

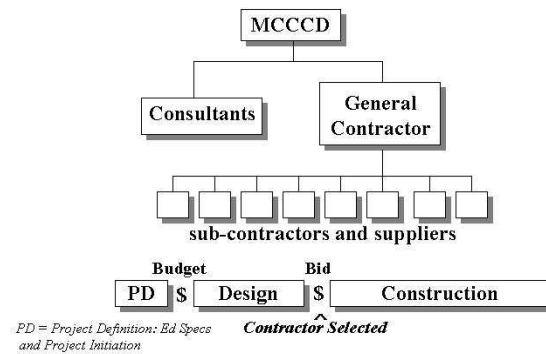
Getting the Best Value for Our Construction Dollars

A Primer on Construction Delivery Methods

COMPETITIVE BID (DESIGN/BID/BUILD)

Often referred to as Design/Bid/Build, this method is the one with which most Owners are familiar. It is a linear process where one task follows completion of another with no overlap possible. 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. The design consultant team is selected separately and reports directly to the owner.

STRUCTURE and SCHEDULE



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 price proposed and accepted; pricing, including contractor fee and overhead, developed competitively: “best price”
- Creates most the bidding opportunities for general contractors and subcontractors
- **BEST SUITED FOR:** less complicated projects that are budget sensitive, but are not schedule sensitive and not subject to change. Owner can completely control the design

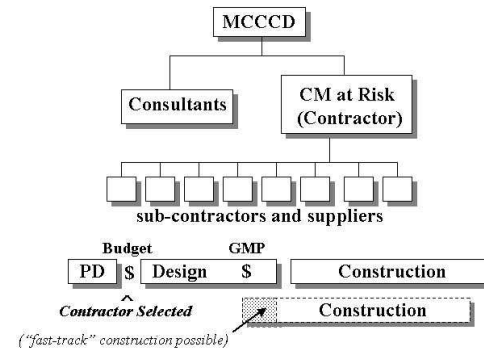
Disadvantages

- 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
- Fosters adversarial relationships between all parties increases 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

CONSTRUCTION MANAGER AT RISK (CMAR)

CM at Risk allows the Owner to interview and select a fee-based firm, based upon qualifications and experience, before the design and bidding documents are fully completed. The construction manager and design team work together to develop and estimate the design. A guaranteed maximum price (GMP) is provided by the CM, who then receives proposals from and awards subcontracts to subcontractors. The final construction price is the sum of the CM’s fee, overhead, and contingencies and the subcontractors’ proposals. Any unused contingency at the end of the project reverts to the Owner. The design consultant team is selected separately and reports directly to the owner.

STRUCTURE and SCHEDULE



Advantages

- Selection of contractor based upon qualifications, experience and team
- Contractor provides design phase assistance in budget and planning
- Continuous budget control possible
- Screening of subcontractors allows Owner and contractor quality screening
- Faster schedule than traditional bid; fast track construction possible
- Ability to obtain GMP earlier in process; earlier than traditional bid, later than D/B
- Theoretically, more teamwork between design firm and contractor
- Provides more ability to handle change in design and scope
- Theoretically, reduced changes and claims once in construction
- **BEST SUITED FOR:** large new or renovation projects that are schedule sensitive, difficult to define or subject to potential changes; also for projects requiring a high level of construction management due to multiple phases, technical complexity or multi-disciplinary coordination.

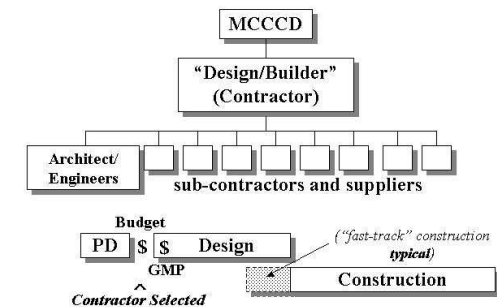
Disadvantages

- Difficult for Owner to evaluate the GMP or determine whether the best price has been achieved for the work
- Costs more than traditional bid due to reduced competition in pricing of contractor overhead, fee and sub-contract costs
- Costs often increase due to “details” not in the GMP
- CM may expand budget to create future savings

DESIGN/BUILD (D/B)

The contractor and architect are one entity hired by the Owner to deliver a complete project. A guaranteed maximum price (GMP) is provided by the D/B early in the project, based upon design criteria prepared by the school and a moderately developed design by the architect. The contractor/architect then develop drawings that fulfill the criteria and complete the design, while staying below the furnished GMP. The contractor then receives proposals from and awards subcontracts to subcontractors.

STRUCTURE and SCHEDULE



Advantages

- Single point of responsibility for design and construction
- Selection of contractor based upon qualifications, experience and team
- Contractor provides design phase assistance in budget and planning
- Faster project delivery than traditional bid, slightly faster than CMAR; fast track construction possible
- Guaranteed price possible earlier in process
- Price tends to match quality (also a disadvantage!)
- No change orders written for this Consultant errors and omissions- covered through allowance in GMP. Owner still responsible for other types of changes.
- **BEST SUITED FOR:** new construction projects that are highly time sensitive, projects with smaller user groups or reduced need for user reviews and mid-course design changes.

Disadvantages

- No check and balance between contractor and architect; Owner left to fend for himself versus the contractor, creating potential for reduced quality and increased potential for conflict between Owner and D/B team
- Difficult for Owner to determine whether the best price has been achieved for the work
- Initial costs likely higher than traditional bid due to increased contractor risk, reduced competition in pricing of contractor overhead, fee and sub-contract costs
- Changes difficult and expensive to make once construction begins, due to phased construction and cost driven, inflexible budget
- Considered “sophisticated”: Owner must have a clear idea of scope and concept before selection
- Owner has no input on selection of proposed design team
- Over-emphasis on price may compromise quality
- Increased speed and fewer reviews increase potential for mistakes, missed items, etc.
- Staff and users required to make quick decisions and have reduced time for reviews and input