



**PROJECT MANAGEMENT  
CENTER FOR EXCELLENCE**

A.J. CLARK SCHOOL OF ENGINEERING  
Civil & Environmental Engineering Department



# **THE GOOD, THE BAD, AND THE UGLY: LESSONS LEARNED ON CM@RISK FOR OWNERS**

*Steve Pancham & Kevin Wills*

*2019 Project Management Symposium*

*THE GOOD, THE BAD,  
AND THE UGLY*  
LESSONS LEARNED ON  
CM@RISK FOR OWNERS

**MBP**



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Brown AND Caldwell MBP  
THURSDAY, MAY 10, 2019

# INTRODUCTION

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**Steve Pancham, CCM**

MBP

Vice President, Service Executive

As a Vice President and Service Executive at MBP, Steve brings 32 years of experience in transportation, utility infrastructure, and new building and renovation projects. Steve has served as project engineer/manager in charge of more than \$200 million in highway and building construction projects.



**Kevin Wills, CCM, LEED AP**

MBP

Senior Project Manager

As a Senior Project Manager at MBP, Kevin brings 33 years of experience in program management, construction management, inspection, scheduling, cost estimating, and claims analysis. His breadth of experience includes buildings, heavy civil construction, environmental mitigation and remediation, and maintenance for new construction and the renovation of existing facilities.



# ABOUT MBP

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- Established in 1989
- Owner-focused: Owner's Representative services are our core business
- Over \$90 billion in project work
- 15 Offices, stretching from New York to Florida, HQ in Fairfax, VA
- Nearly 300 professionals and support staff specializing in program, project and construction management, and inspection



# ABOUT MBP

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MBP PROVIDED  
OWNER'S  
REPRESENTATIVE  
SERVICES ON



- Our involvement has included:

- Project controls (cost estimating and scheduling)
- Disputes resolution

- Project management and inspection representation
- Auditing

- Commissioning
- Risk management

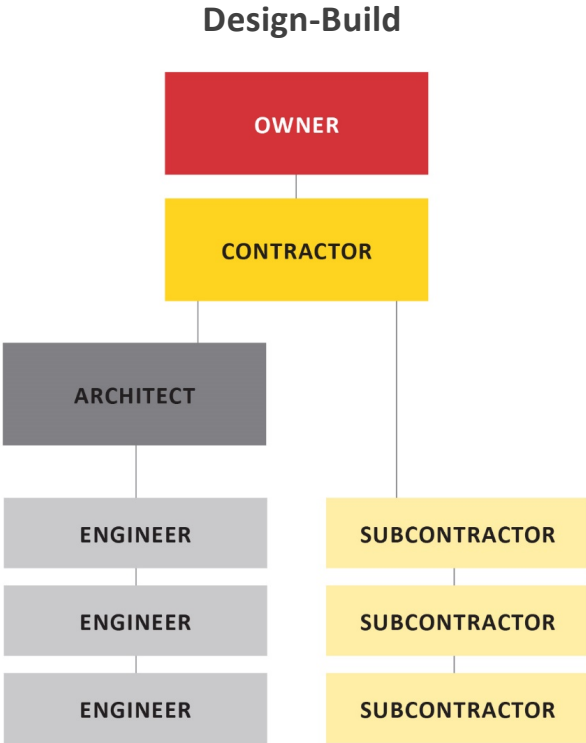
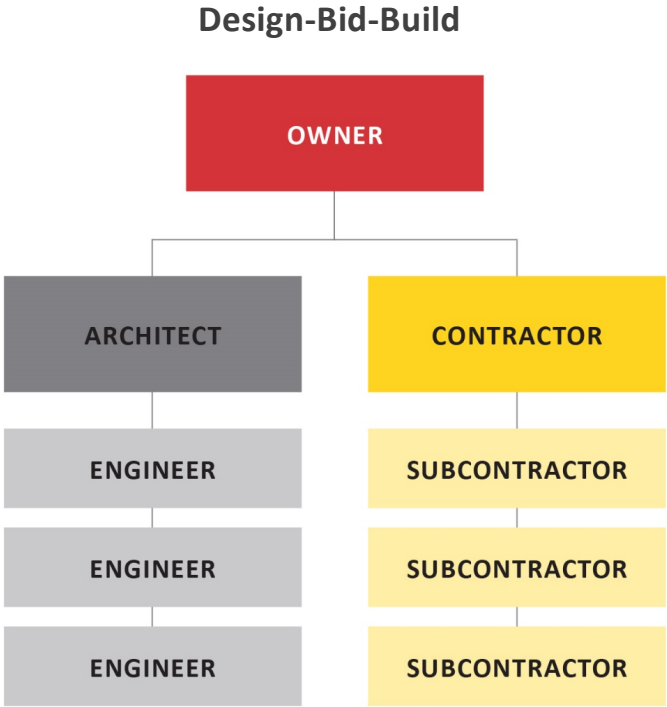


