Moving from Design-Build to Integrated Project Delivery

Co-authored by Lisa Dal Gallo and Oscia Wilson

Design-Build Flavors

<table>
<thead>
<tr>
<th>Bridging-docs with lowest bid and a bad team</th>
<th>No bridging docs and a good team</th>
<th>Integrated Design-Build</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less collaborative</td>
<td>More collaborative</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Depending on how the design-build structure is implemented, a project can range from being very dysfunctional to being nearly identical to an IPD structure.

Design-build places designers and builders in the same room, providing the opportunity for the kind of collaboration that the construction industry so badly needs. Opportunity for collaboration, however, is not the same as a guarantee of collaboration.

While design-build offers great possibilities, it definitely covers the full spectrum from being almost as dysfunctional as design-bid-build to being almost as collaborative as integrated project delivery (IPD).

On the left side of this spectrum, you have those design-build projects that use bridging documents, lowest bidder selection, and a team that doesn’t work well together. Although the builders are contractually combined with the architect of record, these projects are not collaborative, let alone integrated.

The biggest problem with this model is that when you have full bridging documents, you’ve just made all the big decisions without the input of the building team. Since 80% of the cost decisions are made during the first 20% of the design, you’ve just cheated yourself out of the biggest source of potential savings that come from collaboration between the contractors and the designers.

On top of that, you’ve now divided your design team into two groups: the architects who did the bridging documents and the architects who finish the project. This creates knowledge transfer loss, inefficiencies due to effort repetition, and prevents the second architect from holding a sense of ownership over the design.

In addition, if your selection is based solely on price, the design-build team will price exactly what is on the bridging documents: there is no incentive for the team to engage in target value design. This situation could be improved by offering an incentive through savings participation, but that kind of aggressive innovation requires a high functioning team and is also tough to accomplish because many of the design decisions have already been made and the design is no longer flexible. If the selection was based on lowest bid, the team may be too dysfunctional to achieve real gains, because the lowest prices generally come from the least experienced and least savvy of the potential participants. Cost savings in these settings are often achieved at the expense of quality design, as general contractors under great pressure to achieve aggressive cost savings revert to value engineering to bring the project back into budget.

For owners who want intimate involvement in the process, design-build based on low bidding offers another disadvantage. In order for the design-build team to deliver that low price you were so excited about, they have no choice but to ruthlessly cut you out of the process. They are carrying so much risk that they can’t afford any of the potential interference, delay, or scope escalation that comes from involving a client in the back-room discussions.

A More Collaborative Design-Build

If you hire the design-build team based on good scoping documents instead of bridging documents, you move farther to the right on the spectrum. (Partial bridging documents may be a good compromise for public owners whose process requires a bridging step.)

Starting somewhere in the middle of this spectrum, you start seeing successful projects. A successful, collaborative design-build project is light years ahead of design-bid-build.

Some projects are pushing the envelope so far that their design-build projects look very similar to integrated project delivery. Lisa Dal Gallo, a partner at Hanson Bridgett, has discussed this topic at both the San Diego and Sacramento chapters of the Design-Build Institute of America (DBIA).

The discussion was mainly to assist public owners who have design-build capability to improve upon their delivery, but the same principles apply to private owners who may not be in the position to engage in a fully integrated process through an IPD delivery method.

Several recent and current projects in California are operating on the far right side of this design-build collaboration spectrum by crafting a custom version of design-build that uses IPD principles. Here’s how they’re doing it:

- **Skipping the Bridging Documents.** Instead of using bridging documents as the basis for bidding, owners are creating scoping criteria or partial bridging documents that provide performance and owner requirements, but allow the design team to collaborate on the design and present their own concept to achieve the owner’s goals. Under this type of scenario, the design-build teams would typically be pre-qualified and then no more than three teams would be solicited to participate in design competition. The team is usually selected based on best value. After engagement, the owner and end users work with the team through the scoping phase and set the price.

