GTA, ON - Community of Practice

The Lean Construction Institute of Canada (LCI-C) was founded to develop and disseminate knowledge regarding the management of work and projects. Through Communities of Practice and its national membership, LCI-C is dedicated to transforming the Canadian building industry by making it work smarter, faster, and leaner.

MISSION
To foster a culture of continuous improvement in the planning, design and construction industry through the adoption of lean principles

VISION
To see Lean philosophy and techniques routinely adopted across the planning, design and construction industry.

OBJECTIVES
- To develop the environment to facilitate the exchange of knowledge and experience;
- To deliver education training;
- To deliver a certification/accreditation program;
- To challenging conventional thinking; and
- To create industry awareness.

Lean practices call for a new common sense, a shared understanding in the community. LCI-C Communities of Practice (CoP) are places where these emerging communities meet to forge this new common sense. CoPs provide a forum where people can gather, share, learn, connect, and explore ideas both for their own organizations and the larger industry.

The GTA CoP helps owners, architects and designers, engineers, contractors, labor, specialty contractors, and suppliers understand and find their way in this new world in Ontario and Canada. An invitation is open to all project participants to meet together as local user groups to explore and develop these ideas as they work together.

We aim to extend to the construction industry the Lean production revolution started in manufacturing. This approach maximizes value delivered to the customer while minimizing waste.

A set of introductory readings about Lean design and construction is available on the What Is Lean Construction page on lcicanada.ca. We understand that defining, designing, and building is different from manufacturing, HOWEVER, the principles drawn from Lean Production Management can be applied through techniques tailored for application over the life of a project and a facility program. Taken together these principles and techniques create Three Opportunities and form the basis for a Lean Project Delivery System™.

What is Lean Construction?
Lean construction is a new way to define, design and build facilities. Lean theory, principles and techniques, taken together, provide the foundation for a new form of project management. From roots in production management, lean construction has produced significant improvements particularly on complex, uncertain and quick projects. Key differences between lean construction and other forms of project management include:

- **Control** is redefined from “monitoring results” to “making things happen.” Planning system performance is measured and improved to assure reliable workflow and predictable project outcomes.
- **Performance** is maximizing value and minimizing waste at the project level. Current practice attempts to optimize each activity and thus reduces total system performance.
- **Project Delivery** is the simultaneous design of the facility and its production process. This is concurrent engineering. Current practice, even with constructability reviews, is a sequential process unable to prevent wasteful iterations.
- **Value** to the customer is defined, created and delivered throughout the life of the project. In current practice, the owner is expected to completely define requirements at the outset for delivery at the end, despite changing markets, technology and business practices.

Coordinating action through pulling and continuous flow as opposed to traditional schedule driven push with its over-reliance on central authority and project schedules to manage resources and coordinate work.

Decentralizing decision making through transparency and empowerment. This means providing project participants with information on the state of the production systems and empowering them to take action.

Lean design and construction is a production management based project delivery system emphasizing the reliable and speedy delivery of value. It challenges the generally accepted belief that there is always a trade-off between time, cost, and quality and safety.

Visit lcicanada.ca for more information
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Glossary of Terms

5S – A process to ensure work areas are systematically kept clean & organized, ensuring employees safety & providing the foundation on which to build a Lean culture. Sort, shine, set-in order, standardize & sustain.


A3 – One-page report that summarizes the A3 problem solving process.

Andon – An indicator or signal to alert of a problem or failure.

Building Information Modeling (BIM) – 3D, 4D, or 5D virtual design and construction simulation.

Countermeasure – The short-& long-term trial actions taken to isolate and eventually eliminate the root cause(s) of the problem.

Flow – Smooth movement of materials, information and work.

Integrated Form of Agreement (IFOA) – Contract that links all parties to shared reward and shared risk.

Integrated Project Delivery (IPD) – A delivery system that seek to align interests, objectives and practices, even in a single business, through a team-based approach. The team’s primary members would include the architect, key technical consultants as well as a general contractor and key subcontractors. It creates an organization able to apply the principles and practices of the Lean project delivery system.

Just-in-Time (JIT) – Synonymous with continuous flow. Supplying the right product or service in the right amount at the right time.

Kaizen – Japanese for continuous improvement.

Kanban – Card or visual indicator to an upstream supplier for resupply.

Last Planner System™ (LPS) – delivering a project on a Lean basis by improving coordination by producing predictable workflow and rapid learning.

Owner
TBD

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