

WHITE PAPER



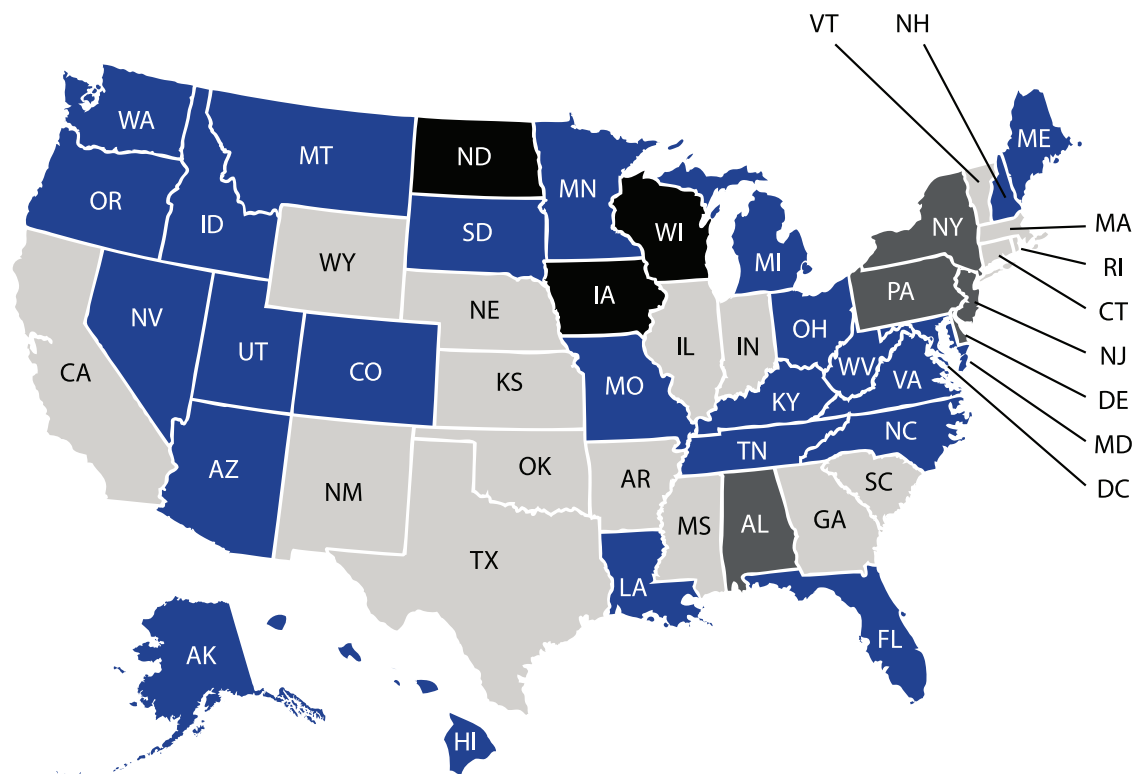
Design-Build Continues to Gain Momentum:

New Law Offers Options for Innovation and Value

Brian Johanning, DBIA, LEED GA
Vice President, Infrastructure & Development
Shafer, Kline & Warren
DBIA-MAR Past President

Executive Summary

After years of work and advocacy by the A/E/C industry, Design-Build legislation has been signed into law in the state of Missouri, the latest in alternative procurement legislation nationwide. The passage of this legislation represents years of cooperation and collaboration across industry groups to increase procurement options for construction projects. The law sets forth best practices and some basic rules under which Design-Build and Construction Manager at Risk projects must operate, while leaving flexibility for owners. This procurement method is designed to operate at today's rapid pace and to encourage innovation. By better understanding this legislation as well as how and when to use Design-Build, owners can position themselves to successfully leverage this additional project delivery system, decrease their risk exposure and increase their projects' value for the public.



- Design-build is limited to one political subdivision agency or project
- Design-build is widely permitted
- Design-build is a limited option
- Design-build is permitted by all agencies for all types of design and construction

As of May 2016

Design-Build Legislation in Missouri

On Friday, May 13, 2016, the last day of the 2016 legislative session, HB 2376 passed a parliamentary vote after receiving approval in both state houses. On July 1, 2016, Governor Jay Nixon signed the bill into law, which will become effective in August of this year. Until this point, Missouri has allowed limited use of Design-Build for specific instances; however, the new legislation makes this an easier method for more ownership entities to select and use. In the true spirit of Design-Build, collaboration and integration have been integral to the development of this legislation, which offers owners an additional option for project procurement that can encourage innovation and drive project value. It represents many years of communication, negotiation, discussion and advocacy by the Design-Build Institute of America, American Institute of Architects, American Council of Engineering Companies, Associated General Contractors of America and countless other industry groups. At its best, Design-Build offers owners a way to not only deliver on project safety and quality, but also operate at the pace of today's world, positioning projects to earn critical financial and social support.

