



It's Complicated: What You Need to Know about Construction Manager as Constructor (CMc) Project Delivery



Berkley Design Professional

Our mission is to offer the right combination of products and services that help design professionals improve and protect their businesses.

- Dedicated to the Design Industry
- Expert Underwriters
- Expert Claims Service
- Real-world Risk Management Education

Products and services are provided by one or more insurance company subsidiaries of W. R. Berkley Corporation. Not all products and services are available in every jurisdiction, and the precise coverage afforded by any insurer is subject to the actual terms and conditions of the policies as issued.



AIA Registered Provider & Approved Program

Berkley Design Professional is a registered provider of AIA-approved continuing education under Provider Number 40107869. All registered AIA CES Providers must comply with the AIA Standards for Continuing Education Programs. Any questions or concerns about this provider or this learning program may be sent to AIA CES (cessupport@aia.org or (800) AIA 3837, Option 3).

This learning program is registered with AIA CES for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

AIA continuing education credit has been reviewed and approved by AIA CES. Learners must complete the entire learning program to receive continuing education credit. AIA continuing education Learning Units earned upon completion of this course will be reported to AIA CES for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

AIA
Continuing
Education
Provider

5



Legal Notices

This presentation is protected by US and International Copyright laws. Reproduction, distribution, display and use of the presentation without written permission of the speaker is prohibited.

Information provided by Berkley Design Professional is for general interest and risk management purposes only and should not be construed as legal advice nor confirmation of insurance coverage. As laws regarding the use and enforceability of the information contained herein will vary depending upon jurisdiction, the user of the information should consult with an attorney experienced in the laws and regulations of the appropriate jurisdiction for the full legal implications of the information.

Practice management recommendations should be carefully reviewed and adapted for the particular project requirements, firm standards and protocols established by the design professional.

© 2020 Berkley Design Professional

6



Presented by

Andrew D. Mendelson, FAIA

SVP, Chief Risk Management Officer
Berkley Design Professional

- Licensed architect with 36+ years in practice
- PM, Market Leader, Contract Officer, CFO, Director of Practice Management
- Member of the AIA Documents Committee 2003-2017 and LFRT Legal Committee 2000-2010, ACEC Risk Management Committee
- Risk Management Education from the practitioner's perspective



