

NAVIGATING STATE DESIGN BUILD STATUTES IN THE WAKE OF A “TURNED FEDERAL BATTLESHIP”

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*Building Better Construction Contracts: Tailoring Incentives, Creating
Collaboration and Developing Effective Risk Allocation*

Panel Discussion: Creating a Better Design/Build Agreement

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Those attending this symposium no doubt are familiar with the touted benefits of the design build delivery method¹: (1) single point of responsibility to owner; (2) shortening certain project times; (3) fewer change orders and more cost-certainty; (4) fostering higher quality work-product; (5) reduced finger-pointing in the event of claims; and (6) minimizing certain owner's risks. While design build is widely used on suitable projects in the private sector, the story has been different in the public sector, particularly at the state level.

1. Public Sector Adoption of Design Build Procurement: Federal Movements Toward Widespread Acceptance But Baby Steps By Most States?

After fits and starts, the design build delivery method is an accepted method for the procurement of at least certain types of government contracts in all fifty states, the District of Columbia, Puerto Rico, and at the federal level.² But most state procurement statutes still limit the authority to use design build procurement either by dollar amount or by project type.³

Some of the reasons for the public sector lag are unsurprising. State procurement officers are under microscopes and certainly take comfort in tried and true procurement methods. Also they can be handcuffed by out-dated procurement statutes, and are no doubt also subject to political pressures to maintain the status quo. Some simply haven't had the time or opportunity to process the benefit of design build. Others may simply have either a tough time letting go or a

¹ Design build is a project delivery method for the improvement of real property by which a single contractor is responsible to a single owner for both the design and construction of the improvement. ORC Ann §4703.182(B)(2)

² Charts containing the design build procurement statutes of federal and state codes can also be downloaded for free at the Design Build Institute of America's (or "DBIA") website *available at* <http://www.dbia.org/advocacy/state/>

³ DBIA also publishes a chart surveying recent additions to state design build procurement statutes which also can be downloaded for free *available at* <http://www.dbia.org/advocacy/state/>

fear of the unknown. A September 2002 report by the New York Department of Transportation (or “NYDOT”) summarized institutional reluctance to adopt design build by saying:

[S]uccessful use of [design-build project delivery] requires a change in attitude and a cultural shift in working with the construction and consultant industries. Contractors for a project will become responsible for many of the activities that currently are the responsibility of the agency. The contractor will have to accept those responsibilities and the agency will have to let them go. There will be a closer working relationship between the two parties and a greater mutual trust that both are focused on producing a quality product.⁴

To this day, New York has not enacted design build procurement legislation and still largely subscribes to the “Wick’s Law,” which calls for individual lowest bid procurement in plumbing and gas fitting, heating, ventilation and air-conditioning, and electric wiring. NYS Finance Law § 135.

Nevertheless, many state procurement officers around the country are aware of the benefits of design build, crave innovation and seek to bring their agencies in line with the lessons learned in the private sector. They not only pursue increased use of design build, but even Integrated Project Delivery (“IPD”) and other collaborative and innovative delivery systems.

While several published sources detail the federal framework and survey design build procurement rules⁵ this paper adopts a comparative approach, discerning common features and in some cases disparities and unique features of states design build procurement framework.

⁴ Prepared by Parsons, Brinckerhoff, Quade & Douglass for NYDOT, “Design-Build Practice Report” (2002) *available at* <https://www.nysdot.gov/divisions/engineering/design/dqab/design-build> at 60.

⁵ Design Build Institute of America’s Website <http://www.dbia.org/advocacy/>; the American Institute of Architect’s Website <http://www.aia.org/advocacy/index.htm>; THE DESIGN/BUILD DESKBOOK (Kerry L. Kester et al. eds., 4TH ED. ABA Forum on the Construction Industry 2010).

