Design-Build as a Second Language: From A to Z

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Severson & Werson
A Professional Corporation

Agenda

- Design-Build Trending & Reality
- Varied Opportunities in Design-Build
- Risk Realities
- Bridging
- Paradigm Shift to Design/Build
- Sequenced Steps to Sane Success

Learning Objectives

- Identify the differences in the design-build project model.
- Prioritized the variations based the corresponding impacts for relationships, fees, and liability risks.
- Develop strategic tools and procedures to successfully manage the most perilous variations.
- Based on the issues above, develop a template to weigh and evaluate the merits of projects to be done on a design-build basis vs. variations on that theme.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

The Design-Build Promise

Metric	Design-Build vs. Design-Bid-Build	Design-Build vs. CM@R
Unit Cost	6.1% lower	4.5% lower
Construction Speed	12% faster	7% faster
Delivery Speed	33.5 % faster	23.5% faster
Cost Growth	5.2% less	12.6% less
Schedule Growth	11.4% less	2.2% less

Source: Construction Industry Institute (CII)/Penn State research comprising 351 projects ranging from 5K to 2.5M square feet. The study includes varied project types and sectors.

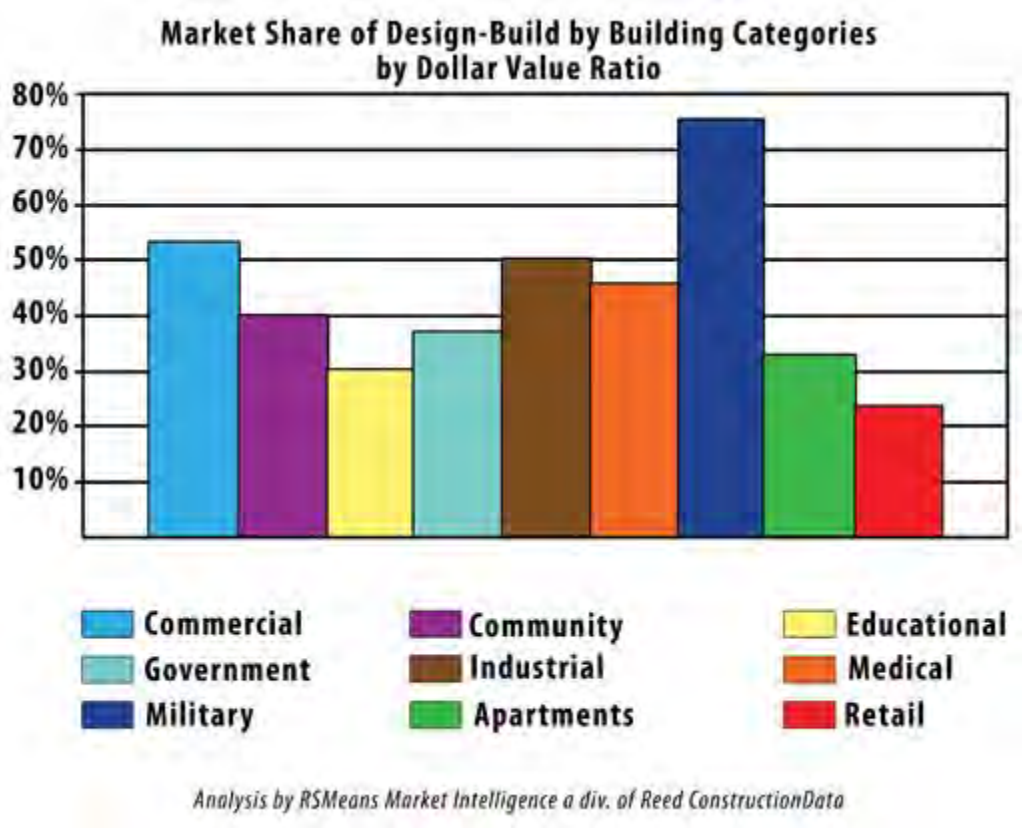
Design-Build Demand

Percentage of Non-Residential Buildings Delivered Using Design-Build Project Delivery in 2014

Rank	State	Design-Build Value Ratio
1	OR	68%
2	HI	67%
3	KY	61%
4	CA	59%
5	ME	58%
6	NV	55%
7	CO	53%
8	NM	53%
9	AK	52%
10	AL	51%
11	MD	50%
12	DC	46%
13	WA	44%
14	OH	43%
15	WY	42%

Analysis by RSMeans Market Intelligence using CDM MarketStates Data, 2014.

