## **FREE Webinar Series!**

3<sup>rd</sup> Thursdays every month @ 12pm Central

#### **15min Teaching Moment**

(learn a new tip, trick, or tool) **30min Virtual Peer Group** 

(network with professionals)

**Office Hours** 

AGENDA

(open Q&A until the questions run out!)







# Capital Projects & Alternative Delivery Methods



### **Definition: Project Delivery Method**

• A project delivery method, or system, considers the arrangement, hierarchy, and sequencing of the parties engaged in the ownership, design, and construction of a project.

 It is how the project is "delivered" or taken from a "need or investment" into a physical edifice.



#### **Three Primary Delivery Methods**

# Design-Bid-Build (DBB)

# •Design-Build (DB)

# •CM at Risk (CM@R)



#### **Delivery Method vs Contract vs Procurement**

 Delivery methods are often associated and confused with specific contract types and procurement methodologies

- For example, Low Bid, Design-Bid-Build, and Lump Sum are often used interchangeably, but these are three distinct decisions
  - Low Bid = Procurement/Selection method
  - Design-Bid-Build = Delivery method
  - Lump Sum = Contract type



#### **Procurement vs Delivery vs Contract**

#### **Procurement Methods**

- Low Bid
- QBS
- Best Value
- Phased
- Prequalified Low-Bid
- Multi-factor
- Etc.

#### **Delivery Methods**

- Design-Bid-Build
- JOC
- Design-Build
- Design-Build Lump Sum
- Progressive Design Build
- Design Assist
- DBO, DBOOT, DBOM, DBOF, etc.
- CM
- CM as Agent
- CM at Risk
- IPD
- EPC
- Etc.

#### **Contract Types**

- Lump Sum/Fixed Price
- Unit Price
- GMP / MAC / MACC
- Phased GMP
- Cost Plus
- T&M
- EMP/TC
- Shared Profit
- PPP/P3
- Etc.



### **Contract Types vs. Delivery System**

#### **Contract Types/Cost Structure**

- payment / cost agreement between the contractor & owner
- Could be... fixed price, guaranteed maximum price, cost + fee, time & material

#### **Delivery System**

- who the contract is with (owner and \_\_\_\_\_)
- time at which different entities engage varies

# The "selection process" is something different!



# Design-Bid-Build

#### **DBB** Overview

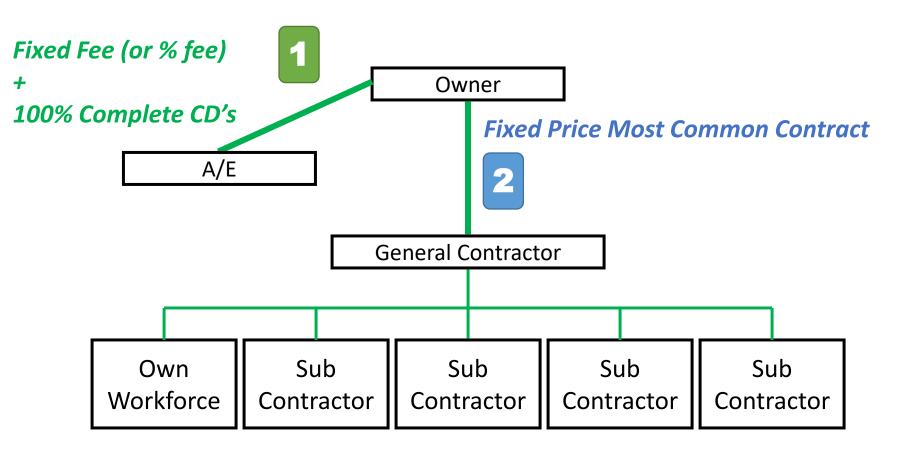
• Also known as... hard bid, competitively bid, plan & spec, three bids an a buy, quote work, etc.

• Three phases:





