and composition of kitchen cabinets
3. Examine the features and benefits of various finish options for kitchen cabinets
4. Define and compare framed and frameless cabinets, as well as factory built versus assembled cabinets

TUESDAY, NOVEMBER 3, 2020 | 1:00 PM CST

Privacy Partitions in Today's Commercial Restrooms

Many current issues and trends are changing the way we design commercial restrooms. Join us in this one-hour course as we discuss what users want in a restroom experience, how to address increased demand for privacy, and which materials work best in different applications.

Learning Objectives:

1. Discuss public restroom evolution and how current trends are changing the way we design restrooms
2. Explain the increasing demand for higher privacy and how specific partitions and accessories can be utilized to promote privacy and personal well-being
3. Compare and contrast the various partition materials and styles available, focusing on which ones help create a safe and hygienic restroom environment for users
4. Discuss the production process of HDPE partitions and how this contributes to a more sustainable, healthier indoor environment

THURSDAY, NOVEMBER 5, 2020 | 1:00 PM CST

Managing Condensation, Water Intrusion, and Energy in the Real World

Window-opening air and water leakage has been a difficult problem for the construction industry. This course evaluates building failures, conventional construction approaches, and new developments in waterproofing techniques to show a path forward for designers seeking higher-performing wall assemblies.

Learning Objectives:

1. Explain why job-site conditions should be used as systems engineering requirements in construction product development.
2. Compare and contrast the similarities and differences between silicone, urethane, and STPE sealants.
3. Describe the multi-step weatherproofing process of conventional window installation and how such installations fare in real-world testing conditions.
4. Explain new window weatherproofing techniques using liquid flashing membranes.
5. Instruct others on construction defect remediation using STPE technology through case-study examples.

THURSDAY, NOVEMBER 5, 2020 | 2:00 PM CST

Panel Discussion - COVID 19 Pandemic and its affects on the Manufacturing Industry

Since March of this year, we have all been directly and indirectly affected by the COVID-19 Pandemic. Since this all began, we have begun to share our experiences through Blogs and through Panel Discussions. While we have heard from the Construction Companies, the Design Professionals, and even the Bankers and Insurance side of the industry, what we haven't heard is much from the Manufacturing and Product Representation side of the industry. This is why this Panel was put together.

TUESDAY, NOVEMBER 3, 2020 | 2:00 PM CST

Noise Control Solutions for Multi-Family Residential Applications

This course reviews the dynamics of sound, how sound travels through buildings, and the architectural techniques used to control airborne, structure-borne, and flanking noise transmission in multi-family buildings.

Learning Objectives:

1. Understand what sound is and how it is transmitted.
2. Understand the importance of noise control and building code requirements.
3. Understand proper acoustic design for walls and floor-ceiling assemblies.
4. Understand the different types of underlayments and the benefits of using acoustic rubber underlayments.

WEDNESDAY, NOVEMBER 4, 2020 | 1:00 PM CST

Retrofit Anchoring of Masonry and Stone Facades

An overview of existing masonry and stone façade instability issues, the cause and recognition of these problems, and the cost-effective re-anchoring solutions for repair involving various masonry wall construction techniques.

Learning Objectives:

1. Recognize the function and characteristics of brick ties and anchors
2. Recognize existing masonry veneer instability conditions and their associated cause.
3. Review the types of retrofit anchoring options and how they function
4. Summarize the typical retrofit anchoring and masonry restoration process

WEDNESDAY, NOVEMBER 4, 2020 | 2:00 PM CST

Safe and Responsible Design Choices For Your

From Friday night lights to Monday night football weight room flooring impacts the performance of all athletes and coaches. High performance athletes and coaches are spending countless hours training on weight room flooring; the A&D community is responsible for the design and safety of the individuals and facilities.

Learning Objectives:

1. Recognize the design & functional differences of traditional vs. high performance weight rooms
2. Design weight room flooring to promote the safety of the athlete
3. Design weight room flooring systems to protect the building
4. Understand the strategies for sound & vibration reduction within athletic training facilities



PANEL DISCUSSION HOW HAS COVID-19 AFFECTED MANUFACTURING AND PRODUCT DELIVERY SYSTEMS



Since March of this year, we have all been directly and indirectly affected by the COVID-19 Pandemic. Since this all began, we have begun to share our experiences through Blogs and through Panel Discussions. While we have heard from the Construction Companies, the Design Professionals, and even the Bankers and Insurance side of the industry, what we haven't heard is much from the Manufacturing and Product Representation side of the industry. This is why this Panel was put together.

There are so many aspects of the Manufacturing industry that must come together for a Product to be made and distributed. Contributing suppliers, energy and transportation companies, as well as the main manufacturing company are all involved in the process. And once the Product is made it must be sold through a Product Representative or Company to the end user, the Contractor. I know I have simplified the whole process.

That is why we have assembled this Panel of People to represent the Manufacturers and the Product Representation Companies to get their story out there and let everyone know what they are doing to try and keep the Construction Industry moving forward. We truly need to hear their stories of how it all started in March when the country basically shut down to where we are today with these companies trying to meet the increasing demand for products. We need to hear the personal stories of the impact of not only the Pandemic but the shut down as well. We need to hear from them the processes they invented to get people back to work safely and efficiently. We need to hear how they are moving forward and increasing production and sales capabilities to help the Construction Industry ramp back up.