By Sector



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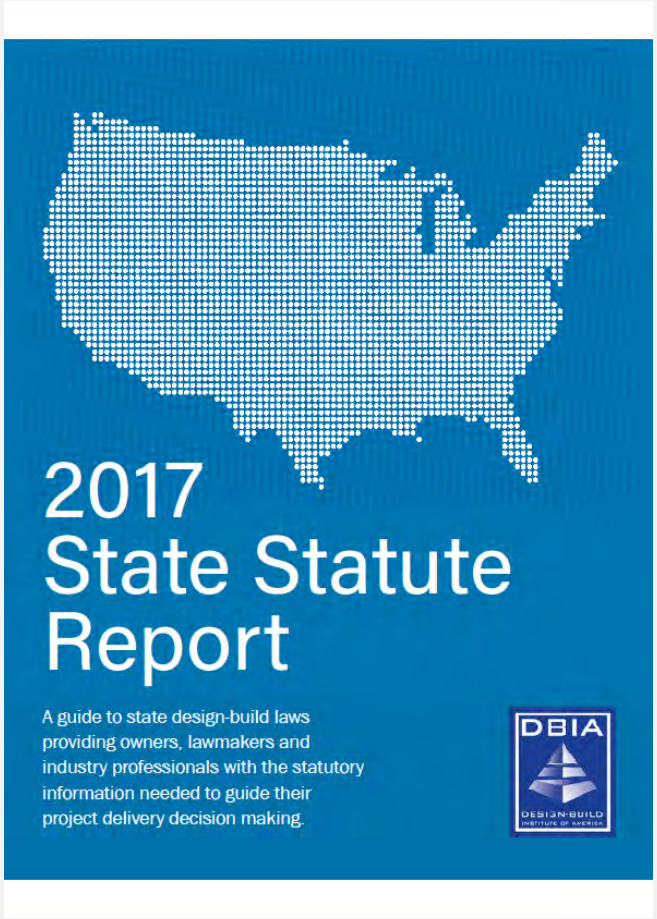
Design-Build Institute of America Demand Data

- Growth in use to over 40% of non-residential construction in US from 2010 to 2014.
- More than 50% of large, non-residential projects ($10M+) are done using design-build.
- Total growth of over 50% in last decade.
- Transportation is fastest growing sector.
- Most prevalent in Pacific and Southeast Sectors.

- The three dominant reasons touted for this trend:
  - Single point of external responsibility
  - Cost
  - Schedule

Public Project Engagement



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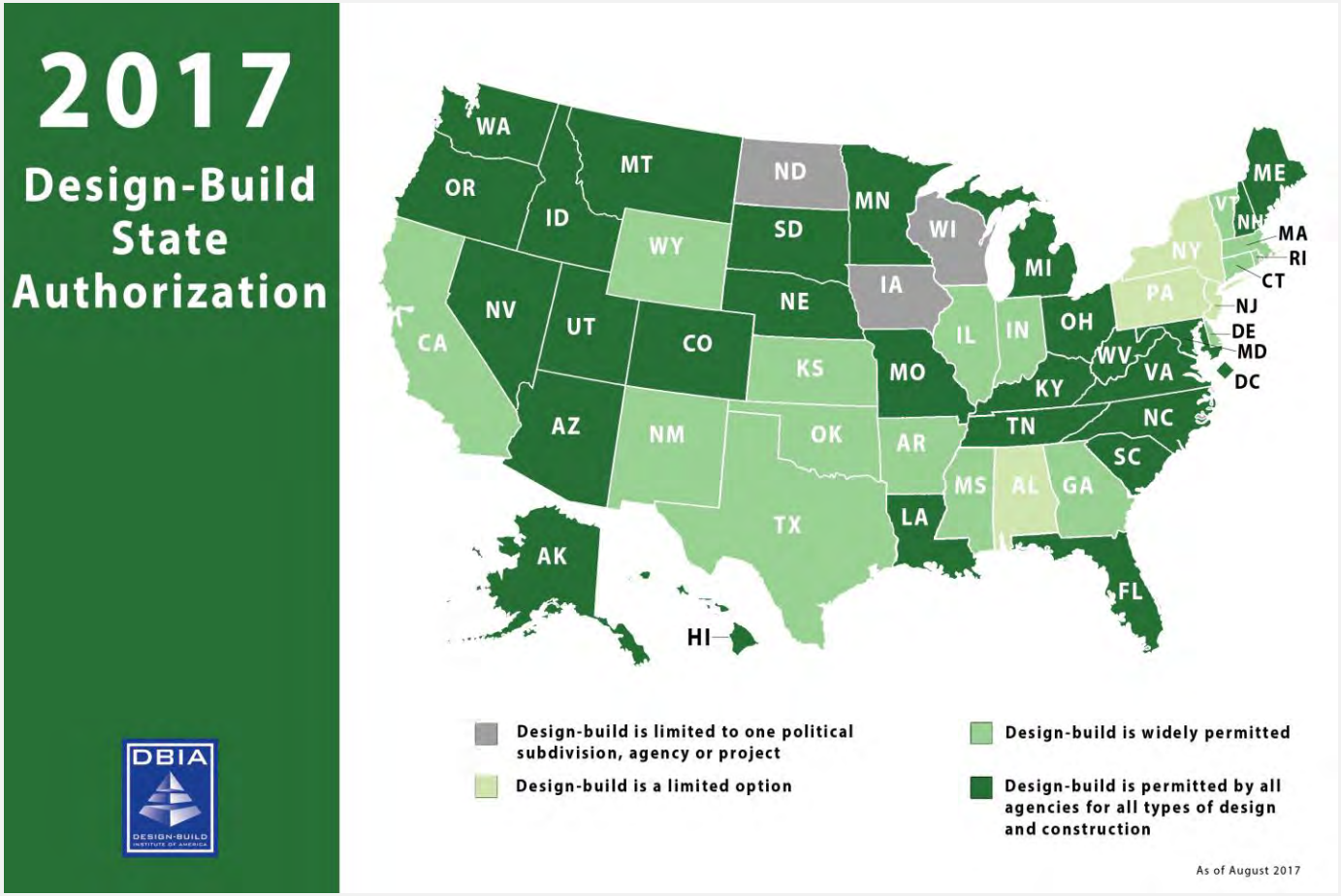
2017 State Statute Report



