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## How IPD can help your project succeed

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A recent study by Fortune Magazine stated that the average failure rate among all projects managed in the U.S. is a whopping 70 percent. Surprising as this may be, it is not the most revealing aspect of the story. A number of related studies exposed a common thread at the root of these failures: the lack of early stakeholder involvement.

It's astonishing to think that at the heart of the problem is the tendency to separate, segregate or just plain alienate team members whose buy-in matters most in the early critical stages.

As we compare our options for design and construction contracting, the fundamental question we should all be asking ourselves is whether we have the right people involved, and whether the process impedes or unleashes the power of those people to work together as a team.

### **The case for IPD**

In design bid build and to a lesser extent in design-build, an inherent conflict of interest is established by a prescriptive structure that assigns a disproportional share of risk to the contractor. Naturally, this creates an atmosphere of defensiveness where the tendency is to protect your own position rather than do what's best for the project. In other words, traditional contracting creates an environment that leads to finger pointing when something goes wrong, and the submission of change orders to recover cost overruns and delays.

In contrast, integrated project delivery is a multi-party contract designed to incentivize the creation of value through a more equitable sharing of risks and rewards. The agreement documents project targets developed by the team, and directly ties their profits and risks to the outcome. Most claims are waived among the key participants during construction so, for example, if a design error is discovered during construction, the team works together to resolve the issue rather than create a controversy that exacerbates cost overruns and delays.

Key team members have a stake in the outcome so there is greater cohesion around what's in the project's best interests.

The American Institute of Architects has defined five key elements that are essential for a fully integrated process:

- early involvement of key participants
- jointly developed and validated project goals
- shared risk/reward among key participants
- collaborative decision making by owner, architect and contractor
- reduced liability exposure among key participants

Teams that are trying to achieve a fully integrated process should attempt to capture all five of these elements in a single written agreement.

#### 1) Who are they key participants and what is early involvement?

Key participants include the owner, architect, key design consultants, contractor and key subcontractors, such as mechanical, plumbing and electrical. All of them are engaged during conceptual design to leverage their unique expertise and resources. This synergy helps ensure that the most optimum design decisions are made early in the process.

#### 2) How are the project goals developed?

A target cost and target schedule are established early by the key participants, often after completion of the conceptual design. During the validation phase, they all engage in a target value design process that compares design alternatives against key factors such as aesthetics, constructability, cost, functionality and operational efficiency. Once the target cost and target schedule are validated by the key participants, they are used as benchmarks to measure the successful outcome of the project.

#### 3) How are risk and reward shared?

In general, the key participants each place a portion or all of their profit at risk. If the target cost and target schedule are met, the key participants earn their respective profit and fee placed at risk. If the project is delivered under the target cost and ahead of schedule, the key participants share the savings. However, if target cost and target schedule are exceeded, the key participants share in the risk of the overrun until all of the profit and fee placed at risk are exhausted. The non-owner key participants' liability is limited to the amount of fee and profit placed at risk because the owner continues to compensate the other key participants for their actual costs through project completion.

#### 4) How is collaborative decision-making achieved?

The project is governed by the project team rather than just the owner. The owner, architect and contractor each have a project representative on the management team and discusses and collaboratively makes all project decisions. In those rare instances when the management team cannot reach a unanimous decision, either the owner makes the final decision, which may result in a change order, or the matter goes through a formal dispute resolution process.

#### 5) How is liability exposure reduced?

Most IPD contracts include a waiver of certain liabilities between the key participants during design

and construction. This helps build trust and encourages creativity. However, willful misconduct, payment, performance issues such as warranty claims and construction defects post construction, and third-party claims are not waived. Currently, IPD contracts are the only agreements that include a waiver of most claims between key participants.

The construction industry has an opportunity to perform better than it has over the last 50 years. With the emergence of BIM, VDC and LEAN, the opportunity for design optimization and increased labor efficiency is exponential. But in order to leverage the full potential we must shed our old mindset and move toward collaborative design and construction contracting methods.

Starting a project with an environment that requires transparency and teamwork will certainly achieve more value than one driven by separation and mistrust. It's uncanny how costs decrease when trust increases. Obviously, how you start isn't a guarantee for success any more than a honeymoon is for a marriage, but the odds are certainly better.

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