7



Presented by

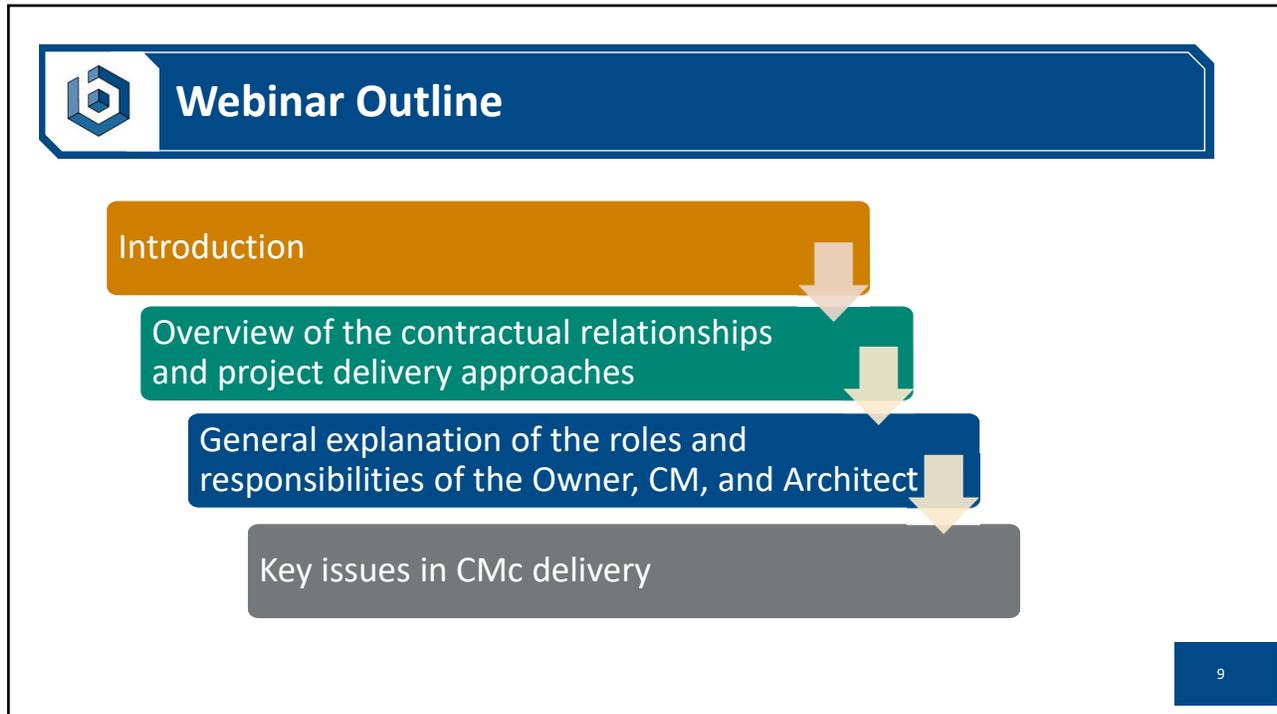
Arlen M. Solochek, FAIA

Arlen Solochek, FAIA, Consulting Architect
*Former Associate Vice Chancellor for Capital Planning
Maricopa County Community College District Phoenix, AZ*

- Licensed architect with more than 40 years in practice
- Owner/Principal of firm specializing in project delivery advising, forensic investigation, and project management
- Member of the AIA Documents Committee 2008-2019. Chaired the A201-2017 update Task Group, Co-Chaired the CMc and CMA 2019 update Task Groups
- Project Delivery education from the Owner's perspective

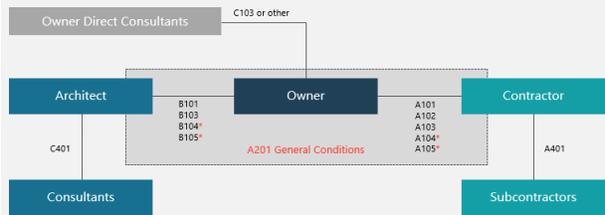


8



Design-Bid-Build (D-B-B) Key Attributes

Conventional Design-Bid-Build



- The method which most owners are familiar with
- Linear process where one task follows completion of another with no overlap possible
- The design team is selected separately and contracts directly to the owner
- Plans and specifications are completed by the architect and then bids are issued
- Contractors bid the project exactly as it is designed with the lowest responsible, responsive bidder awarded the work

11

D-B-B Advantages and Disadvantages

Advantages

- Familiar delivery method
- Simpler process to manage
- Fully defined project scope for both design and construction
- Both design team and contractor accountable to Owner
- Lowest responsible, responsive bid proposed and accepted; pricing, including contractor fee and overhead, developed competitively: "Best Price" selection
- Creates most bidding opportunities for general contractors and subcontractors

Disadvantages

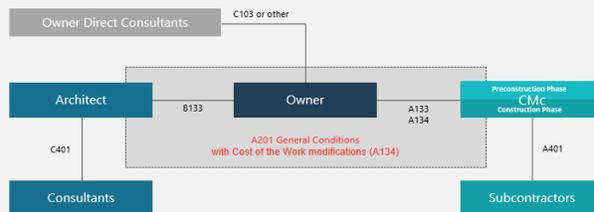
- Linear process means longer schedule duration than other methods
- Price not established until bids are received; may require redesign and rebid if bids exceed budget
- Quality of contractors and subcontractors not assured
- Cost estimates change during design process
- May foster adversarial relationships between the parties, increasing probability of disputes
- No design phase input from contractor on project planning, budget, or estimates
- Not optimal for projects that are sequential, schedule, or change sensitive
- Change orders and claims may increase final project cost

12



CMc Contractual Relationship Diagram

Construction Manager as Constructor



Other terminology:

- CM at Risk – CMAR or CMR
- CM/GC – Construction Manager/General Contractor
- GC/CM – General Contractor/Construction Manager

13

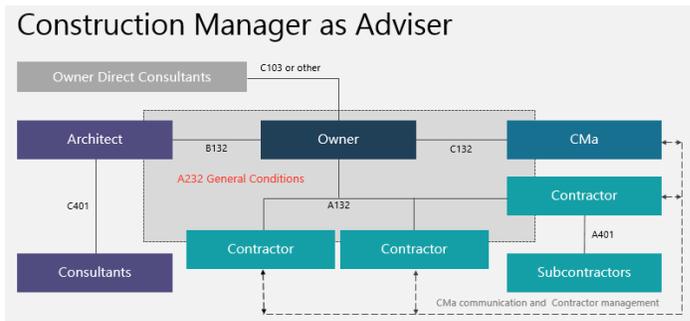


CMc Key Attributes

- Single party (CMc) provides construction management advice in preconstruction phase and then completes construction
- CMc has responsibility and control over construction work via direct contract(s) with Subcontractor(s)
- Construction phase services are paid on the basis of Cost of Work plus a fee either with or without a GMP
- Both are based upon the Cost of the Work as defined in the Owner-CMc Agreement
- Early collaboration during preconstruction phase
- Selection of the CM—generally based upon qualifications; may have a cost component (“Best Value” selection)
- Faster project delivery is possible
- Provides flexibility to handle changes during design phase
- Good for large, complex, or schedule-driven projects
- More control selecting subcontractors (pre-qualification)