I hope that when you put these stories and efforts together with the efforts of the Design Community, the Bankers and Insurers, and the Contractors, you can see just how interdependent we are on each other and how we as an Industry must move forward together to help this Country get back on its feet.



RON BLANK
& ASSOCIATES, INC



Southeast Regional Sales Manager at Whitacre Greer, Michael Tyson,

Michael has 40 years' experience working in the brick industry. He started as a dispatcher for a family-owned brick yard, Palmer Brick in Tucker Georgia, just outside of Atlanta. Working the yard and office he learned about brick and related materials. Reading the closed job files taught him about the business aspects. After about a year of this, he was promoted to call on Architects and contractors. I was able to work with the top architectural firms in and around Atlanta, assisting in material selections and technical aspects.

Palmer sold his business to Franklin Brick, a distributor based in Tennessee, in 1998. I stayed on to direct the architectural sales efforts. In about 2002 Franklin, as a distributor, merged with Boral Bricks, a manufacturer. Boral Bricks was part of an Australian conglomerate who had bought many southeast area brick manufacturers. I worked for Boral in the Atlanta area until 2013, when I took my current position with Whitacre Greer, covering the southeast calling on the distributor network.



General Manager of Quality and EHS for GE Current, a Daintree company | Charles Knittel

Knittel attended Case Western Reserve University, graduating with a B.S. in Chemical Engineering. He leads a global team of professionals responsible for ensuring product quality, safety, compliance, and overall customer satisfaction. At the onset of the coronavirus in early March, Current appointed Knittel to its multidisciplinary COVID-19 Taskforce. As an integral member of the Taskforce, Knittel uses his deep domain knowledge and project management skills to develop and deploy numerous best practices for maintaining safe and ongoing operations across the business.

Knittel joined GE Lighting in 1997, where after completing GE's Edison Engineering Training Program, he joined the High Intensity Discharge (HID) Lamp Engineering Team. In 2010, Knittel assumed the role of Global LED NPI Manager. In 2014, GE Lighting promoted Knittel to General Manager – LED Technology, where he brought experience and leadership to GE Lighting's global team of engineers resulting in the development of new LED products, including outdoor systems, indoor systems, LED replacement lamps, and



Specification Area Manager – Midwest Zone | Dan Corum, CSI

Dan is currently the Specification Area Manager - Midwest Zone for PPG. Dan has worked for PPG for 19 years where he has served as their Sales Representative / Training Specialist / Training Manager / Divisional Sales Manager / Site Technical Manager and his current position. He has been assigned to their Architectural Coatings Division, Automotive OEM Coatings Division, and currently in the Architectural Coatings Division. Prior to that he worked for Sherwin Williams for 11 years in positions from Sales Representative to Store Manager.



Manufacturer Director | Cory Nevins

Cory is currently the Vice President of Sales-East for Rockfon (a division of Rockwool), having held several Sales and Marketing leadership roles with Rockfon following their acquisition of Chicago Metallic Corporation in 2013. He has 26 years' experience in the industry, working 15 years for USG following graduation from Miami University in 1994 with a degree in Marketing. He lives outside of Chicago with his wife Stacy and their three young sons. In his free time, Cory enjoys golfing, grilling, and the Chicago Cubs.

Congratulations to the 2020 Class of CSI Fellows



**Alan Mitchell Horne Sr.,
CSI, CDT®, AIA, LEED AP,
NCARB, USGBC**



**Elias S. Saltz,
CSI, CCS, CDT®**



**Lee Ann M. Slattery,
CSI, CDT®, CCPR**



Robin E. Snyder, Esq, CSI, CCS



William Sundquist, CSI

The CSI College of Fellows has selected five new members to the 2020 class. Each was nominated through a rigorous application process, then elected by the Jury of Fellows for membership.

The 2020 Fellows are: Alan Mitchell Horne Sr., CSI, CDT®, AIA, LEED AP, NCARB, USGBC; Elias S. Saltz, CSI, CCS, CDT®; Lee Ann M. Slattery, CSI, CDT®, CCPR; Robin E. Snyder, Esq, CSI, CCS; and William Sundquist, CSI.

INSTITUTE AWARD WINNERS FROM GULF STATES REGION

Distinguished Membership

Distinguished Membership is the most prestigious honor of the Institute. It is conferred on individuals who have performed distinguished services to the construction industry in fields of activity related to the purposes of the Institute.

Phillip L. McDade FCSI, CCS, FASLA, DTM

Fellowship

Fellows of the Institute are chosen by their peers. Nominees must maintain membership for not less than five years and have notably contributed to the advancement of construction technology, the improvement of construction specifications, education, or by service to the Institute.

William Sundquist, CSI

Communication Award

This award is presented to a Chapter, Region, or Organization which has implemented a comprehensive communications program, inclusive of multiple types of communications programs.

The Memphis Chapter of CSI

Outstanding Chapter Commendation

This award is presented to a chartered Chapter that meets the designated pre-requisite core criteria and has provided the required supplemental data.

Chattanooga

Nashville

Knoxville

Mississippi

Little Rock

Memphis

SEALING AND SIGNING DIVISIONS 00 AND 01: IS IT ARCHITECTURE OR ENGINEERING?