Construction law practitioners and their clients need to be aware of these disparities, distinguishing features, and how to guide their clients through them.

a. The Federal Model Emerges in 1996

The Clinger-Cohen Act of 1996⁶ was a ground-breaking moment for the design build procurement movement. An excellent article detailing the federal model (and inspiring the title of this paper) was published just a few months ago. Barabra R. Gadbois, John R. Heisse, & Joseph C. Kovars, Turning a Battleship: Design-Build on Federal Construction Projects, 31 *The Constr. Lawyer* 6 (Winter 2011). Although some federal acceptance of the design build concept pre-dated this statute (e.g., with modestly funded and time-sensitive projects in the Defense Department),⁷ the Clinger-Cohen Act streamlined the design build delivery method and made it available to federal government entities undergoing major projects. Prior to the Clinger-Cohen Act, federal agencies were generally confined to the use of The Brooks Architect-Engineering Act of 1972 for the procurement of Architectural or Engineering (together “A/E”) related services. The Brooks Act employed a competitive bidding process for these services, however, it only contemplated traditional design-bid-build, and it only applied to A/E procurement. After Clinger-Cohen, the Veteran’s Administration, the General Services Administration, Postal Service, Federal Bureau of Prisons, Environmental Protection Agency, Dept. of Energy, the U.S. Army Corp of Engineers, the State Department and other federal agencies were able to competitively procure construction and A/E services by using the design build procurement method.⁸

⁶ 41 USC §253m.

⁷ Federal Highway Administration, “Design-Build Effectiveness Study,” 5 (Jan. 2006).

⁸ *Id.* at 6.

b. State Responses to Clinger-Cohen

Soon after the passage of the Clinger-Cohen Act, state legislatures began retooling their procurement statutes, patterning them after the federal model. Florida, Georgia, Illinois, Massachusetts, Texas, and Washington all have Clinger-Cohen-like procurement statutes. California, modified its review process slightly, but has generally stayed within the rubric set forth by the Clinger-Cohen Act. These states passed design build procurement legislation in the face of well-documented critiques, which posited that design build delivery would eliminate small contractors and allow large out-of-state conglomerates to dominate state construction projects.⁹ Nevertheless, design build reportedly continues to develop in these states.¹⁰

Despite the path forged by Clinger-Cohen in 1996, the law did not foster the consistency across the several states that industry leaders anticipated. Design build procurement laws often have been patchworks, reflecting states' unwillingness to freely undergo change in procurement methodology. Even with fairly widespread state adaptation of some type of design build method, design build procurement statutes still vary in form and function. For now, many, if not most, states have introduced design build legislation for specific and experimental purposes only, simply to dip a toe in the water of design build procurement.

Many states have experimented by giving design build authority to their respective departments of transportation (or "DOT's").¹¹ Forty (40) states have enacted design build procurement statutes specifically granting authority to use design build in the construction of

⁹ "Design-Build Effectiveness Study" *supra* at 7.

¹⁰ *See generally* "DBIA Legislative Report" *supra*.

¹¹ Of the several state DOT's surveyed by NYDOT in its 2002 report, almost all submitted that Design-Build Procurement was selected because of public demand that road construction projects be finished on the shortest timetable possible. "Design-Build Practice Report" *supra* at 5-14.

state highway projects.¹² Wisconsin's experimentation with design build only has extended to the design and construction of bridges in the state.¹³

Other states have been more adventurous. Illinois, Massachusetts, California, and Arizona have enacted an assortment of design build statutes for municipalities, state universities, and the DOT's.¹⁴ But some of these statutes are only a few years old, and have yielded only a small number of projects to show the success of design build.

Additionally, there have been some efforts to promote a uniform approach. Toward that end, in 2000, the American Bar Association (or "ABA") published the Model Procurement Code, which contained a suggested unified body of law on design build. The Model Procurement Code contains helpful guidance for state lawmakers as well as committee commentary for practitioners. However, state design build procurement law has not caught up to the uniform approach suggested by the ABA.

c. Dollar Caps and Other Stamp-Imposed Limitations

States that give government agencies wide discretion to use the design build delivery method remain in the minority, and the majority of states expressly limit discretion to use design build. State limitations generally fall into three categories: (1) number of statewide design build projects per year; (2) percentage of statewide projects using design build (as opposed to the traditional method); or (3) projected cost of the project.

