



SESSION # CD-01

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Alternative Delivery Methods Lessons Learned Washington State Department of Corrections



**The
Future
Is Now:
Alternative
Project Delivery**

AIA AAJ NATIONAL CONFERENCE
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THE AMERICAN INSTITUTE
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Academy of Architecture for Justice

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Course Description

This is a panel discussion utilizing case studies of both GC/CM (Washington State version of CM at Risk) and Design-Build correctional projects of the Washington State Department of Corrections. It will highlight the experiences and lessons learned from utilizing these alternative delivery methods. The panel will include the Owners, Builders, and Architect involved in the different delivery methods. Best practices for each delivery method will also be shared.

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Learning Objectives

1. Understand when to utilize each of the different processes
2. Learn about the selection process utilized for each method and how to put together a successful team
3. Learn the difference in how to facilitate each process during design and construction to be successful
4. Gain insight on GC/CM and Design-Build and lessons learned from the perspectives of the owner, the designer, and the builder



Introduction

- Panel members
- Format of our presentation



Delivery Methods. What are our options?

- Design-Bid-Build (DBB)
- Construction Manager at Risk (CM@R)
(GC/CM, CM/GC, CMC)
- Design-Build (DB)



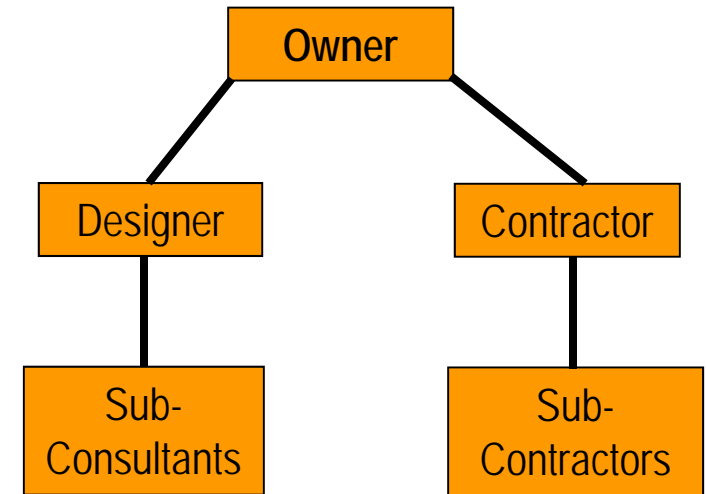
Project Delivery

- The cast of characters is always the same
 - Owner
 - Designer
 - Contractor

Design-Bid-Build

Traditional Delivery

Characteristics	<ul style="list-style-type: none">• Three linear phases: Design, bid and build• Three prime players: Owner, designer, constructor• Two separate contracts:<ul style="list-style-type: none">• Owner to designer• Owner to constructor
Responsibilities	
Owner	Program, finance, management
Designer	Prepares plans & specs, normal services
Constructor	Prime & sub construction



Design-Bid-Build

Pros

- Everyone is familiar/comfortable with this method
- The market dictates the “first” cost for the project
- The rules are very well defined

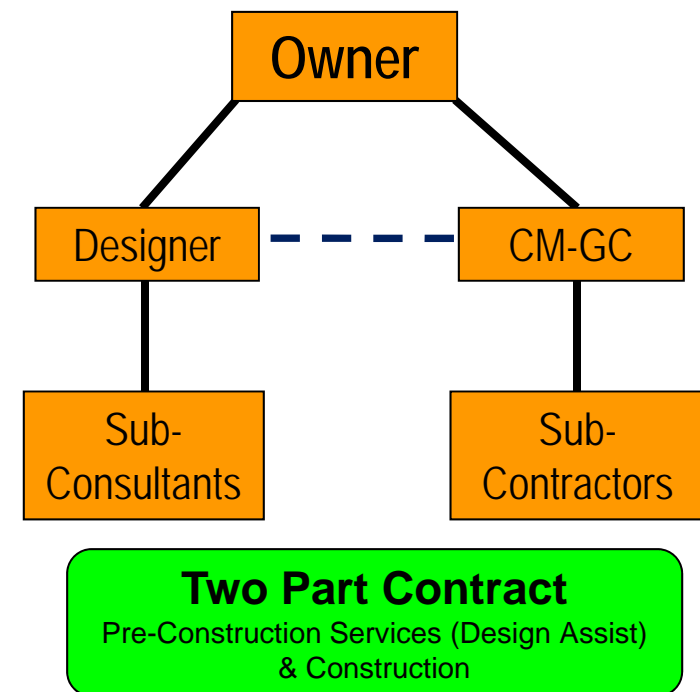
Cons

- No contractor involvement/input during design process
- Owners get who they get, very little input in contractor selection
- Contractually, Owner assumes a majority of the risk

