

A KINDER GENTLER CONSTRUCTION?

Why Alternative Project Delivery Methods Continue to Evolve

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1

2

Today's Premise

Alternative Project Delivery methods are becoming increasingly more popular as project Owners search for more efficient ways to finance, design, build operate, maintain, and manage facilities.

Today's Approach

- **Open Forum Discussion**
 - the Paradigm Shift
 - Successes - Advantages
 - Challenges - Disadvantages
 - Lessons learned from / for stakeholders
 - Continuing evolution
- **Primary Focus: *Design Build and Integrated Project Delivery***

Alternative Project Delivery Methods

- Design-Bid-Build
- Construction Management At Risk
- Lease - Lease Back
- 3 Ps - Public Private Partnership
- ***Design Build***
- ***Integrated Project Delivery***
- JOC – Job Order Contracting
- Multiple Prime
- Lean?

A PARADIGM SHIFT

We're no longer asking "why should we use DB?"
We're now asking "how do we do DB the right way?"

DBIA

ANOTHER PARADIGM SHIFT

Can what we've learned from Design Build help us to embrace an even more integrated approach to design and construction? ...

... IPD – Integrated Project Delivery?

Paradigm Shift

Changing the way we think about something and how we do that 'something'



Has **YOUR** paradigm Shifted?

The shift by Owners

- Have established processes and infrastructure to implement, expedite, and **optimize the use of design-build**
 - Facilitates procurement and contracting (forms and contracts)
 - Refines evaluation protocols on a continuum
- Have provided design-build **training programs**
- Have **learned from others** - implementing a new mindset
 - continuous improvement
 - lessons learned
 - Best practices
- Have become **willing to consider different forms** of design-build

The Shift by Design Builders

- Committing to **follow through**
 - Same efforts necessary to win the job are required to successfully complete the job
- Working hard to **build teams** consisting of “only the best”
- Teaming with others who have design-build **experience**
- Placing value on past **relationships**
- “Assisting” Owners to be best in the area of selection and procurement process
 - **Industry forums**
 - **Liaison Committees (At the trade association level)**
- More focus on **managing the design process**

The Shift by the A/E Community

- More **in-House AOR / DOR (Within Design-Build firms)**
- More willing to **integrate services**
- More willing to “**play second chair**”
- Partnership / friendly **relationships with Contractors**
- Find they can generate more work for their firms by teaming with responsible contracting entities
- Will collaborate with qualified Design-Build firms to **achieve a high degree of risk mitigation and management**
- Will choose contractors (Design-Builders) with similar experience
- Willing to **collaborates** through all phases of the project
- Will consider and implement the recommendations of the larger collaborative team within a Contractor-led environment

Successes - Advantages

- What are the **obvious advantages** to Design-Build and IPD?

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13

Successes - Advantages

- What are the **obvious advantages** to Design-Build and IPD?

- _____
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14

Benefits

- The bold statement from a few years ago: “Design-build:
 - is faster
 - is less costly
 - reduces or virtually eliminates change orders
 - results in savings in contract administration costs
 - significantly decreases adversarial relationships among the owner, architect, engineer and builder
 - Allows for cleaner contractual lines

Benefits

- More Streamlined processes
 - Example: Designers specify proprietary materials eliminating some or most construction submittals
 - Shorter Design Time frame
 - Easier to approach true “Integration”
 - Actually changes the ‘culture’ of construction
 - Forced collaboration
 - Forces better ethical practices

Benefits

- **Single source responsibility** for performance
- Additional schedule savings through **fast -tracking**
- Encourages and facilitates design & construction **innovation**
- Cost savings thru enhanced scheduling & innovation
- Clearer risk allocation
- **less cost growth**
- **Less disputes and claims**
- Warranty / guaranty – one source of responsibility
- **Firm price fixed earlier**

Benefits

Options within the Design Build Model

- Low price –Acceptable Design (or Technically acceptable)
- Best Value – Weighted Criteria
- QBS (Qualifications Based Selection)
- Fixed Budget – Best Design
- Progressive Design Build

One size does NOT have to fit all

Other differences can exist within the Design-Build model

No one size fits all

- Procurement processes - 1 step or 2?
- Selection methods – How subjective?
- Contract documents – What's included?
- Phasing (Fast Track) . . . Or not
- Schedule of Values for progress payments
- Streamlining systems and processes

Challenges - Disadvantages

- What are the **obvious disadvantages** to Design-Build and IPD?

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Challenges - Disadvantages

- What are the **obvious disadvantages** to Design-Build and IPD?

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21

The arguments against Design Build

- Majority of DB teams are Contractor led
 - Architects may be better suited to lead
- **Vague definition of "best value"** may keep Owner from obtaining true best value.
 - **Hard to weigh 'best value'** considerations during proposal and concept design phase against total facility life cycle maintenance costs.

