

# THE MEMPHIS **perspective**

November 2019 edition

Do you have  
a clearly  
defined  
process?

Memphis  
Reprographics



## INSIDE:

- ~ CSI Memphis Presidents Message pg. 4~ Notices pg. 5~ CSI Memphis Leadership 2018-19 pg. 6-7~
- ~ New Members and Anniversaries pg. 8~
- ~ Construction Administration - what is it and why is it necessary? by Hans Dietrich Faulhaber, Architect pg.9-23~
- ~ Convention Report by Gary White pg.24~ ~ BooZE & BREWS Pics pg. 27~
- ~ Dempsie B. Morrison Scholarship Fund pg. 28-29~

[csimemphis.org](http://csimemphis.org)

## About CSI

Founded in 1948, the Construction Specifications Institute is a not-for-profit technical organization dedicated to the advancement of construction technology through communication, research, education and service. CSI serves the interests of architects, engineers, specifiers, interior designers, contractors, product manufacturers and others in the construction industry.

[www.csinet.org](http://www.csinet.org)

## CSI Membership

Architects, engineers, contractors, and manufacturers—14,000 members strong—are in touch with one another through their Construction Specifications Institute membership. CSI provides contacts in the construction industry as well as provides you up-to-date information to help you do your job efficiently and effectively. Yearly Institute membership fee is \$250 plus \$40 Memphis Chapter fee = \$290; Institute membership fee for an Emerging Professional is \$125 plus \$40 Memphis Chapter fee = \$165.00; and Institute membership fee for students is \$30 plus \$10 Memphis Chapter = \$40.

Contact: Jeffrey Parnell [jparnell@hbg.design](mailto:jparnell@hbg.design)

901-577-0594

At each monthly meeting, the Chapter encourages all members

## Tabletop Displays at Monthly Meetings

to provide a table display of their product and/or services for inspection and education of those attending the meeting. After the meal and prior to the program, the displayer will be given five minutes to address the group. The table display is also encouraged to be represented during the social hour and after the program for any questions by the attendees. The presentation fee for this time is \$25.00.

Table Top Info. - **Mike Zielinski**  
[mzielinski@lrk.com](mailto:mzielinski@lrk.com)  
901-652-5612

## The Memphis PerSPECTive Information

*The Memphis PerSPECTive* is published ten times a year by the Memphis Chapter of the Construction Specifications Institute. Appearance of products or services, name or editorial copy does not constitute an endorsement by the Memphis Chapter of CSI nor any of its members.

Circulation of *The Memphis PerSPECTive* is now limited to access on the CSI Memphis website: [csimemphis.org](http://csimemphis.org). To be included on future notifications of the uploaded magazine forward your name, mailing address, and e-mail address to the following email address:

[hansfaulhaber@hotmail.com](mailto:hansfaulhaber@hotmail.com)

### SUBMITTING ARTICLES

Readers are encouraged to submit articles of interest within the construction industry for publishing. Articles on individual projects whether currently in design, under construction, or recently completed are encouraged.

Any printed articles, photos or program inserts should be forwarded to:

The Memphis PerSPECTive  
Attn: Hans Faulhaber  
[hansfaulhaber@hotmail.com](mailto:hansfaulhaber@hotmail.com)

Articles and images should be submitted in electronic format via digital media or email. Microsoft Word documents are required for articles, minus tabs and any other formatting. All images must include a date and caption. Printed material will not be accepted

### MAGAZINE ADVERTISING

Advertising in the PerSPECTive was discontinued as of June 1, 2018. Advertising will be on the website from that date forward.



**CSI Memphis Chapter Meetings**

**Board Meetings:** 5:30pm - Monday preceding Chapter Meeting (unless noted)

**Place:** Allen + Hoshall Conference Room 1661 International Dr., Memphis, TN 38120

**Chapter Meetings:** 11:30 am -1:00pm 2nd Thursday of the month  
(except Dec., April, July)

**Place:** Holiday Inn University of Memphis Medallion Lounge  
3700 Central Ave, Memphis, TN 38111

**Cost:** \$20 for members and guests; \$12.50 for students (*sponsors may cover student costs*)

**CSI Memphis Chapter Calendar 2018-2019**

**November 2019**

**November 11, 2019 Board Meeting**

*See above for time and place*

**November 14, 2019 Chapter Meeting:**

Document Process Management  
Presented by Chris McNally and Memphis Reprographics

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



**GO TO *csimemphis.org***  
**Everything you need to know about CSI Memphis and more.**

## CSI Memphis Chapter President's Message



**JEFFREY PARNELL, CSI, AIA**  
**CSI MEMPHIS CHAPTER PRESIDENT**

Greetings CSI Memphis!

I hope everyone in our chapter had an amazing Halloween! October has been a busy Month for our chapter. At the beginning of the month, **Mike Zielinski, Gary White, Susan Evans** and I participated in CONSTRUCT, the annual Construction Specification Institute convention in National Harbor, Maryland. As always, CONSTRUCT was an amazing experience. I am proud to report that the Memphis Chapter of CSI brought home the Silver Level Outstanding Chapter Commendation. We would not have earned that honor without our amazing chapter members and events.

Speaking of amazing members and events, I would like to thank our very own **Sarah Hawkins, Lisa Perkowski** and **Gary White** for planning and executing the October **BooZE & BREWS** this past October at the Wiseacre Brewery. If you missed it, BooZE & BREWS was a family-friendly event that took the place of the October Chapter meeting. We hosted the event in conjunction with the Memphis Chapter of the Illumination Engineering Society. We had an amazing time. Several photos were posted on our Facebook page if you missed it. Special thanks to our sponsors: **Pella, Sherwin Williams Paints, Spectrum Lighting and Controls, Flintco** and **Clear Advantage Lighting**.

The November Chapter Meeting is Coming up. The Chapter Meeting will begin at 11:30 AM at the University of Memphis Holiday Inn in the Medallion Room. The presentation will cover the

topic of Document Process Management. The presentation will be presented by **Chris McNally** of **Memphis Reprographics**. Chris's presentation will highlight potential pitfalls, and the resulting impact on the overall document process, through the design and construction phases. Be sure to RSVP for the chapter meeting by visiting <http://www.csimemphis.org/events/2019/9/18/november-chapter-meeting>.