CM at Risk

Entering the realm of collaboration

Characteristics	<ul style="list-style-type: none">• Three linear phases: Design, bid, build or may be fast tracked• Three prime players: Owner, designer, CM-constructor• Two separate contracts:<ul style="list-style-type: none">• Owner to CM-constructor• Owner to designer
Responsibilities	
Owner	Program, finance
CM-Constructor	Provides pre-construction & project management services, coordinates design prior to construction, is prime with the subcontractors
Designer	All normal services



CM at Risk

Pros

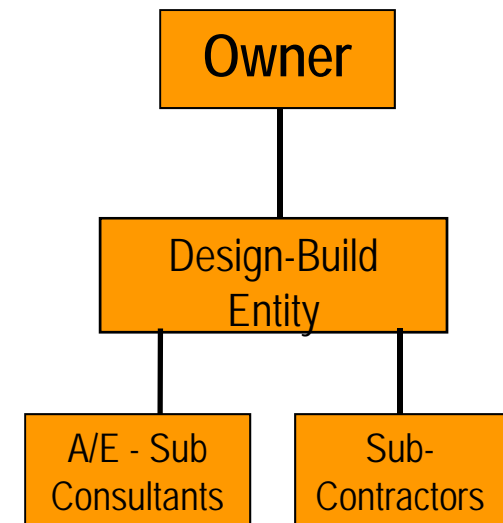
- Qualitative factors utilized for contractor selection
- “Comfortable” contractual arrangements
- Facilitates collaboration amongst three primary players

Cons

- Owner stills assumes most of the risk
- Requires skills and attitudes not common to DBB delivery
- Team selection is made prior to establishing construction cost
- Subcontractor work is still primarily awarded on a DBB basis

Design-Build Contractual Relationship

Characteristics	<ul style="list-style-type: none"> • Integrated process-overlapped design & construction • Often fast tracked • Two prime players: Owner & design-build entity • Entity can take on many forms • One contract - <ul style="list-style-type: none"> • Owner to Design-Builder
Responsibilities <div>Owner</div> <div>Design-Builder</div>	<div>Program, performance requirements, & finance*</div> <div>Design & construction. Can include programming & post construction services</div> <div><i>* D-B can expand services to include programming, finance, operate, etc</i></div>



Design-Build

Pros

- Cost and schedule certainty provided at time contract is executed
- Qualitative and quantitative factors used in selection process
- Maximizes collaboration and integration
- Owner no longer assumes majority of contract risk
- Facilitates fast tracking of project

Cons

- Procurement process can be costly and time consuming
- Perceived loss of owner control during the design process
- Requires specialized skills, attitudes and approach from all parties involved.

History of DOC Project Delivery

- A statewide movement towards “Collaboration”

Introduction

Washington State Department of Corrections

- About Washington Department of Corrections
 - 13 major facilities
 - Age of facilities
 - Newest facility is 5 years old, oldest is over 100 years old
 - 17,000 inmates incarcerated



Introduction

Washington State Department of Corrections

- History with various delivery methods
 - Public Works contracting follows traditional design-bid-build process
 - Alternative contracting methods require Legislative approval
 - Legislative approval in late 1980's for GC/CM projects
 - Legislative approval required for D/B projects

GC/CM Case Study

Washington Corrections Center for Women (WCCW)

- 256 Bed Expansion
- Special Needs Unit



GC/CM: WCCW

- Owner's perspective



GC/CM: WCCW

- Designer's perspective
 - Integrated project delivery
 - Mutual goals
 - System development / constructability
 - Project phasing



GC/CM: WCCW

- GC/CM's perspective
 - Educating the industry
 - Changing project dynamics
 - Contributing early
 - Understanding, and caring about what is important



GC/CM: WCCW

- Success Stories
 - On time under budget
 - Early goal definition and success
 - Enhanced communication
 - Minimized cost of non program enhancing items
 - Maintained secure perimeter throughout construction
 - Provided required program space and established long term partnerships

GC/CM: WCCW

- What we learned
 - Good ideas can come from anyone
 - Challenge the norm to facilitate improvement
 - Team communication is vital to project success
 - A little trust can go a long way.

GC/CM Best Practices

- Select partners that have the skills you need and the people you want to work with.
- Make sure everyone involved understands the project goals and desired outcomes
- Question, question, question-What if?
- Make a change if you have to, tigers rarely change their stripes.
- Trust the people and the process.

