



Washington State Alternative Project Delivery Methods

General Contractor/Construction Manager
(GC/CM)
&
Design Build
(DB)

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Why We're Here

- Background on alternative contracting methods
- Why Chelan PUD is using them
- Provide lessons learned from ongoing projects
- Explain differences in Board approvals
- Discuss future use of alternative methods
- Provide recommendation on future legislative action

Information Only – No Action Required

What are the Procurement Methods?

- Traditional Design-Bid-Build (DBB)
 - Designed by owner or design consultants
 - Advertise completed design for bid
 - Contract with low responsive bid
- General Contractor/Construction Manager (GC/CM)
 - Designed by owner consultants in collaboration with GC/CM
 - GC/CM is selected based on qualifications, experience and price
 - All construction work is competitively bid (sub-bids), GC/CM limited to 30% of work
 - Primary roles of GC/CM contractor are construction manager and to provide a base level of site construction support

What are the Procurement Methods?

- Design-Build (DB):
 - Contractor designs the project and is responsible to build it
 - A two-step evaluation process to select the DB contractor
 - Request for qualifications
 - Request for proposal for work scope and price
 - The selected DB contractor completes a specified level of design based on an agreed scope, and provides a guaranteed maximum price (GMP)
 - The Owner can reject the design or price

State Law - RCW 39.10

Why alternative methods?

- Project delivery experience in the public sector - 1980s
- Success of alternative methods in other states and for other types of projects in Washington

History in Washington State

- Piloted in 1991 – Dept. of Corrections
- Expanded in 1994
- CPARB (Capital Projects Advisory Review Board) & PRC created 2005
- Current legislation sunsets in 2022

GC/CM – Building the Team & Designing the Project

Process (RCW 39.10.340-410)

- Design Team selected by qualifications
- GC/CM selected by qualifications, experience and price
- Owner & Design Team initiate schematic design
- Engage GC/CM in preconstruction services
- Continue design/cost iterations through final design
- Sub-bidding of construction work
- Negotiate Guaranteed Maximum Price (GMP)

GC/CM – Benefits

Why select this process?

- Early participation from GC/CM
 - Sequencing and phasing
 - Coordination of work
 - Cost reconciliation
- Constructability
 - Consult subcontractors
 - Material selection
 - Early value engineering
- Collaboration – team oriented process
 - Lower incident of claims
 - Cost and schedule certainty
 - Owner selection of GC/CM team

GC/CM – Challenges

Potential negative aspects of GC/CM process

- Need for high level of owner expertise
 - Statutorily required experience
 - Complex working environment
- Need for collaboration & trust
 - Differing contractual relationships
 - Requires more upfront meetings
- Perception of lack of competition
 - Fear that a few GC/CM teams get most of the work
 - Reality is that significant work is done by small, local firms
- Quality of subcontractor bid packages

DB – Building the Team & Designing the Project

Process (RCW 39.10.300-330)

- Request for statement of qualifications (RFQ)
 - Open to all
- Request for proposals from shortlisted firms (RFP)
 - 0 to 20% design to develop proposal
 - Pay stipend for project development/design work completed
- Selected DB firm advances the design up to 90%
 - Project life cycle analysis – optimize O&M
 - Guaranteed maximum price (GMP)
 - Negotiation of commercial terms
- If GMP acceptable, DB completes any remaining design and performs procurement, construction and turnover

DB – Benefits

Why select this process?

- Owner not familiar with available alternatives
- Contractor can get more familiar with owners needs and operating environment
- Allows opportunity for proprietary collaboration between contractor and owner's engineers and operators
- Opportunity for life cycle cost evaluation prior to commitment on the solution
- Both parties learn strengths and weaknesses of each others team members and organization
- Better scope and cost certainty at time of procurement and construction

DB – Challenges

Potential negative aspects of DB process

- More process steps and documentation
 - Initial scope, tech specs, drawings
 - RFQ solicitation and evaluation
 - RFP solicitation and evaluation, contract negotiation
 - 21% to 90% design collaboration
 - GMP cost evaluation, negotiation of commercial contract terms
- More owner effort up front because working with multiple companies for RFP
- May not be able to agree on price or contract terms at end of design
- DB firm can perform all work - subcontractor bidding not required

GC/CM – Case Study

Rock Island Facility Improvements

- First Chelan PUD GC/CM project & first in state
- Not typical GC/CM scope
 - Some phases not included in GC/CM Contract
 - Late GC/CM involvement
 - Significant scope changes
- Lessons Learned
 - More timely decisions for project changes
 - New way of managing design issues
 - Contract change process
 - Bring GC/CM on earlier

GC/CM – Case Study

Rocky Reach Facility Improvements

- More typical GC/CM scope
 - Early site package
 - GC/CM brought on early
 - Early value engineering
- Lessons Learned
 - Due diligence of site conditions
 - Subcontractor performance
 - Early cost reconciliation = better cost certainty
 - Improved sequencing and phasing
 - Contract change process

GC/CM – Case Study

Operations and Service Center

- More typical GC/CM scope
 - GC/CM brought on board very early
 - High level of contractor and sub-contractor involvement
 - Early cost reconciliation
- Lessons Learned
 - Importance of selection process
 - Early constructability reviews influencing design decisions
 - Early cost reconciliation providing better cost certainty
 - GC/CM helping with sequencing and phasing

DB – Case Study

RI PH2 Generating Unit Rehab

- 3 firms solicited qualifications
- Decided to solicit 3 proposals instead of 2
- Allowed proposers to collect and analyze operating data
- Investigated DB's design and manufacturing facilities and past accomplishments.
- Requested requirements for obtaining 10yr, 20yr and life time warranties.
- Allowed modification of scope based on what we learned

Lessons Learned

- Evaluating 3 proposers takes 50% more time & expense than 2
- Modifying scope opened the door for oil free turbine evaluation
- Data collection identified future risks with reuse considerations

Board of Commissioners Approvals

Board Action	Design-Bid-Build	GC/CM	Design-Build
Authorize pursuing State PRC approval	N/A	Yes @ 10-15% Design	Yes @ 0% Design
Resolution for RFP/SOQ	N/A	Yes @ 10-15% Design	Yes @ 0% Design
Resolution for Bid	Yes @ 100% Design	No	No
Resolution for award of pre-construction svc	N/A	Yes @ <30% Design	Yes @ 0% Design
Award Bid	Yes – Low bidder	N/A	N/A
Resolution for Negotiated GMP	N/A	Yes @ 90% Design	Yes @ 60%-90% Design
Resolution FWO/CO	Yes > \$500,000	No	No
Resolution Amend GMP	N/A	Yes-within delegation	Yes-within delegation

Conclusions

GC/CM

- More effort/resources in initial stages of project
- Better design decisions
- Better cost certainty
- So far many benefits have been realized...more to come!
- Expected project outcome = best value for cost and less contract changes during construction

Conclusions

- Design Build
 - Use where the builder has specialized design expertise
 - Design competitions encourages greater innovation and awareness of options
 - The two step selection process allows owner to evaluate strength and weaknesses of design and construction capabilities.
 - Expected project outcome = Improved project performance and lower total price and schedule

Recommendations

- Propose to consider DB or GC/CM use on:
 - RI Spillway Modernization, PH1 Generator Lead Replacement, Hatchery projects, other complex projects
- Seek agency certification

Recommend Board support reauthorization of alternate project delivery (RCW 39.10)

- Extension of sunset date, or
- Make alternative delivery methods permanent

QUESTIONS?