Finally, I would like to encourage our members to donate to the Dempsie B Morrison Scholarship Fund. Our Immediate Past-President, **Julie Fleming**, is hard at work for the 2019-2020 donation drive. Be sure to be on the lookout for donation forms, which should be mailed out shortly. Of course, you can donate now, online, by visiting <http://www.csimemphis.org/morrison-scholarship/>. Our scholarship is the only scholarship that is still fully matched by the University of Memphis, which allows us to provide full tuition for two students in the Department of Architecture each year.

**Jeffrey Parnell, CSI, AIA**  
**Architect, HBG Design**  
**CSI Memphis Chapter President**



**CSI Memphis Notices**

**The Memphis *PerSPEctive* is currently searching for an Editor. If you are interested in becoming the Editor of this award winning publication please call Hans at (901) 326-9937!**

**CSI MEMPHIS MEMBERSHIP COMMITTEE**

Architects, engineers, contractors, and manufacturers can be in touch with one another through their Construction Specifications Institute membership. CSI provides contacts in the construction industry as well as provides you current information to help you do your job efficiently and effectively. Annual Institute membership fee is \$250 plus \$40 Memphis Chapter fee = \$290; Institute membership fee for an Emerging Professional is \$125 plus \$40 Memphis Chapter fee = \$165.00; and Institute membership fee for students is \$30 plus \$10 Memphis Chapter = \$40.

**Contact: Jeffrey Parnell**  
**jparnell@hbg.design**  
**901 577-0594**

**CSI Memphis Announces QAQC Educational Opportunity**

Former Chapter member **Louis Medcalf, FCSI** will be the Faculty for this program on Quality Assurance and Quality Control. Louis is currently a senior specifier with Conspectus and has more than 40 years of experience in architecture and more than 25 years of experience in QAQC. If you are interested in this program further information can be found at [www.Lorman.com](http://www.Lorman.com). I hope to have the brochure for the event posted on our website. Here is a description of the event:

**Effective Quality Control and Quality Assurance**

The increasing complexity of regulatory and technical requirements for projects and time pressures from clients are a challenge to maintaining a high level of quality for contract documents. Successful QA/QC procedures can avoid costly waste effort as well as potential claims. Whether large or small, many firms do not have a consistent approach to managing the quality of their deliverables. Although they realize the need, firm leaders may not have a concept of how to begin. This presentation will help architects and engineers establish goals for quality management and introduces a basic strategy for planning a QA/QC program tailored to the size and practice of individual design firms.

**INVITE A FRIEND OR COLLEAGE**

**CSI Memphis Mission Statement**

**In order to enhance the process of creating and sustaining the built environment, Memphis Chapter CSI:**

**Provides opportunities for persons in the design and construction industry to receive cutting edge information regarding construction documents and practices;**

**Promotes members career advancement and enhancement of leadership and communication skills; and supports students aspiring to design and construction careers.**

*Memphis Chapter*

THE CONSTRUCTION SPECIFICATIONS INSTITUTE



**2018-2019 CSI Memphis Officers and Board of Directors**

**Officers:**

**President: Jeffrey Parnell**  
**President Elect: Gary White**  
**Vice President: Susan Evans**  
**Secretary: Lisa Namie**  
**Treasurer: Mike Zielinski**  
**Past Pres: Julie Fleming**  
**UM Student Pres: Isaac Barrantes**

**Board of Directors:**

**Pam Davidson : 2017-2020**  
**Lisa Perkowski: 2017-2020**  
**Carlie Massery: 2018-2021**  
**BJ Brillard: 2018-2021**  
**Sarah Hawkins: 2019-2022**  
**Wendy Cooper Kelly: 2019-2022**

## 2018-2019 Committee Chairs

Academic Affairs:	Sarah Hawkins
Awards:	Sara Hawkins
Banquet/Christmas:	Susan Evans
Certification:	Tommy Smith and Hans Faulhaber
Chapter Operations:	Jim Neison
Conference/Conventions:	Mike Zielinski
Education:	Mike Zielinski
Fellowship:	Wally Bostelmann
Finance:	Jim Neison
Bowling Tournament:	Carley Massery
Historian:	Pam Davidson
Magazine Editor:	Hans Dietrich Faulhaber
Membership   Database:	Pam Davidson
Nominations:	Julie Fleming and Jeffrey Parnell
Planning:	Hans Faulhaber and John Bigham
Products Display Show:	Mike Zielinski and Jeffrey Parnell
Programs   Table Top:	Jeffrey Parnell and Gary White
Publicity:	Open
Scholarship:	Julie Fleming
Table Top:	Mike Zielinski
Technical:	Hans Dietrich Faulhaber
Bylaws / Operating Guide:	John Bigham and Jim Neison
Website:	Jeffrey Parnell

***If you are interested in volunteering for service on any of these committees or if you have any ideas you would like to discuss with committee chairs— do not hesitate to call!***

## Anniversaries

*The following members have anniversaries for September:*

<u>Member</u>	<u>Join Date</u>	<u>Member Years</u>
Joe Buntyn	11/03/16	3 Years
Susan Evans	11/22/16	3 Years
Chip O'Rear	11/30/18	1 Year
Bernard Zawada	11/03/04	15 Years

# THANKS FOR YOUR PARTICIPATION!

*Congratulations on your anniversary and thanks for participating!!*





*The sub-title of this article is: "What is it and Why is it Necessary." This article is related to the activities, duties and responsibilities of the construction contract administrator. This is not intended to be a comprehensive guide to construction administration but an overview of the activities, duties and responsibilities required to effectively manage the construction administration phase of an architectural project.*

### **Introduction**

Construction Administration is the management of the construction process by the architect or staff assigned to the project and defined in the project specific contract (typically an AIA contract) between the architect and project owner. To define the phase more precisely, Construction Administration is the process of overseeing the construction necessary to ensure conformance with the contract documents and standards. Construction Administration should begin when the contract documents are in the design development stage and conclude one year after Substantial Completion. Most activities for the Construction Administration phase decrease substantially after the building is occupied and final payment has been made by the owner.

