



VIEWS & VISIONS

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Lean is the New Fat

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John Jarrett is President of Jarrett Construction Services, Inc., a full-service regional construction company headquartered in Charleston, West Virginia.

With almost three decades of experience, Jarrett brings substantial expertise to any construction project. Professional accomplishments include working for the Naval Facilities Engineering Command, providing project management duties for an extensive renovation to the Smithsonian Institution's Freer Gallery of Art in Washington, D.C. and managing the science addition to Charleston Catholic High School.

Jarrett received his bachelor's degree in civil engineering from West Virginia University Institute of Technology. He has also completed graduate level studies at George Washington University in engineering administration and has been involved in numerous construction industry programs and seminars. He is a registered Professional Engineer in West Virginia and Virginia.

Jarrett is a member of the Kanawha Valley Historical and Preservation Society. He and his firm continue to support the Boy Scouts of America, YWCA of Charleston, Latin American Children's Fund and other charitable organizations.

Lean – it's a small word that can create specific images in your mind. It seems the entire country is ballyhooing the term in some form or fashion. Whether it's lean meat, lean manufacturing or lean construction. Wait, what's that? Lean construction? Yes indeed, lean is taking the construction industry by storm.

Lean construction, adapted from principles of the popular lean manufacturing industry, is currently creating a lot of buzz. According to Ingle and Waghmare in the November 2015 issue of the *International Journal of Engineering and Applied Sciences*, lean construction is the application of lean thinking to the design and construction process, creating improved project delivery to meet client needs and improve profitability for constructors. Meeting client needs and improving contractor profitability are two win-win scenarios that I'll support every single time.

A practical and useful tool within the lean construction tool box is the Last Planner® System (LPS). Jarrett Construction incorporated LPS into our everyday life just under six months ago. In the process, our people, as well as our subcontractors and suppliers, have had to open themselves up to a complete paradigm shift from how we've managed projects for the last 20 years.

Gone are the days of project managers sitting at their desks, working in a vacuum, and somehow magically developing a progress schedule – a schedule that dozens of outside parties like subcontractors and vendors are supposed to adhere to. The effort oftentimes utilized unilateral direction and decision-making based on gut instinct to obtain a positive outcome.



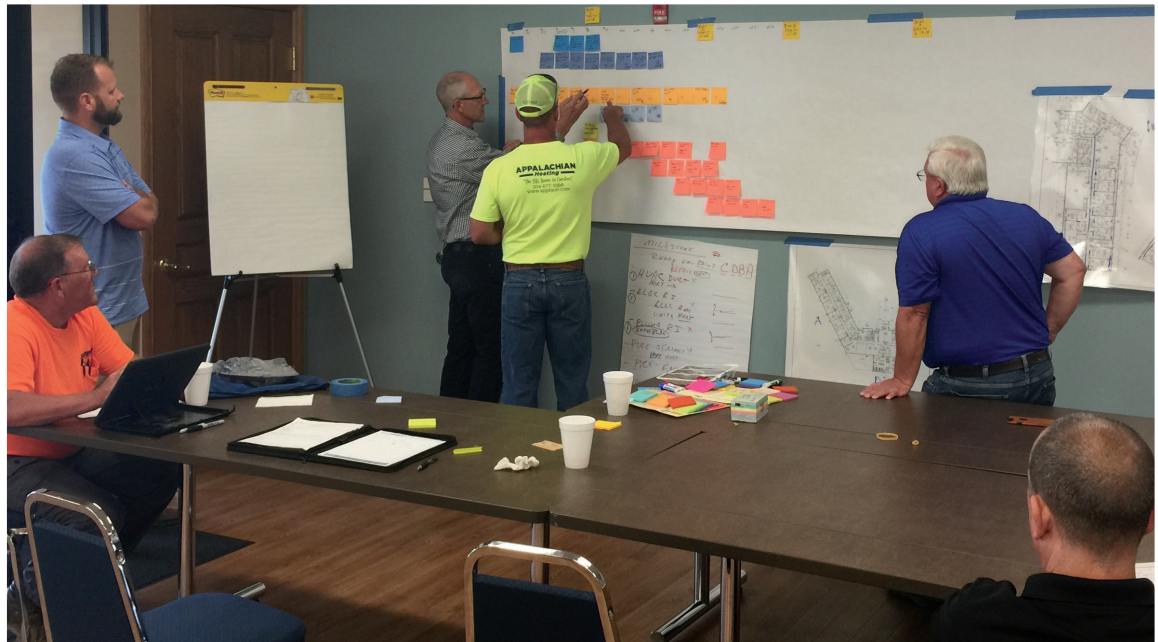
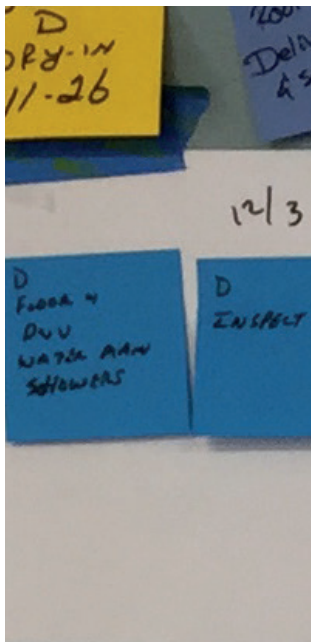
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That kind of attitude and strategy simply won't cut it anymore!