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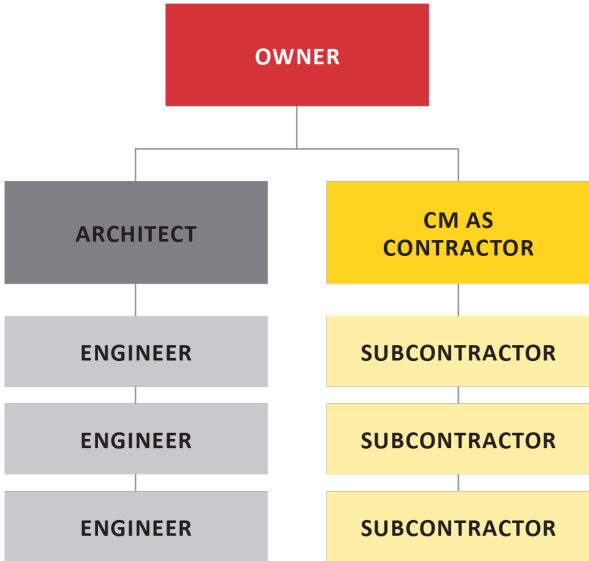


# TRADITIONAL DELIVERY METHODS

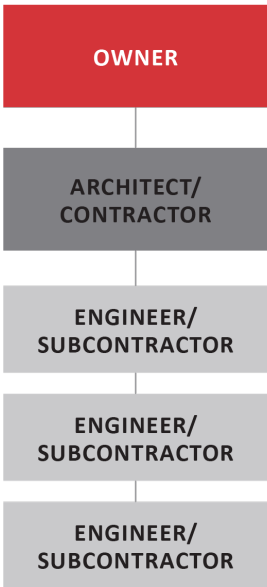


# TRADITIONAL DELIVERY METHODS

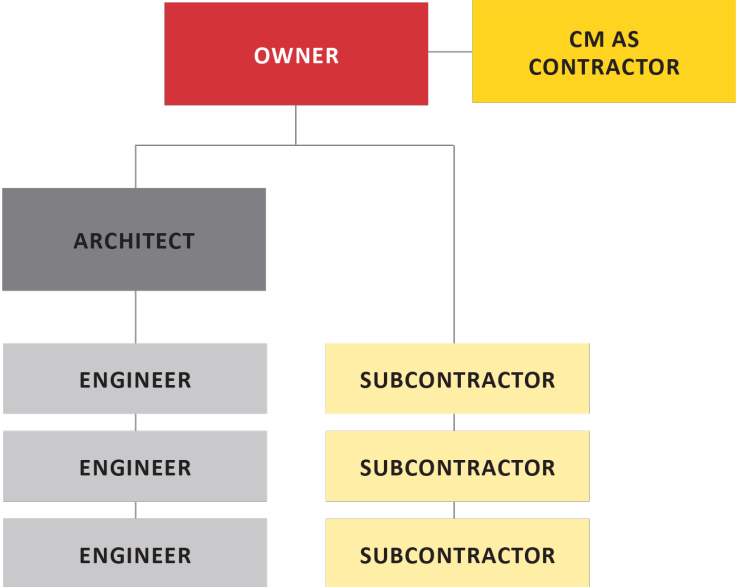
CM@Risk



Integrated Project Delivery (IPD)



Multi-Prime



# CM@RISK - DEFINITIONS

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The Association of General Contractors (AGC) defines CM@Risk as:

- “A specific variation of construction management in which the public owner engages both a project designer and a qualified construction manager under a negotiated contract to provide both preconstruction services and construction. The CM@Risk (CM/GC) provides consulting and estimating services during the design phase of the project and acts as the general contractor during construction, holding the trade contracts and providing the management and construction services during the construction phase. The degree to which the CM/GC provides a cost and schedule commitment to the public owner is determined during the negotiation of the final contract. (This is a risk issue. If there is no risk involved, it is not CM/GC.)”