Cap limitations are typical of states that are still in the pilot stages of implementing design build procurement. According to the Design Build Institute of America (or "DBIA"),

¹² See DBIA State Statute Report *available at* <http://www.dbia.org/advocacy/state/>

¹³ DBIA State Statute Report *supra*.

¹⁴ *Id.*

Arkansas, Delaware, Minnesota, North Carolina, and West Virginia all cap the aggregate amount of design build projects per year. *See* State Statute Report *supra*. Arkansas authorizes two pilot DOT projects per year; Delaware authorizes twelve DOT projects per year; Minnesota authorizes ten DOT projects as a pilot; North Carolina authorizes a total of twenty-five DOT projects per year; West Virginia authorizes thirteen Division of Highways projects per year. In many cases, government agencies in these states must submit a report to the general assembly on the effectiveness of the design build delivery method. Effectiveness is measured by some states in cost or time savings, the number and cost of change orders, the quality of work performed, the number of bids received, and other appropriate measures.¹⁵ Similar to the NYDOT Practice Report mentioned above, these reports are used by legislators to develop design build law.

Various states authorize agencies to use design build only if design build procurement across the state is under a certain percentage each year. For example, Georgia authorizes no more than thirty percent (30%) of design build projects each year; Idaho authorizes no more than twenty percent (20%) of design build projects each year; Missouri authorizes only two percent (2%) of design build projects each year.

Other states limit authorization for design build procurement on the expected funding amount of the construction project. Massachusetts, New Hampshire, New Mexico, Pennsylvania, and Utah all set limits on authority based on anticipated cost maximums. The threshold amounts vary greatly from state to state, and it is not always clear how these numbers are selected. *Id.* Massachusetts authorizes design build for projects costing more than five million dollars; New Hampshire authorizes design build for projects costing less than twenty-five million dollars; New Mexico authorizes design build for projects costing more than ten million

¹⁵ *See e.g.* West Virginia law - W.Va.Code §17-2D-2 and §17-2D-5.

dollars; Pennsylvania authorizes design build for projects costing more than one-hundred million dollars; and Utah authorizes design build for projects costing more than two-hundred and fifty-thousand dollars. In some instances, it seems that state dollar caps on design build are described, not as a use restriction, but rather as a means of finishing projects under a projected cost ceiling. As of 2002, Utah's Dept. of Transportation (or "UDOT") noted that by using design build procurement, it completed construction of two projects without any change in contract price over the life of the project.¹⁶

2. Common and Distinguishing Features of State Design Build Statutes

Consideration of the common and distinguishing approaches to statutes and procurement laws can help practitioners and their clients navigate through the design build procurement process. This is particularly so when clients are active in multiple states.

a. The Two-Step Process

The most common feature of state design build procurement statutes is the two-step mechanism for selecting a design build entity with which to contract. This process, long established for public procurement at the federal level, includes two steps: (1) response to Request for Qualifications (or "RFQ") and (2) evaluation of responses to Request for Proposal (or "RFP"). While the RFQ establishes qualifications for bidders to meet in order to be considered for a given construction project in step one, the RFP establishes detailed criteria for that construction project in step two. Significantly for selection of design professionals, the

¹⁶ "Design-Build Practice Report" *supra* at 13.

Brooks-Engineering Act in 1972¹⁷ authorized consideration of factors beyond best lowest price for federal projects.¹⁸

For design build procurement the basics of the two-step process haven't changed from the Brooks Act to the Clinger Cohen Act. The two steps cover qualifications and evaluations of bidders. The Clinger-Cohen Act added to the Brooks Act authority to procure construction and A/E services together. *See* 41 USCS §253m(c)(2) and (3). Many industry leaders, such as the DBIA and American Institute of Architects (or "AIA") were instrumental in bringing about this change in procurement.¹⁹

States largely adopted the Clinger-Cohen approach and commonly refer to it as a Qualifications Based Selection (or "QBS"). At least fifteen states use a defined two-step, RFQ and RFP, process.²⁰ California and Texas have a multiple step QBS process but they are still built off of responses to an RFQ and RFP.²¹

The two-steps can be summarized as follows:

- **Step One:** Pre-qualified design build bidders²² respond to a publicly posted RFQ. The RFQ contains qualifications criteria that design build teams must meet in order to compete for a design build contract. States shorten the list of bidders

¹⁷ 23 U.S.C. §112

¹⁸ "Design-Build Effectiveness Study" *supra* at 5.

