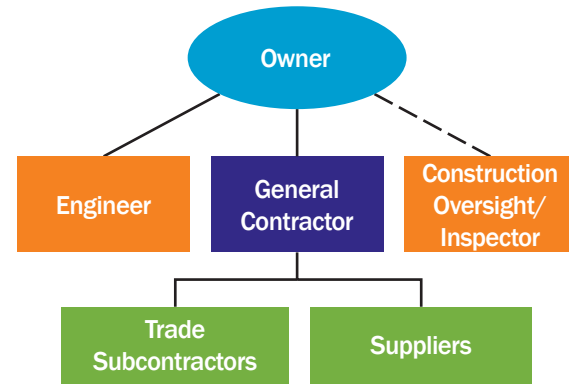
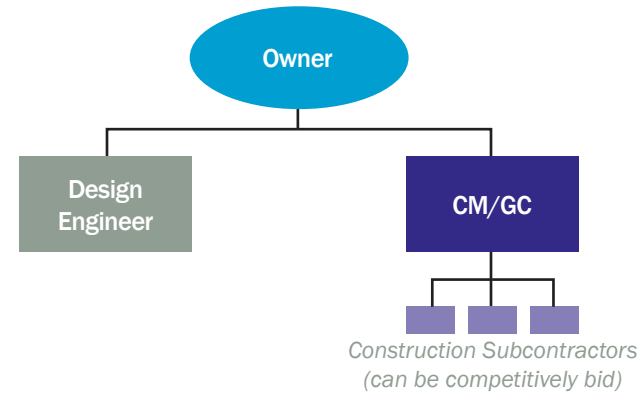


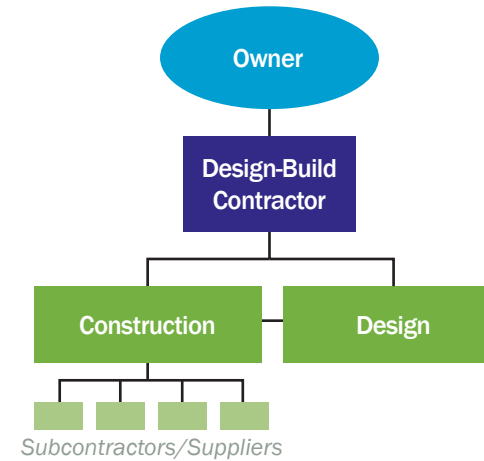
Design-Bid-Build (DBB)



Construction Manager/General Contractor (CM/GC)



Design-Build (DB)



Features/Process:

- ✓ Owner procures a design-build team (one contract)
- ✓ D/B contractor designs and constructs project
- ✓ Price is either negotiated or competitively bid
- ✓ Variations of DB
 - Progressive
 - Fixed Price

Features/Process:

- ✓ Owner selects Engineer
- ✓ Engineer designs project, develops plans/specs, and evaluates bids
- ✓ Construction awarded to lowest responsive, responsible bidder
- ✓ Construction monitored by Engineer or CM

Features/Process:

- ✓ Owner selects Engineer and CM/GC based on quals and other factors
- ✓ Engineer designs project
- ✓ CM/GC involved during design (constructability, value engineering, cost estimates)
- ✓ Owner and CM/GC negotiate GMP at some point in design
- ✓ Subcontractors can be competitively bid

Progressive:

- ✓ Select D/B primarily on qualifications
- ✓ D/B prepares 30% design then negotiate GMP
- ✓ GMP negotiations are "open book"

Fixed Price:

- ✓ Select Designer to prepare preliminary (10-30%) design
- ✓ Competitive procurement of D/B with GMP
- ✓ D/B performs final design and constructs project
- ✓ T-Rex Model

PROS

- Owner retains control of design
- More bidders for construction contracts
- Independent oversight of construction contractor
- Traditional/well understood

PROS

- Avoids low bid
- Contractor involved during design
- Owner retains some involvement in design
- Earlier certainty of construction price than DBB

PROS

- Relatively easy procurement process
- DB selection is primarily quals-based
- Owner retains some involvement in design
- Price is open book and transparent
- "Off ramp" if GMP can't be negotiated

PROS

- One contract
- Competitive pricing
- Owner retains some involvement in design
- Early price certainty

CONS

- Owner maintains majority of risk
- Finger-pointing between designer and contractor
- Longer schedule
- Potential for claims and change orders
- Later certainty of construction \$\$
- More Owner staff resources required

CONS

- Does not eliminate designer- contractor conflicts
- No significant schedule benefits
- Later certainty of construction price than DB
- Owner retains most of performance risk
- More Owner staff resources required

CONS

- Price is not known or guaranteed at initial contract signing
- Price is only partially competitive

CONS

- Does not foster design innovation
- Less choice in selection of final designer

WORKS BEST WHEN...

- Project requires high degree of public oversight
- Owner desires extensive involvement in design
- Schedule is not a priority

WORKS BEST WHEN...

- Complex construction project
- Construction at an existing facility that must continue to operate
- Contractor input to design is critical
- Low-bid contractor selection is risky

WORKS BEST WHEN...

- DB qualifications are more important than best price
- Complicated design elements
- Design details are a priority for the Owner

WORKS BEST WHEN...

- Project elements can be well defined at prelim. design
- Predominantly a construction project
- Schedule and early price certainty are high priorities to Owner