14

CMa (CM Advisor) Contractual Relationship Diagram



Other terminology:

- CM Agent
- Agency CM

AIA CMa documents:

<https://www.aiacontracts.org/contract-doc-pages/27161-construction-manager-as-adviser-cma-family>

15

CMa Key Attributes

- CMa provides coordination and management between multiple direct-to-owner contractors
- Owner retains the architect and CMa directly
- CMa acts as an adviser during pre-construction phase and a construction manager (without providing construction) during the construction phase
- Complex projects where multiple contractors will be utilized
- Early CMa involvement in cost estimating and constructability
- Owner selects CMa, architect, and contractors
- Supplements owner's staff with independent professional services and expertise for owner
- Enables fast-track delivery

16



CMa Disadvantages



- Added levels of coordination and overlapping areas of authority can confuse the traditional roles, complicate communication and traditional processes
- The CMa is an added project cost that reduces the savings from not using a general contractor
- A CMa may suppress direct communication between owner, architect, and contractor
- Potential for adversarial relationships and increased likelihood of disputes between contractors

17



Selecting the Project Delivery Process



18

Selecting the Project Delivery Process



19

Selecting D-B-B or CMc

| D-B-B BEST SUITED FOR | CMc BEST SUITED FOR |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> Less complicated projects that are budget sensitive but not schedule sensitive and not subject to many changes once construction begins Owner who can completely control the design One-time construction project by the owner Less experienced owners and/or project management staff (easier to manage) Required for public work based on statute | <ul style="list-style-type: none"> Large new or renovation projects that are schedule sensitive, difficult to define, or subject to potential continued development once construction begins Projects with difficult or unusual site constraints Projects requiring a high level of construction management due to multiple phases, technical complexity, or multi-disciplinary coordination More experienced owners/project management staffs Owners with significant project experience/building programs Owners with record of/pre-disposition to claims, defaults, or litigation (defensive position—trade off between cost and claims/lawsuits) |

20



QBS CMc Selection Process for Public Entities and for Private Owners



- Best practice is to select and retain CMc as early as possible in the project to obtain the most benefit during pre-construction phase/early design work
- Often selected concurrently with or after A/E



Private Work/Selection



- Contractors may be selected on any legal basis, which is about anything
- Often selected based upon past relationship or projects with the CMc, recommendations from others
- No competition/multiple contractor selection evaluation is required but may occasionally be used
- NOT the same as a select bid (multiple contractors pre-screened, then competitively bid on full CD's, no pre-construction services)

23



Public Work/Selection



- Often statutory or regulatory requirements for selection criteria and process required of public agencies
- Can be qualifications only (beauty contest) or qualifications plus some cost component (*What are they pricing, particularly if the selection is done right at the start of the project?*)

24



Public Selection RFP Example Criteria



- Local office/firm information
- Organization information
- Office and firm history
- Financial data
- Current and projected workload
- Previous experience in similar type projects

25



Public Selection RFP Example Criteria



- Relevant experience of the key personnel proposed for the project
- Proposed manpower/staffing levels (getting the appropriate number of personnel for the project's scope, complexity, schedule, and other pertinent factors)

26



Public Selection RFP Example Criteria



- Approach by the CMc expressed in RFP response:
 - Understanding/Method/ Approach/Challenges to the Project
- Subcontractor selection and prequalification process
- References
- Safety program and record, including EMR (Experience Modification Rate)

27



Public Selection RFP Example Criteria



- Recent contracts with same owner
 - Does a public owner want to spread the work around/make the process appear fair and open/not be accused of favoritism or a loaded selection?
- Firm size matching project size
 - Does the owner want to assure that the big CMc don't get selected for all of the work including small projects and give small(er) contractors the opportunity to do projects for the agency?