- **Integrating the Design-Build entity internally.** To assist in a change in behavior, the general contractor and major players like architect, engineers, MEP subs,
and structural subs can pool a portion of their profit, and share in the gains or pains inflicted based on the project outcome. Through downstream agreements, the major team players can also agree to waive certain liabilities against each other. They enter into a BIM Agreement and share information freely, using BIM to facilitate target value design and a central server to allow full information transparency.

- **Partially integrating with the owner.** The owner can play an active role, participating in design and management meetings.

  The extent to which the owner is integrated with the design-build team is a subtle – yet crucial – point of differentiation between an extremely collaborative form of design-build (which I suggest we call “integrated design-build”) and traditional design-build (full bridging documents). This is all compared to integrated project delivery, a model that is fully integrated.

  Under an integrated project delivery model, the owner actually shares in the financial risks and rewards associated with meeting the budget and schedule. They are part of the team, all financial information is fully vetted and transparent, and the owner gets to fully participate in back-of-house discussions and see how the sausage is made.

  Under traditional design-build, the design-builder is taking the financial risk for exceeding a guaranteed maximum price (GMP) and is guaranteeing the schedule. Because the owner is not sharing in cost overruns, the financial deal is not as transparent. Also, because the owner’s risk for cost and schedule is substantially reduced under a GMP, the owner should generously share savings or offer other incentives through key performance indicators or early completion bonuses to encourage the design-build team to collaborate, and deliver best value and optimal design. Otherwise there is little incentive for the design-build team to deliver best value to the owner.

**Integrated Design-Build**

A key difference between integrated design-build and traditional design-build is that, in integrated design-build, the owner remains integrally involved during the design process. Under this scenario, the owner provides the design-build team with a target cost or budget in the RFP and the design-build team provides a conceptual design as a deliverable at the time of bid based on 20% scoping documents. Ideally, the design-builder should provide the GMP at the time of bid, or just after vetting the design with the owner. Once the design-build team is selected, the owner remains involved to help ensure that the owner is getting the facility that they want (“best value”) and to engage in the target value design process with the design-build team to ensure the project is still proceeding within the GMP. Under traditional design-build, the owner is much less involved because the owner has presumably fully communicated what they want through the bridging architect. As discussed above, this is only one of the disadvantages to traditional design-build. So the key differences between integrated design-build and full integrated project delivery are:

- The contract model (a multi-party agreement between owner, architect and contractor vs. an agreement between owner and usually the contractor);
- Transparency in the actual cost of the project is much greater in IPD;
- The fee structure and certain waivers of liability (shared risk) between the owner and the other key project team members.

The IPD contract form of agreement is aimed at changing behaviors, and its contractual structure exists to promote best value and reinforce mutual respect and trust between the parties. Although full scale IPD is not right for every owner or project, it is another tool in a team’s tool box. The owner and its consultants and counsel should determine the best delivery method for the project and proceed accordingly. The important thing to remember is that any delivery model can be adapted to be closer to the ideal collaborative model by making certain critical changes.

**About the authors:** Lisa Dai Gallo is a Partner at Hanson Bridgett, LLP, specializing in assisting clients in determining the best project delivery method to achieve the teams’ goals, and developing creative deal structures that encourage use of collaborative and integrated delivery processes. She is the founder of California Women in Design + Construction, a member of ConsensusDocs working group, a former member of the AIA Center for Integrated Practice and the AIA CaliforniaCounsel IPD Steering Committee, and a LEED AP. Lisa can be reached at 415-995-5188 or by email at ldaigallo@hansonbridgett.com.

Oscia Wilson, AIA, MBA is the founder of Boiled Architecture. After working on complex healthcare facility projects, she became convinced that Integrated Project Delivery was key to optimizing construction project delivery. She founded Boiled Architecture to practice forms of integrated and highly collaborative project delivery. Oscia serves on the AIA California Council’s committee on IPD. Oscia now works at Google.