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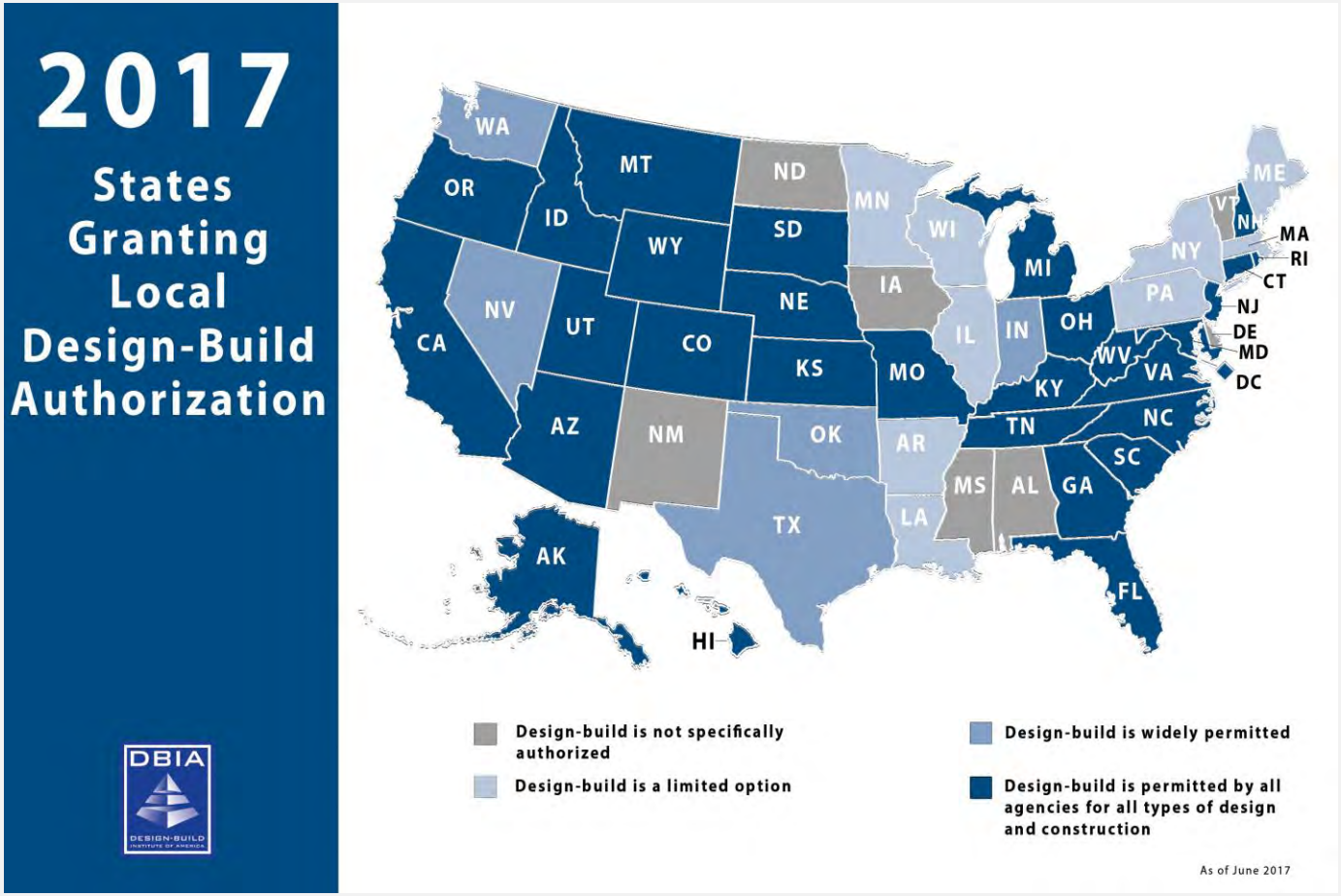