28



Public Selection RFP Example Criteria



Business Diversity Goals/Requirements

- Preferences or obligations to use MBE/WBE/SBE/Veteran owned
- Mandatory or voluntary set-asides and/or preferential treatment programs, such as locally owned firms

29

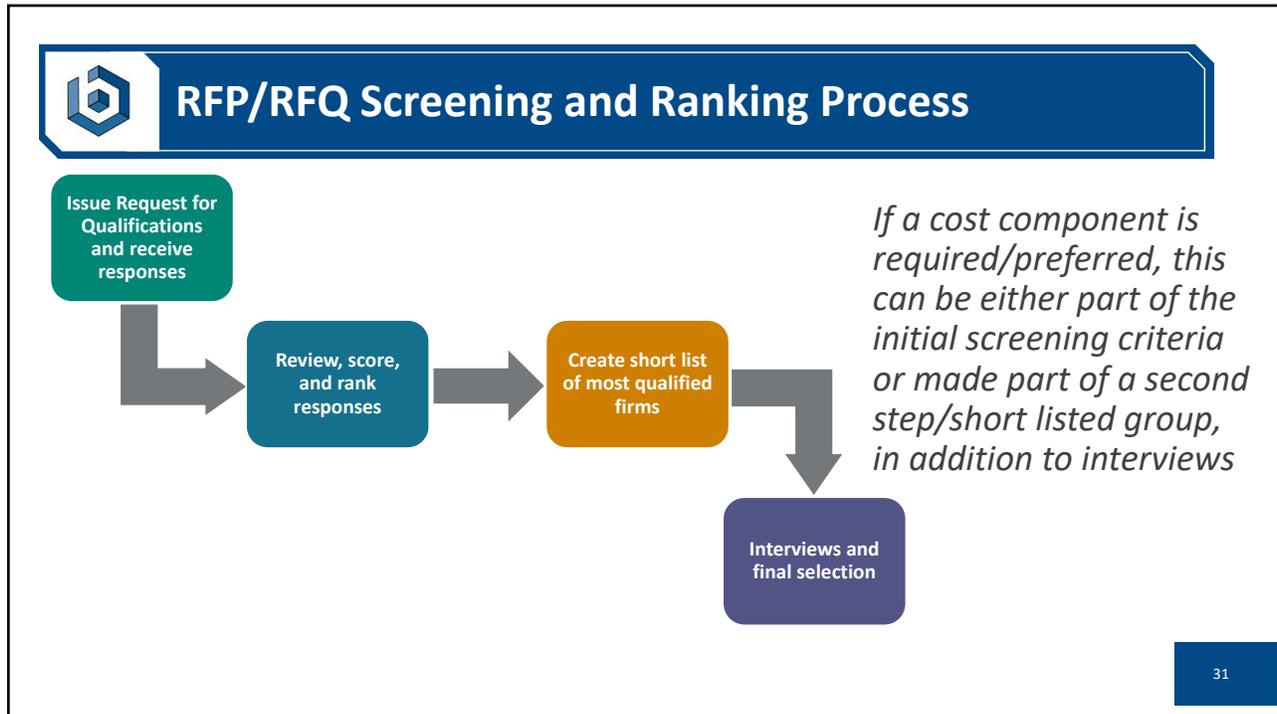


Public Selection RFP Example Criteria



- Location of contractor's office
- Is the office that is providing the work located outside immediate project area?
- Issue is local expenditures, ease of access/communication/approvals

30





Subcontractor Qualification and Selection

- Often selected from CMc's ongoing, pre-qualified list
- Can be done on the basis of:
 - Qualifications only
 - Prequalification followed by price proposal
 - **BEST PRACTICE: NOT** selected on cost alone
- Early selection of subcontractors is possible

Subcontractor qualification

- Ongoing good working relationship with CMc
- Workload/labor availability
- Work history
- Familiarity with project type
- Financial strength/resources
- Safety rating, in-house safety and training
- Ability to bond and/or qualify for subcontractor default insurance

33



Subcontractor Qualification and Selection

Subcontractor early selection

- Design Assist
 - Advice or input but no contractual obligation for final selection
 - May or may not be compensated for assistance
 - Ability to rely on information is limited or not applicable
- Delegated Design: completion of design based upon the A/E's Performance Specification, then responsible for fabrication and installation
- Complexity: how to account for, establish, and control subcontractor budget and then actual costs, within the GMP, without cost competition and/or without fully complete construction drawing and specifications

34



Definition of Pre-Construction Services

- Pre-construction is the time period from the start of the project, during the design phase, until a GMP is offered and accepted



- Traditionally, there was a clean determination when design ended and construction started; now, it often is a grey area with early release work packages, pre-purchase of materials
- Some portions of the project may be in pre-construction while other portions are in construction