By Kevin O'Beirne, PE, FCSI, CCS, CCCA, CDT

Kevin O'Beirne, PE, FCSI, CCS, CCCA is a professional engineer licensed in NY and PA with over 30 years of experience designing and constructing water and wastewater infrastructure for public and private clients.

Should design professionals seal and sign Division 00 documents and Division 01 specifications? In the past, when the architect or engineer prepared all the construction documents and administered the project's construction alone, it probably did not matter much. In modern times, however, where an owner's procurement department, a construction manager, or the owner's program manager may prepare part or all of Divisions 00 and 01, the answers are less clear and more important.

Most design practitioners recognize that all US states' and Canadian provinces' laws and regulations governing the design professions require architects, professional engineers, professional geologists, and other design professionals to seal and sign "specifications." What is meant by this may be debatable.

Sealing and Signing Division 00

Some people believe construction "specifications" are everything between the project manual's covers. Others more pragmatically recognize CSI MasterFormat indicates that "specifications" are the documents in Divisions 01-49, whereas MasterFormat's "Division 00 – Procurement and Contracting Requirements," is comprised of a solicitation, instructions to bidders, bid form, agreement, general conditions, supplementary conditions, and related documents, and is not "specifications".

Relevant to what truly needs to be sealed and signed are: (1) what contractually comprises "specifications;" and, (2) statutorily, what constitutes the practice of architecture or engineering.

Section 1.1.4 of AIA A201—2017, Standard General Conditions of the Contract for Construction, says, "The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services." More precisely, the "Specifications" are to be enumerated in Article 9 of AIA A101—2017, Agreement between Owner and Contractor (Stipulated Sum).

EJCDC's parallel language is quite similar to AIA's. Paragraph 1.01.A.39 of EJCDC C-700—2018, Standard General Conditions of the Construction Contract, defines: "Specifications—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work." Paragraph 7.01.A.5 of EJCDC C-520—2018, Agreement between Owner and Contractor (Stipulated Price), indicates the contract documents include, "Specifications as listed in the table of contents of the project manual (copy of list attached)."

From EJCDC's and AIA's contractual definitions, it appears Division 00 documents are not "specifications," because Division 00 solicits bids or proposals, establishes the parties to the contract and the basic contractual terms such as compensation and time of performance, and basic responsibilities and risk allocations. Division 00 does not establish standards of workmanship for the specific project. To reinforce that Division 00 is not "specifications," when referring to Division 00 components, both AIA and EJCDC employ document titles (e.g., "Agreement," "General Conditions," "Supplementary Conditions") rather than the term, "Specifications."

Next, consider the definition of “architecture” or “engineering” where you practice. New York and Pennsylvania’s definitions are typical examples. New York State Education Law, Title VIII, Article 145, §7201, states:

“§7201. Definition of practice of engineering... is ... performing professional service such as consultation, investigation, evaluation, planning, design or supervision of construction or operation in connection with any utilities, structures, buildings, machines, equipment, processes, works, or projects wherein the safeguarding of life, health and property is concerned, when such service or work requires the application of engineering principles and data.”

Similar language defines the “practice of architecture” in New York State Education Law, Title VIII, Article 147, §7301.

Pennsylvania’s Act 367 of 1945 (PL 913) governing engineering and establishes:

“(a) (1) ‘Practice of Engineering’ shall mean the application of the mathematical and physical sciences for the design of public or private buildings, structures, machines, equipment, processes, works or engineering systems, and the consultation, investigation, evaluation, engineering surveys, construction management, planning and inspection in connection therewith....

“(2) The term ‘Practice of Engineering’ shall also mean and include related acts and services that may be performed by other qualified persons, including but not limited to, municipal planning, incidental landscape architecture, teaching, construction, maintenance and research but licensure under this act to engage in or perform any such related acts and services shall not be required.”

Similar language defines the “practice of architecture” in Pennsylvania’s Act 281 of 1982 (PL 1227).

All such definitions read by this writer for various US states indicate practicing the design professions entails applying architectural, engineering, and scientific principles to solve technical and aesthetic problems related to buildings, equipment, and systems affecting public health, safety, and welfare.

Although engineers practice engineering and architects practice architecture, both also render associated, “non-professional” services for which professional licensure is not required. For example, an environmental engineering consultant may have an employ obtain groundwater samples for laboratory analysis which is, itself, not the practice of engineering—after all, laboratory employees perform the same function. Preparing BIM and CAD digital models is not the practice of architecture or engineering, because interior decorators and employees at your local paint retailer do it every day, so selecting colors and textures is not the practice of architecture. Many unlicensed “non-professionals” independently perform such tasks without violating laws or regulations governing the practice of the design professions. Thus, preparing a written contract (e.g., Division 00) is certainly not the practice of architecture or engineering, nor is it exclusive to such professions.

Division 00 is often prepared by non-architects or non-engineers, such as an owner’s procurement department, construction manager, or owner’s program manager. Indeed, some consider Division 00 the purview of attorneys. While architects and engineers often assist their clients with drafting Division 00 documents (and are perhaps in the best position to do so for matters such as identifying appropriate bid/pay items and better ensuring fully coordinated and integrated construction documents), Division 00 does not constitute the practice of either engineering or architecture as defined by statutes on the design professions. Accordingly, Division 00 documents usually do not require the design professional’s seal and signature.