Design-Build Case Study

Coyote Ridge Corrections Center Expansion (CRCC)



Design-Build Case Study

Introduction

- Project experience that drove DOC to consider design-build
 - Why design/build?
 - Challenges of other delivery methods
- DOC design/build process
 - lessons learned from DBIA and AIA for the WSP Expansion
 - 2003 DOC project developed D/B procedures
 - State Fire Marshall, City of Connell, Building inspector

Lessons Learned Comparison Project

Washington State Penitentiary North Close Expansion



Lessons Learned Comparison Project

Washington State Penitentiary North Close Expansion

- Background on project
 - 386, 000 ft²
 - 792 close custody cells
 - 100 intensive management unit beds
 - 98 segregation beds
 - Support structures
 - \$130 million dollars

Lessons Learned Comparison Project

Washington State Penitentiary North Close Expansion

- Select a team and keep the team
- Establish a working relationship early
- Be clear with expectations and manage them
- If the budget will not support the program - STOP - EVALUATE
- Look at alternatives
- Know the market

Design-Build: CRCC

Project

- Compact campus-style standalone facility
- 21 pre-cast concrete & masonry buildings
- 564,000 square feet of finished space
- 55 acres inside the fence
- 50 acres outside the fence
- 2,048 inmates
- 450 employees



Design-Build: CRCC

Project

- 29-month timeline
 - Project began May 2006
 - Substantial Completion in November 2008
 - Final Acceptance December 2008
- State required LEED Silver certification
- Total budget: \$240,000,000
- Original Design/Build Contract: \$160,000,000
- Added scope: \$30,000,000



Design-Build: CRCC

- Keys to Success
 - Risk Management
 - Team Structure
 - Process
 - Dispute Resolution

Design-Build: CRCC

Risk Management

- Owner's perspective
 - Errors & omissions insurance
 - Managing owner's expectations
 - Political risk
 - Budgetary risk

Design-Build: CRCC

Risk Management

- Designer's Perspective
 - Errors & omissions insurance
 - Protection for “gap”
 - Communication
 - Common experience of the team
 - Integrated design process

Design-Build: CRCC

Risk Management

- Design-Builder's Perspective
 - Errors & omissions insurance
 - Subrogation of documents
 - Managing the owner's expectations
 - Under promise / over perform

Design-Build: CRCC

- Keys to Success
 - Risk Management
 - Team Structure
 - Process
 - Dispute Resolution

Design-Build: CRCC

Team Structure

- Owner's Perspective
 - Single team, single agenda
 - Check egos at door
 - Correctional industries as part of construction team

Design-Build: CRCC

Team Structure

- Designer's perspective
 - Approach during competition
 - Interaction with contractor, subcontractors
 - Proprietary meetings
 - Design coordination



Design-Build: CRCC

Team Structure

- Design-Builder Perspective



Design-Build: CRCC

- Keys to Success
 - Risk Management
 - Team Structure
 - Process
 - Dispute Resolution



Design-Build: CRCC

Process

- Owner's Perspective
 - RFP/RFPF
 - Design
 - Construction
 - Closeout



Design-Build: CRCC

Process

- Designer's Perspective
 - Frequent design meetings
 - Multiple design packages
 - Prompt owner design review
 - Design team hierarchy
 - subconsultants
 - Integration of code officials (early & often involvement)



Design-Build: CRCC

Process

- Design-Builder Perspective
 - Project Execution
 - Schedule
 - Procurement
 - Prefabrication during design
 - Quality Control
 - Design & construction
 - Close out



Design-Build: CRCC

- Keys to Success
 - Risk Management
 - Team Structure
 - Process
 - Dispute Resolution

Design-Build: CRCC

Dispute Resolution

- Contract
- Executive Management Committee
- Basis of relationship
- Design-Build Team – relationship & communication



Design-Build: CRCC

Success stories

- Additional housing units
- Precast warehouse vs. PEMB



Design-Build: CRCC

What we learned

- Select right team
- Team, Team, Team, Team.....
- Reinforce open cooperative environment
- Watch the budget, start right, end right
- Meet early, meet often
- Integrated design
- Full representation required for all design meetings
- Responsiveness to construction issues



Design-Build: CRCC

- LEED Gold Campus (first LEED gold correctional campus in U.S.)
- Energy Rebates
- Reduced operating costs & utility consumption



Your thoughts?

- What might owner's, designers, contractors like about DBB?
- What might owner's, designers, contractors like about GC/CM?
- What might owner's, designers, contractors like about DB?
- What should owner's consider as they choose delivery methods?
- What questions can we answer regarding what we have presented?

Thank you