Construction Administration occurs in either the field or home office with tangible files such as payment applications, change requests, change orders, constructive change directives, field reports, RFP, RFI logs, bidding information, owner correspondence, contractor correspondence, job meeting notes, and shop drawings along with submittals, samples and other components. All reviewed submittals should adhere to the contract requirements for submission typically found in either the General Conditions or in the appropriate specification section in the Project Manual. Construction Administration includes on site construction progress monitoring which is to be performed at appropriate intervals of the construction process for the given project.

The Construction Administrator needs to be a diligent record keeper and maintain a vigilant perspective on the projects in their purview. As stated in articles later, the Construction Administrator needs to be able to determine which project team member is the best person to respond to the contractor's needs or questions and do so in an efficient manner, or in other words be an efficient and knowledgeable delegator. The demeanor of the Construction Administrator needs to be such that they can maintain their composure in very difficult situations, be firm when rendering decisions and above all be fair in rendering those decisions.

Finally the Construction Administrator should have copies of all the relevant project contracts either in his possession or readily available for reference. The contracts are essentially a roadmap to what the duties and responsibilities are for the given project and without it the Construction Administrator will not know where he is going or what is expected in terms of performance.

### **Contract Forms and Construction Contract Administration**

Industry standard and accepted construction contract forms have been developed by the American Institute of Architects (AIA) and are available for purchase from them either online or at selected AIA designated points of sale. The advantage of using these documents over custom made is they are vertically and horizontally integrated and related to one another thereby eliminating the possibility of contractual responsibility gaps. As with any contract they outline the responsibility of each party to the contract and relate to other contracts in the "family" by reference. The AIA offers other related forms, such as pay applications and lien waivers in the same format. To ensure effective contract administration, owners, architects and contractors (and subcontractors) are advised to utilize these forms in their everyday course of business.

The procedures outlined in this guide generally if not specifically follow the principles of construction management outlined by the AIA family of contracts. Typical AIA forms that will be used for the administration of the construction contract are as follows:

- AIA B 141 Owner Architect Agreement (CM not a contractor)

CONTINUED ON PAGE 10

CONTINUED FROM PAGE 9

- AIA B 132 Owner Architect Agreement (CM as adviser)

AIA B 201 General Conditions of the Contract for Construction

There are other forms that the AIA produces for construction administration purposes such as the Field Report form, Document G711. However, I have found that custom in house forms not specifically referenced in the contracts are often used and are just as effective as the AIA versions.

### The Construction Administration Process

Construction Administration processes and duties as required by typical general practice contracts are listed below:

- Construction Phase File maintenance
- Document Quality Management Reviews
- Review and recommendation of contractor bids or review of Construction Manager proposals and bids.
- Attend Prebid Meeting
- Attend Bid Opening
- Attend Scope Review Meetings
- Provide Recommendations to Award Contracts
- Review and monitoring of the construction schedule as prepared by General Contractor or the Construction Manager.
- Interaction with the Project Consultants
- Attendance at Project Meetings
- Management and Disposition of RFIs (Request for Interpretation)
- Management and Disposition of RFPs (Request for Proposal)
- Management of Project Modifications (Change Orders & Addenda) to the contract requirements
- On site construction Observation and Field Reporting
- Issuance of Construction Change Directives (or other like instrument.)
- Review of Pay Applications
- Review of Proposed Change Orders
- Submittal Review and Disposition
- Generating project Punch Lists (a listing of defects requiring correction)
- Generating the Certificate of Substantial Completion
- Contract Closeout and closeout document review
- One Year Warranty Inspection

A brief discussion of each of these items follows.

CONTINUED ON PAGE 11

CONTINUED FROM PAGE 10

**Construction File Maintenance**

Construction files at most architectural offices are typically found in the Project Specific Folders, with a sub folder being titled Construction Administration. New file titles are added to this folder periodically or, in some cases on a project basis. At a minimum, the current folder includes the following files:

- Contractor Bids
- Schedules
- Shop Drawings-Submittals-Log
- Bulletins-RFIs-ASIs
- Punch Lists
- Field Reports
- Change Order
- Pay Applications

Other files such as correspondence, reports, project requirements, and budgets are filed in other Divisions of a given firm's filing system. In order to keep track of the enormous paper and electronic paper flow both the paper in house files and the computer files should share the same titles. This will also enable faster retrieval of files not having to sort through on electronic file or a couple of folders that are not name related. This method will also simplify the process should other personnel require access to you electronic files. This is not to say there can not be other sub project files: there can be and should be in order to not comingle subjects and to be able to access files quickly when needed.

**Review and Recommendation of General Contractor Bids**

There are basically two ways to convey pricing to an owner: bid or negotiated price. There are a number of ways to bid a project: open bid, invited or closed bid. An open bid is open to any contractor who can meet the project qualifications. This is typical for a publicly funded project.

An invited or closed bid is open only to those contractor's who the owner has invited to submit pricing. This is sometimes used by owners when they have a high comfort level with certain select contractors and may be based upon work the contractor has previously accomplished for the owner. For example, in the New England states, bids are mostly filed subcontractor bids. This means any qualified subcontractor gets to bid the project. These bids are then collected by the public agency PRIOR to the General Contractor bids. When the low General Contractor is determined by the Public Agency the selected GC then is required to use the low filed subcontractor bids for each category. The Architect has little or no input in this process.

At bid opening the administrator (or other personnel in the firm such as the Project Manager, Project Architect or Principal in Charge) will list the bids on a bid form, sometimes with a specific order for a specific reason. If this is a Construction Manager project the bids are usually listed by specification division. There will be a Schedule of Values attached to the bid if specified. The Schedule of Values conveys specific costs for specific components and allows the administrator to compare the bids received from all contractors for any monetary anomalies. The submitted schedule is compared to the Estimate of Probable Cost prepared by or for the architect (if required by the Owner Architect agreement). Any large variance of value(s) may cause

CONTINUED ON PAGE 12

CONTINUED FROM PAGE 11

a rejection of a given bid or questions to the contractor to explain the variations.

