

# Construction delivery methods: Which is best for you?

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# TOPICS:

- Definitions of the types of construction and the methods which fall under each type.
- Basic description of the various methods of construction to include some advantages/disadvantages of each.
- Takeaways: What is of key importance



# What is construction?

- According to the Code of Virginia section 2.2-4301 defines “construction” as building, altering, repairing, improving or demolishing any structure, building or highway, and any draining, dredging, excavation, grading or similar work upon real property.



# Capital versus Non-Capital Construction

- The type of construction can determine what procurement method is required.
- Capital Construction: New construction or an expansion, renovation, or replacement project for an existing facility or facilities with a prescribed dollar threshold ( $> \$3$  million).
- Non-Capital Construction: An expansion, renovation or replacement project for an existing facility or facilities with a prescribed dollar threshold ( $< \$3$  million).



# Capital Construction Methods

- **Design-bid-build**: also known as the **traditional method**, is a project delivery method in which the agency or owner contracts with separate entities for the design and construction of a project (individually).
- As the name implies there are three main sequential phases to the design-bid-build delivery method:
  - Design Phase
  - Bidding Phase
  - Construction Phase



# Design-Bid-Build

- Some of the advantages of design-bid-build:
  - The design team is impartial and looks out for the interests of the owner.
  - The design team prepares documents on which all general contractors place bids. Incomplete, incorrect or missed items are usually discovered and addressed during the bidding process (pre-bid meetings/addenda).
  - Ensures fairness to potential bidders and it also identifies new potential contractors.
  - Uses competition to improve the efficiency and quality for owners.



# Design-Bid-Build

- Some of the disadvantages of design-bid-build:
  - Slowest method due to the fact that design must be completed before you can move to the Bidding Phase.
  - Development of a tendency to seek out the lowest cost sub-contractors in a given market.
  - As the general contractor is brought to the team post design, there is little opportunity for input on effective alternates being presented by the general contractor.
  - Pressures may be exerted on the design and construction teams, which may lead to disputes between the architect and the general contractor.



# Capitol Construction Methods

- **Design Build:** Is a project delivery method used to deliver a project in which the design and construction services are contracted by a single entity known as the **design-build contractor**.
- Design-build relies on a single point of responsibility and is used to minimize risks for the project owner and to reduce the delivery schedule by overlapping the design phase and construction phase of a project.



# Design-Build

- Design-Build is sometimes compared to the “master builder” approach, one of the oldest forms of construction procedures.
- Historical note:
  - Comparing design-build to the “traditional method” (design-bid-build), the authors of “Design-Build Contracting Handbook” noted that: “from a historical perspective the so-called traditional approach is actually a very recent concept, only being in use approximately 150 years. In contrast, the design-build concept – also known as the “master builder” concept’ has been reported as being in use for over four millennia.”



# Design-Build

- Some of the advantages of Design-Build (D-B):
  - Single point of Responsibility: D-B contractor is responsible for the success of the entire project.
  - Firm Price early on: Price estimating is continually updated through design to reach a firm price estimate before drafting of final construction documents.
  - Value Engineering: Design experts and construction experts are from the same team and work together.
  - Time: Some design phase activities and construction phase activities can overlap. Also long lead time items can be purchased early in the design phase.
  - Improved Quality: No finger pointing between A/E and D-B contractor.



# Design-Build

- Some of the disadvantages with Design-Build:
  - The selected contractor is deciding design issues as well as issues related to cost, profits and time exigencies. While the traditional method of construction procurement dissociates the designers from the contractor's interests, design-build does not. Projects that require a complex and elaborate design for aesthetical or technical purposes may be poorly suited to this method.
  - Design-build does not make use of competitive bidding where prospective bidders bid on the same design.
  - Criteria to select the contractor is subjective and difficult to evaluate and to justify later.



# Capital Construction Methods

- Construction Manager at Risk (CM at-risk): Is 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 a consultant to the owner in the development and design phases (often referred to as “preconstruction services”), but then acts 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 must manage and control construction costs to not exceed the GMP, which would be a financial hit to the CM company.



# CM at-Risk

- Some advantages of CM at-Risk:
  - Increased project speed, initiate portions of the work before final design is achieved.
  - CM chosen based upon qualifications.
  - Guaranteed Maximum Price.
  - CM is chosen before design is finalized, allows for collaboration.
  - Transparency as all costs and fees are in the open.