However, it is highly advisable for architects and engineers who draft Division 00 for their client to submit the draft documents to their client via a written transmittal explicitly recommending the client's own legal counsel thoroughly review and comment on the drafts. Design professionals should avoid practicing law, insurance, risk management advice, or financial advisory services, unless duly licensed and insured to practice such professions.

Sealing and Signing Division 01

Requirements for the project's permanent work are addressed in Divisions 02-49, which unquestionably are "specifications" and require sealing and signing by the design professional-in-responsible-charge.

"Division 01--General Requirements" presents: (1) more-detailed, although still general, administrative and procedural requirements beyond those of Division 00, (2) requirements for temporary facilities and temporary construction, and (3) project-level performance requirements. The full scope of Division 01 is established in CSI MasterFormat.

Division 01 is clearly "specifications," so, at the very least, parts or perhaps all of Division 01 must be sealed and signed. When the design professional prepares all of Division 01, it is probably appropriate for them to seal and sign all the Division 01 specifications. However, when a third-party not under the design professional's direct, supervisory control—such as a construction manager or owner's program manager—drafts all or part of Division 01, should the design professional seal and sign it?

Every US state's architecture and engineering laws and regulations prohibit architects and engineers from sealing or signing work product prepared by individuals not under the design professional's direct, supervisory control, unless regulations on "successor architect" or "successor engineer" are complied with. Third-party construction managers and owner's program managers, no matter how collaborative, are obviously not subject to the design professional's direct, supervisory control. Thus, if a third-party prepared certain specifications, the design professional-in-responsible-charge should either not seal and sign them or, at the very least, carefully consider the consequences of sealing and signing something over which they were not in control. When the design professional has the opportunity to review and make appropriate, final revisions to a document prepared by others, they may be in a better position to rightfully seal and sign it. Whether they should seal and sign it likely depends on the wording of the applicable statutes and the circumstances of the project.

Because many Division 01 specifications are purely administrative or procedural, the potential exists that they may not, in some jurisdictions, require sealing and signing. For example, a Section 01 31 26 – Electronic Communication Protocols, governing construction stage communications via electronic or digital means, is not regarding the completed project as a functioning whole and does not affect public health, safety and welfare and, therefore, likely does not constitute the practice of architecture or engineering.

All Division 01 specifications that constitute the practice of architecture or engineering must be sealed and signed by the design professional-in-responsible-charge. Which sections qualify as the practice of the subject design profession depends on their content, the project, and the applicable laws and regulations, but in general, this writer believes the following probably generally need to be sealed and signed:

Certain sections under "01 14 00 – Work Restrictions", especially, sections on maintaining facility operations during construction, such as MasterFormat's "01 14 16 – Coordination with Occupants." For industrial-type projects, this may be titled, "Coordination with Owner's Operations" and may include requirements for system tie-ins and shutdowns and construction sequencing.

On projects such as rehabilitation of a drinking water treatment plant, such a section will affect the facility's ability to comply with health codes during construction and has strong potential to affect public health, safety, and welfare, and environmental quality.

Whether the design professional must seal and sign "01 25 00 – Substitution Procedures," and "01 62 00 – Product Options" (the latter governing "or-equals") is debatable, but there is substantial professional liability associated with the design professional approving substitutes and "or-equals" so, optimally, the design professional, rather than a third-party, should draft these sections and have control of their final content.

Section "01 33 00 – Submittal Procedures" should be prepared, and perhaps sealed and signed by, the design professional because the design professional performs the bulk of submittal reviews, even when a construction-manager-as-advisor (CMA) is involved. This section commits the design professional to certain actions with respect to submittal reviews, which is fraught with professional liability (and perhaps contractual liability) for the design professional, even though "submittal procedures" is, itself, administrative and procedural requirements.

Certain sections under "01 35 00 – Special Procedures" which directly affect performance of the construction and related services, should be sealed and signed when they affect the public or environment or have strong potential to increase the design professional's liability.

Sections under both "01 41 00 – Regulatory Requirements" and "01 42 00 – References" should be sealed and signed. Among other things, such sections may address permitting (including permits obtained by the owner), regulatory compliance, and compliance with reference standards.

Sections under both "01 43 00 – Quality Assurance" and "01 45 00 – Quality Control", should be sealed and signed, especially "01 45 33 – Code-Required Special Inspections and Procedures," because these sections address the acceptability of the work and compliance with building codes and, perhaps, other laws and regulations.

Many sections under "01 50 00 – Temporary Facilities" may need to be sealed and signed, especially those regarding compliance with laws, rules, regulations, codes, ordinances, and lawful orders of authorities having jurisdiction. Not all these sections require a design professional seal and signature, such as sections on vehicular access and parking, security during construction, and perhaps others. Whether a design professional should prepare, seal, and sign sections on temporary utilities likely depends on project requirements. Both "01 55 26 – Traffic Control" and "01 57 00 – Temporary Controls" will often require sealing and signing because they may affect public health, safety, and welfare, and environmental quality during construction. Temporary erosion and sediment control requirements under "01 57 00" often have associated permit requirements necessitating a design professional's seal and signature.

Sections under "01 73 00 – Execution," which typically directly affect construction of the completed project, may need to be sealed and signed.