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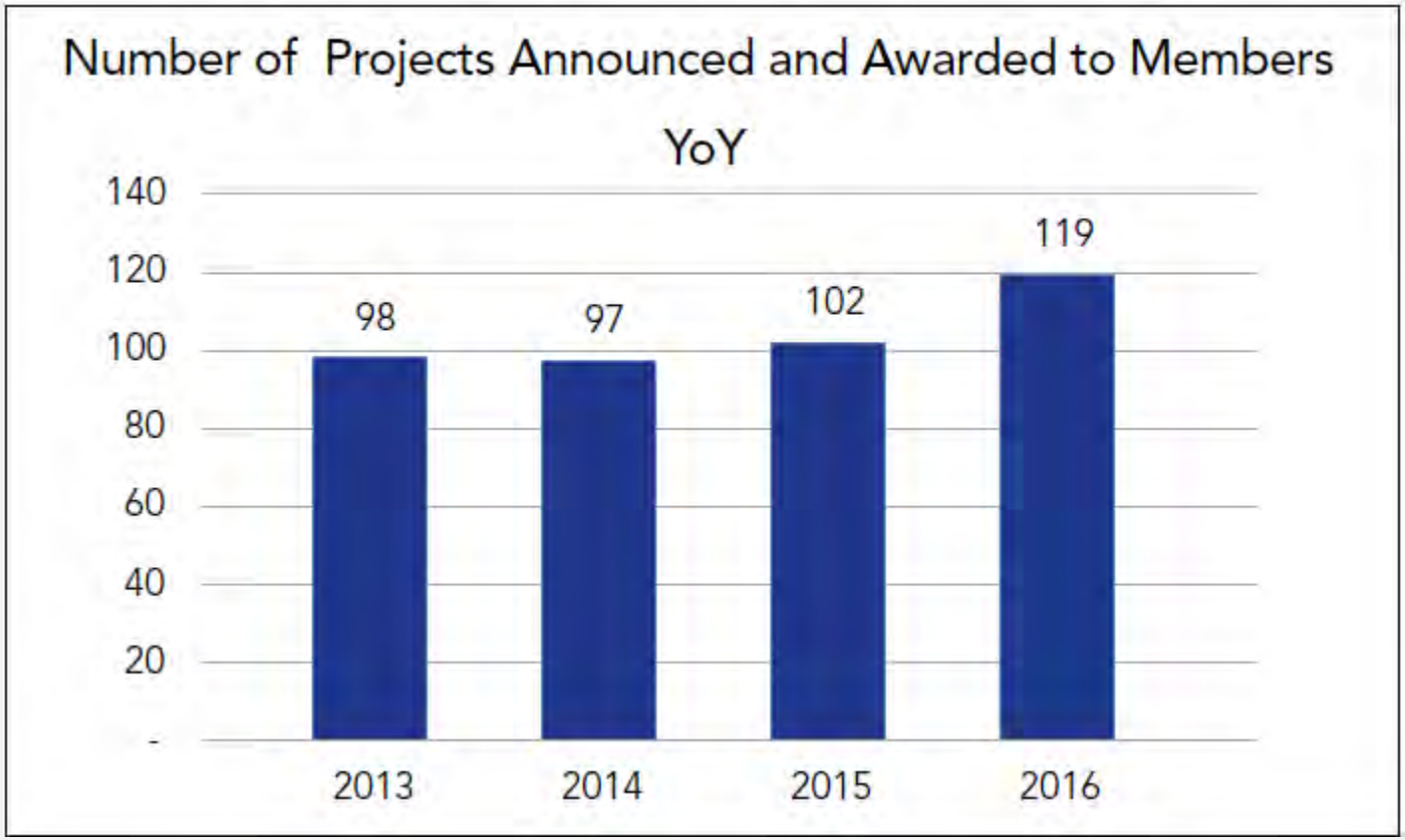
Transportation Sector

