



## The Three Pillars for Design-Build Success

By PAUL TROMBITAS, CHRIS BARRAZOTTO AND EMILY BEARDALL

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## How to leverage people, processes and infrastructure in positioning your company for success in the design-build space.

As one of the <u>fastest-growing and most popular</u> construction project delivery methods in the U.S., design-build is pushing industry stakeholders to drive collaboration and problem-solving on their projects. Collaborating and executing projects more effectively have become particularly critical in today's ongoing pandemic world, where many owners face drastic budget shortfalls and resource constraints.

In fact, more and more owners and engineering and construction (E&C) firms are adopting the design-build philosophy as an integral part of their business models. Of those companies that delve into this delivery approach, the ones that experience the highest success levels see it <u>not</u> as an afterthought or an "offshoot" of their traditional models, but rather as a key strategic priority for their organizations.

In this white paper, we explore the three pillars that underpin a successful design-build approach for E&C companies of all sizes and across all customer verticals. These three pillars—people, processes and infrastructure—apply both to companies that are already in the design-build realm and those that are making their first foray into it. Additionally, differentiating a firm's approach to design-build compared to design-build is a key success factor.

## Faster Delivery Schedules, Please

Historically, project owners have employed design-bid-build as the project delivery method of choice. As owner needs and project demands have changed, the former started looking for alternative delivery methods based on specific project factors. According to FMI's research, owners identified "delivery schedule" as the greatest decision factor—followed by their individual goals and objectives—both of which are highly influential in project delivery method selection.

Using design-build, the Minnesota DOT was able to replace this critical roadway within just 13 months. By overlapping the construction and design activities for the bridge replacement, the state saved time while also avoiding about \$400,000 in daily lost revenues.

Today, design-build is being used by both private and public sector project owners as a way to keep projects moving forward, on time and within budget—and all with as little friction as possible. As design-build success stories continue to surface, project owners' interest in this delivery method has grown exponentially. One of the earliest and very public examples of design-build in action involved the I-35W bridge. Using design-build, the Minnesota DOT was able to replace this critical roadway within just 13 months. By overlapping the construction and design activities for the bridge replacement, the state saved time while also avoiding about \$400,000 in daily lost revenues.

The I-35W bridge is just one of many examples of successful design-build projects. Of course, for every stellar success, there are also myriad examples of how design-build initiatives did not meet expectations or go as planned. Similar to any innovative business approach, design-build requires a multifaceted plan that incorporates people, processes and infrastructure (three pillars). Should any one of the pillars fail to do its part, the delivery method can quickly become an expensive, frustrating and time-consuming venture.

### Exhibit 1. Key components of a successful design-build approach.



"Our organization was hemorrhaging money; we came to the realization that we weren't doing this right," says the leader of one E&C firm. "The next realization was that design-build is here to stay and would not be shortlived. It was something we realized we had to do and had to do it well."

Over the last several years, FMI set out to examine the key factors and characteristics most contributing to a firm's success in design-build. Through this exercise, we've learned that it takes three things to make these initiatives tick: people, processes and infrastructure. Here's a snapshot of the top design-build best practices and what to think about if you are entering the space for the first time.

## Start by Putting the Right People in Key Roles

Many successful organizations have one thing in common: They always put people first, be it employees, customers or business partners. This is particularly vital during times of transition, when people are expected to operate and act differently than they're accustomed to. For E&C companies getting their feet wet in the design-build pool, having the right people in the right roles can often mean the difference between project success and failure.

"We struggled to succeed in alternative delivery methods when we had an informal approach. In the early years we tried to have the same people pursue both traditional and alternative projects. It didn't work very well," says the leader of one E&C firm. "So we have a group that is pretty much solely dedicated to those pursuits, although there is little crossover when/if needed."

In some situations, getting the right people in the right roles requires a tough-love approach. As the leader of one E&C firm says, "You need to have company commitment to be in that market. When we made that change from being a design-bid-build contractor to only an alternative delivery partner, we had to get rid of a lot of people who weren't willing to make the change."

To avoid these scenarios and develop a people-first approach to design-build, firms should focus on understanding the key nontraditional roles critical for design-build success, which are:

1. A dedicated design-build manager. From the outset, this person should be an internal champion who educates the organization about the delivery method and pushes for its use. He or she should work closely with business development and owners to identify potential project candidates, educate the owner on the advantages of design-build, and make sure that team members get the training they need on the processes and approach—both of which will differ from traditional delivery methods. Finally, this manager

should be able to effectively communicate the benefits of design-build across the enterprise while also providing good oversight on all of its current and future design-build projects.





- 2. A preconstruction or design-phase manager. Tasked with providing oversight and management throughout the design and preconstruction phases, this person should be able to see what is <u>not</u> there (conceptual design) and understand the complexities of this innovative delivery method. When the right person is in this position and dedicated to it, the design phase is more efficient, effective and complete. Key duties include managing the owner's expectations, overseeing engineering and design, and doing constructability reviews. For the project to run as smoothly as possible, these responsibilities should be given to one preconstruction or design-phase manager. Too many design-build projects fail where there are either "too many cooks in the kitchen" or, even worse, no individuals specifically assigned to this role.
- 3. A proposal manager. Responsible for developing new and retaining past design-build proposals, this person also contributes to the graphic design and marketing of these materials. From what we've seen, organizations with an emphasis on alternative delivery usually benefit from having a dedicated proposal manager who also coordinates the development of requests for qualifications (RFQs) and proposals in a timely and efficient manner. The proposal manager must understand the more technical aspects of the proposal itself, including (but not limited to) the document's formatting, content, messaging and readability. In an ideal world, these folks can "sell" through the proposal and understand how to push value in the documentation-all while making the proposition and bid look great in the eyes of the decision-maker. Additionally, the proposal manager can serve as a librarian to help access past documentation and project data.