Sections under "01 75 00 – Starting and Adjusting," which include procedures for checkout, startup, initial operation, and initial adjusting of the new construction, may require sealing and signing. Results of such processes has a direct effect on the design professional's decision to certify the work as substantially complete, with associated professional liability.

Section “01 79 13 – Demonstration Testing,” when used, may require sealing and signing because it affects the facility’s operation and the design professional’s decision to certify the project as substantially complete or ready for final payment.

Sections under “01 80 00 – Performance Requirements” obviously require the design professional’s seal and signature.

Although commissioning agents often draft the “01 90 00 – Lifecycle Activities” sections, mostly concerning commissioning, the design professional needs either substantial input into such sections or, on occasion, to seal and sign them, depending on content.

Conclusions

When part or all the Division 01 specifications are prepared by other than the design professional, perhaps not all of Division 01 should be, or needs to be, sealed and signed, depending on circumstances and applicable laws and regulations.

Because Division 00 documents are not specifications and are often prepared or controlled by others not under the direct, supervisory control of the architect or engineer, Division 00 documents typically do not need to be sealed or signed.

CSI Blog Post

Specifying Practices *Coordinated is the Fifth “C”*

by Kevin O’Beirne

A mantra of the Construction Specifications Institute (CSI) is that construction specifications should be consistent with “the four C’s”: clear, concise, complete, and correct. It is difficult to argue with any of those. However, I believe a fifth C is also necessary: ***coordinated***.

Perhaps the folks who came up with the four C’s intended that “coordinated” is a subset of “correct” but, in this writer’s experience, coordination of construction documents is so hugely important and is so often neglected, it merits a fifth C in CSI’s mantra.

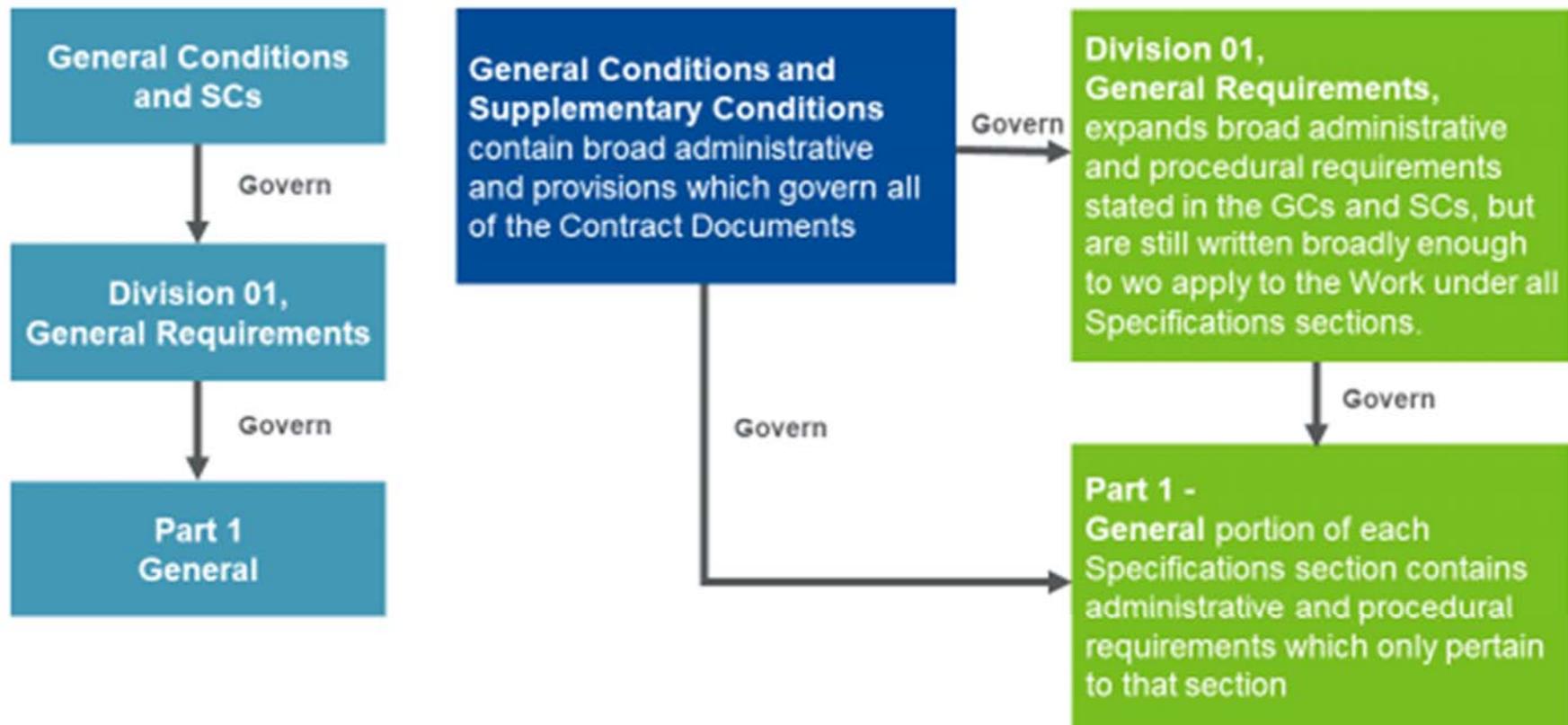
Design professionals often draft construction specifications with tunnel vision and concentrate on only their “own” divisions or sections of the specifications without considering how they coordinate with other divisions and sections especially Division 00--Procurement and Contracting Requirements, and Division 01--General Requirements.

