

MDC Advisor – July 2007

I love it when a plan comes together!!



Integrated Project Delivery

In our last edition of the MDC Advisor we talked about BIM (Building Information Modeling) Systems and the impact of that technology on the way projects are done and the way team members relate to each other. We are going to climb the tree a bit higher to see what changes in the landscape make BIM possible - beyond really neat computers.

BIM is an execution strategy for a project. Before the selection of a strategy, one has to first formulate a concept or a plan that you want that strategy to support. BIM could be seen as the technological outgrowth of an execution philosophy we'll call 'Integrated Project Delivery' (IPD). The concept is also referred to as "integrated project execution" and "integrated delivery process." But under any variant of the name the objective is this: to integrate the development, design and construction members of the project team, such that the team's actions (and reactions) are targeted towards maximizing the total project value, not just maximizing their 'take'. The objective of IPD is that the total return to the team is maximized and the overall risk to the team is minimized. The result is a better 'yield' – a better project.

There are several groups working on IPD approaches. Interestingly (and positively) enough of these groups have come from all the major sectors of the project delivery 'universe'. Design, construction and legal groups are actively working on the 'mechanics' of the process and much of the impetus has come from research done by owner/user lead industry associations, like the Construction Industry Institute (CII) and the Construction User's Roundtable (CURT). The rise of PPP (public-private partnerships) on major development and infrastructure projects has also prepped the landscape for a more collaborative execution model.

So what is IPD? The California Council of the AIA defines it in their recent publication "A Working Definition: Integrated Project Delivery" (Copyright June 2007) as follows:

"Integrated Project Delivery (IPD) is a project delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to reduce waste and optimize efficiency through all phases of design, fabrication and construction."

While other groups use different language the fundamental essence remains the same - a more inclusive, cohesive, comprehensive delivery process involving all the key stakeholders with the objective of conceptualizing, designing and executing the project

using a systems-based¹ approach instead of the traditional, often adversarial “me first” approach that develops on too many projects.

An IPD approach can be employed in a wide range of project styles, from a formally crafted project alliance agreement amongst the parties to less formal ‘team building’ exercises designed to get participants past the “contractual team” mindset and towards a true “relational team” concept. Reports of success and satisfaction with ‘teaming’ are mixed – possibly because while the ‘exercises’ are well intentioned, their impact is lessened if contract formation and risk/reward allocation stays relatively unchanged. Project Alliance agreements are typically crafted to create more formal relational contract structures. They often include “will not sue” covenants between the parties and often link profits and losses for all the parties to specific project performance benchmarks. This approach can incentivize alliance members to identify, mitigate and solve problems on the project in real time. By linking profit and loss across the team (using reasonable and rational formulas) members of the alliance, all have a stake in the project going well and each has an interest in not seeing their alliance partner get hurt.

The effective use of IPD strategies requires more than just creatively crafted agreements between the parties. It requires a fundamental change in mindset from all the players. To execute effectively there must be trust across and between the parties; transparency in the relationships between installers, suppliers, designers and procurement; candor with regard to budgets, costs, resources and funding streams; honesty and ‘rationality’ in assessing changes to scope and schedule and clarity with regard to responsibilities. This degree of candor and openness may be uncomfortable for some of the project participants.

To achieve this paradigm shift requires leadership. The IPD form of project leadership differs from traditional project management and it is not predicated upon a dictatorial style and strict ‘command/control’ hierarchies.

Truly effective IPD begins at the very start of the project – the conceptual level. Basing the process on well vetted business and operational rationales for the project; a clear-eyed assessment of resources and constraints and a candid discussion regarding real business goals, rewards and risks, along with the proper allocation and prioritization of same are essential to the process.

In the IPD scenario, the project leadership sets out a course and philosophy that establishes an advocacy position for the project, not ‘for’ or ‘from’ a particular participant’s vantage point but from the “project’s point of view.” As the project’s advocate, the leadership must be suitably empowered to marshal the project’s resources to achieve and support the mutually identified project goals. This leadership, or advocate’s role can be shared or rotated to different members of the project team during certain ‘phases’ to the party best equipped for that particular phase. This might be seen as an ideal advocate management approach, but it may be difficult to achieve given the natural tendency for people to focus on and side with their own agendas. A more practical methodology might be to employ [a] project advocate(s) who is (are) independent of any of the individual participating organizations and whose only real success is measured in the overall success of the project.²

¹ [Systems Thinking – A new paradigm for successful projects, Systems-based Project Management.](#)

² [Project Advocates for the Construction Industry](#)

In some ways, one might consider that role of the project advocate(s) as akin to an activist, pre-emptive dispute review board. DRBs function best when they have a good working knowledge of the project and its (construction) status. A good project advocate will get involved well before construction and brings the accumulated knowledge from conceptual planning to detailed design to the construction phase of a project. In short, the IPD process results in a team that understands the 'why' of a project along with the 'what' and 'how' and the 'how' is influenced by the 'who' of the team. In traditional execution strategies almost all the attention is given to the 'what' and 'how' with very limited knowledge of the 'why' of the projects at the real execution level and the 'who' are often moved around like commodities.

IPD requires a different form of project leadership. It requires a combination of delegative techniques – allowing people the freedom to arrive at their best solutions along with a somewhat 'bureaucratic' (in a good way!) adherence to the established project guidelines associated with their respective responsibilities all applied in a participative, democratic framework. The resultant mix will be a form of transformational leadership that makes people want to work on IPD projects again. On the IPD project, that leader must also be able to step back from the people aspects of the team just enough to see clearly those decisions that are in the best interest of the project and be able to move the team to those decisions. The team has been selected based on their skills and expertise; a wise leader allows his or her team to bring their very best game to the table but keeps the players focused on the overall game plan.

An IPD approach will probably take a little longer to get going in the front end of a project but will pay dividends as you push towards project completion. Our overall economy has become less fixed by strict borders and boundaries and collaborative execution is common in many industry sectors. It will be coming to a construction project near you soon!



I Pity the Fool That Isn't Using IPD!!