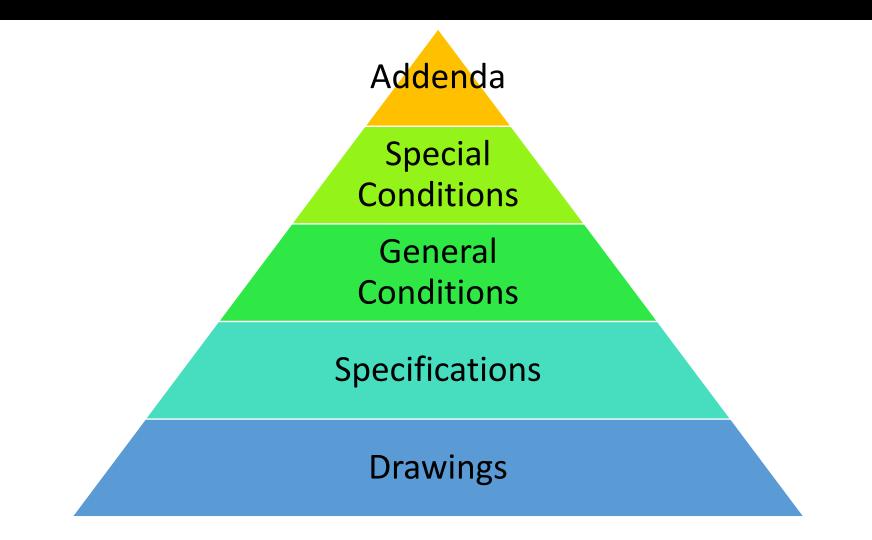
#### **Most Common Method for DBB**



Fixed Price for Sub Contracts



#### **Hierarchy of Contract Documents**





#### **DBB: Pros and Cons**

#### Pros

- Only Method with 100% Design before signing construction contract
- Process is very well known
- Clear delineation between responsibilities
- "Apple-to-apples" comparison in price

#### Cons

- Very low performance predictability as it usually is using Low Bid procurement
- Can lead to finger pointing
- Minimal opportunity for schedule savings
- No contractor involvement in design
- No cost scoping during design
- Requires a good design



#### When Should Owners Use DBB

Schedule is not as critical

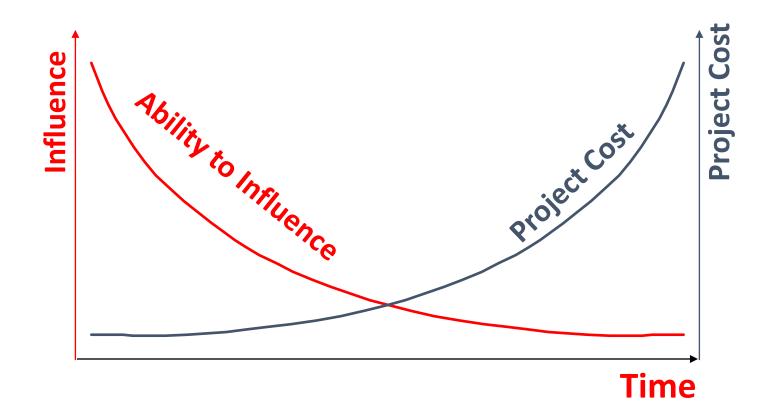
• Simplicity

May be legally required



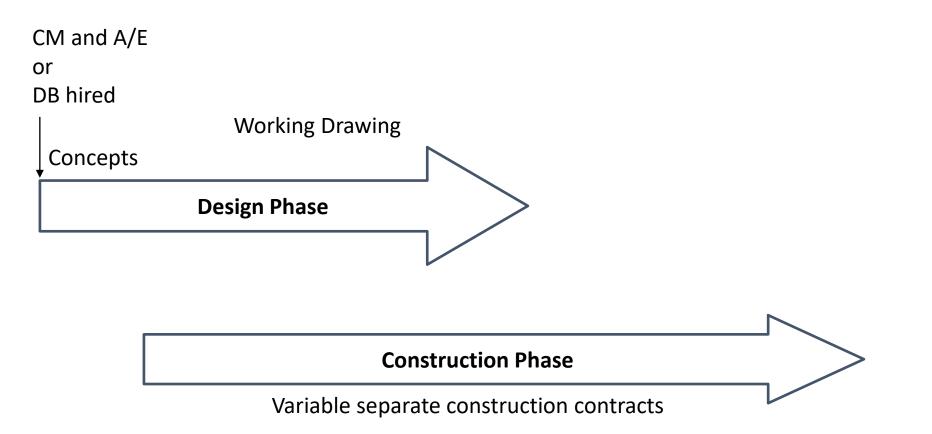
# Design Build (DB)