It is relatively common for Division 00 to be drafted by the owner’s employees, or an owner-hired construction manager or program manager. Sometimes, the owner even refuses to furnish a copy of Division 00 to the design professional. Even more incredibly, in such situations, many design professionals do not pursue the matter because they either consider Division 00 unimportant or do not want to “rock the boat” by pressing for a copy.

Overlooked in such situations is a very important concept: **all** the construction documents—drawings, Division 00, specifications, addenda, change orders, and so on—comprise a **single contract**. For the greatest potential for achieving the owner’s goal of the project being on time, within budget, and with the fewest change orders and claims during construction, it is necessary that the construction documents be properly **coordinated** with each other before the final design is completed and all construction documents are issued for bidding or procurement.

The following diagram graphically indicates how the construction contract’s general conditions are to coordinate with the Division 01 specifications, and how they, in turn, coordinate with “Part 1 – General” of all the specifications in the contract.

How Divs 00-01 Affect Div 02-49 Specs



This concept is clearly demonstrated by Division 01 of CSI's *MasterFormat* having the same organizational structure as "Part 1 – General" of CSI's *SectionFormat*.

Failing to heed the need for coordinated construction documents has strong potential for repeated requirements, conflicting requirements, and omissions, all of which can result in undesired change proposals, change orders, claims, and disputes.

A good way to help ensure well-coordinated construction documents is to establish, budget for, and use the role of a specifications coordinator. A specifications coordinator understands the basic content of and interrelationships among the various construction documents, and fosters appropriate communication among design team members to achieve the necessary coordination among the documents. The specifications coordinator may be the design professional's project manager, project engineer or project architect, or a dedicated "specifications coordinator" team member.

Other action necessary for developing well-coordinated construction documents is obtaining from the owner a near-final copy of the project's Division 00 documents not later than approximately 60-percent design, assuming that most of the specifications are developed in detail between 60- and 90-percent complete design. Division 00 should be the **first** part of the project manual developed, rather than the last, as is relatively common. In addition to early development of Division 00, it is also important to develop Division 01 to a relatively mature level shortly after 60-percent design, so the Division 02-49 specifications can be properly coordinated with it with reasonable time and effort, without rework.

Thus, a person preparing construction specifications should not myopically concentrate on only their special area of expertise, but must also have sufficient knowledge of the content of the project's Division 00 documents (especially the owner-contractor agreement, general conditions, and supplementary conditions), the Division 01 specifications, and other specifications of Divisions 02-49 that affect the work under "their" sections and divisions.

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Kevin O'Beirne, PE, FCSI, CCS, CCCA is a professional engineer licensed in NY and PA with over 30 years of experience designing and constructing water and wastewater infrastructure for public and private clients. He is the engineering specifications manager for a global engineering and architecture design firm. He is a member of various CSI national committees and is the certification chair of CSI's Buffalo-Western New York Chapter. He is an ACEC voting delegate in the Engineers Joint Contract Documents Committee (EJCDC) and lives and works in the Buffalo NY rea. [Kevin O'Beirne's LinkedIn page.](#)

Wordless Wednesday: Secure the Door

Oct 14 2020 | Lori Greene

Sometimes people have to get creative when security is on the line! Hopefully, this unit is uninhabitable.





What I Learned From CSI - The Mystery of Toilets: Think Outside the Bowl

By: Gary Bergeron, CSI, CCS, GSR Technical Chair

What is one item we all use approximately three times per day, in private, but seldom talk about? Some clues: The device has been discovered in many ancient ruins but was seldom seen in the Middle Ages. Also, it is responsible for helping to prevent the spread of diseases, such as dysentery and cholera.

Whether you call it a toilet, water closet, can, throne, latrine, head, potty, Loo, crapper, john, or something else; it is something most of us take for granted. An estimated 2.6 Billion people worldwide lack access to proper fixtures and approximately 1.8 million people per year DIE from lack of access to suitable sanitation. The US patent office received 350 applications for new designs between 1900 and 1932 before the current version we all know was designed. The modern toilet was invented for Queen Elizabeth in 1596 by Sir John Harrington, but the ball cock that creates the siphonic action was designed by Thomas Crapper. Various versions of toilets have been discovered in the ruins of Neolithic Britain, along with India, Egypt, Greece, and Rome. The Water Closet, or WC, was a polite term used to describe small closets where the first toilets were installed.

Plumbing engineers often talk about flush tanks, flush valves, floor mounted, and wall mounted water closets. Most architectural interns don't make a distinction between the graphic symbols, but there is a difference to most plumbing designers. See the diagrams below for the different symbols.

Tank type toilets are often specified in residential or light commercial buildings. The working parts (flapper, ball cock, lever and chain) often need adjustment or maintenance. Tank toilets are less expensive, require smaller water lines, and operate with lower water pressure.