¹⁹ Gadbois "Turning a Battleship" *supra* at 6.

²⁰ DBIA State Statute Report *supra*.

²¹ *See* Cal. Contract Code §20133(d)(2)(A)(i); Tex. Gov't Code §2166.2531(f)(1)

²² State governments typically develop standards for prequalification. Pre-qualifying to respond to the RFQ allows for a screening unqualified architects, contractors, and engineers before bidding begins.

according to (1) experience; (2) past success; (3) financial capacity; (4) references; and other qualifications of design build entities. Using this criteria in step one, the contracting agency must select the most qualified bidders to compete in step two.

- **Step Two:** A shortlist of design build bidders submit technical and cost proposals in response to the RFP. The RFP contains the specific technical requirements of the construction project. States select a final bidder according to (1) a technical response to the RFP; (2) Quality of Design; (3) Quality of Materials; (4) Design concepts; (5) Innovation; and others. Using these criteria to evaluate the shortlist of design build bidders allows for a competitive selection of government contractors.

In addition to having a competitive platform for design build procurement, the two-step process as modified by the Clinger-Cohen Act provides the opportunity to weed out underfunded, inexperienced, or otherwise inadequate bidding entities. The result is thought to generally produce a higher quality work-product for the owner and a method of determining best value that does not rely solely on price.

b. Use of Technical Review Committees

Some state agencies utilize committees made up of industry professionals and other constituencies in the decision-making process regarding public construction projects. Other state government entities hire employees who are versed in construction and design. Whichever the case may be, design build involves a more complex evaluation process than what was required by the traditional method, causing many states to determine that design build procurement should be managed or aided by specialists.

Towards this purpose, state statutes often provide for the formation of a technical review committee (or “TRC”), which is entrusted with reviewing design build proposals, inviting back bidding entities, and ultimately selecting the most qualified or best value bidder. Although the formula for deciding who will be staffed on the TRC varies, committees usually consist of three to five members and almost uniformly one of those members is a licensed design professional hired to review the technical components of bid proposals. Illinois has a five member selection committee; Indiana requires a TRC of at least three members; Louisiana requires the TRC to be made up of all building construction professionals; Minnesota requires an agency commissioner to be assisted in evaluation by a TRC; Washington requires government boards to appoint members to the review committee who are knowledgeable in design build procedure.²³

c. State Licensing Requirements

According to the DBIA, almost all fifty states and the District of Columbia require design build entities to be licensed in the state in which they intend to design and build.²⁴ For the few states not requiring design build licensure of one form or another, design build entities typically must still sub-contract licensed A/E firms for any design work done on a given project. A failure to comply can result in disqualification from bidding as well as an affirmative defense for a dissatisfied owner.²⁵ The issue for design builders to determine is whether the state in which

²³ 30 ILCS §537/25(a); Ind. Code §5-30-4-1; La. Rev. Stat. §2225.2.2(D)(6); Minn. Stat. Ann. §161.3426(1)(b); Rev. Code Wash. §39.10.240(2).

²⁴ DBIA State Statute Report *supra*.

²⁵ Michael T Callahan, PROCUREMENT AND CONSTRUCTION OF DESIGN CONTRACTS, §7.05[C] 660 Vol. 2, (2005) *citing to* Asselin & Stout, “Legal Exposure of the Design/Build Participants: The View of the General Contractor,” 15 Con. Law 8 (No. 3, Aug. 1995).

they are bidding requires a licensed A/E to be an employee or whether a design build contractor may sub-contract for a licensed A/E firm.²⁶