#### Level of Influence



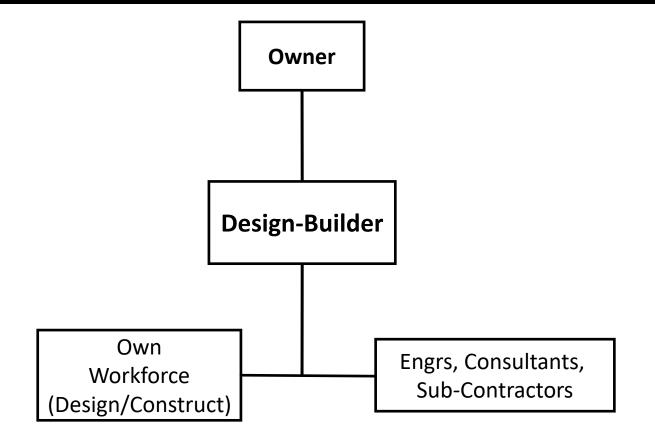


#### **Fast Track or Phased Construction Method**





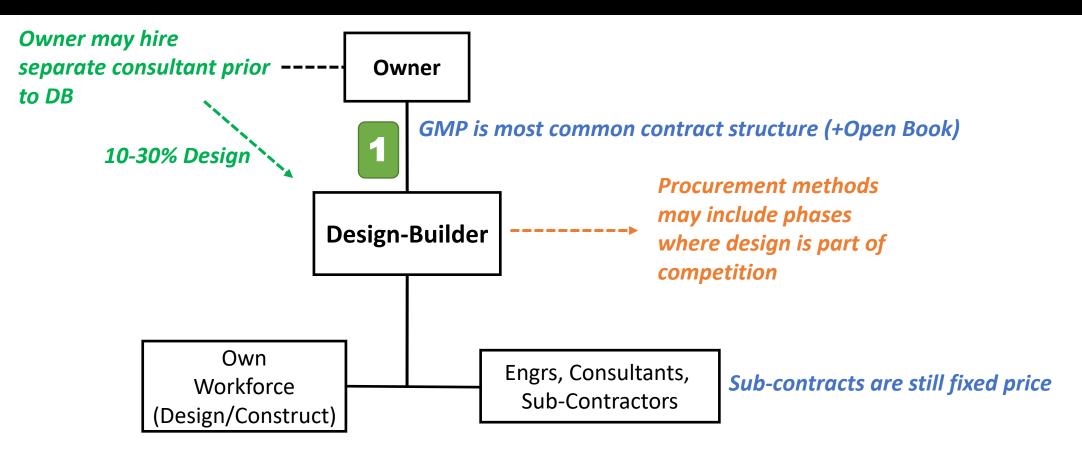
### **Design Build Delivery Method**



Single contract responsible for both design and construction.



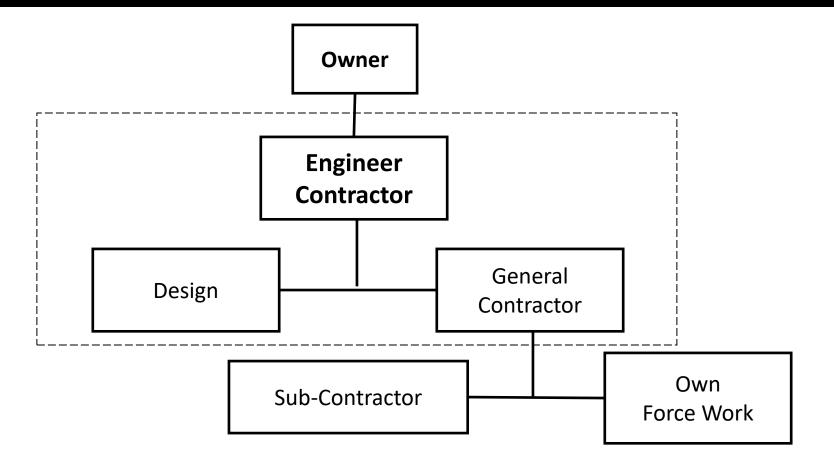
### **Design Build Delivery Method**



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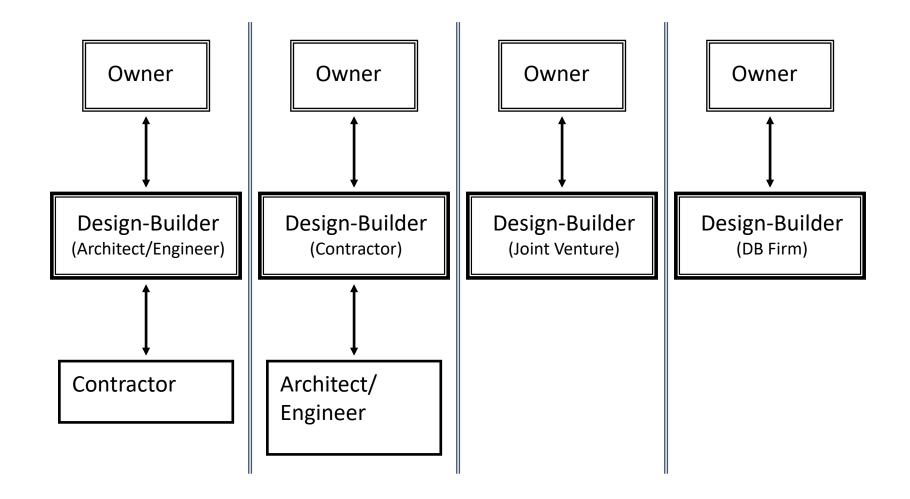
#### **Design-Build Contract Structure**



Single firm responsible for both design and construction.