- 1990-2002: 200 D/B Projects in U.S.
- 2004-2016: 1,300+ D/B Projects in U.S.
- By Project Type:
  - Road: 95%
  - Bridges: 65%
  - Rail: 9%

Water/Wastewater Sector



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Design-Build Demand Factors for Owners

- Single Point of Responsibility/Accountability.
- Faster.
  - 33%, according to Construction Industry Institute.
- Cheaper.
  - 6%, according to Construction Industry Institute.
- Access to specialized products and systems.

Opportunities in Design-Build

- Market opportunity.
- Larger projects, larger fees.
- Cutting edge projects, technologies, and clients.
- Increased collaboration (or at least different).
- **Varied opportunities and roles.**
- **Ongoing relationships/teams.**
- **Participation in Front-Line Economics**

So What Could Go Wrong!?!

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Design Risk Factors

- Improper Design Scheme – 36%
- Designer Lack of Responsibility – 8%
- Inaccuracy/Delay in 3rd Party Information – 7%
- Improper Design Team – 6%
- Lack of Experience – 6%
- Owner Review/Changes – 5%
  - *Journal of Construction Engineering Management – October 2017*

The Paradigm Shifts
Competing Roles

Bridging "Designer"

- ❑ Limited Scope
- ❑ Limited Role
- ❑ Limited Duration
- ❑ Limited Responsibility(?)

Design/Build Design Professional

- ❑ Comprehensive Design
- ❑ Construction Phase Engagement
- ❑ "Contractor" Team

Bridging Strategies

- Picking the Right Projects & Clients
- Limited Scope of Design
- Limited Duration
- Clear & Effective Transition
- Mind the Boundaries

Start with Limited & Focused Duty

Consultant's services are intended for the sole benefit of Client and are not intended to create any third party rights and benefits.

It is expressly acknowledged that this is a Design-Build project and Consultant shall have no duty or obligation to the Design-Builder or anyone employed or engaged through Design-Builder.

Limit the Design Scope

Consultant's design is expressly intended solely as a conceptual design establishing the general form, function, programming, and standards. It expressly understood that the final design, including, but not limited to all elements of Code compliance, constructability, and warranty shall be the sole responsibility of the Design-Builder.

Varying Expectations of Bridging Completeness

- 5% to 15% Alameda Corr. Transp. Auth.
- 10% Florida DOT
- 10% to 20% Arizona DOT
- 10% to 40% Ohio DOT
- 15% Utah DOT
- 20% New Jersey DOT
- 30% Utah Transit Authority
- 30% to 40% Washington State DOT

“Post” Bridging Role

- Anything?
- Solely as a consultant to owner
- Directives solely by owner
- Extent and impact of statements
- Not an “approval” or “confirmation” role
- Review solely for general conformance of intent with obligation to notify only of issues actually identified

Post Bridging Role

Bridging Consultant's involvement after retention of Design-Builder shall be solely as a consultant to Owner and not for the benefit of Design-Builder.

Information provided by Bridging Consultant after retention of Design-Builder shall impact the Project criteria or standards only if provided in writing and expressly approved by Owner in writing.

Report to Owner

Make reports of activities, meetings, visits solely to Owner.

Do so at specific and pre-established milestones or schedule.

Do so at time of specific concern or issues raised by Design-Builder.

Final report?