CM/GC Guidelines for Public Owners, second edition 2007 by the Association of General Contractors and the National Association of State Facilities Administrators.



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# CM@RISK - DEFINITIONS

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The Construction Management Association of America (CMAA) defines CM@Risk as:

- “A delivery method which entails a commitment by the construction manager to deliver the project within a Guaranteed Maximum Price (GMP). The construction manager acts as consultant to the owner in the development and design phases, but as the equivalent of a general contractor during the construction phase. When a construction manager is bound to a GMP, the most fundamental character of the relationship is changed. In addition to acting in the owner’s interest, the construction manager also protects him/herself.”

CMAA: Construction Management Standards of Practice 2003



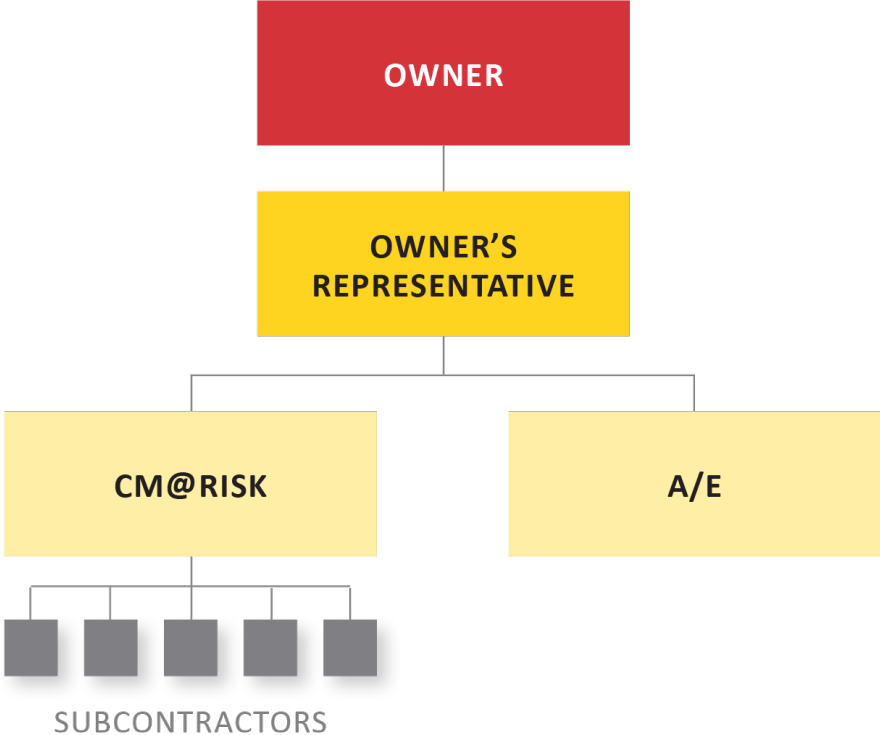
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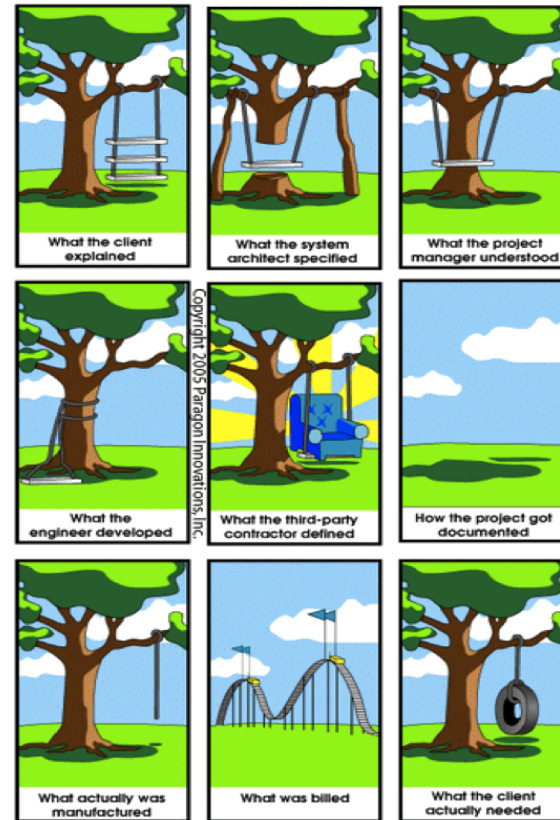
# CM AGENT ORGANIZATION