# CM at-Risk

- Some disadvantages of CM at-Risk:
  - If you receive your GMP before design is complete you could face some cost overruns.
  - If bid packets come in higher than expected we face pressure to reduce the scope of work to “fit” within the guarantee.



# Non-Capital Construction

- Job Order Contracting:
  - Job Order Contracting (JOC) is a method to get numerous, commonly encountered construction projects completed quickly and easily through multi-year term contracts. JOC reduces unnecessary levels of contract procurement time by awarding term contracts for a wide variety of renovation, repair and construction projects
  - JOC contractors are selected on qualifications and performance at a best value, low price or low bid depending on local, state or federal statutes. JOC is about performance, reliability, dependability and quality. At the same time, JOC is about results and working within budget and time constraints. The JOC contractor provides “on-call” construction services from concept to close-out.



# Job Order Contracting (JOC)

- Some advantages of job order contracting:
  - Fast and timely delivery of projects.
  - Development of a partner relationship based on work performance.
  - Simplified design documents and acquisition processes negate the need for complicated and repetitive contract documents and reduce contract administration costs.
  - Employment of smaller sub-contractors in the area to perform the work, allowing for the majority of the project funds to be spent locally. This method may contain diversity components as well.
  - A win-win attitude or motivation for both the contractor and the facility owner produced by and through the long-term relationship.



# Job Order Contracting (JOC)

- Some disadvantages of job order contracting:
  - Limited capacity.
  - May be more expensive than “open” competitive bidding.
  - Contractor may become too familiar.
  - Is JOC allowed under the laws/resolutions of your locality or agency.



# Non-Capital Construction

- Competitive Bidding:
  - Also known as “commercial bidding”, is a common process for completing individual projects. The process involves either a sealed or unsealed bid (determined by the estimated value of the project and your procurement guidelines) and is built around a completed design. The A/E firm who completed the design typically also assists with the bidding process; performing such roles as assisting with project bid advertisement, identifying bidders, participating in pre-bid meetings, assisting with bid addenda, verifying bid prices and contractor qualifications, etc.
  - Typically utilized for projects over a pre-set threshold and up to the limit for Capital Construction.



# Competitive Bidding

- Some of the advantages of Competitive Bidding:
  - Better pricing: given enough time, pricing tends to improve (if we initiate the bidding process early enough to allow contractors adequate time).
  - Identify new contractors whom you have not worked with in the past (double edged sword!).
  - Can help with Diversity efforts.
  - Avoids Scope creep (firm design plan).



# Competitive Bidding

- Some disadvantages of Competitive Bidding:
  - Slow process...design has to be completed prior to bidding.
  - Bonding process adds additional steps/costs.
  - Tendency to get low price as well as low quality if specifications are not well written.
  - Bidding is open to ALL properly licensed, properly insured, responsible and responsive bidders; may attract contractors with no experience in working with governmental agencies/localities.



# Term Contracts for Services

- **Term Contracts for Services:**
  - Also known as “Time & Materials” contracts can be a tool in completing non-capital construction projects. Term contracts for such services as Mechanical, Electrical, Carpentry, Drywall, Ceiling Tile, Flooring, etc. can be great methods to accomplish our construction needs. Acquisition of these services can follow a couple of paths:
    - Access existing state contracts
    - Issue IFB or RFP and create your own term contracts



# Term Contracts for Services

- Some advantages of Term Contracts:
  - Project speed; able to initiate the project quickly.
  - Confidence in the term contract holder.
  - Familiarity with your facility or location (and any issues that it might pose...locked down, parking, etc.).
  - Price of the project, reduced number of change orders.
  - Qualifications of Contractors can be made part of the selection process.



# Term Contracts for Services

- Some disadvantages of Term Contracts:
  - Capacity of the contractor (may be limited).
  - Pricing may be higher than a competitive bid.
  - Aspects of the project outside a given Term Contract's scope.
  - Coordination of various disciplines (if more than 1).
  - Who gets the blame on projects which involve multiple term contractors.
  - Who coordinates/supervises the overall project.
  - Scope creep



# Construction Delivery Methods

- Key Takeaways:
  - What procurement options exist? Are you performing Capital or Non-Capital Construction?
  - Project particulars will determine what the best method may be.
  - Having multiple options is essential; some projects may also involve more than one construction method.



# Construction Delivery Methods

- Questions?

- THANK YOU!

# Forum Lottery!



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# Forum Lottery!



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