35



Components of Pre-Construction Services

- There is little consistency in pre-construction services across the industry—varies widely by the project, the scope, needs, contractor preferences and experience
- It is the owner's responsibility to define, agree to and enforce the CMc pre-construction phase services and responsibilities
- CMc pre-construction phase services may be offered on fixed fee, hourly, hourly not to exceed, percentage of construction budget, etc., basis
- The cost often is just a few percent of the construction budget, sometimes treated as a "loss leader" by the CMc

36

Construction Phase Responsibilities



- CMc reverts to a traditional contractor role once construction begins
- The construction phase uses AIA A201™ General Conditions of the Contract for Construction, the same as is used in D-B-B
- *In theory*, the construction phase should be less contentious
 - The CMc should be more familiar with project from their review and input during design
 - The CMc knows that they will be selected on merit, quality, and good relationships for next project

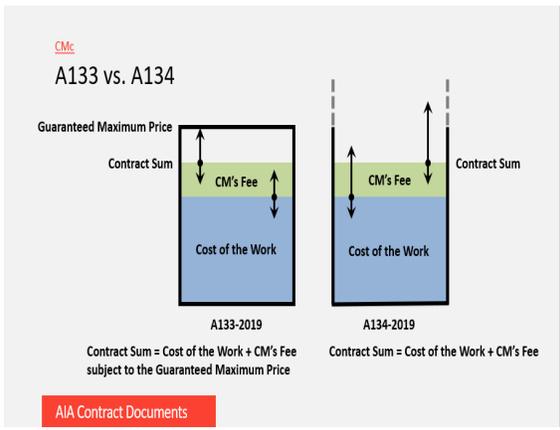
AIA Identified a Number of Updates in 2019



- Added a Standard of Care for the CMc for pre-construction phase services
- Added CMc required insurance during pre-construction phase
- CMc participation in establishing BIM protocols and the requirement for protocols in order to exchange digital data
- New termination for convenience fee provision
- New fill points for liquidation damages and incentives
- More streamlined project communications between the owner and CMc
- New retainage section
- Clarified that the construction phase starts with execution of the GMP amendment, not the GMP offer

For detailed look at 2019 revisions, please visit www.aiacontracts.org/learn

Two Types of CMc: Cost with a Cap/GMP, and Pure Cost of the Work with no Cap



- A134™: No cap on payment to CMc
- Use of Control Estimate to track and control costs
 - First provided during the pre-construction phase
 - Approved by owner before first application for payment
 - Updated monthly during construction during construction
- Why do some owners use pure cost of the work agreements?

What is the “Cost of the Work”?

Cost of the Work is defined as “costs reasonably incurred by the Construction Manager in the proper performance of the Work... The Cost of the Work shall include only the items set forth in the Owner-CMc Agreement...”





Concept: "Bent Nail"

- The CMc is entitled to be reimbursed for the cost of corrective work
- The "Cost of the Work" are **ALL costs necessarily incurred by the Construction Manager** in the proper performance of the Work, with a few **exceptions**:
 - Significant negligence, not just deficient work considered to be a cost to be reimbursed ("ordinary negligence")
 - Costs attributable to the failure of the Contractor to fulfill a legal obligation
 - The need to close the project's payment obligation and contract (warranty work)
 - Costs exceeding a guaranteed maximum price, if one is present



41



When is the GMP Established?

- The GMP is offered *"At a time to be mutually agreed upon by the Owner and the Construction Manager"*
- From a simple napkin sketch at the very beginning, or waiting until complete construction documents
- The earlier in the project the GMP is offered, the larger the contingency is for unknowns and information still to be developed in the design

42

When is the GMP Established?

- The CMC Agreement requires that the GMP anticipate costs:
“To the extent that the Contract Documents are anticipated to require further development, the Guaranteed Maximum Price includes the costs attributable to such further development consistent with the Contract Documents and reasonably inferable therefrom”
- Often an effort by the contractor to convert the GMP into a fixed-cost agreement
- Some self-performed work, subcontracts, and early work packages may become fixed-cost agreements

What is Included in the GMP?