Most state agencies list their licensing requirements on their website. To prevent design build entities from proceeding in violation of state licensing requirements, some states require design build entities to pre-qualify for procurement. In Illinois, one element of pre-qualification is the requirement that all design build entities carry a state license in architecture or engineering before qualifying to bid on the design-construction of public projects.²⁷ For the design build firm, this requires both individual and firm licensing, and the design build contract will not be enforced without satisfaction of these requirements.²⁸

d. Conflict of Interest Rules

Many state's rules reflect concern that conflicts of business interests will affect business judgment in design build procurement. The California Transportation Commission issued a set of guidelines on conflicts of interest in February of 2010, with the purpose of spelling out the conflicts rules that would govern design build procurement on state transportation projects. It stated generally that its rules required full disclosure of any business association or financial interest that may influence the judgment of a licensed professional in connection with the performance of professional services. It also required that licensed professionals disclose to the state when its services are extended to two or more clients on a project or related project.²⁹

²⁶ *Id.*

²⁷ For Illinois' prequalification requirements *see* <http://www.cdb.state.il.us/prequalification.shtml>

²⁸ Callahan *supra* at 661.

²⁹ The California Transportation Commission, "Guidelines for Organizational Conflict of Interest Policy for the Design-Build Demonstration Program" 2 (Feb. 24, 2010).

Similarly, Texas industry leaders identified a particular concern in the exercise of designer judgment. According to a report published by the Texas Council of Engineering Companies, conflicts are specifically a concern for design build because of the “potential for downward pressure on the independent exercise of professional judgment by the designer.”³⁰ It goes on to distinguish this with the traditional method, where the designer acted as an agent of the owner and had ethical obligations to the owner. One author posits that in design build, the designer is a partner with the contractor, and the ethical obligations or loyalties of the designer to the owner are uncertain in this arrangement.³¹

One issue for Minnesota, and certainly shared by other states, is to prevent hired state consultants from being influenced inappropriately by design build bidders. In 2008, the Minnesota DOT published an approach to conflict management restricting the ability of hired consultants from subsequently joining a design build team. Specifically, the approach forbids a consultant who prepared the technical components of the RFP from later joining a design build team or participating as an offeror in the bid process.³²

Conflict management originated in the Code of Federal Regulations (or “CFR”) as a tool for the Federal Highway Administration (or “FHWA”) to use in the procurement of design build contracts.³³ State projects using federal funds on state highway projects mandate a conflict of

³⁰ Steve Stagner, “Design-Build and Alternative Project Delivery in Texas” Texas Council of Engineering Companies, 14-15 (2007) *available at* http://www.cectexas.org/research_&_policy_issues/default.asp

³¹ *Id.* at 15

³² MnDOT Design-Build Program, “Approach to Conflict Management,” 2 (May 13, 2008) *available at* <http://www.dot.state.mn.us/designbuild/>

³³ 23 U.S.C. §112(b)(3)

interest screening. 23 CFR §636.116 states in relevant part that state agencies must screen potential bidders for any organizational conflict of interest before awarding a contract.³⁴

Some states require certification by design build entities that they are conflict-free.³⁵ Other states require conflict screening be reviewed by each member of the review committee.³⁶ Illinois extended similar conflicts rules in their procurement statutes beyond state highway projects to include any projects using the design build method.³⁷

The common theme of these rules is that design build is susceptible to conflict of business interests because of its integrated nature and because design build entities are chosen by specialized committees. Some of these rules may reflect uncertainty and discomfort with design build more generally. Others reflect a more general trend of statutes having to respond to political concerns to maintain the public's confidence in the government procurement of contracts by generally writing conflict of interest rules into their procurement statutes.

e. Requirements Aimed at Fostering the Employment and Small Business Impact of Design Build

Some states' proponents of design build emphasize the employment impact of large scale public design build projects on the community. In Illinois, for example, design build proposals will not be considered without a design entity's plan to comply with the Business Enterprise for

³⁴ Also at the federal level, the Federal Acquisition Regulation (or "FAR") contains organizational conflicts of interest rules in subpart 9.5.