A recommendation to the owner based on the reviewed bids occurs once the review process has been accomplished. The owner will then consider the bids, the recommendation and then make a selection based on this information.

### **Review and Recommendation of Construction Manager Bids**

Construction Management (CM) differs from traditional Contracting in that the CM is in an advisory capacity acting as the owner's impartial agent rendering technical advice on the various aspects of the project. Depending on the particular state licensing law, CMs are typically required to be licensed just as a general contractor having basically the same license. The reason being is they are essentially acting as a general contractor: they sign subcontracts for work to be accomplished, they produce the same construction related instruments for document clarification, they process pay applications and most supply the general project staff: the project manager, the field engineer and the project superintendent.

While this may appear to be general contracting, the primary difference is in the project budgeting. A CM will receive and present bids to an owner where as a general contractor will not. The CM will or should keep the owner aware of all financial issues during the course of the project. CM projects will work with budgets that are known by all parties and fixed, leading the CM to sign a contract of a guaranteed maximum price or GMP.

Any changes to the work will require the architect or engineer to document the change and the CM to obtain competitive pricing for the change. Once there is agreement on the cost, the change is integrated into the work just as any traditional change would be either by the issuance of a revised document.

The architect's role in this project delivery method is as project designer and also a project adviser. However, the advising role of the design professional relates more to the quality of the work than simply the cost of the work.

### **Review and Monitoring of the Construction Schedule**

Typically the contractor is required to submit a preliminary construction schedule along with the bid to the owner. This timeframe for construction has likely been discussed between the owner and contractor prior to pricing the project. When the project bid or final negotiation has been submitted, a revised and more detailed project schedule of construction is submitted to the owner and architect for review and comment.

After the contract has been signed, a preliminary schedule is typically required to be submitted within the first ten days. This schedule will focus on construction activities planned for the first 60 days of work with a general outline for the remainder of the work. Within 20 days after the contract is signed the formal schedule is to be submitted and reviewed. The agreed upon schedule is to be modified and published within 10 days after review and agreement.

Review of the schedule is important because the value of the project while under construction is directly related to the time it takes to complete. In general, less time and the project costs will decrease; more time and the project costs will increase. This statement does not account for any extraordinary conditions such as an accelerated schedule, or atypical weather conditions, labor disputes, accidents or subcontractor default or other unforeseen issues.

CONTINUED ON PAGE 13

CONTINUED FROM PAGE 12

By contract obligation, the contractor will submit a construction schedule with each application for payment. This updated schedule will be reviewed by all parties reviewing the application for payment. Comments on the schedule, if required, will be made in writing to the Owner and Contractor if the schedule change adversely affects the payment application.

### **Interaction with the Project Consultants**

Typically building projects require a team of people to compile the necessary information to construct the building. A structural engineer for the frame, a mechanical engineer for the HVAC and plumbing, and electrical engineer for the power, lighting and communication needs, a civil engineer for the site and environmental needs such as site grading and drainage and other consultants for various needs the project may have. Typically the construction administrator is the individual assigned to the project who has been exposed to each of these disciplines and understands what the interaction and coordination issues are related to the engineering processes, and has the knowledge of who would be best to address an issue or concern and has the ability to provide timely responses to the contractor when issues arise. The construction administrator involved must have read the Consultant contract. The CA must have a firm understanding of who the responsible party is for the coordination and scope of the work to administer the contract. The assigned CA must also have a copy of the architect's contract with the owner and have a firm understanding of that document requires.

Examples of when this interaction would take place are when documentation conflicts or questions concerning the documents are conveyed to the administrator via RFI. It is the administrator's job to ascertain what the issue is and how best to expedite a response to the contractor. Efficiency in response time is paramount to avoid any perception or actual delay to the project which leads to additional time and money to be spent on the project by the owner. Finally, prompt and accurate responses are required to protect the architect from any liability for delay of the project. The construction administrator can not exceed contract allotted time for RFI and submittal review and response during the construction of the project.

### **Attend Project Meetings**

Construction projects typically have project status meetings occurring at regular intervals. These meetings are attended by the owner's representative(s), the contractor, and the architect and are typically noted in the contract with the owner. The frequency of project status meetings is usually dependent upon the size of the project.

Under no circumstances should the CA be attending meetings with the subcontractors without the General Contractor present. There is no contractual basis for this type of interaction as the contracts relate activities of the primary contractual entities and not the subcontract entities to the prime. All communication from the subcontractor to the architect should be through the General Contractor. Typically insurance underwriters and general practice contracts do not allow this sort of communication.

### **Meetings**

The purpose of this type of meeting is to inform all parties to the project of the status of the work. There are generally three areas of importance to any construction project and are contained in the various topics on the agenda for project meetings. Those three areas are:

CONTINUED ON PAGE 14

CONTINUED FROM PAGE 13

1. Schedule
2. Budget
3. Critical Issues

A sampling of typical construction project meetings would be:

- Preconstruction Meeting (prior to commencing construction)
- Site Mobilization Meeting (prior to contractor mobilizing on site)
- Progress Meetings (regular meetings as noted above)
- State Inspections (for medical facilities)
- Other meetings called for specific reasons

**Preconstruction Meeting**

The project Preconstruction Meeting takes place prior to the contractor commencing with construction activities and taking possession of the site. At this meeting the contract requirements are discussed in more detail than any previous meeting. Topics for this meeting might include:

- Questions the contractor has regarding the documents
- The Contractor’s use of the site
- Site security
- Noise control
- Dust control
- Contractor’s use of owner’s utilities including water, power, communications and toilet facilities
- Hours of operation
- Receipt of any property data from the owner
- Architect’s clarification of the dimensioning convention
- Contract documents
- Design intent
- Substitutions
- Long lead items
- Progress schedule
- Submittal schedule
- Shop drawings and other submittals

CONTINUED ON PAGE 15

CONTINUED FROM PAGE 14

- Delays
- Jobsite record keeping and logs
- Chain of communications
- Architect's job visits
- Pay requests
- Testing and inspections
- Liquidated damages, if any
- Conveying the Notice to Proceed (to the contractor)

Essentially this meeting marks the beginning of the construction schedule leading to the commencement of construction activities. The formal conveyance of the Notice to Proceed denotes the formal and contractual start date of construction activities.

