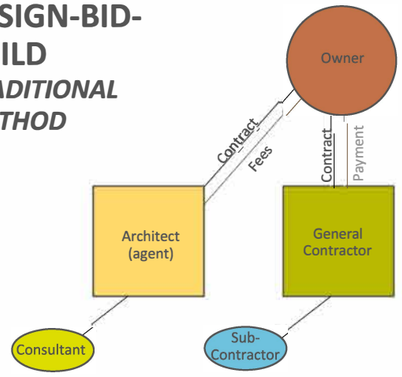
UTAH K-12 PUBLIC SCHOOL CONSTRUCTION - APPROVED PROJECT DELIVERY METHODS

DESIGN-BID-BUILD
TRADITIONAL METHOD



DESIGN-BID-BUILD (DBB):

This project delivery method involves the design team providing the complete construction design, then the project is advertised for construction, then the contractor is hired to perform the work outlined in the construction documents.

THE ADVANTAGES OF THIS PROCESS ARE:

- DBB is most universally understood.
- The "Low-Bid" for construction phase can bring competitive price control.*
- DBB can thwart favoritism.
- This process provides opportunities to pre-qualify bidders based on past performance and experience.
- Documents may be more thoroughly detailed and complete in order to avoid gaps and questions in bidding, thereby providing tighter document and cost control.

THE DISADVANTAGES OF THIS PROCESS ARE:

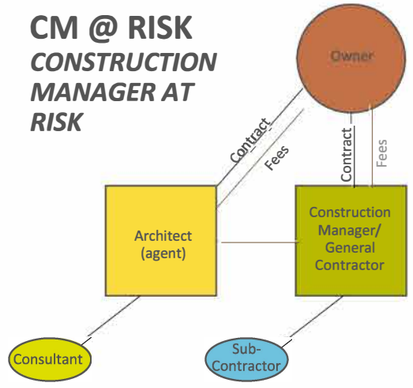
- "Lowest responsible bid" criterion for construction doesn't always award the most qualified contractors and leans heavily on the architect to police construction for quality.
- The construction team is hired too late to assist with design for constructability analysis or value engineering.
- This process can be more prone to conflict as the design team represents the owner and construction team represents the bottom line, which may place each in somewhat adversarial roles.
- The lowest bid based on bid documents may result in more contractor initiated change orders.
- Early packages and expedited schedules are not possible.
- There is a possibility for time delay, scope reduction or project cancellation due to bidding being over budget.

PREFERRED APPLICATIONS:

- Repeat or prototype school projects.
- Projects with a clear concise defined scope.
- Single facility projects.
- Projects with a flexible schedule.

***NOTE: Utah State Purchasing recommendation is never to use "low bid" instead, use "low bid with restrictions."**

CM @ RISK
CONSTRUCTION MANAGER AT RISK



CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CM/GC) At Risk:

This project delivery method involves the use of a construction manager to assist with both design and construction, from design inception through completion of the project.

THE ADVANTAGES OF THIS PROCESS ARE:

- CM/GC allows for early introduction of construction expertise while maintaining a separate process to procure design and construction teams.
- This process allows procurement of the construction team based on evaluation criteria, and not just "lowest bid."
- CM/GC allows for price competition among construction teams on proposed fees.
- The architect acts as the owner's representative on site.
- The guaranteed maximum price (GMP), when agreed to during the design process, provides funding constraints that should be more accurate, at the end of the *Design Development Phase*.
- The guaranteed maximum price is set with a clear understanding of design, and guaranteed with a performance bond.
- The opportunity presents itself for an overlap of design and construction phases for faster project completion time.
- Constructability analysis and value engineering occur throughout the design process.
- There may be less time incurred in the procurement process than DBB.
- There may be less contractor initiated change orders because the CM/GC has a better understanding of construction documents and owners intent.
- The owner understands the project budget from the beginning, thus allowing for the potential for scope enhancements/improvements as appropriate, as the project is awarded.

THE DISADVANTAGES OF THIS PROCESS ARE:

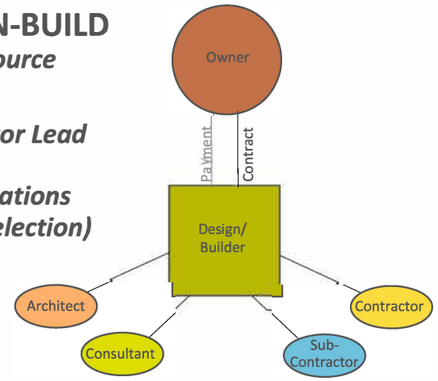
- There are additional contractor fees, due to the additional responsibilities of a construction manager during design.
- If contractor has insufficient experience in construction management he or she may be unable to provide the level of service and expertise on issues for constructability and value for the project.
- There is a possibility for inflated cost estimates to ensure CM's GMP is met at bid day, which can lead to reduced scope and/or quality before the GMP is set.
- CM/GC At-Risk can be the most problematic construction method, if either the architect or CM/GC do not have sufficient expertise.

PREFERRED APPLICATIONS:

- Complicated or Multiple Phased Projects.
- Projects with short timelines.
- Owners or clients with little construction knowledge or experience can be better supported by an experienced design team and CM/GC.

DESIGN-BUILD
Single Source Delivery

Contractor Lead Team (Qualifications Based Selection)



DESIGN-BUILD (DB):

This project delivery method involves a single design builder or joint venture between a design builder and architect, responsible for both the design and construction services of a project.

THE ADVANTAGES OF THIS PROCESS ARE:

- The design team and contractor may be procured together, providing a complete team approach.
- This is a less complicated process, including simplified documents and bidding.
- Construction expertise is available from the beginning of design.
- This process should lead to value engineering and constructability improvements from the beginning of the design process.
- This process allows for the ability to fast track the project from conception to occupancy, and thus may save time.
- DB reduces the risk of needing re-design due to enhanced collaboration between owner, contractor and design team.
- DB provides a less adversarial relationship between design and construction teams, due to the fact that the architect works for the contractor not the owner.
- DB allows the ability to solve problems encountered with complicated or multiple phased projects as a complete team.
- The maximum allowable construction costs is agreed to by all parties in advance.

THE DISADVANTAGES OF THIS PROCESS ARE:

- Quality often suffers because the design-builder may have an incentive to reduce quality and scope of the project.
- If the owner is not highly qualified and/or experienced he or she may be taken advantage of during the project.
- Additional time and expenses are needed to clearly define the project scope before the DB team is on board.
- Stakeholder relationships become critical for success.
- There is not an independent architect on the owner's team to serve as "watchdog" over construction, which introduces the potential loss of checks and balances.
- This process is not understood as well as DBB, so construction performance can suffer.
- The DB process often stifles creativity and design solutions for the building.

PREFERRED APPLICATIONS:

- Projects for districts with experienced construction personnel on staff.
- Projects having short timelines.
- Complicated or multiple phased projects.