#### Form of Design-Build Organization





### **Advantages of Design & Build for Owners**

- Owner only has to communicate with one entity for the entire project
- Total project duration can be reduced because phased construction is easier to implement, (Fast tracking)
- Integration of construction planning and design phases
- Claims reduction (reduction of adversarial relationships)
- Innovation in design and construction can be encouraged
- Risk assigned to party best able to manage that risk
- Reduce change orders



#### **Disadvantages of DB for Owners**

- Fewer checks and balances, owner must rely on integrity of the design-build firm
- Reduced owner involvement in the design process may result in less than expected results
- All your eggs in one basket



#### **Advantages to a Design-Build organization**

- Improved constructability through design/construction integration
- A specialized organization can be developed that has a specific expertise which will be attractive to specific market areas
- Reduction of negligence claims between the Architect/Engineer and the construction contractor since they are under one umbrella firm
- Ability to react rapidly to change in scope



#### **Disadvantages for the Design-Build firm**

- Acceptance of additional project risk
- Possible premature release of bid packages (when using fast track) which can lead to increased errors in the plans and extras
- Scope of work changes can be difficult to identify under DB/ fast track construction
- Heavy overhead due to large multi-disciplined staff requirements



#### When Should Owners Use DB

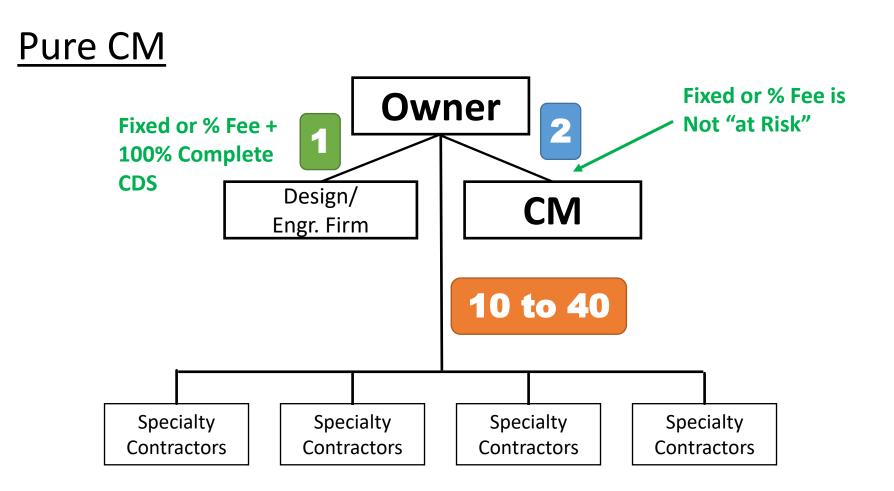
Complex, risky projects

 But also... simple projects where significant design work not needed [i.e., roofing]



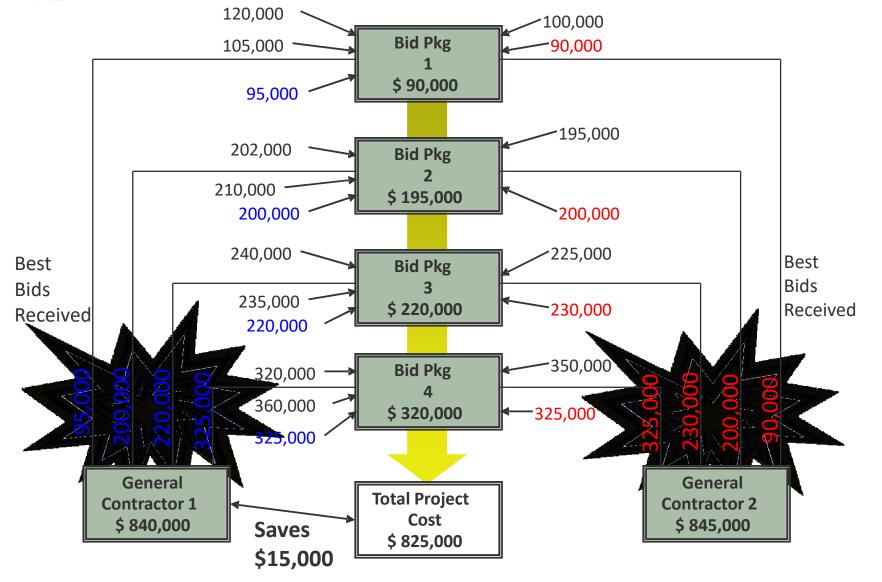
## CM at Risk (CM@R or CMAR or CM/GC)