³⁵ See e.g. Tennessee Conflict of Interest Disclosure Statement *available at* <http://www.tdot.state.tn.us/construction/DB0801%20Details/Form%20COI.pdf>

³⁶ "Based upon a review of the information submitted, the contracting agency should make a written determination of whether the offeror's interests create an actual or potential organizational conflict of interest and identify any actions that must be taken to avoid, neutralize or mitigate such conflict." The California Transportation Commission Guidelines *supra* at 4

³⁷ 30 ILCS §537/30(b)

Minorities, Females, and Persons with Disabilities Act.³⁸ Compliance with this statute requires the involvement from the above protected groups in the design and construction areas of performance covered in the proposal. Similarly, Massachusetts allows for the National Association of Minority Contractors to assist in the development of regulations and guidelines to implement the design build procurement statutes.³⁹

In September of 2010, California enacted an additional requirement for its design build procurement statute calling for design build entities to provide for a small business preference in the construction component of the design build team.⁴⁰ Legislators in California and Illinois see design build as job-creating and they enacted laws that spread the job opportunities to various members of the community. Supporters of these laws argue that adhering only to the lowest-bidder attribute of the traditional method cannot offer this benefit to the community, because it only focuses on price as opposed to diversity of design build entities.

f. Disparate Approaches: Protection of Proprietary Designs and Confidential Information

A large component of the bid review process focuses on the design, innovation, and creativity of the design build proposal.⁴¹ To succeed in this procurement method, a design build team must generate innovative work-product and this work-product is peer-reviewed by licensed design professionals.

³⁸ 30 ILCS §537/30(b)

³⁹ Mass. Ann. Laws 149A §21

⁴⁰ See DBIA State Legislative Report *available at* <http://www.dbia.org/advocacy/state/>

⁴¹ See e.g. 30 ILCS §537/30 (c)(6)

States differ in their approach to the protection of proprietary material submitted in design build proposals.⁴² Georgia and Minnesota pay to obtain intellectual property by offering a stipulated fee for all shortlist bidders submitting proposals.⁴³ In consideration for this fee, the owner-entity is entitled to use ideas and information contained in the proposal without any obligation to the architect or engineer.⁴⁴ By contrast, Illinois includes in its procurement statute that the design build proposal, in its entirety, remains the property of the design build entity throughout the bidding process,⁴⁵ leaving it up to the design build entity to protect itself from copyright violations. Texas even created a third step to its QBS to safeguard against misappropriation, where only the final bidder may submit proprietary materials for review after successful contract negotiations.⁴⁶

But many states simply are not sensitive to the need to protect the trade secrets and proprietary material of architectural and engineering (“A/E”) firms. Additionally, because many government entities hire trade professionals (industry competitors) to evaluate design build bidders, A/E firms complain that the lack of protection has a chilling effect on their willingness to submit proposals. Where procurement laws and state contracts are silent on confidentiality, a design build entity may consider having a confidentiality agreement or contract provisions reviewed and drafted by an attorney.

⁴² At the federal level, subpart 9.505-4(b) of the FAR demands that consultant contractors in receipt of proprietary information must agree with other companies to protect their information from unauthorized use or disclosure.

⁴³ Georgia: O.C.G.A. §32-2-81 (d)(7)(B); Minn. Stat. Ann. §161.3426

⁴⁴ *Id.*

⁴⁵ Illinois: 30 ILCS §537/40

⁴⁶ Texas: Tex. Gov’t Code §2166.2531(f)(3)

g. Ability to Negotiate Non-Monetary Contract Terms

Bidders used to federal or state mandated contract clauses, may not appreciate the opportunity to negotiate design build contracts.⁴⁷ Illinois, Florida, Massachusetts, Texas, and Washington all provide for a negotiation stage of procurement.⁴⁸ Depending on the state issuing the design build contract, a design build team at least might have the opportunity to draw up specific contract provisions-instead of using a standard form state-issued contract. Some state agencies rely heavily on forms supplied by the respective Attorney Generals or staff counsel, but in some cases experienced counsel may have insight into what terms of the contract state procurement bodies would be willing to negotiate (e.g. program-related items, value engineering, or even in some cases significant risk allocation clauses such as liquidated damages provisions). Agencies may not change the nature of the contract, and many not accept provisions that transfer any liability on the agency beyond what they can handle. However, where negotiation is not prohibited, it would be prudent to at least attempt to negotiate non-monetary terms.

