

Mitigating Risk With Design-Build Delivery

By Frederic Mulligan

Mention design-build to most design and construction professionals and the topic of risk follows like a foal follows a mare. In fact, the agenda for virtually every design-build conference includes sessions addressing the issue of risk, whether through partnering, pre-proposal teaming agreements or artfully crafted contracts that assign risk appropriately.

What is this risk the industry is referring to? If you consider that risk is related to the unpredictable nature of project outcomes, then you must accept that *all* projects are risky, regardless of delivery method. What is so unusual about design-build delivery that heightens concern until it is necessary to talk about risk every time we discuss design-build?

When a single entity accepts the responsibility for both design and construction it also assumes all of the risk. There is nowhere to hide when problems arise. The Spearin Doctrine, which provides a guarantee of the accuracy of design documents to the constructor, offers no protection in a design-build scenario. The notion of product liability and guarantees of performance may leave us feeling financially exposed and vulnerable.

But none of us in the construction industry is unfamiliar with financial risk. So let's consider other types of risk: the risk of a broken relationship with a client; or the risk of a damaged reputation brought about by negative publicity. The fallout from these potential outcomes can be more crippling than the financial exposure. Is there any way to navigate these hazards in the face of such awesome responsibility?

The answer is in the powerful "Response Ability" of design-build delivery.

I have been a design-builder for over 30 years and can attest that the outcomes of my firm's design-build projects are highly predictable and have not created hazards for us or our clients. That other design-builders share this experience is substantiated in a comprehensive study completed by Victor Sanvido and Mark Konchar of Penn State University. Inherent in the design-build process is an enhanced problem-solving ability that gives this method of project delivery greater "response ability."

The process of design and construction is one of problem-solving. The option of a problem-free job does not exist. If we are going to succeed and have the ability to produce predictable outcomes, we had better be good at solving problems.

There are some things that are universally true about the problems we encounter:

- They are multi-dimensional and complex. Every design problem carries implications for cost, constructability and schedule. Construction issues impact design.
- The sooner a problem is identified and resolved, the less expensive and disruptive the solution will be.
- Just as it takes a village to raise a child, it takes a team to solve a problem, and ultimately, build a project.

- There is often a design solution to a construction problem or a construction solution to a design problem.
- The more we know about a problem and the more options we identify, the better our chances of finding the best solution.
- Each solution affects subsequent decisions; doing a good job of solving one problem makes it easier to solve the next one.

The prescription for enhanced problem-solving ability comes from the creation of the design-build team. Take a group of professionals from diverse backgrounds with varied expertise, forge them into a single team and give them responsibility for project outcomes with nowhere to hide. Elicit a genuine commitment to the project and to the team concept. In other words, deny them access to familiar “finger pointing” tools. Then have them work on issues together from the outset, providing input from their own disciplines with a focus on final results.

Here is what is special about design-build that enhances problem becomes available before key decisions are made. Individuals feel empowered to contribute ideas for all aspects of the project—not limited to their own discipline. The team “owns” the solution and understands the impact on project outcomes. Those outcomes—far more predictable than they would be when using a more traditional method of delivery—are the best insulation against all forms of potential damage. Relationships are strengthened rather than worn down; reputations are enhanced because promises are kept; and best-value solutions bring financial benefit to everyone involved.

Team building is the single most important form of risk management in design-build delivery. When assembling a design-build team, look for pre-existing relationships that are successful and solid. These can be found in either integrated, full-service firms or in partnerships among firms that share a history of successful project delivery. Don't overlook the role of the owner—a vital member of the team. All team members must share a commitment to the project goals. Personal interest is subordinated to project interest.

Yes, the team—a single entity—shoulders all the risk. However, that burden is alleviated by the degree of control design-build allows. The definition of successful design-build delivery relegates most of the risk to academic questions that are resolved by the team.

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