CHAPTER 1

LEAN CONSTRUCTION OVERVIEW

Introduction

Lean/Integrated Project Delivery (Lean/IPD) is a response to customer and supply chain dissatisfaction with the results in the building industry. Construction labor efficiency/productivity has decreased while all other non-farming labor efficiency has doubled or more since the 1960s. Currently, 70% of projects are over budget and delivered late. The industry still sees about 800 deaths and thousands of injuries per year. The industry is broken.

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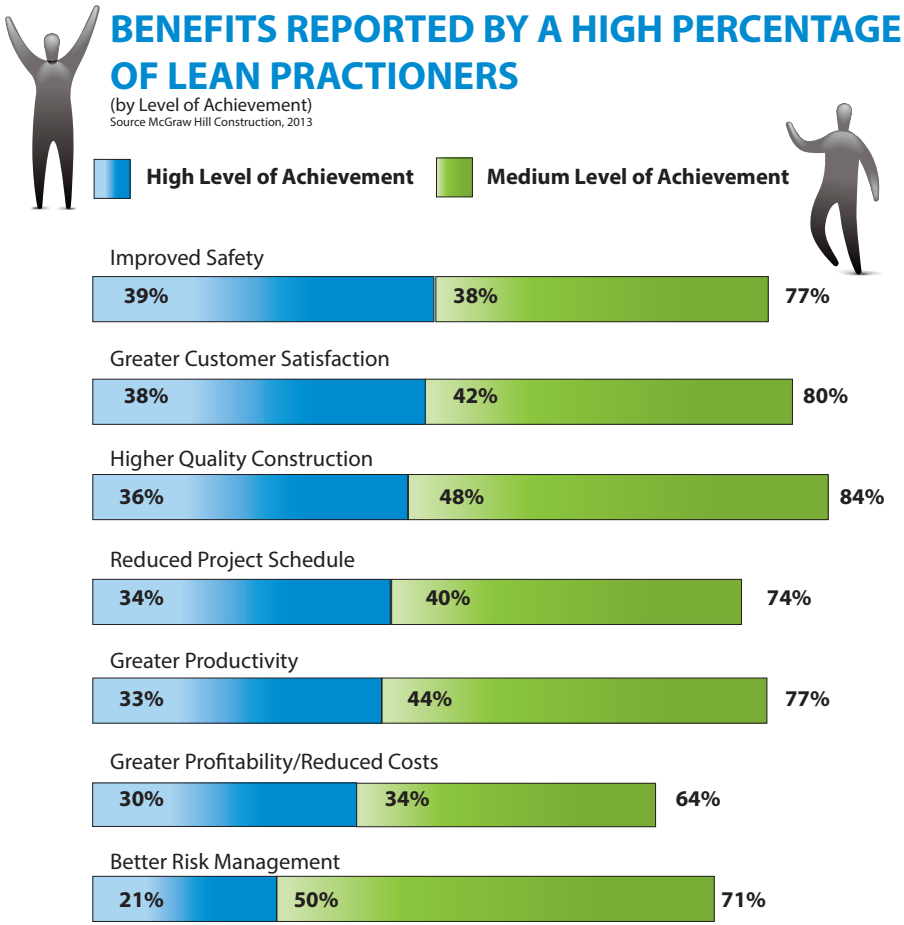
This is not a construction-only issue; it spans the entire delivery system. The silos created around architects, engineers, general contractors, trade contractors and specialty providers have introduced significant waste into the delivery system. An alarming lack of trust has created systems of checks, double-checks and over specification to cover legal ramifications—either real or perceived.

1.0 Why

Lean/IPD has shown that this phenomenon can be reversed as shown below.

Source: McGraw Hill Construction, 2013



Lean/IPD has the potential to reverse alarming trends in the construction industry that threaten safety, competitiveness and profitability.

Lean construction is a relationship-based system that is founded in commitments and accountability. It significantly improves trust. Teams are integrated through collaborative tools and search for ways to eliminate waste—specifically at the hand-off of work. Teams seek to continuously improve through reflection. Lean/IPD processes are designed to remove variation and create continuous workflow to drive significant improvement in predictability, all while strongly encouraging respect for all people involved.

2.0 How

High-Performing Team selection through a value-based Partner Selection assessment allows multiple subject matter experts to provide their knowledge in new ways through onboarding practices, Cluster Team development, and early incorporation of means and methods. These practices ultimately lead to higher-quality, lower-cost projects. Partners come together in a Big Room environment and learn to function as one team by creating long-term business partnerships. Teams improve by Learning to See Waste through the use of Retrospectives like the common Plus/Delta. Enhanced Facilitation, Agenda management, Production Systems implementation, and the Last Planner ® System are tools that drive productivity into meetings, planning sessions and construction efforts.

Owner/operators are offered a significantly improved Value decision making opportunity and project predictability through Target Value Design. Teams learn to make better decisions with the use of Choosing by Advantages and present better solutions to complex problems through the A3 thinking process.

This framework can be structured through a common contract based around Conditions of Satisfaction that aligns goals and allows all parties to win together—not at the expense of each other—by creating a unique Business Deal.

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Quick Reference