3. Beyond Design Build: Growing Acceptance of New Delivery Systems and Innovations

The development of the design build procurement method encouraged many states to look beyond the two-step process and other standard modes of operation to progressive uses of technology and innovation. Indeed some of these developments are at the very forefront of the design and construction industries and will influence other states in their procurement methods.

⁴⁷ At the federal level, 48 CFR § 52 contains certain contract provisions that by the force and effect of law must be included in procurement contracts. Other clauses are optional and some may differ based on the procuring agency.

⁴⁸ Illinois(30 ILCS §537/45); Florida (Fla. Stat. §287.055 (2)(l)); Massachusetts (M.G.L. c. 149A §20(c)); Texas (Tex. Gov't Code §2166.2531(f)(3)); Washington (Rev. Code Wash §39.10.330(4)(a))

a. Building Information Modeling: The Future of Design Build Communication

Building Information Modeling (or “BIM”) is computer software that relies on real-time 3D and 4D imaging to provide up-to-the-minute snapshots of building design and construction in progress. Borrowing from the General Services Administration (or “GSA”),

“the purpose of BIM is to make the design information explicit, so that the design intent and program can be immediately understood and evaluated. A BIM-based approach supports ‘on demand’ generation of documents (e.g., drawings, lists, tables, and 3D renderings) from a consistent BIM. In a sense, these documents present views of the current BIM. A BIM model, therefore, can live longer, contribute more to process efficiency, and provide superior accuracy than traditional 2D CAD drawings.”⁴⁹

Since 2003, the GSA, established 3D-4D-BIM guidelines to assist in the development of government construction projects. The GSA has incorporated BIM into thirty (30) projects in its capital program, and it continues to capitalize on BIM technology to more effectively meet customer, design, construction, and program requirements.⁵⁰ Beginning in January of 2010, the U.S. Army Corps of Engineers set similar goals for BIM use in future projects.⁵¹

The incorporation of BIM technology has spread to some states. In July of 2009, Wisconsin Division of State Facilities published a set of guidelines and Standards for the implementation of BIM. According to the Wisconsin State Guidelines and Standards for Architects and Engineers, BIM is required on all construction with a total project funding of \$5

⁴⁹ Office of the Chief Architect, General Services Administration, “GSA, BIM Guide Overview” 2 (2007) *available at* <http://www.gsa.gov/portal/content/105075>

⁵⁰ Summary of the BIM position statement located on GSA’s website *Id.*

⁵¹ Becky Proaps, U.S. Army Engineering and Support Center, Huntsville, AL Public Affairs Office News Release, “3-D Technology Transforms Design Process,” (Jan. 11, 2010).

million or greater and is encouraged but not required on all other projects.⁵² By using BIM, Wisconsin hopes to reduce costs and increase efficiency on top of what design build already affords it.

In September of 2010, the General Services Division of the State of Ohio released a BIM protocol statement, which outlined goals and requirements for BIM use in the design and construction of public projects. Among other things, this protocol suggested design build contracts include language stating,

“The Owner, the Contracting Authority, the CM if applicable, and the A/E intend to use BIM in connection with design, engineering, coordination, and construction of the Project, with all design and engineering of the Project being provided in one or more integrated BIM models.⁵³”

By integrating BIM into project management, design, and construction, Ohio and Wisconsin are leading other design build states towards an integrated project delivery method. BIM brings together the builder, designer, and owner into a unique forum to communicate in real time about the development of the project, and this translates into time and cost savings. That communication and collaboration allows design build teams to address problems as they arise, as opposed to prolonged and costly discovery. BIM poses a keen advantage for owners, and its integration in design build is an encouraging step towards the future.

