



Lean Construction Institute

Building Knowledge in Design and Construction

It's a new year and its time we started making things happen. I've asked Jim Stone to change out our home page so that it is easier to access the videos from the Pasadena Congress, including the Pioneer Awards acceptance speech by the Greg Howell and Glenn Ballard. Their "thank you" to the community is the best summary of how they concluded that productivity in construction couldn't happen on a trade by trade basis—it had to happen on a project basis. Here's Greg's latest on the subject:

The Lean Construction Institute (LCI) was founded in 1997 to develop and disseminate new knowledge regarding the management of work in projects. The idea for an LCI developed from a discovery of the obvious; current project management practice cannot produce predictable workflow. This insight led to a reinterpretation of the source and nature of problems arising on construction projects. A new planning system, the Last Planner® System (LPS), was invented to improve workflow predictability. Taking advantage of the stability created by LPS, contractors, designers and suppliers began to organize and manage the work in projects as production systems. The development of Integrated Project Delivery grew from the realization in collaborative "Pull" planning sessions that the difficulty of moving money across contractual boundaries inhibited innovation. From these beginnings, a group of academics, designers, contractors and construction owners worked together to extend and develop what we now call Lean Construction.

We used to say that LCI aimed "to extend to the construction industry the Lean production revolution started in manufacturing. This approach maximizes value delivered to the customer while minimizing waste." While we share the focus on waste elimination and value maximization that other lean processes (lean in manufacturing, lean healthcare, lean six sigma) underscore, I think we are richer than the Toyota Way and the lean manufacturing revolution. Our challenge involves multiple independent contract silos on jobs, one-off construction creations that are built in real world environments—not factories where all the employees are controlled by a single boss and weather and other inclement conditions are not a problem.

Our challenge is project specific, is worker oriented and concentrates on the people that perform the work—if we don't hire their experience and their intelligence, we leave 80% of the value they bring to the job on the table. Lean construction is ultimately about work—as Greg says, "Lean changes the way work is done throughout the delivery process." Lean design changes the way that we think about iterative processes—it gives us a process map that allows us to be as creative as possible because it makes sure we have all the information necessary to do a rational, value-creating and, yes, even iconic design. We can't program creativity but we can program how information is delivered to the creator so that designs are informed by the most important elements of the owner's value proposition and the information that supports its implementation.

Fifteen years of project metrics and apocrypha establishes that lean design and construction save money, save time, increase safety and generate quality. But just because it's better doesn't make it easier. Full commitment to the process, full transparency on expectations of team members, full collaboration on difficult turns and full participation is required. There are no rest stops on the lean journey—we don't stop at Schematic Design to rest. And lean is a full on assault on the assumptions that currently govern project management and delivery. But I can



Lean Construction Institute

Building Knowledge in Design and Construction

tell you, from the experience of our community, it is worth it. It is worth it in spades, worth its weight in gold (even these days). By any measurement, lean implementation makes project delivery more predictable and thus, more profitable. Thanks for being such an important part of the lean learning and implementation laboratory. Keep up the good work!