Competing Design-Build Side Roles

- Design-Build Lead
- Joint-Venture with Contractors/Others
- “Subconsultant” to Design-Builder

Contractor-led Design-Build Dominates

- Contractor Responsibilities Inappropriate for Engineers:
  - Means, Methods, Sequencing
  - Jobsite Safety
  - Warranty
  - Construction Defects
- Licensing/Statutory Authority to Contract for Construction
- Inapplicability of Professional Liability Insurance to Cover Activities
- Bonding Requirements

The Paradigm Shift from the Design-Bid-Build Model

- Teaming with/Reporting to the Contractor
- Attenuated Owner Communications
- Altered Cost Structure & Related Priorities
- Responsibility for Jobsite Safety, Means, Methods, & Sequences
- Responsibility for Project/Product Performance & Warranty

Design-Build Demand Factors Impact Design Role & Risks

- Single Point of Responsibility.
  - Not “on point” with the owner, but is at least one more step removed with a different “master”.
- Faster.
  - Often predicated on a “fast-track” model initiated with incomplete designs.
- Cheaper.
  - Focus becomes on cost, not quality or design.
  - Contractor “capped” at fixed price without recourse to owner.
- Access to specialized products and systems.
  - Standard of Care?
  - Leads to product performance and warranty issues.

Primary Paradigm Shift
The Contractor Focused Relationship

- As JV or subconsultant, primary duty and relationship is with contractor.
- Any duty to or relationship with owner is secondary and derivative.
- As a result, contractor priorities become the A/E's priorities:
  - Cost. (No owner obligations for contingencies or changes.)
  - Project Performance and Warranty Exposure.
  - Schedule Jobsite Safety, Means, Methods, & Sequences
- By "teaming" with contractor, A/E may expressly or by implication take on heightened responsibility for traditional contractor issues (e.g., safety, means & methods, etc.)

Claim & Risk Drivers

- Paradigm Shift to:
  - Different Relationships & Allegiances
  - Differing Priorities & Objectives
- The Faster/Cheaper Promise vs. Construction Reality
- Differing Contract Forms
- Insurance
  - Correlation/Disconnects Between Professional and CGL

A/Es and the Altered Co$t Paradigm of Design-Build

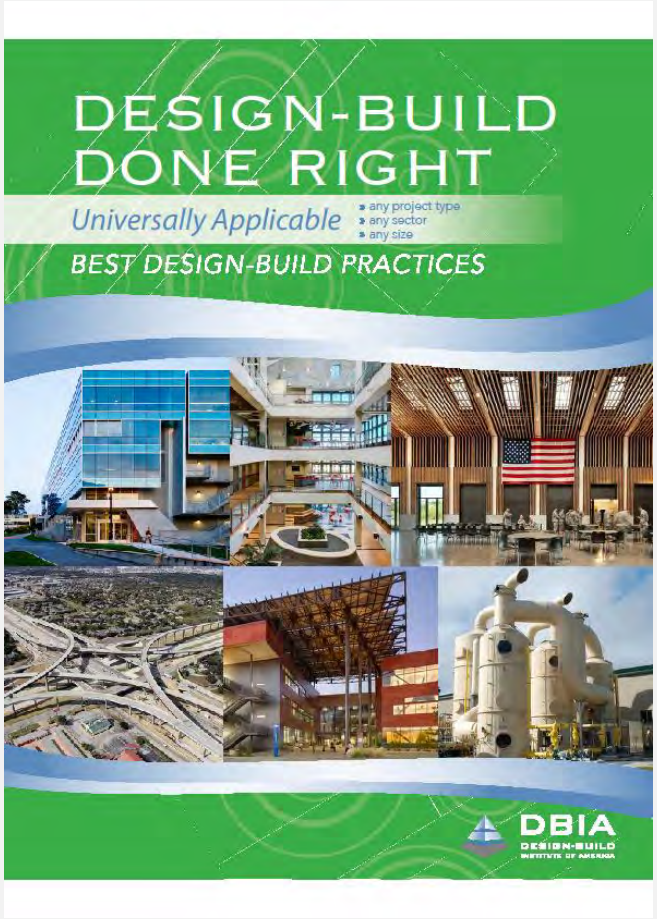
- In a traditional design-bid-build project, contractors expect to be paid for every change and owners are obligated to fund it where the change is not a standard of care issue. This is the "Spearin" gap.
- In a design-build project, the owner and design-builder often agree to a fixed price, and the design-builder's only means to recoup costs for changes is the Engineer.

The Paradigm Shift for Safety & Product Performance

- As part of the “design-builder team”, claimants and Courts have held A/Es responsible for traditional contractor responsibilities of jobsite safety, means, methods, & sequences.
- Many design-build agreements incorporate the program or performance specifications for the project and guarantees therefore. Incorporation of those requirements into A/E agreements, make the A/E as much as equally responsible for those promises and obligations.