**Project Site Mobilization Meeting**

The project Site Mobilization Meeting occurs just prior to the contractor taking possession of the site in preparation to commence construction activities. Typically this meeting will occur shortly after the preconstruction meeting. The topics for this meeting may be a partial repeat of the preconstruction meeting but those topics will nevertheless be amplified and clarified and will specifically relate to the project and project site. The agenda for this meeting may include the following topics:

- The Contractor's use of the site
- Site security
- Noise control
- Dust control
- Contractor's use of owner's utilities including water, power, communications and toilet facilities
- Traffic control
- Crane placement
- Staging area(s)
- Deliveries
- Hours of operation
- Other project specific topics are added as necessary and appropriate.

CONTINUED ON PAGE 16

CONTINUED FROM PAGE 15

**Construction Progress Meetings**

Construction progress meetings occur at an appropriate time interval to the size of the project. Larger projects might require more frequent meetings; smaller projects might require fewer meetings. Typical industry meeting frequency is a two week interval. Other meetings resulting from the progress meeting to address specific issues can be and often are scheduled during the progress meeting.

Most often the general contractor is responsible for scheduling and running these meetings. In addition the contractor is responsible for record keeping and distribution of those records in a timely manner after the meetings conclusion. A typical agenda for a meeting of this nature may include:

- Work activities in progress
- Schedule updates
- Look ahead schedule
- Submittal status
- RFI status
- Change Request or Bulletin status
- Notification of the next meeting particulars
- Discussion of pending changes
- Execution of change orders
- Discussion of potential delays/claims

Additional specific subjects may be added to the agenda based on their impact to the schedule, budget or quality of the project. Healthcare projects might have additional meetings related to inspections by the state or local health departments. These meetings will typically have site specific issues to discuss and areas to inspect and occur at 50%, 80% and 100% stages of project completion. Project specific documentation is also required for healthcare projects.

It should be noted that this meeting can be the architect's or the contractor's to schedule and hold. If it is the architect's then he is responsible for documenting the meeting, publishing minutes and distributing the minutes. Regardless of who generates the minutes, they should be carefully reviewed and comments provided to the author on any exceptions taken to their contents.

**Other Meetings**

There are other meetings required in the construction documents such as pre-installation meetings and still others that are not specifically listed but may be required in order to coordinate the work of the contract. For example meetings such as utility shut down coordination meetings are required in some instances. This type of meeting is where the contractor will work in concert with the owner or facilities manager to ensure other campus buildings are not directly affected by the shut down or if they are the occupants are aware of the process. This way other owner operations are not affected adversely by the work of the contract. Another example would be a coordination meeting for a specific item that may be supplied by the owner and installed

CONTINUED ON PAGE 17



CONTINUED FROM PAGE 16

by the contractor. Having an understanding of when the item is to be delivered and what its specific parameters are will enable the contractor to schedule the proper personnel and equipment and determine a more definitive schedule for installation. Finally there are instances where the owner will hire another contractor to perform a part of the work. As an example, an artist who is supplying stained glass in a church, chapel or hospital would require time and possibly personnel or equipment to accomplish the work of their independent contract with the owner. This work requires close coordination between the contractor, owner and specialty contractor.

### **Meeting Record Keeping**

Typically the contractor or CM is responsible for taking and issuing minutes of each meeting although this can vary between offices. Agendas for future meetings are typically issued a given number of days prior to the meeting. This allows the participants to add to or subtract from the agenda as appropriate to the meeting's focus.

The minutes will be formatted similar to the agenda with reports on all of the agenda topics being listed. All attending parties should be copied on the distribution of the meeting minutes. Those in attendance will then review the minutes checking for accuracy and request corrections where appropriate. The contractor will issue revised minutes when appropriate.

Project diaries are often kept to have a written record of events annotated on a daily basis, including meetings. This is an invaluable tool that will allow the construction administrator immediate access to the events of a particular day. Often it is not what event happens, but what happens after the event has happened that is most important and often critical. A diary will assist the construction administrator in piecing together those events that occurred prior to, during and after a critical event. The diary will also serve as a cross check to the contractor's meeting minutes.

### **RFIs (Request for Interpretation)**

RFIs were formally known as Requests for Information. The nomenclature was changed when it was realized that a "request for information" implied a lack of information on the drawings. Unscrupulous Contractors have used RFI's to deride the A/E even though many of them were not valid and only written to portray the A/E documents in a negative manner. This practice has been changing lately with the advent of partnering. If an RFI causes a material change to the contract it will then turn into a Change Order Request (COR) and will ultimately require drawing revisions to the project scope and, if applicable alter the project cost and completion time by a formal Change Order.

To effectively track and respond to the RFI in a timely manner, it is recommended that a log be kept noting when the RFI was received, who it was forwarded to on which to act and when it was returned to the contractor for information and / or implementation. Typically a contractor will list the time the response is required on the RFI form. Because the flow of information for a construction project can have a direct impact on the construction schedule, close attention should be paid to responding to RFIs as quickly as possible.

AIA form Document G716 is typically used by contractors for issuing RFIs to architects, although custom forms are also commonly used.

CONTINUED ON PAGE 18

CONTINUED FROM PAGE 17

**RFPs (Request for Proposal)**

An RFP is a Request for Proposal. This instrument is typically generated by the owner, administrating architect or a consultant issued by the administrator to the contractor to have a given component, assembly or material priced for consideration of it being integrated into the work.