#### **Evolution of CMAR**



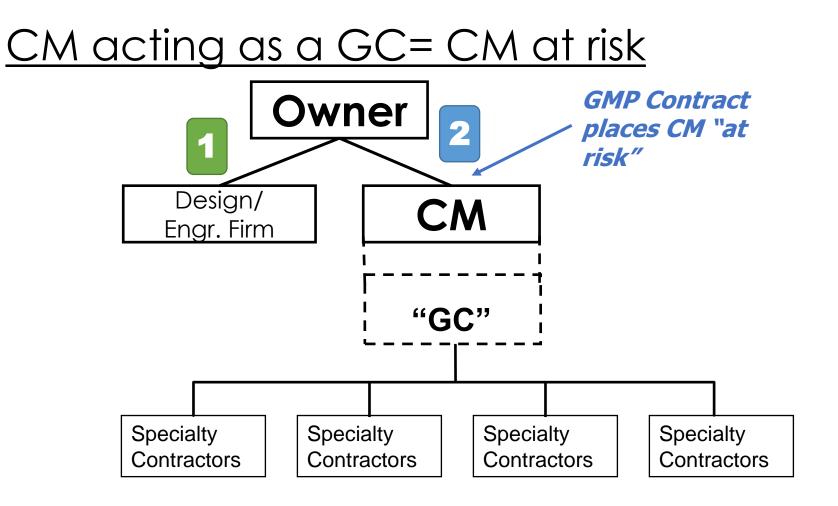


#### Original Intent: Cost Savings due to Competitive Bidding Hyper Low Bid





#### **Evolution of CMAR**





### **Basics of CMAR**

- 1. GC/CM not selected solely on price
  - And with Guaranteed Maximum Price (GMP) Contract
  - Phased GMP's and Sharing GMP's
- 2. GC/CM brought in prior to design completion
  - > Anywhere from 0%-99% Complete Drawings
  - More common 15%-30%, 60%, 99%
  - Also see some subs earlier 65%, 80%
- **3.** GC/CM Functions include:
  - Budget & Schedule development/analysis
  - Constructability/Value Engineering
  - Selection and Coordination of subcontractors
  - Long lead item purchasing
  - Other traditional GC functions



### **Basics of CMAR**

- 4. Can contract twice (but not always)
  - > Once as CM with Fee
  - Once as GC with OH & Fee (usually no "extra profit")
- 5. Many varieties/parties can act as CM
  - GC (most common)
  - Separate CM firm/consultant
  - ≻ A/E
  - > Owner entity
- 6. There is no one "CMAR" definition of structure



### DBB vs <u>CMAR</u>

<ul> <li><u>Design-Bid-Build</u></li> <li>100% Complete Documents</li> </ul>	<u>CM at Risk</u> <u>20% 00%</u> Complete Desc
100% complete Documents	• 30%-99% Complete Docs
Low-Bid Award	<ul> <li>Performance and Price Award</li> <li>GMP Contract</li> </ul>
<ul> <li>No GC involvement in Design</li> </ul>	<ul> <li>GC Involvement in Design</li> <li>Budget</li> <li>Schedule</li> <li>Constructability/VE</li> </ul>
Known owner requirements	Owner has intent
Clear differentiation based on price	Fuzzy differentiation



### **Realities of CMAR**

- Delivery method (project organizational chart)
- Relies upon vendors understanding the <u>intent</u> of the client with <u>incomplete</u> project documents and information
- Like all delivery methods, it can work well or it can work poorly
- Key Risks
  - Selection based on marketing and price
  - GMP is for "assumed" scope all deviations are change orders
  - Relationships can become more important than performance
  - CM often acts as a traditional GC
  - Preplanning is critical clear expectations & risk minimization