“Design-Build Done Right”
DBIA - 2014

1. Procuring Design-Build Services
2. Contracting for Design-Build Services
3. Executing the Delivery of Design-Build Projects



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"Design-Build Done Right"
DBIA - 2014

Step One

Assess "unique characteristics of the program/project" to determine if D/B appropriate.

Applies to:

- Owner
- Design-Builder
- Design Professionals

Selection

- The Project
  - Form vs. Function
  - Competition vs. Commodity
- The “Design-Build” Partner
  - Collaborator or Commodity Buyer
- The Team – (roles & capacity)
  - Coordinated & Complete Roles
  - Technical and “Soft” Issues

The Teaming Agreement

- Emerging Standard and Imperative
  - Single Project or Ongoing Relationship
- Should address:
  - Standards
  - Consequences
  - Timing, process, and communications
  - Commitments

"Design-Build Done Right"
DBIA - 2014

Contracting

1. "Fair, balanced, and clear."
2. "Promote collaborative aspects."
3. Consistency.
4. Confirm expected standard of care for design services.
5. Continuous team engagement.

Contracts Are the First Key to Manage the Paradigm Shift and Related Risks

- Industry Contract Resources:
- EJCDC – D 500 Series
- FIDIC – Agreement IV for Turnkey Projects
- AIA – A141/C141
- AGC Consensus Docs – The 400 Series
- DBIA – Agreements 520, 535, and 540

Key Points for a Design-Build Design Contracts

- Realistic expectations
- Limited responsibilities
- Professional Standard of Care
- Key Assumptions & Contingencies

ALL Design-Build Agreements for A/Es Depend on the Scope of Work

- Detailed.
  - Quantity.
  - Schedule.
  - Actions.
  - Services & Work Product.
- Expressly Limited.
  - Closed end obligations.
  - Exclusions.
- Identified Bases.
  - Program & Performance Specifications.
  - Information Received or Required.
  - Assumptions.
- Tied to the Standard of Care.
  - Not Perfection.
  - Contingencies Required.

ICE the Design-Build Project

Issue Identification – Project Issues/Relationship Issues & Risks

Contract – Educate the Parties & Manage the Issues Through Contract

Execute - Perform Consistent with the Contracts, and Communicate/Document the Actions and Statements Key to Managing the Issues and Related Risks

Key Design-Build Issues to ICE

- Standard of Care vs. Warranty/Guarantee
- Indemnity
- Schedule & Liquidated Damages
- Cost of the Work
- Jobsite Safety, Means, Methods, & Sequencing
- Duties & Relationships

Warranties of Standard of Care or Performance

- DBIA's standard design-builder-designer agreement. Section 2.2.1: "…if the Design-Build agreement contains specifically identified performance standards of aspects of the service…Designer agrees that all such services shall be performed to achieve such standards."
- Constitutes a promise to achieve certain performance objectives. A claim for breach of this promise would likely be excluded from coverage under the contractual liability exclusion that exists in almost all A/E professional liability policies.

Standard of Care vs. Warranty

- Contractors are typically held to a higher or different standard than design professionals. Often there is a warranty (express or implied by law) that the construction will be defect free.
- With the design-build entity responsible for both design and construction, it is more likely that it may be held legally responsible not just for defect free construction, but for sub-par performance of systems and the construction itself.
- If the A/E is sued under warranty, express in the contract or implied as a result of sitting in the contractor's shoes, there may be no insurance coverage.

ICE Response for the Standard of Care

Consultant's services shall be provided consistent with and limited to the standard of care applicable to such services, which is that Consultant shall provide its services consistent with the professional skill and care ordinarily provided by consultants practicing in the same or similar locality under the same or similar circumstances. Such standard of care is not a warranty or guarantee and Consultant shall have no such obligation. Accordingly, Client should prepare and plan for clarifications and modifications which may impact both the cost and schedule of the Project.

ICE Response for the Scope of Duty (Limit Joint & Several)

- "The Engineer shall not be responsible for the acts or omissions of the Owner, the Contractor and Subcontractors, and their respective agents or employees, or any other persons or entities performing work on the Project who are not under the direct control or authority of the Engineer." (AGC)
- "The Consultant shall not be responsible for other consultants, Contractor, Subcontractors, their agents or employees, or other persons performing the work." (AIA)

Indemnity/Defense

- The standard DBIA design-build contract for contractor-led delivery contains an indemnity requiring the designer to "defend Owner, Design-Builder and their officers, ...".
- Leads to potentially-disproportionate responsibility for "allegedly" shared issues.
- The design-builder's indemnification provision in DBIA's standard form does not include such a defense obligation for the design-builder back in favor of the designer.