RFPs typically contain a front sheet that numbers and describes the changes; a data sheet that lists the drawings included in the RFP and what actual contract documents are affected and the documents themselves. These documents are integrated into the contract document set as revised drawings replacing the previously issued sheet(s). The format for these modifications can be either 8.5" x 11" as a "sketch" or the full size sheet be reissued. RFPs are tracked in the RFP log kept by the administrator and or contractor.

Simply because an RFP was issued does not necessarily mean it will be ultimately accepted by the owner or even garner a positive recommendation from the architect. The RFP instrument does not instruct the contractor to do more than price a contemplated change.

**Addenda**

Addenda are changes made to the documents prior to the execution of a construction contract between the owner and contractor. This is the instrument the architect uses to convey changes in the work prior to the consummation of a construction contract.

Addenda issues are typically released in specification format, Section 009XX; the number of the addenda issue is noted in the "XX" section and are typically sequential. The addenda will list the date of issue, the project, the project number, the owner and a listing of changes included in the addenda. The architect will give notification to the bidders to include the addenda in their bid price as well as list receipt of the addenda in the appropriate place on the bid form. The addenda will then list changes to the Project Manual by specification section and then changes to the drawings by sheet. There will also be differentiation of revised sheets and first issue sheets.

**Changes to the Documents During Construction**

A "supplemental sheet" is the instrument some firms use to graphically modify the work of the contract after the contract between the owner and contractor has been signed. The modification could be owner, agency, contractor or designer driven. Generally speaking a supplemental sheet could result from an RFI or RFP to modify, amplify or clarify the work of the contract and may or may not include additional cost. Supplemental sheets indicate changes are "contemplated", and is usually accompanied by an RFP.

In very general terms the addenda instrument and RFPs contain similar content. They do vary in the timeframe in which they are issued in the construction process and how these changes are integrated into the documents. The major difference is addenda are part of the contract from contract consummation where the RFP becomes part of the contract upon execution of a change order and can potentially alter the contract time, sum or both.

CONTINUED ON PAGE 19

CONTINUED FROM PAGE 18

### Construction Observation

Architect's do not "inspect", they observe. The difference, though subtle and often mistakenly interchanged, is inspection implies a very thorough and exhaustive observation, detailed in scope and complete in all aspects of the activity. Observation implies a cursory review of the item, component, assembly or project and does not imply a thorough and exhaustive inspection. The main reason for this difference is contractual responsibility. It is the contractor's contractual responsibility to construct the building and be aware of all detailed aspects of each and every component as is the nature of the construction business. The contractor is responsible for the means and methods and safety of the construction process. Architects do not and can not be expected to know all of the very detailed intricacies or other detailed aspects of construction. Consequently when an administrator goes to the field, he or she is observing and not inspecting.

This is not to say the quality of the project shall suffer due to the cursory nature of the on site visit. On the contrary, the administrator endeavors to ensure the owner's interests and the architect's design is constructed as required by the project plans and specifications! All components have industry standard levels of quality. Those levels are expected to be met at the lowest level of any construction project.

### Field Reports

Once the observation is complete, a Field Observation Report is issued delineating all aspects of the observation. The Field Observation Report notes the estimated project percentage of completion either as a whole or by component. The Field Observation Report also notes if the components, assemblies or project components that have been observed are in general compliance with the contract documents and if not will list deficiencies. Generally, though not always, the contractor will annotate the report as a response indicating what measures have been taken to eliminate deficiencies. The AIA documents have a standard Construction Site Visit form.

### Construction Change Directive

This is an architectural instrument designed to order changes in the work when the owner and contractor have not fully agreed upon the proposed change in terms of contract time or price.

Once the contractor receives a Construction Change Directive, the contractor is then required to perform the work in dispute. The contractor will then advise the owner and architect of agreement with the proposed method of adjusting the contract time and price. Once there is agreement and the contractor executes the Construction Change Directive, the modifications then become a Change Order. Should the contractor disagree, the work is still performed with the architect determining the method and amount of the change based on actual costs with adjustments for overhead and profit. Should the contractor disagree further, the option is some form of dispute resolution as outlined in the contract between the owner and contractor. This instrument is used on a typical contractor bid project. CM projects do not use this instrument.

The Construction Change Directive can be a proprietary in-house office form or an AIA Document G714.

CONTINUED ON PAGE 20

CONTINUED FROM PAGE 19

### Architect's Supplementary Instructions

This is an architectural instrument designed to order changes in the work when the owner and contractor have agreed there will be no change in construction cost or schedule. The ASI is typically a minor change in the work with the issuance of this instrument as the formal integration into the contract for informational purposes. The ASI can be a proprietary in-house office form or an AIA Document G710.

### Pay Applications

Contractors are typically paid once a month, although there are variations. Payment is accomplished when the contractor submits an Application for Payment to the architect for that previous month's work. The schedule of values established when the price was submitted to the owner is used as a measure of work completed as a percentage. The percentage of completed work is translated to the scheduled value of the particular component, assembly or project, the sum of which establishes the value of the payment for that particular month.

The administrator reviews the application for payment, verifying the contractor has not exceeded the scheduled value or the pertinent percentage of completion. In a Construction Manager Guaranteed Maximum Price contract the line items may in fact exceed 100%. It is the bottom line number that has to be watched in this type of contract. Generally the contractor will know if they are behind and have not drawn against a given component, assembly or project for a specific reason. However, if the contractor gets ahead on billing, that is if the drawn funds requested exceed the scheduled value, the contractor's incentive then becomes diminished and the quality of work could potentially suffer. As a consequence a contractor should never be allowed to draw ahead of the scheduled value of the work based on the percentage of completion.

The contractor is typically required to attach certain documentation to the Application for Payment. One is a waiver of liens from major subcontractors. This is to protect the owner from claims at a later date due to monetary inaction on the part of the General Contractor. Another attachment is an updated construction schedule. This allows the evaluation of the progress of construction and is a valuable planning tool. Finally the Contractor may be required to attach progress photos of the project or various aspects of the project.

