

PROGRESSIVE PROJECT DELIVERY®:

The Best Choice of Project Delivery Methods

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In the modern era, construction projects have been delivered in about as many different ways as there have been projects. Through all of this, one thing has been established...there is no panacea, no silver bullet that will work perfectly. However, the industry has enough project delivery options to help owners select the best one for their needs. In addition, Hixson has developed a system, Progressive Project Delivery® (PPD) that offers another option; one in which the owner maintains control in a true team atmosphere.

MAJOR CONSTRUCTION DELIVERY METHOD HISTORY AND DEFINITIONS

• Design/Bid/Build

For years the construction industry's workhorse project delivery system was Design/Bid/Build (D/B/B). In this process, the Owner hired an Architect and/or an Engineer and/or an Interiors firm (or any combination thereof) and worked with the firm to program, design and produce contract documents for bidding. Once all the details were worked out and the documents completed, the project would then be sent out for bid. Contractors and subcontractors would perform takeoffs and price the work contained in the documents. The bids would be received and tabulated normally with the lowest bid being accepted as the total cost of the construction project. This process was popular for years, but never achieved a consistent result for the owner because of key factors which involved all three parties to the project – Owner, Contractor and Designer. Some of these issues included the following:

- The Owner being pressured by Corporate to cut time out of the overall process due to cost of money and/or first to market goals.
- The construction industry becoming less "trained" and skilled.

Designers looking to "shed" responsibilities and liability.

"In the Design/Build model...the architect provides whatever limited services the contractor wants to pay for. There is usually not a lot of investigation or probing into what the Owner really needs. It is commodity-based and good for an Owner looking for a turn-key approach. It is ideal for projects that don't have much complexity."

Doug Richards
AIA Cincinnati Chapter President
Quoted in the Cincinnati Business Courier
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- Owners pushing designers to "get it done faster and cheaper" and sacrificing document quality.
- The concept of the low bid winning the project based on less than quality documents and the Contractor thinking of "making it up in change orders."
- As designers looked for less and less responsibility and liability, they began to be in the field less and less, exactly at the time they were needed the most.
- Owners began lengthening payment cycles to Designers and Contractors which in turn affected their cash flow.
- Projects were not generally being completed with the quality, timelines, and/or costs as expected/promised.

• Design/Build

With the "bad blood" and "finger pointing" on construction sites caused by the traditional D/B/B process often leaving the Owner with problems and no one taking responsibility, a better process was needed. In the 1960s, the "new" answer was the emergence of the Design/Build (D/B) delivery method, which was seen as the answer to all the problems spawned by the D/B/B process. Prior to the days of D/B/B, the Architect was known as the "master builder," the one who designed and built the project, providing single-point responsibility. With D/B, Contractors stepped up and

took the leadership position, providing the Designer with a way to take on less responsibility and liability. The Contractor generally hired the Designer directly so the point of contact for the Owner was seen as the Contractor. Thus, the Contractor became the single point of responsibility, leading both the design and construction effort. With only one contract (with the Owner), finger pointing was minimized.

D/B continued to grow as a delivery method into the early 2000s and was projected to become the most widely used construction project delivery system. Yet this projection has not come to fruition. Many D/B organizations using this delivery system continue to capture market share, but others indicate the use of D/B plateauing or even declining. While D/B may have addressed some of the issues of D/B/B, it also created some new problems of its own, such as:

- The Owner lost the checks and balances of holding both the contractor's and designer's contracts. The designer's loyalty could be to the contractor, not necessarily the Owner.
- The D/B delivery system has the potential of "the fox watching the hen house" paradigm. With one party controlling both design and budget, things can become skewed away from the Owner's best interest.
- One Fortune 100 client contact stated, "The problem I have with D/B is I never know exactly what I'm getting until I get it." He was alluding to the fact that D/B documents are normally more schematic in nature and may have less detail than D/B/B documents. Many times D/B documents carry only enough information to secure the required building permits. Much of the design may be done "on the fly" in the field.
- The cost overruns continued and the quality was not consistent.

Hixson has had many clients in recent years wanting to hire the designer directly and get away from the D/B delivery system. They have become disenchanted with the D/B process and do not feel they are getting the best project results for the money spent.

• Integrated Project Delivery

Pick up any construction or design magazine today and you can normally find at least one article on the latest project delivery method to appear on the scene, known as Integrated Project Delivery (IPD). Because to date only a couple of dozen national projects using just some of the IPD concepts have been accomplished, the delivery system is still in its infancy. Yet just like D/B/B and D/B were in their glory days, IPD is touted by some as the "new" answer to all contracting problems and is being championed by the Construction Users Roundtable (CURT), whose membership includes many large private and governmental Owners.