#### When Should Owners Use CMAR

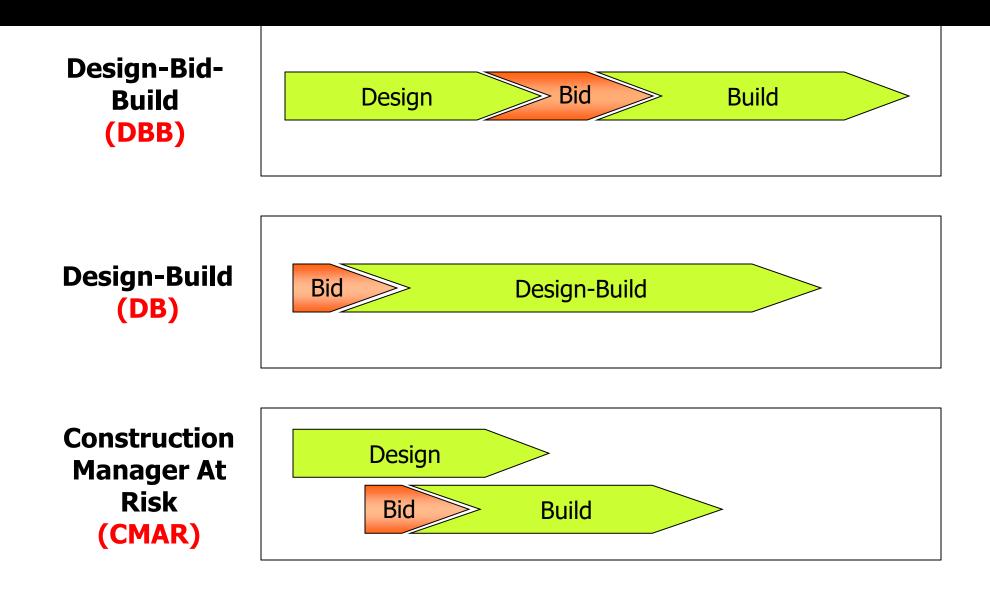
Detailed scope is not known

Concerns about constructability

Cost uncertainty / Escalation / Supply Chain



#### **Schedule Impact**





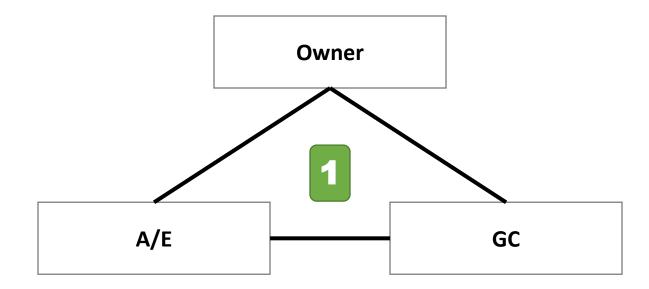
#### Integrated Project Delivery (IPD)

# **Integrated Project Delivery**

- IPD
- Integrated Project Team
- Continuous owner involvement
- One Contract/Joint Control
- Shared Profit/Joint Risk
- Highly Modeled
- Fast Tracked

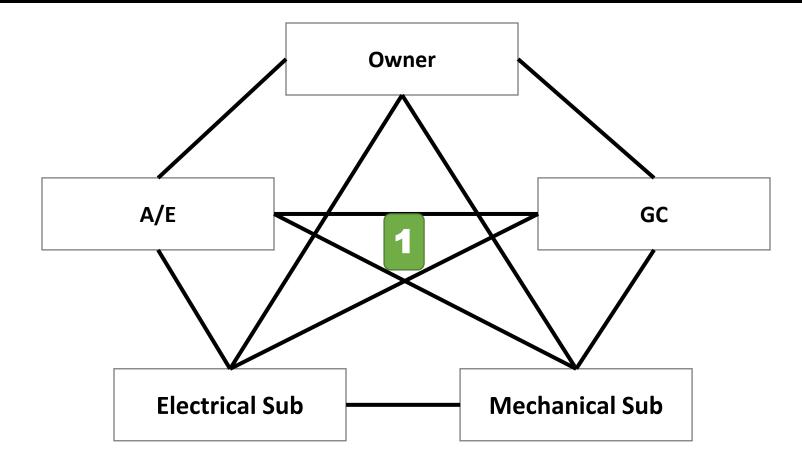




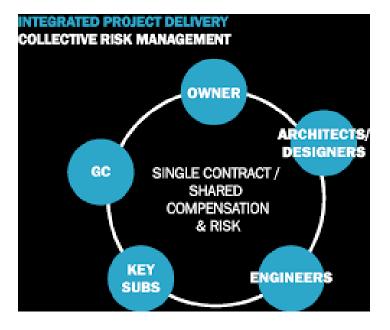


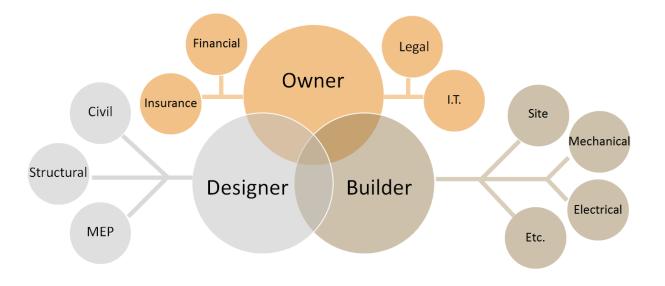


IPD









## **Other Considerations**

# Just because something is written in a contract does not make it so



## Built Environment Project Performance Research

- Only 2.5% of projects defined as successful (scope, cost, schedule, & business)
  - PricewaterhouseCoopers, 2009