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# DEFINING THE PROJECT

- Special features
- Completion date requirements
- Materials
- Level of workmanship



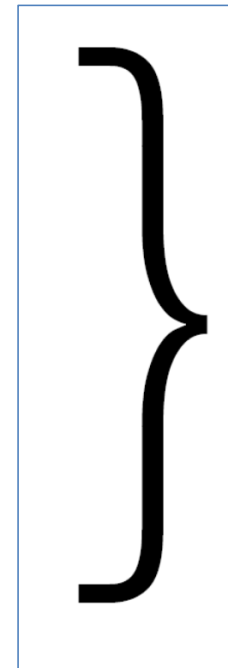
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# SELECTION OF CM@RISK

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- Selection
  - Proven experience/references
  - Transparency!!
  - Evaluate pre-construction fees, general conditions costs
  - OH & P
  - Contingencies
  - Allowances
  - Other fees and costs



Initial Agreement



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# CM@RISK PRE-CONSTRUCTION SERVICES

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- CMR will provide:
  - Cost estimates with each phase
    - Owner should verify costs
    - Review mark-ups
    - Require transparency
    - What to do if?
  - Schedules
    - Review closely. Are they too aggressive? What effect will additional design time have on the project?  
Is there exposure?
    - What should be included?
  - Value engineering – verification/transparency, suggested products that are new or unproven
  - Constructibility review



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# NEGOTIATING THE GMP

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- What are the components of a GMP contract?
  - Fee
  - General conditions
  - Cost of the work (construction cost)
  - Contingency/allowances
  - Value engineering items
- Important that all the stakeholders understand and are in agreement with the components of the GMP



# CONSTRUCTION PHASE

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- Open book bidding
- Use of contingency
  - Owner's
  - Contractors
  - Problems with lack of definition
    - Solution - sharing

# SAMPLE PUBLIC AGENCY AUDIT - CM@RISK PROJECT

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- Review of contingency use
  - CM@Risk/Owner utilizing the contingency improperly for payments
  - No real shared savings, monies tend to be used for other added scope
- GMP and subcontractors contracts
  - Lack of transparency on cost of work to the Owner's
  - Accounting errors when you have multiple GMPs
- Monthly pay applications
  - Simple math errors
- Change order requests
  - Incorrect or unallowed mark-ups
  - Mainly when paying for additional work thru the contingency



# LESSONS LEARNED

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- Develop a format in advance for reconciliation of budgets during the various phases. This is an area where disputes are most common. Consider continuous cost estimating.
- Contingency use: How is it defined/administered? CM's (buy out gaps), design (schematic, preliminary, construction docs), Owner's (should be outside of the GMP)
- Allowances: Undefined items such as FF&E (materials, installation, delivery cost)
- GMP and subcontractor contract values (Is the Owner entitled to see subcontractor agreements)

# LESSONS LEARNED

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- Make sure to include in the contract – a list of documents that will be required for audit (sub-contractor agreements)
- Accounting – verify allowances, change orders - arithmetic
- Check mark-ups on the contingencies and allowances. CM@Risk is not allowed to mark-up construction contingency or allowances. Change orders applied to owner contingency may be marked up.
- Owner's need to understand what are the assumptions and clarifications

# SUMMARY/CONCLUSIONS/QUESTIONS

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- Owner's need to understand what delivery method is best suited for their program/projects
- Owner's need to understand procurement laws of CM@Risk delivery
- Using a Construction Manager (Agent/Owner's Rep) helps Owner's add value to their projects

# RCEP STANDARDS

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