Cont

The arguments against Design Build

- **For whom should “better” be demonstrated?**
 - Designer works for builder – not owner
 - Builder’s interests may not match those of Owner
- **Where is the “alignment of interests”**
- Contractors may feel, or in reality be “blocked” from participation
- Systems in-place now, work just fine – Why change?

Cont

The arguments against Design Build

- Contractors will still “be and act as contractors”
- Agency’s In-house designers will lose their importance
 - perhaps even their jobs
- Precise responsibilities blurred within the Design-Build Team
 - (Example: Closeout phase lends itself to too many gray areas relative to responsibilities and liability)

Challenges

as stated in a Transportation Construction Conference

1. Deciding on **the Right Design-Build Approach**
2. **Planning** the Program and Procurement Process
3. Accounting for Meaningful Distinctions between Offerors
4. Making **Shortlist Decisions**
5. **Scoring Non-Price Selection Factors**
6. **Assessing Proposer's Finances and Claims History**
7. Level of **Flexibility in Design Process**
8. Determining **Site Information to be Relied upon** by Proposers
9. Bad Contracts and Ineffective Contract Management
10. **Bad Conduct**

Continuing Challenges as *YOU* see it

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The original wish list - Owners objectives:

Can they be obtained through Integrated design and construction?

DBIA Perspective — *Design Build Institute of America*

(From their published Mp3 slide show presentation)

- Building Information Modeling
- Sustainability and energy efficiency
- Collaborative planning and design
- Lean Construction and Value Management
- Early and effective commissioning
- Public-Private Partnerships
- Better budget control
- Latest materials and technology
- Reduced waste stream
- Operations and maintenance improvements
- Faster, Easier, and lower cost maintenance and repairs
- Quality designed in – not inspected in

How Are We Doing?

Lessons Learned & Best Practices

Lessons Learned & Best Practices

"Preparing Owners for Design Build"

Water/Wastewater Arena

- Summary of Key Points:
 - Develop good questions to ask yourself (as an Owner)
 - Develop a "Play Book" – Educate
 - Schedule issues – Knowing the market – keeping everyone together
 - Understand 'balanced risk'
 - Understand 'teaming' – The joint venture

Cont.

Lessons Learned & Best Practices

"Preparing Owners for Design Build"

Water/Wastewater Arena

Summary of Key Points: Cont.

- Choose selection panel wisely
- Consistent Project Manager on Owner's side
- The value of Partnering
- Having adequate support
 - Design review and approval
 - Change Management
- Emphasis on education
- Expect organizational resistance

Lessons Learned & Best Practices

"Preparing Owners for Design Build"

Water/Wastewater Arena

- Summary of Key Points: Cont.
 - **Selecting the internal DB team**
 - Provide and expect **consistent project leadership**
 - Don't underestimate **time demands**
 - Establish clear testing / acceptance plan
 - **Roles and responsibilities**
 - **Be the Drivers of Success**

Cont.

Lessons Learned & Best Practices

USACE

Summary of Key Points:

1. Providing a **clear, complete, and detailed RFP** to establish minimum project requirements
2. Encouraging creative problem solving to address owner needs and constraints
3. **Facilitating a collaborative approach** among stakeholders that results in added value to the owner

Lessons Learned & Best Practices

Transportation Arena

- Summary of Key Points:

1. Systems and processes in-place matter
2. Evaluation protocols must be refined
3. Agencies must continue to learn from others
4. Must be **willing to consider a range of Design-Build models**
5. **Good teams = Good projects**

Cont.

Lessons Learned & Best Practices

Transportation Arena

- Summary of Key Points: (Cont)

6. **Open communication** throughout procurement process is a good thing
7. Design Builders must place **sharp focus on Design Management**
8. One size **does not** fit all
9. Clear front-end definitions and scope is crucial
10. **Reverting to DBB attitudes is possible and dangerous**

Lessons Learned & Best Practices

SFO Airport

Summary of Key Points:

1. Design Builder must provide strong leadership in design management
2. A start-of-project "Planning Summit" would be beneficial
3. A clearly defined communication and design submittal process with built-in accountability is necessary

(Cont)

Lessons Learned & Best Practices

SFO Airport

Summary of Key Points: (Cont)

4. More continuity with Owner's original design consultants is desirable
5. Contract Admin Services by original Designer might be helpful
6. Might consider "Master Arch" and bridging documents to a greater degree of development on future projects
7. Will keep QBS process
8. Issues surrounding fast tracking and ongoing design development can exist
9. SFO will re-think point at which GMP is determined

Lessons Learned & Best Practices

Developments in Design-Build Caselaw

- Summary of Key Points:
 - Litigation still happens – Design Builders can lose big!
 - Normal Contract Admin problems remain at the heart of many disputes

Cont.