Design/Bid/Build Usage Down, But Still Dominating

Despite the buzz over IPD, D/B/B, even with all its pitfalls, continues to be the project delivery practice of choice for most projects. In a 2010 survey conducted by consulting firm ZweigWhite, A/Es reported that 43% of their 2009 gross revenue was achieved using D/B/B, compared to 27% for D/B and 10% for CM. These numbers compare to findings from the 2006 American Institute of Architects Firm Survey – before IPD became widely known, in which responding firms reported 59.3% of their gross billings coming from D/B/B projects and 10.5% from D/B projects. In addition, 23.6% used CM or CM At Risk. (Note: A CM can be used on any delivery system, but is typically associated with D/B/B or negotiated contracts.)

With IPD, a construction team (Construction Manager (CM), General Contractor (GC), major subcontractors, all the architects, engineers and the owner) sign one contract and work collaboratively towards a successful project conclusion. At the end of the project, any money remaining is split within the group as defined by the contract. If the project didn't go well, there is no profit for anyone. Thus, the underlying theory of IPD is that "we succeed together or we fail together."

As with D/B/B and D/B, there are issues with IPD as well. In fact, as one publication stated, "IPD is not for the faint of heart." Some of the problems specific to IPD are:

- Everything is decided by consensus of the group. The design is a collaborative effort and often done using Building Information Modeling software. Questions that have arisen include, "Who is ultimately responsible for the design?" and "Who are the architect and/or engineer of record?"
 - Errors and Omission insurance companies were just one of many organizations not included in the formation of the IPD system. Because of this, insurance groups are still working to find ways to insure the A/E's involved in the IPD process.
 - The contractor is entering the realm of designer and the designer is dealing with construction means and methods. Neither situation may be insurable.
 - To date, no IPD project has gone bad or had a major failure. No one is sure what will happen when a major failure or problem does occur. There is just no legal precedence for this delivery method.
 - For IPD to be successful, the partners have to trust and believe in the capabilities of all the participants (Owner/CM/GC, sub-contractors, A/E). If you are working with all the same team members all the time, this may be possible. However, most projects have different entities on each project and the potential for failure is substantial.
- **Progressive Project Delivery**[®]

In the late 1980s, Hixson had a client who needed to get started on a fast-track project. While the project had to be completed by a given date, there was not enough time to bid the project, yet Corporate would not break their traditional policy of requiring a minimum of three bids. Hixson's answer was the foundation of what we now call Progressive Project Delivery[®] (PPD).

THE PPD PROCESS

The first step in a PPD project is to send a Cost Plus RFP to a competent pre-selected group of CM/GCs. The intent is to get the construction partner on board as early

as possible in the design process (e.g., in the conceptual phase) long before drawings are to the point of bidding. The RFP always includes the following information:

- A brief description of the project.
- The schedule with as many milestone dates as possible and the project duration.
- The estimated project cost or cost range of the project.

With that information, the CM/GC is then asked for two basic pieces of information:

- What percentage of overhead and profit does the CM/GC want to make on the project based on the estimated cost and duration?
- How does the CM/GC plan to field staff and manage the project and what will be the average monthly cost for the field administration based on the project size and duration?

Based on the CM/GCs information from the RFP, a "short list" of CM/GCs is selected for interviews. The final selection is normally made on the basis of the proposed field administration team's strength, experience with the project type and geographical region of construction, as well as cost. Selection also includes discussion on how the team can work together in the best interests of the client and the project. Once the contracting partner is selected and contracted to the Owner, the Owner and A/E have added a "real" team member versus a potential adversary. The CM/GC offers input on constructability, material/equipment availability, construction costs, scheduling and phasing issues and much more. The CM/GC knows how much money they will make on the project and they will be paid for their on-site personnel, so they can concentrate on what is best for the Owner and not have to worry about their bottom line. Both designer and constructor are contracted to the Owner and working in the Owner's best interest.

The PPD delivery methodology brings together the benefits of traditional delivery systems without conflicts of interest and finger pointing, including:

- Significant customization opportunities. Owners can create facilities that offer significant competitive advantage.

- Simplicity, speed and greater Owner project control. With PPD, construction can begin even though design is not yet complete, allowing projects to be completed sooner than with D/B/B while offering the Owner more control than with other methods.
- Solid design/engineering from the start. By having a knowledgeable architect/engineer as part of the project from beginning to end, you know that the current and projected use of the facility will be considered throughout the design and construction process.
- Greater accountability. With PPD, there is a common point of resolution. To minimize confusion and reduce the likelihood of “finger pointing,” Hixson and our clients negotiate with general contractors/ construction managers to join the team early in the process, enabling them to provide their expertise throughout the course of the project. Once on board, we then provide the GM/GC with detailed plans and specifications and ensure those plans and specifications are followed. This creates an atmosphere where we are all working together for the client.
- Better managed costs. Hixson employs professional, full-time cost estimators who work closely with our other technical disciplines to determine costs throughout the project. In addition to using the CM/GC’s pricing expertise, any cost savings found during the course of the project (which do not harm the original design/engineering goals) are passed on to the client – not Hixson or the contractor.
- Stronger, long-term relationships. At Hixson, we develop relationships that will stand the test of time. By doing so, everyone wins: We win by gaining repeat business and our clients win by having a partner who is committed to their success.