⁵² Wisconsin Division of State Facilities, Dept. of Administration, “Building Information Modeling (BIM) Guidelines and Standards for Architects and Engineers.” 1 (July 1, 2009). *available at* http://www.doa.state.wi.us/dsf/masterspec_view_new.asp?catid=61&locid=4

⁵³ Office of the Chief Architect, General Services Division: Ohio “Building Information Modeling (BIM) Protocol” 20 (2010) *available at* <http://www.das.ohio.gov/Divisions/GeneralServices/StateArchitectsOffice/BIMProtocol.aspx>

b. Owner Representatives and Construction Managers

Interestingly, some states are moving toward the relinquishment of state agency management of construction projects to the care of owner-representatives or construction managers. The reasons for this are because (1) state agencies are not well equipped to manage large scale construction projects; (2) giving up state staff resources is a concern; and (3) construction managers are experienced in bringing together the separate performances of the design build entity. Illinois, for example, recently included in its procurement code a provision on the hiring of a construction manager for the purpose of reducing change orders and speeding up production.⁵⁴ Illinois hires these construction managers in a two-step procurement process similar to that used in design build procurement.⁵⁵

c. Integrated Project Delivery and Other Collaborative Delivery Systems

Many regard the design build delivery method as only the beginning of a more robust development of public procurement law. There are other alternatives to the traditional method, which along with design build, form a continuum of procurement delivery methods. On one end of the spectrum, of course, there is the traditional/design-bid-build scenario. On the other end of the spectrum, there are highly collaborative systems such as Integrated Project Delivery (or “IPD”), which is the subject of other panel’s presentations at this symposium. To many, IPD represents the future, most progressive, most collaborative, most accountable and least wasteful delivery method in public procurement. IPD is a delivery method that is not transactional, but relational, and in its purest form (there are many IPD-ish flavors and varieties that will be

⁵⁴ See 30 ILCS §500/33-50

⁵⁵ See 30 ILCS §500/33-55

discussed in this conference) involves a single purpose entity contract, where profits, risk, and obligations are shared, not shifted.⁵⁶

It is encouraging to see public agencies courageously set course for new territory in delivery systems. In the recent construction of Arizona State University's (or "ASU") Walter Cronkite School of Journalism, a multi-party IPD contract was entered into by the City of Phoenix, ASU, Ehrlich Architects, HDR Architecture, and Sundt Construction.⁵⁷ Although the project was governed primarily by design build principals, it incorporated heavy use of innovative design technology, such as BIM.

In September of 2010, Washington State's Capital Projects Advisory Review Board issued a "Report On Optimizing Efficiency in Capital Project Delivery." In making a case for a transformation of current project delivery practices in this report, it said "IPD can produce better, less expensive, higher quality, and more sustainable projects than traditional forms of project delivery. The team approach is key to making this work."⁵⁸

Whether IPD is truly a suitable delivery system for public procurement remains to be seen. Given its relatively limited use so far in the private sector in the U.S. (but growing), it will be interesting to see how much public sector use of IPD is actually made. What's refreshing to see are state procurement officers willing to think out of the box. Construction lawyers familiar

⁵⁶ INTEGRATED PROJECT DELIVERY FOR PUBLIC AND PRIVATE OWNERS: A JOINT EFFORT OF THE NATIONAL ASSOCIATION OF STATE FACILITIES; CONSTRUCTION OWNERS ASSOCIATION OF AMERICA; THE ASSOCIATION OF HIGHER EDUCATION FACILITIES OFFICERS; ASSOCIATED GENERAL CONTRACTORS OF AMERICA; AND THE AMERICAN INSTITUTE OF ARCHITECTS 5, 33 (2010) *available at* <http://www.nasfa.net>

⁵⁷ A case study on this and other IPD projects is available through the American Institute of Architects. Jonathan Cohen, "Integrated Project Delivery: Case Studies" 45 (2010) *available at* <http://www.aia.org/about/initiatives/AIAB082049>

⁵⁸ Capital Project Advisory Review Board – Integrated Project Delivery and Best Value Task Force, "Report On Optimizing Efficiency in Capital Project Delivery," 1 (Sep. 1, 2010).

with innovative delivery systems will be the most equipped to work with such state procurement officers to craft creative solutions that work for clients, regulators and the public.