Last Planner® utilizes a project's subcontractor foremen, in a collaborative group format, to identify activities and their associated durations, dependencies, constraints and solutions to formulate a realistic construction schedule. This process is facilitated by the general contractor's on-site superintendent. It switches the traditional means of office-generated schedules to the front-line carpenters, electricians, plumbers and the like; the people who know, understand and will ultimately perform the work.

Almost immediately you are able to visualize the benefits of a planning and scheduling system that generates input from the men and women actually performing the work versus a lone project manager trying to figure it out on his own. At Jarrett, our project managers have always sought the input of key subcontractors to coordinate with when developing a schedule. However, the communication was typically from project manager to project manager and not at the field level where the worker with the greatest knowledge of how long it will take, what has to be done before and what can't happen until a specific activity occurs. This is the efficiency of using LPS.

Components of LPS include pull planning sessions, six-week look-ahead meetings and daily huddles. One of the beauties of LPS is the simplicity of the titles. The six-week look-ahead meeting and the daily huddle are exactly



Jarrett Construction and other contractors participate in Lean Construction Coaching pull planning session

that, nothing more or nothing less. The pull planning session is a bit different. The LeanProject Team of Bloomington, Minnesota defines pull planning in its simplest terms as a technique that is used as part of the Last Planner® System to develop a coordinated plan for one phase of a project. Pull planning starts at the end and works backwards to determine must-start dates.

Whether it's pull planning, six-week look-ahead meetings or daily huddles, they all have the same core component in common: all are performed in a collaborative approach with those individuals participating that supervise and perform the work.

And this is the key to successfully using LPS. When the foremen and tradesmen on a project provide the input and actually participate in developing the schedule, a plethora of impactful benefits are achieved. First, and perhaps foremost, is ownership. When that battle-worn plumber commits to performing his work in five days and he writes his name on the board, he owns it. And nine times out of ten, come heck or high water, that plumber will get his work completed in five days. When this habit is perfected, the plumber's work becomes a

very reliable and predictable trade to others on the project team. Thus, these new habits become contagious!

Many construction firms are now using LPS to:

- Create the shortest project durations
- Identify and eliminate unforeseen clashes before they impact progress
- Prevent rework
- Provide a better product to their clients

In today's evermore competitive market, where owners are demanding shorter project durations, vendors are eliminating inventory by shipping materials "just in time" and contractors are facing workforce shortages, every stone must be uncovered to find more efficient ways to do business. Lean construction and the Last Planner System are new methods of project planning and scheduling that do just that.

Finally, I'm reminded of the iconic Bill Murray urging forward John Candy with the mantra "You're a lean, mean fighting machine!" in one of Hollywood's all-time funniest movies, *Stripes*. Today's contractor has to be lean in order to thrive. ▽