When filling the nontraditional roles identified above, firms should look for individuals who:

- Have the right mindset for design-build (e.g., collaborative versus competitive).
- Have (or who can develop) a strong foundation of trust with the entire team, including owners, designers and contractors.
- Don't just work by the "do what they're told" mentality. Find individuals who have collaborative mindsets and who focus on proactive problem-solving (versus waiting for someone else to solve the issue for them).
- Have great listening skills. This is a must, because for design-build to succeed, there must be open dialogue across all parties. That way, when problems arise, they can be discussed, assessed and addressed as quickly as possible.

By focusing on the nontraditional roles outlined above and filling them with individuals who possess these key traits, E&C firms can lay down a solid foundation for design-build success for any sized project and in any industry segment.

### Next, Develop the Processes and Project Controls

If you haven't previously developed a design-build approach, this will be a new and interesting exercise that requires time and energy to complete. The good news is that when you've gone through it once, you can then utilize the plan across future projects—factoring in both the lessons learned and the wins achieved along the way.

It's important to note that the company's approach to design-build requires a more formalized process than traditional project methods, and namely because it includes many more moving parts and pieces that must be aligned and working from



the same playbook. To make this happen, companies should ask themselves question like: What is our playbook for pursuing and executing this project? What steps do we have to take to get the project from concept to completion? And what are the critical decision points that must be considered along the way?

Design-build is different from other project delivery methods because it finds E&C playing an important role in the actual project design. It also involves a higher level of risk management on the contractor's part, namely in terms of understanding the transfer of risk associated with the design itself. Concurrently, companies need to think about the nontraditional risks that are being transferred to the design-build team and how those are factored into the overall design-build playbook.

To help minimize risk and maximize success rates, every E&C firm's design-build approach should at a minimum include:

- Creating the company's step-by-step playbook for each phase of a design-build project.
- Coming up with clear communication standards/practices in each project phase.
- Clearly defining job roles and outlining the expectations for each member of the design-build team.
- Emphasizing key areas of importance (e.g., design management, preconstruction, post-construction, etc.).
- Putting the right people in the right positions early in the process and introducing these key individuals to the client.

In addition to defining the company's design-build playbook, establishing the right project controls to monitor performance, measuring success and making good decisions are all critical to design-build success. In fact, project controls can literally make or break a design-build project. When, for example, the project's field staff is tracking costs and schedules from day one, it can inform the design team about how to best track certain cost codes while also providing constructability reviews. Project controls are also essential to effective owner management during the design and construction phases. For example, an owner will want clear communication and reasonable schedule expectations—both of which rely on the contractor being able to adequately explain schedule updates or cost changes. Knowing that owners may have selected design-build over other delivery methods in favor of a quicker schedule or cost savings, good project controls will obviously help the owner—and all involved parties achieve that goal.

When it comes to project controls, it's all about having systems in place to monitor performance, measure success and include these key performance indicators (KPIs) early in the design phase. Finally, by having a dedicated point of contact for communication with the owner, engineer, architect and contractor, all parties know that the right documentation is in place and that there is clear oversight of who's doing what at each stage of the game.

## Lastly, Get the Right Infrastructure in Place

A lot of work goes into bidding on and winning design-build projects, both of which require a subsequently different approach than most E&C firms are accustomed to. Using marketing and sales support as a starting point, companies should focus on creating:

Standard templates for proposals and presentations that can then be reused for subsequent projects.

- Good collateral and sales tools. These are the keys to early success in the design-build bidding process.
- A database of all past projects for easy reference and the ability to pull data from those past initiatives. This will enable easy reference for future projects and keep E&C firms from having to reinvent the wheel every time they are asked to bid on a new project.



A good design-build infrastructure also incorporates team training. To best position them for success, design-build team members should be trained on a wide variety of topics, ranging from presentation skills to technical writing to communications and leadership. In most cases, companies are using a combination of in-house training and education offered by third-party providers like the Design-Build Institute of America (DBIA). As part of the training process, companies will want to include regular sessions on how the E&C company approaches and delivers design-build projects.

As with any successful initiative, support for design-build starts at the top. This isn't something companies should enter into <u>without</u> support from all levels of management, including presidents, CEOs and CFOs, all of whom will play a role in its success. Executive-level leaders, for example, need a clear understanding of the investment (time, money and energy it takes to be successful at design-build). They should also know that the business development process takes time, with the proposal development phase for a single project taking months—if not even years—to complete.

### Paving the Way to Success

With design-build spending increasing year over year in the U.S., this innovative project delivery method presents a major opportunity for E&rC firms that are willing to put the time and effort into creating an offering based on the three pillars outlined in this white paper. By focusing on people, processes and infrastructure, companies will stand the best chance of both winning and performing well on design-build projects, as well as differentiating themselves in a post-pandemic world.

Accessible to E&C firms across the spectrum—from the small organization right up to the huge conglomerate—design-build works best when the right teams, processes and infrastructure are put in place. As more companies jump into the design-build game, the most successful ones will be those that developed their teams, drew up their playbooks well in advance, and didn't wait to be asked to make those moves. Doing so not only serves to impress project owners, but also minimizes project risk, reduces costs and enables a successful path to project success.



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