The Achilles heel of PPD is that the CM/GC does not have a strong incentive to keep construction costs under control: Their overhead and profit are tied to a percentage of the construction cost. However, the competency and quality of the CM/GC firms involved in our PPD projects guides them to realize that the Owner will probably have other projects in the future with Hixson, and therefore, outstanding performance on the project at hand may lead to future work.

In addition, with PPD, the A/E takes responsibility for construction costs (with input and eventual agreement with the contracting entity). Most A/E firms do not have professional cost estimating in-house to be able to reliably take this responsibility. Finally, PPD also puts more responsibility to deliver on the A/E, where Hixson believes it belongs (eliminating finger pointing/scheduling issues, etc.). Most firms, however, do not want to accept more responsibility; in fact, IPD is designed in many ways so the A/E accepts less.

On the following page, we have outlined some additional comparisons between PPD and IPD. As you will see, there are some major differences between the models.

A Comparison of IPD and PPD		
	Progressive Project Delivery	Integrated Project Delivery
<i>Basis of Selection - Corporate Bidding Requirements</i>	By soliciting multiple Construction Managers/General Contractors (CM/GC) in the RFP process, corporate bidding requirements are met for the relatively small percentage of the General Conditions and Overhead and Profit (OH&P). Even if the lowest CM/GC is not selected, with good reason, Corporate normally accepts the selection. The remainder of the project can then be bid and open-book reviewed so the subcontractor decision can be made by the team.	Normally, the IPD team member selection process is done based on past relationships and being able to work and collaborate with each other. Noble reasons and the client sets the budget, but the quality and timeliness are dependent on the group involved.
<i>Track Record</i>	Hixson and our clients have been using PPD for more than 20 years. We have vast experience with the process and deliver over 50% of all Hixson-designed projects using PPD. The system has been tweaked and honed to improve it over time.	IPD is a new delivery system with a very limited history. Of the two dozen or so national projects that have used some components of IPD, most were completed by only one or two Owners.
<i>Insurability</i>	PPD assembles existing contracting methods in a new way. All parties retain their traditional responsibilities and insurability. There is no "blending" of responsibilities.	Insurability of the IPD delivery system with all parties signing one contract is unproven. Many Errors and Omissions insurers have advised against entering into an IPD contract until the industry catches up and works out the "bugs."
<i>Collaboration</i>	PPD is built on voluntary collaboration and cooperation of the Owner, constructor and designer. With the selection of the CM/GC, they know how much they will make on the project. This switches the emphasis for the CM/GC away from their bottom line and to working in the best interest of the Owner. Plus, with the CM/GC's early engagement and valuable input into the design phase the CM/GC understands the "why" of the design. Hixson does not shrink from its contracted responsibilities to the Owner. Hixson stands behind our responsibilities and does what is required to correct any Hixson-caused problems (re-design at our cost, work with the Contractor and Owner to correct Hixson-originated problems to the Owner's satisfaction and, if need be, financially pay to correct a Hixson problem). This is how collaboration and cooperation are built!	With IPD, collaboration and cooperation are forced and "contracted." Profit or loss for the contractor and designer depends on collaboration and cooperation. The theory is the entire team collaborates and makes the "right" decisions for the project. However, an inherent conflict between profit and what's "right" for the project is bound to surface. If the Owner has the ability (which he may or may not have, depending on the contract) to make the final decision of what's "right" for the project to the detriment of other member's profit, the real potential exists for the other team members to become disgruntled. It is difficult to have collaboration and cooperation when members of the team are not satisfied!

DOES THE PERFECT SYSTEM EXIST?

To date the perfect construction project delivery process has not been developed. As the newest industry-buzzing delivery system, IPD is in its very early stages of development with a very limited track record, very mixed industry acceptance (especially within the insurance industry) and legally unprecedented with prior legal case history. There are many unknowns and valid concerns with the IPD delivery system.

Yet it is understandable that groups such as CURT have embraced IPD: Typical delivery systems haven't worked very well for Owners, and the underlying principles of collaboration and cooperation are wise and noble principles. At the same time, Hixson has a history of projects that prove Progressive Project Delivery works – and works well, fostering both collaboration and cooperation. This is obvious by the Owners and CM/CGs who have embraced our PPD model. Because PPD allows for early involvement of the principle players in an environment of true partnering with everyone concentrating on the Owner's best interests, it also allows for the ultimate project control by the major risk taker: the Owner.

In the end, all delivery methodologies have their place. However, when it comes to complex projects, especially those in which the Owner needs control of the outcome and is under time pressures, PPD is the best choice.

"(Architects) can make an unbiased recommendation as to what delivery system is best suited for you."

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Advocacy: Hixson is a "No-Bias" Company

At Hixson, we seek to serve as extended team members of our clients' organizations, not as representatives of companies with outside concerns. Therefore, we do not accept income or incentives – or sell/represent products – from equipment suppliers, contractors or any company that could improperly influence our opinion. Because of this, Hixson ensures that the information we present is unbiased and has been developed in the best interests of our clients.

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