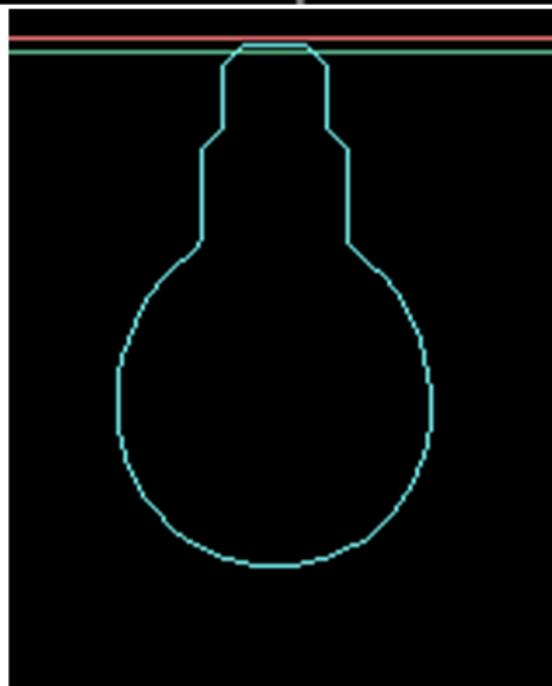
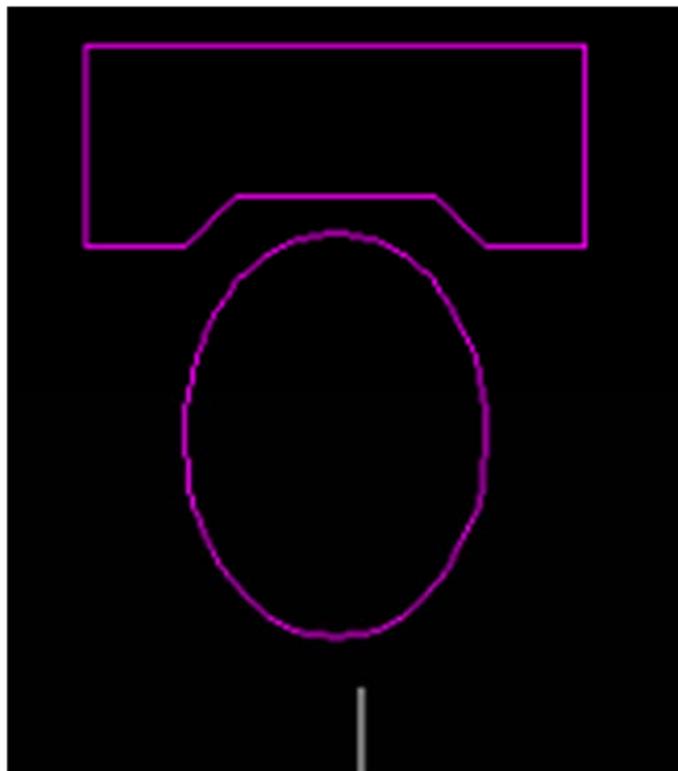
Flush valve toilets are usually specified in commercial buildings where frequent use is expected. The working parts of flush valves require much less maintenance provided they are adjusted correctly during the original installation. Flush valve toilets require larger water lines, higher water pressure, and cost slightly more than tank toilets.

Floor mounted toilets with bottom outlets are less expensive and require less space than wall hung toilets. They are specified when the building budget is a concern. A floor mounted toilet is difficult to clean around the base and behind the toilet.

Wall hung toilets are usually specified for institutional buildings. The back outlets of wall hung toilets require a deep wall chase for a cast iron wall carrier to support the toilet. Cleaning around and under the fixture is much easier with wall hung toilets.

All modern toilets include a siphon jet that evacuates the bowl; a hollow flushing rim that washes the bowl; and a glazed trap way that provides an exit for waste and prevents sewer gases from entering the room. This porcelain china fixture has undergone significant improvements over the years and has become what we all recognize today as the toilet, water closet, can, throne, latrine, head, potty, Loo, crapper, john, or something else.

If you want to learn about the finer points of design and construction, come to your next local CSI chapter meeting to build knowledge for a better project delivery.



Specifications Language

The Meaning of “Shall”, “Will”, and “Must”

by Kevin O’Beirne

Attorneys and drafters of contracts, including construction specifications, periodically debate whether the words, “shall”, “will”, and “must” are appropriate in contracts. The arguments never end. This writer has read various articles by attorneys presenting opinions on the subject, but most omit a detailed discussion of the words’ actual meaning. Because “shall”, “will”, and “must” are used in articulating key contractual obligations, it is important to use them properly.

The brief essay, [“Shall and Must”](#), on www.plainlanguage.gov and circulated by AXA XL Insurance to its professional liability insurance customers in 2019, includes:

“Use ‘must’ not ‘shall’ to impose requirements. ‘Shall’ is ambiguous, and rarely occurs in everyday conversation. The legal community is moving to a strong preference for ‘must’ as the clearest way to express a requirement or obligation... For a good discussion of ‘shall’ and ‘must’, see Bryan Garner, A Dictionary of Modern Legal Usage (2d ed. 1995), pages 939-942.”

Unfortunately, aside from citing attorney Garner’s work, the essay provides little more than unsupported assertions and broad opinion. As presented below, this writer does not see how “shall” is unclear; rather, “shall” is a clear command and clearly communicates an obligation, and “will” should also not be tossed on the scrap pile of contract language.

The Construction Specifications Institute’s (CSI) recommendations on specifications language are set forth in CSI’s *Construction Specifications Practice Guide, First Edition* (“CSPG1”, 2011) and the *Project Delivery Practice Guide, Second Edition* (“PDPG2”, 2018).