- Direct cost of construction
- CMC contingency
- Owner contingency
- Indirect costs
 - Field office overhead (General Conditions)
 - Taxes, bonds, and insurance
- CMC fee that includes home office overhead

| CONSTRUCTION SERVICES | | AMOUNT |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| DIRECT COSTS | | |
| A | Direct Cost of Construction <i>(subcontracted and self-performed direct labor, materials, equipment, allowances, etc.)</i> | \$0.00 |
| B | Construction Manager's Construction Phase Contingency | <->% \$0.00 |
| | | SUBTOTAL DIRECT COSTS OF CONSTRUCTION |
| OWNER COSTS | | |
| D | Owner's Contingencies and Allowances to be included in the GMP <i>(at actual cost, mark ups are added below)</i> | \$0.00 |
| | | SUBTOTAL OWNER COSTS |
| INDIRECT COSTS | | |
| F | General Conditions <i>(This amount becomes a Fixed Cost within the GMP once accepted by the Owner)</i> | at \$-> per month based upon <-> months of construction \$0.00 |
| G | Payment and Performance Bonds ² | \$_____ per \$1000 \$0.00 |
| H | Insurance ² | Liability rate of \$->/\$1000 Builder's Risk rate of \$->/\$1000 Other Contractor Required Insurance (total) \$0.00 |
| | | SUBTOTAL INDIRECT COSTS |
| | | SUBTOTAL DIRECT, INDIRECT AND OWNER COSTS |
| K | Construction Fee (general overhead and profit) | 0.00% \$0.00 |
| | | SUBTOTAL DIRECT, INDIRECT, FEE AND OWNER COSTS |
| M | Sales Tax (= 65% X 0.00%) | 0.000% \$0.00 |
| | | TOTAL GMP AMENDMENT NUMBER <-> |
| | | O. Total of prior GMP's \$0.00 |
| | | P. Total of prior change orders \$0.00 |
| | | Q. TOTAL CURRENT CONTRACT AMOUNT |



Use of the CMc Contingency

- Trade subcontract/supplier contractor buy outs—scope/trade lines of the GMP schedule of values are NOT individual GMP's
- Budget moves from subcontract buy-outs below the estimated value, into/out of holding pool, into subcontracts that are over the estimated value, up to BUT NOT TO EXCEED the GMP
- CMc's errors and omissions fund, generally to be used at the contractor's discretion
- May be used for owner additions, A/E errors and omissions, other uses only with the CMc's consent

45



Field Office Overhead (General Conditions)

- Costs incurred **at the project site** during construction that don't involve swinging a hammer or installing something permanently into the project
- Incurred to provide site management and operations but cannot be allocated to any specific item(s) of direct cost
 - CMc staff located at the project site and project manager (allowed even if not located 100% of the time at the project site)
 - Material handling on behalf of all subcontractors
 - Supporting items for field trades (field office and supplies, temporary fence, toilets, power/water/heating, hoisting, storage, general clean up, etc.)
- May be one-time or time related (daily or monthly)

46



Bonds and Insurance

- Performance and payment bonds (often proposed as \$X per \$1000 of contract value)
- Contractor-provided insurance (may be proposed as \$X per \$1000 of contract value)
 - In AIA agreements, the insurance requirements are found in the A201™ General Conditions and an Exhibit attached to the Owner-CMc Construction Agreement
 - Coverages include commercial general liability, auto, employer's liability, professional liability for delegated design, workers comp, and specialized coverages for specific project needs
 - Architects are not insurance experts—it's best to advise the owner to discuss the project's requirements with their insurance advisors or attorney

47



Taxes

- All legally enacted sales, consumer, transaction, use, and similar taxes required by governmental or any tax jurisdictions
- Confirm requirements and how to calculate, what the tax covers or does not cover, and any rebates or tax credits available
 - Does the tax cover both labor and materials?
 - Are taxes paid at both the subcontractor/supplier level and general contractor level?
 - Is tax applied to the total cost of the project including bond, insurance, fee, etc.?
 - Are there local/cities taxes in addition to state level?
 - Are there credits or rebates that the project is eligible for and how will those be accounted for?

48



Fee

- Intended to cover all other costs not included in Direct Costs, Field Office Overhead, contingencies, bonds, insurance, and taxes
- Includes both Home Office Overhead and profit in standard form agreements
- Can be percentage of the contract value or fixed fee

Home Office Overhead

- Corporate management
- All bonuses, including for field staff
- Accounting, marketing, IT, general engineering and estimating, and any other support staff not located at the project site or directly chargeable
- Computers and company-wide software
- Home office rent and operating costs
- Central construction equipment



How Do We Know Which Costs Should Go Where?

