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Toward Integrated Project Delivery:

A New Design and Delivery Method

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Traditionally, construction has involved a contractual relationship between the contractor and the client, many times a low-bid competitive relationship among contractors to secure the project, and a frequently combative relationship between the architect and contractor over performance. The economically competitive nature of this structure squanders vast energies—on interpretive posturing, and, sometimes, on litigation—diverting focus from the art of building. Integrated Project Delivery (IPD) is a design-and-construction delivery method that is designed to ameliorate this process, resulting in buildings that better embody the guiding principles of the project and better serve the client and the end user.

IPD is entered into by an owner, contractor, and architect, who agree to work together as a single entity, under a multi-party agreement. In pure IPD—the subject of this article—risk is shared on a pro rata basis.

IPD pools the goals of all parties from the beginning, resulting in a conversation enlightened by three points of view: the owner's desire for a quality building that best serves the end user, the contractor's desire to meet the owner's budget and schedule, and the architect's desire for architectural excellence. The full complement of consultants, managers, agents, manufacturers, suppliers, builders—held to their best—will each contribute collaboratively to design and construction excellence.

By incorporating the expertise and mutual trust of all parties early in the design process, construction conflicts come to light earlier, reducing the need for costly change orders or last-minute so-called value engineering, and diffusing the potential for combative relationships. The owner, as client, remains the principal end-point decision-maker, but the presentations and arguments for varying points of view happen continuously, in round table discussions, rather than in crisis—during construction documents and at the construction site.

For its office remodel, Gonzalez Goodale has abandoned the traditional office/open space hierarchy and adopted a collaborative model that facilitates the IPD process.

The new space is organized in pods, where team members meet, develop, and analyze alternatives in an interactive, data-rich environment.

In-House IPD Workshops

To deepen our understanding of IPD, our studio mounted a series of workshops on the subject, inviting to the first meeting a contractor and an owner's representative, with whom the firm had worked before, to participate in this exploration.

To facilitate the workshops, we prepared agendas for sessions and visuals for enhanced discussion and assembled background materials on the topic. Sample contracts and papers on mediation and risk sharing were forwarded to participants. Attendees were asked to prepare for the meetings and to give presentations on various subjects ranging from arguments both for and against IPD to the mechanics of how IPD actually functions.

This discussion model proved critical for "re-education," as all participants came to IPD with prejudices. Our familiarity with each other and mutual respect from work on past projects helped us to work through the issues that arose. Indeed, the team has considered doing either a pilot project or a mock project to gain some experience in this new method.

It became clear right away that we needed to bring in construction litigators to discuss legal considerations, as well as insurance brokers to discuss risk sharing and the potentials to modify insurance coverage, so we invited them to present at our third workshop meeting.

Ultimately, issues that originally seemed like obstacles, such as insurance and the lack of a model agreement, sorted themselves out. Insurance companies are favorable to IPD, because it lessens the chance of a dispute, IPD insurance is available, and the AIA has recently published a multi-party agreement for IPD that is readily accessible.

Integrating the Design Studio with IPD

In parallel with our evolution toward IPD, we have been re-designing our architectural studio in pursuit of a more open, lively workspace. The layout models, at a smaller scale, IPD's notion of the ideal workspace as a "Big Room," where traditional hierarchy is abandoned in favor of collaboration.

The studio renovation is currently midway through a phased construction. The overall structure is an open, day-lit warehouse space divided into six pods, each accommodating a project team of six to eight people—one of whom will be a lead principal—each working at generous and equal U-shaped stations where communication trumps privacy. Each pod will have, as its focus, a large meeting space wired for Internet connections, teleconferencing and video, large-screen 3-D modeling technology, as well as tack-up and touch model space. The studio becomes, essentially, an open deck, with open sight lines and maximized human communications. The always visually cumbersome physical storage requirements—studio-wide materials library, resources, and storage—will be at close hand, via spiral stairs, in a loft space above the studio.

Looking forward, we envision the three parties involved in IPD not just in the conference room. We see the owner, architect, and contractor in each open-pod meeting environment, studying, analyzing, and manipulating the project alternatives on a 3D model, which is the ideal collaborative tool and an essential part of the IPD process. With the collaboration of contractor and subcontractor, models will take on the rich—and real—character of shop drawings long before the construction process begins.

After an immersion in IPD, we have come to believe that IPD is not only an imminent technological delivery method. It will become—at the collaborative insistence of its three principal players—a design and construction methodology that has the potential to vastly increase both efficiency and quality. It will also, with the architect's professional education, engagement, and leadership, become the forum for architecture, as an art, to retain—or to regain—a critical place at the table. For architects to maintain their stewardship of the built environment, it is critical that we have a key leadership role in the development of this new approach to designing and building projects. If we dally, and others less suited to the task embrace it, the built environment will suffer. ●

Workshop agendas

- Meeting 1 - review assumptions about IPD
- Meeting 2 - discuss compelling arguments for IPD; review risk-sharing matrix and discuss legal considerations (attorneys present at this meeting)
- Meeting 3 - insurance brokers give presentations about wrap-around policies, owner-controlled insurance programs, third-party suits (attorneys present at this meeting)
- Meeting 4 - review administrative and legal aspects of IPD
- Meeting 5 - review November 2009 document AIA C191—standard-form, multi-party agreement for IPD—general conditions and exhibits
- Meeting 6 - discuss pros and cons of AIA IPD contract with client's, contractor's, and architect's attorneys.

"As architects administering low-bid institutional construction contracts, we've seen the damage done by combativeness and litigation. Places like Japan, where there has traditionally been a deeper respect for the craft of architects on the part of the contractor, and vice versa, often have a correspondingly higher quality of built work."

- David Goodale