DESIGN-BUILD CONTRACTUAL RELATIONSHIP

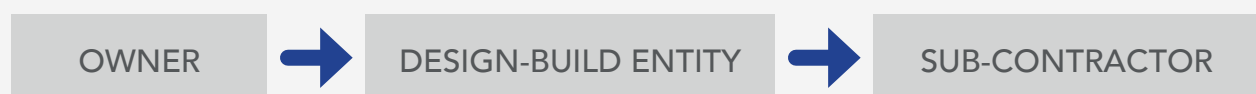
Traditional Project Delivery



Owner must manage two separate contracts; becomes middleman, settling disputes between the designer and the contractor. Designer and contractor can easily blame one another for cost overruns and other problems.

VS

Design-Build Project Delivery



Owner manages only one contract with a single point of responsibility; designer and contractor are on the same team, providing unified recommendations. Changes are addressed by design-build entity, not used as excuses.

Understanding Missouri's Design-Build Legislation

From the beginning, the intention of these interest groups was to make the law as permissive as possible to allow owners and all political subdivisions¹ the authority to leverage alternative delivery in the way that best applies to their specific marketplace and project. By including owner groups and key organizations in the negotiation process, the resulting legislation provides some basic rules and structure that outline how the process should be managed while allowing for some flexibility. It also includes many of DBIA's best practices, including that owners should identify and involve key stakeholders at the early stages of the planning to guide the procurement process and goals; owners should use a clear evaluation and selection process; the process should be fair and transparent; owners should consider the level of effort for proposals and limit the number of deliverables; and owners should value alternative technical concepts and other best-value approaches during the selection process.

There are several accommodations that allow the political subdivisions authority and flexibility, but transparency in the procurement process is the focus of the legislation. According to the new law, no less than 40 percent of the award criteria can be based on price and no less than 40 percent can be based on qualifications, approach and understanding. This balanced criterion ensures that projects are awarded based on best-value and ensures fair competition among firms. By not legislating the final 20 percent of the award process, the bill allows for some flexibility depending on the market and project values.

One of the most polarizing issues throughout the process has been the minimum thresholds for which a project can be completed using Construction Manager at Risk or a Design-Build approach. This has been contentious because the threshold value often dictates which projects are eligible for consideration. With the new legislation, there is no minimum threshold for civil projects under Design-Build, but there is a \$7 million threshold for vertical construction projects under Design-Build. For Construction Manager at Risk, there is a \$2 million threshold for civil work and a \$3 million threshold for vertical construction. Any project exceeding these minimums will have the option to use one of these procurement processes, in addition to the traditional design-bid-build approach.

Stipends were also an important discussion point in the development of the new legislation. The new law states that no less than half of 1 percent shall be awarded to unsuccessful pursuers of Design-Build projects, assuming they forfeit their rights of confidential design/approach elements. Typically, stipends do not recover all the costs involved in submitting on a Design-Build project. However, by regulating the minimum stipend amount, the legislation will make stipends more consistent, and the language serves to encourage owners to consider pursuit costs when formulating the RFQ or RFP.

Leveraging Design-Build as an Owner

With the passage and signing of this legislation, Design-Build will become an alternative procurement option owners will need to better understand quickly in order to manage the risks and rewards that come with it. One of the biggest misconceptions about the Design-Build legislation is that it will be too difficult to implement because it completely changes the procurement process for every project. The reality is that Design-Build is not for every project, nor is Construction Manager at Risk. Design-Build is about offering owners options, and making those options more accessible so owners can choose the procurement process that best suits each project. These options are designed to enhance competition, which can help deliver greater value to owners, administrators and communities at-large by incentivizing Design-Build teams to complete their work safely and efficiently while meeting expectations for schedule and quality.

From the owner's perspective, Design-Build is about risk management and leveraging the collective intelligence and innovations of the private sector. The upside potential of this new approach has proven effective in cases where owners want to encourage innovation and reduce risk by sharing the burden of change orders and delays caused by claims. In this way, Design-Build and alternative procurement has delivered on quality and affordability for owners throughout the United States. In fact, Mark Konchar and Victor Sanvido conducted research where they used project-specific data from 351 U.S. building projects and found that Design-Build projects were delivered 33.5 percent faster, had a 6.1 percent lower unit cost and saw cost growth decline by 5.2 percent compared to traditional design-bid-build project delivery. Additionally, the study found that Design-Build outperformed design-bid-build in all categories of project quality and success.²

If owners are looking to maximize cost effectiveness, compress a schedule or move risk to the private sector to see how the market can drive innovation, Design-Build should be considered as a procurement model. Partnering with construction and design professionals that share your desire to drive innovation, and deliver quality and value is an option well worth considering.

COMPARISON OF PROJECT DELIVERY METHODS

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 5,000 to 2.5 million square feet. The study includes varied project types and sectors.