### • Only 30% of projects completed within 10% of the planned cost & schedule

- Construction Industry Institute Performance Assessment Committee, 2015 edition
- 24% growth in owner's construction indirect costs since 1995 (net of inflation and escalation)
  - Construction Industry Institute Performance Assessment Committee, 2015 edition



# **Delivery Methods Update**

• CII and Charles Pankow Foundation joint research effort to update CII 133 on project delivery performance

	Design-Build vs.	CM@R vs.	Design-Build vs.	Level of
Criteria	Design-Bid-Build	Design-Bid-Build	CM@R vs.	Certainty
Unit Cost	6.1% lower	1.6% lower	4.5% lower	99%
<b>Construction Speed</b>	12% faster	5.8% faster	7% faster	89%
Delivery Speed	33.5% faster	13.3% faster	23.5% faster	88%
Cost Growth	5.2% less	7.8% more	12.6% less	24%
Schedule Growth	11.4% less	9.2% less	2.2% less	24%

Few projects – not standardized

(so cost is apples to oranges to pears)

A The data shows there is <u>no difference in performance</u>



 $\Delta \Delta$ 

## Delivery Methods: Recent Study CII & Charles Pankow Foundation

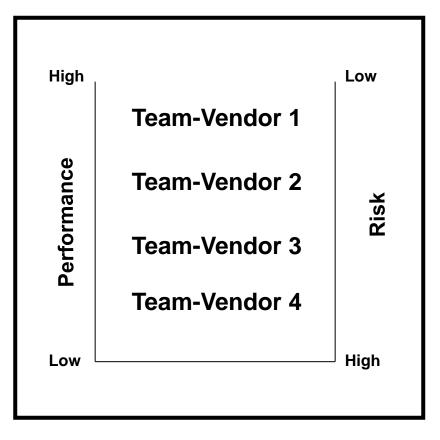
• No significant performance difference between delivery methods (DBB, DB, CMAR, IPD)

- Key difference makers for project success:
  - -Qualifications based selection of project team
  - -Involvement of key people earlier in project
  - -Cost transparency on the project during construction



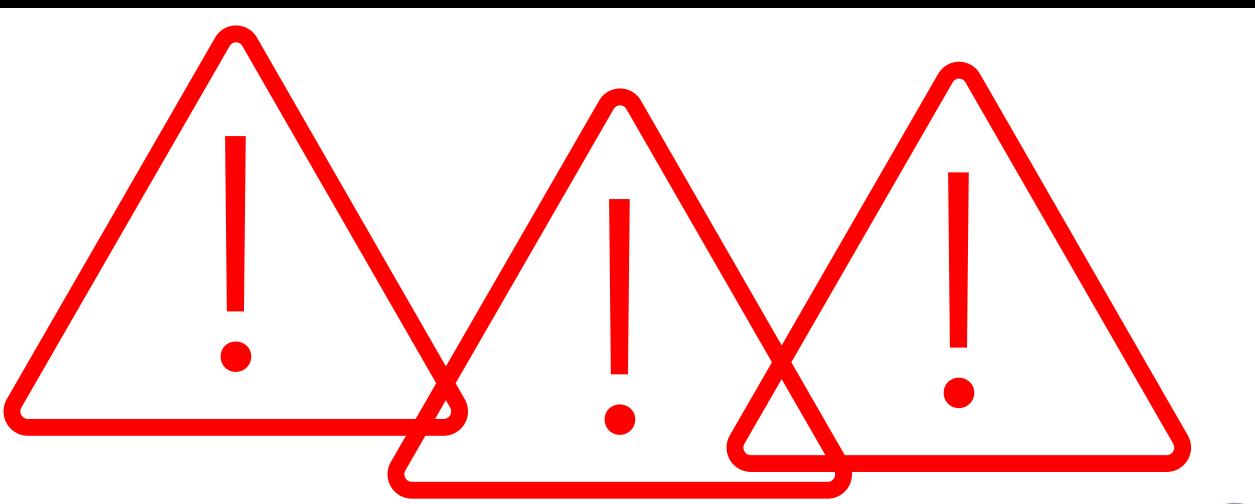


THERE WILL ALWAYS BE SOMEONE WHO SAYS THAT THEY CAN DO IT CHEAPER... BUT AT WHAT COST? Which of these teams brings your project the most risk?





# **!!!!!!! Keys to Success on Alt. Delivery !!!!!**





## Transforming & Becoming a *Client of Choice*

- Org: Prepare the Owner Organization (Owner Readiness)
- Procurement: How the owner attracts, competes and hires the right team
- **Project**: How the owner leverages the expertise within the vendor team
- Measurement: How the owner manages & creates accountability on projects







- Alternative approach to traditional procurement and delivery
- Developed across 1000s of real procurements
- Maximizes: Openness, Fairness, Transparency, Value
- Demonstrates "Good Client" behaviors and attracts high-performers



Alternative delivery systems are a great <u>TOOL</u>... if used correctly

• We need to focus on the PEOPLE we are hiring

Alt. delivery is not the solution to a "low bid world"



# **Research Study: IT Procurement Best Practices**

## How to get involved:

- Are you involved in IT procurements related to transportation?
- Or know anyone else who is?

