

CREATING OWNER VALUE

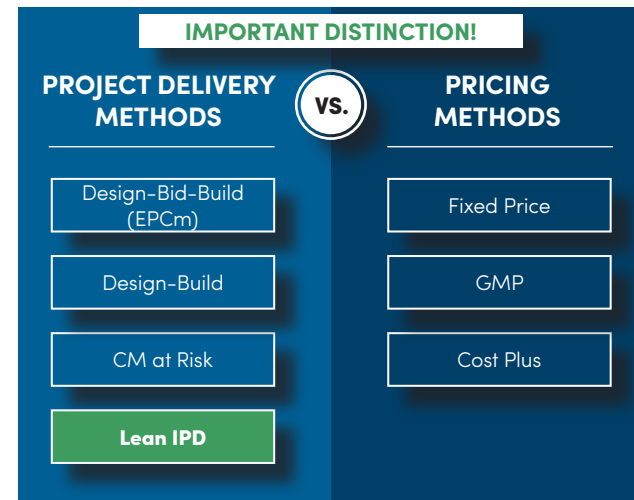
Using Lean IPD To Drive Better Project Outcomes

REV. 2.2
March 22, 2019

TRADITIONAL DELIVERY METHODS vs. LEAN IPD

BACKGROUND

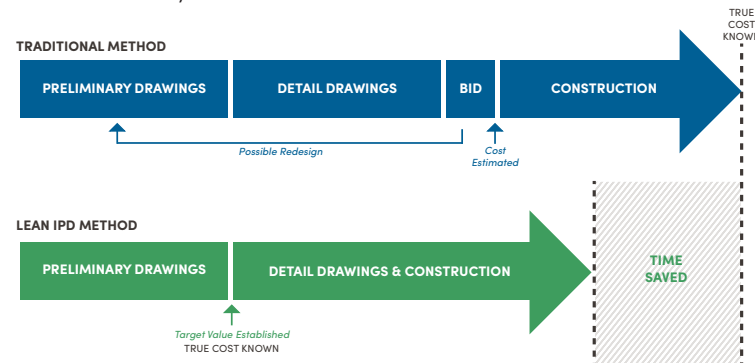
Owners may not realize the value that they are leaving on the table with traditional project delivery methods. Lean IPD is the key to unlocking this value. **Not all project delivery methods are created equal.**



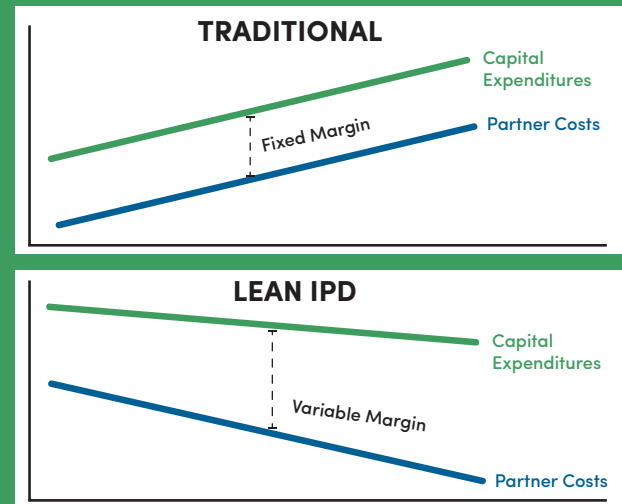
OBSERVATIONS

The greater the Lean intensity, the greater the value created. Progressive delivery methods better enable Lean intensity compared to traditional project delivery methods.

The highest levels of Lean intensity are achieved with an IPD Agreement that sets a Target Cost and enables a risk/reward structure for all parties (an Integrated Form of Agreement). These Lean IPD projects also show increased innovation and project team creativity.



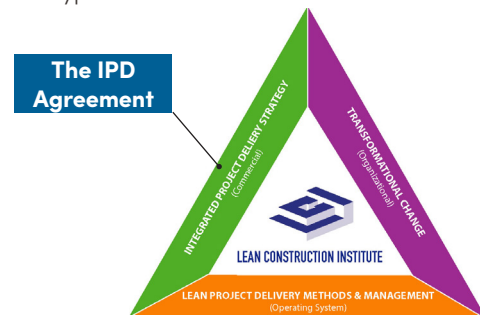
THE CRITICAL DIFFERENCE



Unlike traditional project delivery methods, Lean IPD provides an incentive for the project team to reduce scope and cost. Partner profit margin increases as costs are driven down. The owner's overall capital expenditure goes down as well.

WHY DOES LEAN IPD WORK?

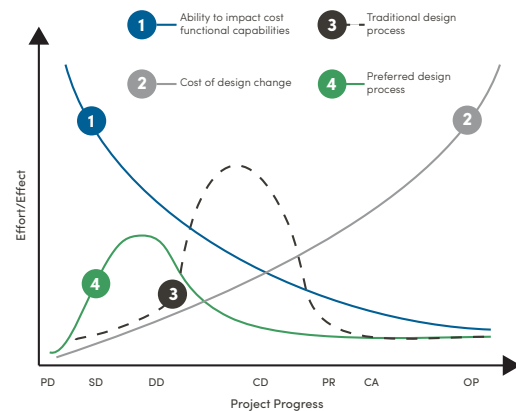
Lean IPD projects start by building high-performing teams that are rooted in trust and respect. **The IPD Agreement** then plays a critical role in enabling these teams to embody the types of behaviors that lead to success.