CSI recommends using, “the imperative mood”, in construction contract language. CSI encourages specifiers to write requirements as, “Provide bricks...” rather than often repeating, “Contractor shall”, i.e., “Contractor shall provide bricks...”

Specifiers cannot always avoid using “Contractor shall” or its derivatives such as “Owner will”, especially when specifications address requirements of both parties, and perhaps of others. For example: “Owner will remove the debris pile after which Contractor shall provide the foundation.” Recommended language style and use of “the imperative mood” is addressed in CSPG1 Sections 1.5 and 2.3, and PDPG2 Sections 11.3.6.2 and 11.3.6.9 through 11.3.6.11.

CSPG1 Section 2.3 states in part:

“Shall and Will are used as imperatives in reference to the work required to be done by a contractor. Will is optional and is used in connection with acts and actions required of the owner or the architect/engineer (A/E).

“Must and is to’ are not recommended.”

While the CSPG1 appears definitive, it presents no rationale or citation to support its assertions on this matter. Furthermore, there is copious evidence that “must” is widely used in contracts and specifications.

Obviously, “will” is **not** the only expression relevant to the owner or its design professional. In many instances, “shall” is entirely appropriate in connection with the owner, such as: “Owner shall pay the Contractor the amount recommended by Engineer, prior to the date such payment becomes due.” There should not be much discretion regarding the owner’s obligation to pay its contractors amounts not subject to disagreement. In other cases, “will” may be entirely appropriate to use in relation to the contractor.

CSI’s PDPG2 (2018) includes multiple examples of appropriate phrasing for construction documents in its Sections 11.3.6.9 through 11.3.6.11 but, interestingly, does **not** directly address uses of “shall”, “will”, “must”, and “is to”.

When in doubt, check a widely-used dictionary. *Black’s Law Dictionary, Tenth Edition* (2014), does not address “must” but includes:

“Shall: Has a duty to; more broadly, is required to... This is the mandatory sense that drafters typically intend and that courts typically uphold...”

“Will: Wish; desire; choice..” [e.g., a last will and testament].

The American Heritage Dictionary, Second College Edition (1985) is the ordinary dictionary on this writer’s office shelf. It includes:

Must: 1. To be obliged or required by morality, law, or custom. 2. To be compelled as by a physical necessity or requirement... 3. Used to express a command or admonition...”

Shall: 1. Used to indicate simple futurity: ‘I shall be 28 tomorrow.’ 2. Used to express: a. determination or promise: ‘He shall answer for his misdeeds.’ b. Inevitability: ‘That day shall come.’ c. Command, ‘Students shall report weekly to their tutors.’ d. A directive or requirement. ‘The penalty shall not exceed two years in prison.’...”

Will: ...2. An instance of exercising will or choice. 3. Something desired or decided upon by a person of authority or supremacy. 4. Deliberate intention or wish. 5. Discretion; inclination... 6. Bearing or attitude toward others; disposition. 7. The power to arrive at one’s own decision to act upon it independently, despite opposition.”

Based on *Black’s Law Dictionary* and *American Heritage Dictionary*, we may conclude:

1. “Must” appears appropriate to use in contracts and specifications as a command or to communicate a requirement.
2. “Shall” appears appropriate to use in contracts and specifications as a command or to communicate a requirement. It may be at least as clear for this as “must”.

3. “Will” is perhaps less-clear and appears to imply some level of discretion by the entity to which it applies. However, when properly used, “will” can be clear and used to create binding obligations, as discussed in attorney Bryan Garner’s book cited above. Despite this, this writer believes “shall” creates a level of gravity and formality that is entirely appropriate for the duties of the parties to a construction contract or design professional services agreement.
4. “Is to” may be grammatically correct but, in a contractual sense, appears to lack the gravity and command communicated by “shall” and “must”.

Admittedly, the above does not consider case precedents or sources other than those expressly cited, and one of the dictionaries referenced is quite old. It may be unwise to stress your brain on this, because EJCDC C-700—2018, *Standard General Conditions of the Construction Contract*, Paragraph 1.02.G, says:

“Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.”

Virtually identical wording is in Section 1.2.3 of AIA A201—2017, *Standard General Conditions of the Contract for Construction*. Thus, the meaning of “shall”, “will”, and “must” can be revealed by consulting a dictionary.

In drafting contracts and specifications, remember that words have specific meaning and should be employed properly. So much for my opinions on “shall”, “will”, “must”, and “is to”. Let the debate continue!

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Kevin O’Beirne, PE, FCSI, CCS, CCCA is a professional engineer licensed in NY and PA with over 30 years of experience designing and constructing water and wastewater infrastructure for public and private clients. He is the engineering specifications manager for a global engineering and architecture design firm. He is a member of various CSI national committees and is the certification chair of CSI’s Buffalo-Western New York Chapter. He is an ACEC voting delegate in the Engineers Joint Contract Documents Committee (EJCDC) and lives and works in the Buffalo NY rea. [Kevin O’Beirne’s LinkedIn page](#).



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Chapter Meeting Day and Time:	2nd Wednesday of Each Month unless otherwise specified by the Chapter President
Chapter Board Meeting Day and Time:	1st Friday of each Month unless otherwise specified by Chapter President

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