- The Research Team is looking for...
  - Examples of IT RFPs in transportation
  - -IT RFP best practices
  - Case studies & stories
  - Current or upcoming IT procurement in transportation?

- Add the RFP Doctors to your team to assist & capture Lessons Learned!!

Just Email the Research Team!

Brian.Lines@simplar.com Subject: CPE's IT Procurement Study

We will reach out from there!



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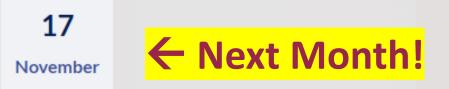
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#### Announcing CPE's New RFP Library

Our RFP Library contains more than 3,000 RFPs & SOWs issued in the last 15 years. We'll showcase how to navigate the RFP Library, which is organized into 4 collections of IT, AEC, FM, and Business Services.

Add to Calendar



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#### Add to Calendar

19 January

#### Can you evaluate Fee in A/E **Procurements?**

Architecture & engineering (A/E) professionals have traditionally been procured by QBS, yet clients are increasingly seeking to evaluate fees. Is this OK? Let's scratch the surface of this hot-button topic!

Add to Calenda

#### The Administrative Burdens of Reference Checks

There are many ways to perform reference checks on proposing firms... so how can we do this as efficiently as possible? We'll recommend ways to streamline your procedures.

#### Add to Calendar

16

February

> 35% = LOW BID)

Add to Calendar

What is Cost Worth?

Remember the joys of mathematical proofs

whipping out their calculators to PROVE the

fundamental equation of cost evaluations (Cost

from grade school? The RFP Doctors are

17

November

our contractors?	
Add to Cal	
16	
March	

#### What are the "Best" Evaluation Criteria?

**Document Deficiencies During the** 

Research shows that contractors discover nearly

two-thirds of document deficiencies during the

proposal phase. Yet owners usually don't learn

what can we do in the RFP phase to encourage

earlier-and more transparent-feedback from

dd to Calenda

of these until after the contract is signed. So

The fundamental purpose of evaluation criteria is to differentiate between competing proposals. But which criteria do this the best? We'll breakdown a study that investigated this question across 1,850 proposals.

#### Add to Calendar



# **Upcoming Topics!**

**Register at:** <u>center4procurement.org/rfp-doctor</u>



15

December

**RFP Process** 

## **Previous Recordings Available Online!**



## center4procurement.org

# CPE's Speakers Bureau CPE can teach at your events!

### **Topics:**

- Practical Leadership Skills for Procurement Professionals
- The Practical Guide to Effective Supplier Evaluations
- RFPs as Part of Procurement Excellence
- Sharing your Project Budget
- ...and many more!





center4procurement.org/speakers-bureau/

## **CPE Speaker's Bureau**

### **Presentations in 2022**

- Maryland Public Procurement Association MPPA (DC area)
- NIGP Copper Chapter, Tucson, AZ (Virtual)
- Richland Hills, Texas (Dallas-Forth Worth Area)
- Oklahoma (OMES) Procurement Training (Virtual)
- Rocky Mountain NIGP (Denver)
- Maryland ASBO (Ocean City, MD)
- Ontario University Professional Procurement Management Association, OUPPMA (virtual)
- Texas Public Purchasing Association (TxPPA) (Galveston, TX)
- NASPO REACH (Kansas City, MO)
- East Tennessee Purchasing Association (Johnson City, TN)
- Washington Finance Officers Association (Virtual)
- Central Ohio IFMA (Virtual)
- Iowa Public Procurement Association (Virtual)
- Washington NIGP (Virtual)
- Emerging Leaders / TX Council of Government (Dallas-Fort Worth)



### center4procurement.org/speakers-bureau/

# Attend our other presentations!

## Tuesday @ 2:30pm

- Capital Projects & Alternative Delivery
  - **Marriott San Carlos II**
- Best Practices in Procuring Enterprise-Level Software Solutions Marriott – San Carlos I

### Tuesday @ 4:00pm

- How to Do Market Research More Effectively
  - **Marriott San Carlos IV**

### Wednesday @ 8:30am

- Stuck in a Low Bid World? Recommendations for Procurement Excellence
  - Marriott San Carlos III

### Wednesday @ 10:00am

- Navigating the Perilous Water of RFP Administration and Procurement
  - **Marriott San Carlos III**



# Want today's Presentation? Free white paper?