ICE on Indemnity/Defense

Contract Strategies:

- Option 1: Eliminate.
- Option 2: Mutuality required. (Critical & Fair in D/B)
- Option 2A: Limited "to the extent caused by actual negligence" without defense obligations (or limited to applicable insurance).

Coordinated Strategies & Actions:

- Verify adequacy of insurance and resources of others.
- Additional insured requirements.
- Clear contracts, design documents, and records establishing limits or roles and responsibilities of others.

Co-ordinate Other Insurance with Your Obligations

Insurance - Basics

- ❑ Professional Liability
- ❑ Commercial General Liability
- ❑ Excess Liability /Umbrella Liability
- ❑ Commercial Auto
- ❑ Workers' Compensation / Employer's Liability
- ❑ **Additional Insured Status**

Professional Liability Special Coverages

Project Specific Professional Liability Insurance

- Availability
- Who is the Insured
  - First Named Insured
  - Named Insureds
  - Additional Insureds / Indemnified Parties
    - Project Owners
    - Design-Build Contractors

Professional Liability Special Coverages

Contractor's Protective Insurance -Professional Liability

- Who is the Insured?
- What is covered?
- How does this affect my professional liability policy?

Liquidated Damages

- Rarely found in professional liability contracts, but often found in contractor-owner agreements.
- Liquidated damages are damages that meet the requirement that they are impracticable or difficult to fix at the time of the formation of the contract and, therefore, can be enforced if such damages represent a fair estimate of compensation for the breach of contract.
- DBIA's standard form of agreement between design-builder and designer contains a liquidated damages provision in favor of the design-builder (Article 11.7.2), if such a provision exists against the design-builder in its agreement with the owner.

ICE on Cost & Schedule

- Clearly establish that perfection is not the standard and that there is no warranty or guarantee.
- Advise of necessity of contingencies in cost and schedule, but resist setting them yourself.
- Include waivers of consequential damages.

ICE Solution on Cost of the Work

The Parties waive and release any claim for consequential or special damages, including but not limited to losses of use, profits, business, reputation or financing, any rental expenses incurred, loss of income, profit or financing related to the Project as well as the loss of business, loss of financing, principal office overhead and expenses, loss of profits not related to this Project. (AGC)

Site Safety

- Standard design professional services contracts often/should exclude legal responsibility for site safety (except for the design firm's own employees).
- Contractor agreements typically include full site safety.
- Since the design firm is now under direct contract with the contractor led design-build entity, it may have what are known as flow down provisions that incorporate obligations contained in the owner/design-builder contract into the sub-consultant agreement between the design-builder and designer.

ICE Site Safety

Design-builder shall be solely responsible for all issues associated site safety, means, methods, and sequencing. Consultant shall have no responsibility for any such issues. Accordingly, Design-builder shall protect, defend, hold harmless, and indemnify Consultant from any and all issues, claims, losses, or damages arising out of or related to site safety, means, methods, and sequencing.

ICE on Duties & Relationships

Consultant's services are intended for the Client's sole use and benefit and solely for the Client's use on the Project. Except as agreed to in writing, Consultant's services and work product shall not be used or relied on by any other person or entity, or for any purpose following substantial completion of the Project.

- Reflect in Contract, Scope, and Work Product
- Any extensions should be strategic and intentional.
- Prohibit assignment.

Duties & Relationships with Owner & Others

- Duties Beyond Contractor Can Arise From:
  - Code
  - Safety
  - Owner Contacts/Directions
  - “Standard of Care”

"Design-Build Done Right"
DBIA - 2014

Execution

1. All team members educated/trained in D/B and its variations from other methods.
2. Early establishment of logistics for communication/collaboration/coordination.
3. Establish process for early issue identification and resolution.
4. Continuous education and confirmation of owner expectations directed at turnover.

Tools to Execution

- Kick-off Meeting
  - Documented – Manual or Minutes
- Coordination Protocol
  - Timed/Phased
  - Written Confirmation
  - Consequences
- Waterfall Signoffs
  - By Design-Builder, Team, and/or Owner

Delivery & Closeout

- Affirmative Project Delivery with Documentation
- Documented Project Walk/Review
- Records of Substantial Completion
- Final Invoicing & Correspondence

Your Questions & Comments

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