There are an array of projects that owners should consider for Design-Build procurement, but most projects that are well-suited to the Design-Build method carry with them the description of complex. Complex is a relative term, but in this case, it should be defined as a project that has unique design challenges, methods of construction

or political challenges. For example, if a transportation project includes a challenging maintenance of traffic issue, temporary construction easements through a high density area, or an involved geotechnical approach, the Design-Build process allows the owner to learn more at an early stage, on their Design-Build team and the private sector to assume some additional risk and negotiate tenuous challenges. One thing the word complex does not mean in this case is expensive. One of the common misconceptions about Design-Build is that in order for it to be effective, the project should be an expensive, expansive project. That simply is not the case. If owners are looking to maximize cost effectiveness, compress a schedule or move risk to the private sector to see how the market can drive innovation, Design-Build should be considered as a procurement model. Partnering with construction and design professionals that share your desire to drive innovation, and deliver quality and value is an option well worth considering.



A common buzz phrase in our industry is Value-Engineering, which means that once plans are designed and are out to bid or are being negotiated for the building contract, there is a pause. During the pause, the industry collectively, and sometimes confidentially, looks to see if there are alternatives that might offer the buyer savings. These alternatives must be equal in safety, longevity and efficiency. Upon accepting these Value-Engineering ideas, owners then negotiate how the dollar savings to the contract will be split between the purveyor of the idea and the owning entity. In Design-Build, these savings or so-called Value-Engineering ideas in many cases are completed earlier in the process, before a guaranteed maximum price (GMP) is established, which allows the taxpayer and owner to appreciate 100 percent of the savings, rather than just a portion of them. This is another way that Design-Build increases the value of the project for the owner and ultimately taxpayers.

For Design-Build to work for owners, everyone on the team must embrace the new normal that Design-Build represents, and be incentivized to deliver a project that is high-quality and safe, as well as efficient and innovative.

The procurement model chosen for any project must be well thought out and programmed with specific goals in mind. It's also critical project staff understand the paradigm shift that is needed for successful Design-Build procurement. Unlike its predecessor, Design-Bid-Build, Design-Build requires a mentality based principally on practicality and efficiency of market-driven conditions. Gone are the days when a study could be completed five years in advance of a project and the same principles still be applied. Today, complex project issues move quickly through multiple iterations, often dictated by circumstances in the field and innovations in other markets. The Design-Build mentality demands practitioners consider equal alternatives, expedite plan review periods and other approval processes, as well as read and react quickly, and responsibly. In this era of on-demand information and rapid innovation, our industry needs the option of a procurement process that is designed to move and adapt at the same pace as the rest of the world. This allows projects to compete for the financial and social support needed to do the critical work essential to maintaining and improving our quality of life through necessary infrastructure and development projects. At the same time, in order for Design-Build to work for owners, everyone on the team must embrace the new normal that Design-Build represents, and be incentivized to deliver a project that is high-quality and safe, as well as efficient and innovative.

The Future of Design-Build

By offering taxpayers flexible options, a transparent process and enhanced competition, the benefits of Design-Build and Construction Manager at Risk procurement reach far beyond the A/E/C industry. One of the greatest attributes of Design-Build is that it can move some amount of risk from the public sector (owners, elected officials and ultimately taxpayers) to Design-Builders (private sector) earlier in the process. Alternatively, Design-Bid-Build plans are 100 percent owned and guaranteed by owners to be free of errors, changes or additions. Opening up Design-Build and Construction Manager at Risk as options for more owners increases flexibility and efficiency for projects. It will provide transparency and enhanced competition in the global economy of the 21st Century. Lastly, and most importantly, Design-Build and alternative procurement is about integrating public and private teams, and sharing the burden of risk with owners to achieve greater value and innovation. This new approach simply creates a viable procurement alternative that empowers our government, public institutions and private businesses to engage with one another more effectively in order to better serve the communities we all call home.

Footnotes:

- 1. Local governments created by the states to help fulfill their obligations. Political subdivisions include counties, cities, towns, villages, and special districts such as school districts, water districts, park districts, and airport districts.*
- 2. In the research category, project success was measured on a 10-point scale for the following categories: startup, call backs, operations and maintenance, exterior and structure, interior, environmental and equipment.*

BIO: BRIAN JOHANNING, DBIA, LEED GA



As Vice President, Infrastructure & Development at Shafer, Kline & Warren (SKW), Brian Johanning, DBIA, LEED GA, oversees the day-to-day management of SKW's Infrastructure Division. He is also responsible for business plans, allocation of resources and mentoring SKW staff in securing and maintaining strong industry alliances. Brian understands the importance of a client-focused business model in

developing long-term partnerships, as well, as collaborative relationships for successful project completion. His focus on team building and cost effectiveness is evident in his commitment to the Design-Build Institute of America (DBIA) where he served as president of the Kansas City Chapter (2012-2013) and president (2014-2015) of the DBIA Mid-American Region (MO, KS, IA, NE).

Brian began his career in construction as an estimator and project manager on residential, commercial and public improvement projects at the municipal, state and federal levels, and later as director of business development. He also served as operations superintendent in the custom home building market where he managed projects from preconstruction through post-construction warranty.

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"Comparison of U.S. Project Delivery Systems," Mark Konchar & Victor Sanvido, Journal of Construction Engineering and Management, Vol. 124, No. 6 (1998), pp. 435-444.