The architect typically attaches a letter outlining the architect's observations relative to the approval of a Pay Application. It is advised that the architect's counsel review this letter before it becomes standard practice to issue it. Once the letter and accompanying Pay Application are sent to the owner, the application is funded, i.e. the contractor is paid for the work of that particular Application for Payment. The aforementioned certification letter must be sent with every pay application.

Typically there are very specific requirements prescribed by the architect's insurance carrier where the pay application has to be submitted as described in the General Conditions of each project specifications. For example, the Contractor can NOT submit payment on an application that is not specified. It is recommended the contractor use the industry standard AIA Application for Payment and Schedule of Values. All of the contractually related requirements will be listed and there will be no time wasted in the review and approval of the familiar document.

The timing of the review and processing of the Pay Application is critical to the contractor's on going project cash flow. Therefore it is critical that the CA carefully review and process the Pay Application in a timely manner, preferably in shorter time frame that is allowed by the Contract Documents. Under no circumstances should the Pay Application be allowed to linger in the office.

CONTINUED FROM PAGE 21

CONTINUED FROM PAGE 20

Standard AIA Applications for Payment are typically used for projects unless the Owner has custom forms that are required to be used for the project. The standard AIA Application for Payment form is Document G702.

### **Proposed Change Orders**

A Proposed Change Order (PCO) is a contemplated modification to the contract, submitted by the contractor. Typically this instrument will include a description of the modification and back up from all of the affected subcontractors with a recap sheet delineating all of the proposed costs including complete labor and material costs and contractually agreed upon mark ups. The PCO is submitted with the proposed pricing that once approved by the owner and CA is then turned into a Change Order.

Proposed change orders can be precipitated by RFIs, RFPs, or other means. Typically architects will generate Project Manuals including the forms to be used by the contractor and their subcontractors for PCOs. The owner, contractor and architect sign this instrument to integrate the modifications into the contract. Typically for a Construction Manager or General Contractor contract the Change Orders are prepared by the CM or GC.

### **Change Orders**

A Change Order (CO) is an owner accepted modification to the contract submitted by the contractor increasing or decreasing the contract sum and /or time, for a particular component, assembly or project. Typically this instrument will include a description of the modification and back up from all of the affected subcontractors with a recap sheet delineating all of the accepted costs.

In order to effectively tract the monetary status of a given project, it is recommended a log be kept of the executed change orders against the original contract value. This will allow an instant understanding of where the project stands financially and can be of assistance to the owner in determining future actions to be taken for or against contemplated changes versus budget.

Standard AIA Change Order forms are typically used for projects unless the Owner has custom forms that are required to be used for the project. The standard AIA Change Order form is Document G701.

### **Submittal Review**

The construction administrator will either perform the submittal review or direct it to the proper entity to perform the review and provide a disposition.

Submittal review typically consists of comparing the submission to the pertinent contract documentation related to it. If there are no issues the submission is marked as reviewed and returned to the contractor. If there are issues those are noted on the submittal and returned to the contractor for corrections and often re-submittal for record. If the submission is not acceptable it is rejected and returned to the contractor for revision and resubmittal.

CONTINUED FROM PAGE 22

CONTINUED FROM PAGE 21

Contractors sometimes propose substitutions within the submittal thus circumventing the substitution process. This action is not acceptable as the time for substitutions should be noted in the contract documents and be followed by the contractor. When substitutions are proposed within a construction submittal the proper action is to reject it and have the contractor submit the proper documentation for the substitution.

### **Punch Lists**

A punch list is a listing of the defects found in the construction and transmitted to the contractor for repair, rework or replacement. Before the construction administrator performs punch listing, the contractor is obligated to perform their own inspection and create their own punch list which is submitted to the construction administrator along with a formal request for the punch listing activity to commence. A punch list will list all visual defects observed during the punch listing activity and will typically list the following types of defects:

- primarily finish defects,
- defective painting or
- defective wallpaper installation
- defective flooring installation
- defective ceiling installation
- Incomplete items or systems or items remaining to be installed
- Other items as appropriate to the level of completion or incompleteness
- Engineering observations and lists noting defects related to their scope

If the project areas are not ready for punch listing as scheduled, the CA will notify the owner and contractor in writing. If too many outstanding items appear on the listing, the punch list activity may be deferred until the project has reached a more acceptable level of completion for the punch list activity to commence. The list will then be formally processed and distributed to the pertinent parties for action. Once the punch list items have been corrected or eliminated the contractor will notify the architect of this disposition and request a final walk through.

### **Certificate of Substantial Completion**

A project achieves Substantial Completion when it reaches the point to where it can be used or otherwise occupied for the intended purpose or for which it was created. At this time a Certificate of Substantial Completion, AIA Document G-704, is executed by the architect, owner and contractor. In most municipalities, this document is a requirement by local and state authorities having jurisdiction over the project, before they will sign off on the project and execute a permanent Use and Occupancy Permit.

### **Project Close Out**

Project Close Out begins when the project has reached Substantial Completion and occupancy has occurred or is imminent. The construction administrative activities that occur during this phase of the project are generally reviewing close out documentation required by the contract documents. This will take the form

CONTINUED FROM PAGE 23

CONTINUED FROM PAGE 22

of Operation and Maintenance manuals for the various components of the project and technical reports required of various systems to ascertain if the given system is performing to specification or not. This will also include the review and verification of product warranties to confirm the warranties meet the requirements of the contract documents. Other issues relating to the project start up are also addressed such as assisting the contractor in trouble shooting systems with which the contractor might be having trouble or other difficulties. If there are extra stock requirements in the contract, those components or materials will be verified as having been delivered to the owner for their use. Most architectural firms have a typical project closeout form to use for this purpose.

**One Year Warranty Inspection**

Once the project has been occupied for one year following the date of Substantial Completion, the architect returns to the project, meets with the owner and contractor in order to develop a final listing of defects requiring contractor correction. This is a “final punch list” of sorts. This list is formally conveyed to the contractor and owner and the contract is formally closed at that point. If at this time, there are still outstanding punch list items that are not closed, the owner may elect to have the work done by their own forces. If so, then the items will have a dollar value assigned agreeable to all parties. The CA will assist in this process.