EXHIBIT ◊
Guaranteed Maximum Price Direct Costs, General Conditions, Fee and Owner Cost Classification
This Chart is for Cost of the Work classifications for this Project. See Article 6 of the Owner-Construction Manager Agreement for additional requirements.

| | Direct Cost of the Work | Contractor General Conditions Costs | Contractor Home Office, other General Overhead & Fee/Profit | Owner Costs | Notes |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------|-------------------------------------------------------------|-------------|-------|
| 1 Project Manager | | X | | | |
| 2 Project Superintendent | | X | | | |
| 3 Second or Assistant Superintendent(s) | | X** | | | |
| 4 Project or Field Engineer | | X** | | | |
| 5 Job site clerk typist if >50% time on site. If <50%, cost is to be contained in the General Overhead Fee | | X | | | |
| 6 General Superintendent | | | X | | |
| 7 Safety & E.E.O. officer | | | X | | |
| 8 Field Accountant | | | X | | |
| 9 Time Keeper/Checker | | | X | | |
| 10 Runner miscellaneous | | | X** | | |
| 11 Fringe Benefits for approved Site Staff | | X | | | |
| 12 Vacation Time for approved Site Staff | | X | | | |
| 13 Sick Leave for approved Site Staff | | X | | | |
| 14 Bonuses/Job-Site Staff (Not for site based personnel, except when related to overtime work approved in advance by the Owner, which then will be allowed as part of Direct Cost of the Work) | | | X | | |
| 15 General snacks, food, and refreshments for meetings, etc. | | | X | | |
| 16 Training specifically and solely related to items or Work specific for this Project. Other general staff training is to be contained in the General Overhead Fee | | | X | | |
| 16 A. Bids and Check-Out Documents | | X | | | |

| | Direct Cost of the Work | Contractor General Conditions Costs | Contractor Home Office, other General Overhead & Fee/Profit | Paid by Owner | Notes |
|----------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------|-------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Premium- Builders Risk Insurance | | | | | separate cost line item in the GMP proposal |
| 2 Premium- Contractor General Liability Insurance | | | | | separate cost line item in the GMP proposal |
| 3 Premium for any other Owner required insurance | | | | | include in General Liability separate cost line item in the GMP proposal |
| 4 Premium for other Contractor insurance purchased at their option | | | X | | |
| 5 Premium- Contractor Payment and Performance Bonds | | | | | separate cost line item in the GMP proposal |
| 6 Premium for "Sub-Guard" or other subcontractor default insurance not required by the Owner | | | X | | |
| 7 Premium- Trade contract bonds & insurance | X | | X | | Subcontractor bonds only required or accepted as a Direct Cost when both required by and approved in advance by the Owner. Trade bonds required solely at the Contractor's option to be included in separate cost line item in the GMP proposal |
| 8 Transaction Privilege Tax (Sales Tax) | | | | X** | X** |
| 9 Fees- sidewalk, street on right of way permits | | | | X** | X** |
| 10 Insured loss deductible | X (allowed use of Contractor Contingency) | | | | As limited by the Owner-Construction Manager Agreement for Builders Risk Insurance |
| 11 Owner operator training by the Contractor | | X | | | |
| 12 Fees & Permit - signs | | X | | | |
| 13 Fees- building permit | | | | X** | X** |
| 14 Fees- Utility Connection | | | | X** | X** |
| 15 Development Fees & Permit - Water Meter | | | | X** | X** |
| 16 Development Fees & Permit - Sanitary Sewer | | | | X** | X** |
| 17 Development Fees & Permit - Storm Drain | | | | X** | X** |
| 18 Development Fees & Permit - Curb & Gutter | | | | X** | X** |
| 19 Development fees & permit - other | | | | X** | X** |
| 20 Development fees & permit - gas service | | | | X** | X** |
| 21 Development fees & permit - electric service | | | | X** | X** |



Control of Contingencies after GMP is Established

- Owner has full discretion for use of any owner contingencies and allowances
- CMc generally has full discretion for the use of their own construction contingency:
§ 3.2.4 In preparing the Construction Manager's Guaranteed Maximum Price proposal, the Construction Manager shall include a contingency for the Construction Manager's exclusive use... but....
- ...Depends upon the owner's philosophy regarding the control of all project funds (*"it's my money until you earn it, even if it's your contingency..."*)
- (Often) depends upon whether the Agreement contains a bonus or shared savings if the completion cost is less than the GMP

51



GMP May be Adjusted by a Change Order

- Anything not known at the time the GMP was offered but is contained in the final Construction Documents
- Anything new that is a **change in scope**, but...
- Is NOT just further development of earlier design documents

§ 3.2.2 To the extent that the Contract Documents are anticipated to require further development, the Guaranteed Maximum Price includes the costs attributable to such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include changes in scope, systems, kinds, and quality of materials, finishes, or equipment, all of which, if required, shall be incorporated by Change Order.