The LCI triangle indicates that each of the three legs, commercial, organizational, and operating system, is necessary for a successful project endeavor.

Howard Ashcraft's summary of how the IPD Agreement creates value (link in Further Resources) is a great read for better understanding. **The summary defines why Lean IPD works:**

1. Early Engagement of Key Participants
2. Shared Risk/Reward
3. Joint Project Control
4. Reduced Liability
5. Jointly Developed/Validated Target



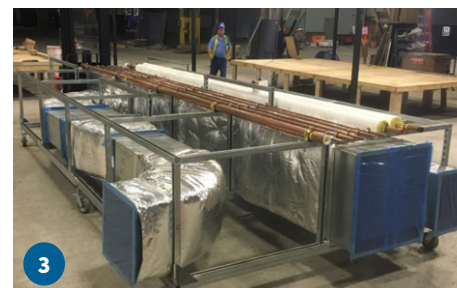
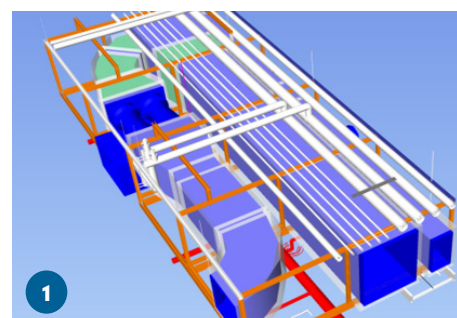
As a project progresses, the ability to impact cost decreases. "Shifting the curve to the left," or making key decisions sooner, means increasing value for the project.

Early Engagement of Key Participants means all essential trade partners participate in the project's validation phase. **Shared Risk/Reward** creates value through transparent discussions on what risks are appropriate to take, who should own them, and how they should be mitigated.

REAL WORLD SUCCESS

For an ongoing major healthcare project in Philadelphia, over 140 multi-trade rack assemblies, spanning the scope of multiple Lean IPD partners, were recently assembled in a 100,000 SF warehouse shared by the IFOA team.

The concept was made a reality by leveraging a multi-disciplinary team. Engineers (technical expertise), Superintendents (field expertise), and Project Managers (cost control) all collaborated with the owner to create this successful innovation.



- 1 All team members designed in the same Building Information Model, allowing trade coordination to begin on day one.
- 2 Small scale racks were 3D printed, allowing tradesmen a chance to touch, feel, and look for constructability issues in a tangible way.
- 3 A nearly finished rack ready for shipment to the job site.

RESEARCH AGREES

	Validation	Co-Location	Lean Tools and Processes	ROI
			Lean Team Formation Team Development Goals Workplace and Meeting Cost and Decision Project Management	
Akron	●	●	●	●
Autodesk	●	●	●	●
Mosaic	●	●	●	●
Quail Run	●	●	●	●
Rocky Mountain	●	●	●	●
St. Anthony	●	●	●	●
Sutter Los Gatos	●	●	●	●
Sutter Sunnyvale	●	●	●	●
T. Rowe Price	●	●	●	●
Wekiva Springs	●	●	●	●

MOTIVATION AND MEANS: How and Why IPD and Lean Lead to Success

Research Report
November, 2016

University of Minnesota in collaboration with University of Washington, University of British Columbia, Scan Consulting
Sponsored by Integrated Project Delivery Alliance (IPDA) & Lean Construction Institute (LCI)

Conclusion:

IPD sets the terms and provides the **motivation** for collaboration; Lean provides the **means** for teams to optimize their performance and achieve project goals.

[Motivation & Means: How and Why IPD and Lean Lead to Success \(Research Report\)](#)

FURTHER RESOURCES



["IPD Super Teams Hit Jackpot for Clients"](#)
Building Design and Construction.

Integrated Project Delivery: Optimizing Project Performance

By Howard Ashcraft, Hanson Bridge LLP



The Value Proposition

Projects are undertaken because they provide value to the organization. Project value might be lower first cost, lower lifecycle cost, improved operations, enhanced user effectiveness, or other measures. Regardless of which value, or blend of values, is most important to the Owner and end users, the project delivery system should reliably maximize value.

In this standard, current project delivery systems are woefully inadequate. They occasionally deliver good results, but often are inconsistent, late, over budget and plagued with disputes. Estimates of waste in design and construction exceed 10 percent and projects, especially large projects, routinely exceed schedule and budget (Hudson, 2009).

[Integrated Project Delivery: Optimizing Project Performance](#) (Howard Ashcraft)



[This is Lean: Resolving the Efficiency Paradox](#)
[Transforming Design and Construction](#)



To learn more, visit the Lean Construction Institute website, www.leanconstruction.org.

OWNERS AS TRUE PARTNERS

To create this value using Lean IPD Owners need to be:

- Engaged
- Trusting & Trustworthy
- Transparent
- Committed

While embracing these behaviors is not easy, those who do will create greater value from their capital investments.

In Traditional delivery, you'd like to think you've set a Guaranteed Maximum Price once your work is bid out, but what you have really have is a **Guaranteed MINIMUM Cost**. It will only go up from there.