**Conclusion**

Construction contract administration is a vital part of architectural project delivery. The construction administrator has many records to keep up with and maintain; many meetings to attend; and many duties to fulfill. The construction administrator has to have a more than fundamental knowledge of construction in order to be effective in his or her position. Finally, the construction administrator requires a temperament that will allow him to get along with all of the various parties involved in the project in good times and not so good times as well as to promote a successful conclusion to the project of which all can be proud.

**Hans Dietrich Faulhaber, Architect, CSI, CDT ©2019**



## Convention Report

by Gary White

Paul Doherty, RA, CDT, IFMA Fellow, president and CEO of Digit Group presented another Thought Leader Session on *The Five Disruptive Technologies that will Change Specifications forever*, which was a fast paced, dense and interesting exploration of the fundamental problems underlying the use of Revit for BIM data collection, the need for digital data management of facilities and urban infrastructure at the municipal level, the need to develop a city operating system and the future of public internet access. Mr. Doherty posited that the following five technological innovations are truly disruptive to the methods to which we develop specifications for the design and construction industry.

### Machine Learning / Artificial Intelligence

- Automates repetitive learning and discovery through data analysis.
- Broader and deeper data analysis capabilities.
- Progressive learning algorithms adapt to analyze data.
- Accuracy over human analysis.
- Reduce human efforts – focus on other endeavors.
- Reduces error and increased chance of reaching accuracy.
- Predict and classify results.

### Voice Assistants

#### Voice Assistant In the field

- What's easier than answering the phone?
- Calls are scheduled based on shift ending time.
- Worker gets call on their phone.
- Simple sequence of questions with yes or no type responses.
- Multi lingual inputs (Spanish and English for example).
- Immediate transcription and reporting.
- Integrate with any system.
- Available as a phone app as well.

### Big Data

- Accessible Analytics – see 1 above.
- Machine to Machine – no human intervention required.
- Vertical project silos converted to Horizontal firm wide performance.
- Project Insights – compare to other projects.
- Predictive Analytics – based on probabilities of outcomes.
- Problem Aversion – predict problem coming based on previous data sequence alignment.
- Benchmarking – compare across projects.
- Reporting – more and more; must work to make it meaningful and useful.

### Augmented / Virtual Reality

#### Mixed Reality for Subs - BIM Driven Construction

- Construction workers install wall using augmented reality (images overlaid and

Continued on Page 17



Continued from Page 16

projected on glasses, goggles or masks) rather than snapping chalk lines with tapes, squares and levels.

One skilled worker with augmented reality rig able to construct sample room faster and more accurately than crew of three with traditional methods.

Mixed Reality for FM - BIM Driven Facility Management and Maintenance

Maintenance technicians can practice procedure prior to dispatch.

Parts can be highlighted for identification.

Next steps and troubleshooting can be displayed on augmented reality rig.

Qingdao Virtual Reality Amusement Park

Under construction in China.

Tourists can tour virtual reality amusement park with virtual rides and experiences.

E Sports Arenas

Online multiplayer team tournaments are a booming reality.

Fans pay to watch teams compete in computer games in arenas.

Arena dedicated to E sports under design in United States.

BIM 2.0

Mr. Doherty was part of the software team that developed Revit and stated it was never intended to be the digital model to manage specification data, and that this capability was added into it later. He advocates for a reconsideration of the taxonomy of the classification system within, and suggests this be led by AEC professionals rather than software designers.

BIM information coordination, management and project delivery – needs to be reconsidered from ground up.

Data Classification System – needs to be redesigned, preferably by specifiers and designers rather than data technicians.

Digital DNA – coded into objects for design use.

Block chain – technology to record and assert veracity of changes.

Machine Learning / AI – see 1 above.

Internet of Things / Sensor Management – being deployed on urban and building scales.

Smart Cities - three dimensional, geospatially located data sets of all building properties for aggregation at the municipal level supporting public interest and safety.

**Gary White AIA, CSI  
A2H**

CERTIFICATION

**Become Certified! Take the CSI Certification Exams!**

*CDT-Construction Document Technologist*

*CCCA-Certified Construction Contract Administrator*

*CCS-Certified Construction Specifier*

*CCPR-Certified Construction Product Representative*



Read the  
*Construction Specifier Magazine*  
On Line at [csinet.org](http://csinet.org)  
Or get your copy by  
joining CSI

# Pics from BooZE AND BREWS

**A FUN TIME  
WAS HAD  
BY ALL!**



**K  
I  
D  
D  
I  
E  
S  
!**

**DEMPSEY B. MORRISON SCHOLARSHIP FUND**

**Spotlight on 2019-2020 recipient:  
Brock Terwilleger**



*The Dempsie B. Morrison Scholarship is a huge help to a non-traditional student like me. I used to be an English teacher, but I have returned to school to pursue my life-long interest in architecture. Going back to school demands a great sacrifice of time and money—so much that I question my decision at times. However, the Morrison Scholarship has lessened the financial hardship of returning to school and frees me to focus on my studies and take full advantage of my time back in school. Your support of the Dempsie B. Morrison Scholarship has been a game changer for me, and it will be for students in years to come, no matter their situation.*



# DEMPSEY B. MORRISON SCHOLARSHIP FUND



## Scholarship Fund

00 01 01 PROJECT TITLE PAGE

### Dempsey B. Morrison Scholarship Fund

01 30 00 ADMINISTRATIVE REQUIREMENTS

Please fill out the following form or donate online at <http://www.csimemphis.org/>

Levels of Participation (please select one):

- \$500+ Diamond
- \$400 Platinum
- \$300 Gold
- \$200 Silver
- \$100 Bronze

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

Memorial? Please provide an address for the acknowledgement:

\_\_\_\_\_  
\_\_\_\_\_

Please make your tax deductible donation check payable to:  
**Dempsey B. Morrison Scholarship Fund, Inc.**

Mail form and check to:  
Farrell-Calhoun Paint, Attn: Julie Fleming  
221 E. Carolina Ave,  
Memphis, TN 38126