Lessons Learned & Best Practices

Developments in Design-Build Caselaw Transportation Arena

9 lessons learned:

1. Design-Builders are Being Held Responsible for Problems Caused by 3rd Parties
1. Design-Builders May be Seeing an Erosion of the *Spearin and Good Faith and Fair Dealing Doctrines*
2. Contractors Take Great Risk in Failing to Follow the Requirements of the Changes Clause
3. Remember that Courts will Actually Read and Think about the Provisions of your Contract
4. Design-Builders Need to Follow the Specifications They Create

Cont.

Lessons Learned & Best Practices

Developments in Design-Build Caselaw
Transportation Arena

9 lessons learned: (cont)

6. **Cost-Plus Contracts Are Not “No-Risk” Contracts**
7. **When RFP Says “No Exceptions Allowed,” It Means “No Exceptions Allowed”**
8. **Agencies are Given Deference in Making their Procurement Decisions**
9. **Pay Attention to Conditions Precedent to Arbitration/Litigation**

Lessons Learned & Best Practices

DC Water Dept Design-Build Procurements

• Summary of Key Points:

1. A **more realistic schedule** from start to finish is necessary
2. **Selection Panel** should be identified prior to receiving SOQ
– **Make members be more prepared**
3. **RFQ content / Solicitation** issues should be addressed

(Cont)

Lessons Learned & Best Practices

(DC Water Dept Design-Build Procurements)

- Summary of Key Points: (Cont.)
- 4. **Verification of Proposer's financial capabilities** against cash flow requirements of the project should be analyzed
- 5. **RFQ Evaluation should include technical staff interface** and some measure in place to quantify "Adjectival" evaluations (Excellent, Good, Fair, Poor)
- 6. **Refinement of what is requested in the content of the technical proposal should be a primary focus**
- 7. The need for confidentiality cannot be overstressed

Lessons Learned & Best Practices

DC Water Dept Design-Build Procurements

- Summary of Key Points: (Cont.)
- 8. A more **proactive collaboration period is desirable**
- 9. **Realize that there will be addenda and that an effective process should be implemented**
- 10. **Selection panel should be proactive in any questioning process**
- 11. The Proposal Evaluation process should be well thought-out and executed
- 12. **Contract should mirror selection**

Lessons Learned & Best Practices

DC Water Dept Design-Build Procurements

- Summary of Key Points: (Cont.)
- 13. Payment of stipends should be a streamlined process
- 14. **Designer needs "skin in the Game"**
- 15. "preliminary" schedule in Tech Proposal is unreliable to use as early stage construction schedule
- 16. **Technical proposals don't require enough organizational structure information relative to QA/QC and design submittals**

Lessons Learned & Best Practices

From Design Builders:

Getting committed, collaborative players and working together as 'partners

- **Experience**
 - working with your organization
 - working with other design-build teams
 - in their respective trade / niche
- **Trust**
 - built on mutual respect and 'history'
 - fostered by honesty and authenticity
- **Solidity**
 - Financial – Reputation - Performance / Quality
- **Creativity**
 - Must think new paradigm
 - Thrives on options
 - Understands the value of negotiating

What are the most important skills in developing a design-build team?

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Residual Concerns: Quality Control within Design-Build and IPD models

- QC Plan might be built into the proposal
 - Always assume the responsibility
 - Contractors: Be able / ready to work with Owner's Rep to refine the QA / QC requirements in order to overcome the Owner's skepticism or to fulfill the requirements of the RFP
- May be ultimately administered by a third party
- Owner may write Section 01 of the specs

Residual Concerns:
Scheduling / Phasing and other logistical concerns

- Schedule is no less a concern in design-build
 - Design Builder must:
 - Listen
 - Probe
 - Strategize
 - Innovate
 - Collaborate
 - Integrated design should equal integrated Schedule
 - All parties playing critical roles in developing the critical path

Residual Concerns:
Phasing

- Phasing the design to facilitate the best elements of design-build
- Phasing the work to showcase the design-build approach at it's finest
 - Accommodating compressed schedules
 - Sequencing in creative ways that have been advanced using this new paradigm
- Design Build does not have to be fast tracked
 - is not synonymic with "fast track"

Residual Concerns:
Other Logistical Concerns

- **Still at the mercy of:**
 - Governments and Municipalities
 - Owners of Infrastructure
 - Utilities
- **You are also an Educator**
 - Subs and Suppliers
 - Construction Managers
 - 'Minor' Design Professionals

Residual Concerns:
Working with end users

- Probing deeper
- '+ - list' of wants and needs
- Developing **Options**
- **Leading** from the helm
 - Being able to explain difficult concepts and eventual decisions to the 'laity'
 - Selling without making others feel like they've "*been sold*"
- Learning how to be the hero

How does Design Build evolve from Here? How does "Pure" IPD Accelerate the Process?

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