52



GMP May be Adjusted by a Change Order

- Owner-originated changes in scope and/or time impact after the GMP
- All of the traditional sources of change orders
 - Architect errors and omissions
 - Code authority/permit jurisdiction
 - Hidden conditions

53



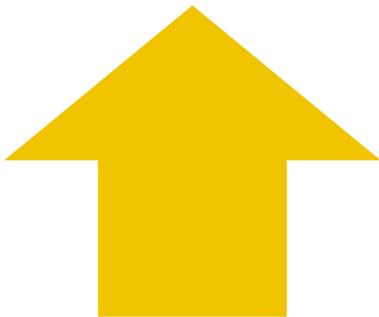
GMP May be Adjusted by a Change Order

- Errors and omissions claims should be reduced—or be less contentious—when contractor knows that they will be selected on merit/relationships for next project
- Change order requests should be reduced due to CMC's early exposure and input to the design, constructability, and buildability reviews

54



Establishing a Collaborative Project Team



**Recognize that A/E and CM
have their own priorities
which may not always be in
sync with one another**

A/E and CM have common goals

- Deliver the project on time, on budget
- Attain program goals and other owner expectations with least amount of pain
- CM pre-con expertise (incl. design-assist) promotes cooperative approach to design, constructability, material/systems availability, cost control
- Motivated for future work with the owner and positive references



Establishing a Collaborative Project Team



- CM and subcontractors need to be able to work from less-than-complete design and construction documents
- A/E must be able to have confidence in the quality of the CM's pre construction advice
- CM conceptual and early estimating ability varies widely
- Endless VE exercises and document revisions are in no one's best interest
- Even after the GMP is established the project is still subject to change orders

57



Ability to Rely on the CMc Estimate

Effectively, same level of reliance on the CMc's estimate as an estimate produced by an architect (from Owner-CMc Agreement):

§ 3.1.1 Extent of Responsibility

*The Construction Manager shall exercise reasonable care in performing its Preconstruction Services. **The Owner and Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of services and information furnished by the Construction Manager. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price.***

58



Mitigating Design to Budget Risk



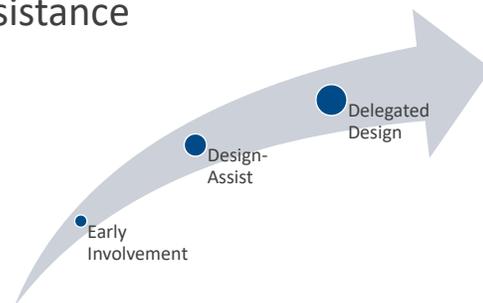
- Communicate and collaborate: A/E and CM to meet regularly
- Talk—don't just transmit drawings
- A/E inform CM of quality and scope expectations of design development
- Exhibit willingness to consider alternative materials and systems
- Lock in scope as soon as possible
- Attain solid numbers for key and major trades
- Establish and maintain sufficient contingencies and allowances

59



CM and Key Trade Subcontractors Add Value

- Significant opportunity for design assistance by the CMc and subcontractors (especially with BIM)
- Early release of work packages
- Early selection of subcontractors to provide design assistance prior to selection, may be compensated
- Input on product selection, installation, process, schedule, availability, and cost



60



What the Architect Should NOT be Doing

- Architect is required to certify pay applications, but how much into the detailed Cost of the Work documents should the architect be reviewing?
 - If work truly is actual cost and/or the owner is very interested/ concerned with the cost accounting, the architect should recommend that owner retain an auditor that specializes in construction accounting to review monthly cost submittal information and final costs at the end of the project (need to be very cautious about the required payment processing period)

61



Closing Comments

- CMc delivery can be beneficial if done right
 - Collaborative/integrated approach rather than adversarial
 - Cost control, constructability, schedule, quality
- Chose your partners carefully
 - Understand capabilities and experience in CMc (not the same as GC)
 - Demand senior, cooperative, proactive personnel
 - Respect and trust—working relationship
- Contracts matter—they really matter!

62



Certificates of Completion

- Group attendance – use sign-in sheet and validate
- Berkley DP Policyholders – delivered via BDP Risk
- Non-policyholders – request certificates by email
- Got questions?

Email: Risk-Support@BerkleyDP.com

Call: Janie White at 831.293.6254

BDP Risk

63



Questions?

Andrew D. Mendelson, FAIA
SVP, Chief Risk Management Officer
Berkley DP – Chicago, IL
312.340.3475
amendelson@berkeleydp.com

Arlen M. Solochek, FAIA
Owner/Principal
Arlen Solochek, FAIA, Consulting Architect
Phoenix, AZ
ArlenSolochek@gmail.com