

What is Lean Construction and How it Helps in Transforming Construction Industry

With more than 7 million employees and a net worth of \$1.3 trillion, the construction industry continues to grow exponentially over the years. Most companies go through different marketing [success strategies](#) and [construction business plans](#) to find methods that fit well with their goals.

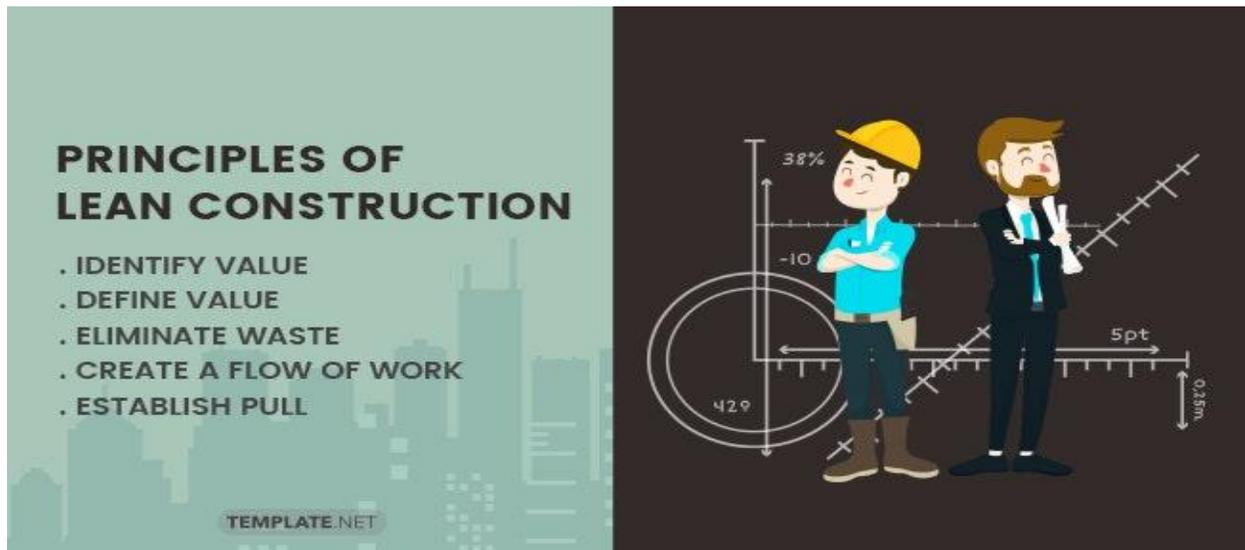
Construction businesses want to maximize their resources to gain better profits from their investments. Besides well-written business and [budgeting plans](#), construction companies should also consider looking at other constructional processes that reap higher gains with lesser inputs. Lean construction is one of the new approaches that positively affects the construction industry. This article discusses the benefits and principles of lean construction. So, read through and use the information for your business.

Define Lean Construction

Lean construction has a methodical process of determining and designing a production system that reduces the costs of materials and time spent in the building of the structure. The method aims to maximize the desired results—[increase sales](#) and fewer deficits—of the project by avoiding time delays, errors in management, and wasting materials. This process combines different construction methods to understand plans better.

Through planning and controlling approaches, lean construction uses a system of research and operations to make sure that goals will have its completion in the set deadline. Lean construction uses strategic planning and effective [project management](#) plans to optimize the resources for the project. Moreover, the method reduces losses while the project is still in progress.

Principles of Lean Construction



The planners need to gather all the plans and concepts to have full comprehension of the project's purpose and goals. Besides project analysis and cash flow forecasts, the construction method aligns all the predetermined plans to formulate a better one. With that, the contractors and project managers have to follow a set of principles to make the procedure more comfortable.

Identify Value

- Instead of just looking at the plans and building [cost analysis](#) that involves the construction of the establishment, lean construction goes deeper into the reasons behind the project. For instance, if the building is a national museum, then the contractors have to provide alternative ideas that fit best with the project's objectives. Lean construction takes time to analyze the reason for the project and then create options for clients, knowing that these alternative ideas will have better rewards. The value of the building holds greater depth than the materials used in the construction.

Define Value

- When the construction company understands where the client stands, they can prepare plans that are in line with the customer's end goals. The contractor will do budget planning for equipment, labor, and construction materials. In this procedure, the construction companies define the value of the project by presenting an organized layout that makes the project more valuable to the client.

If there are adjustments, the team can make revisions and changes in the numbers.

Eliminate Waste

- The purpose of lean construction is lessening and, at times, eliminating wastes coming from the development of the project. With that, lean construction looks at every opportunity in the project and determines the possible wastes. Lean construction recognizes and categorizes eight kinds of excesses.

Over assessment

- Sometimes, some clients choose to push through with their desired design even when it's irrelevant to the project. When that happens, it becomes a waste.

Delayed Resources

- Waiting is a common problem when it comes to construction. Postponed delivery of construction materials slow the development of the establishment, and it's a waste of time and energy on the part of the workers, project managers, and engineers.

Excess Inventory

- As the opposite of the first category, excess inventory is the early arrival of construction items before the schedule. Often, the materials will deteriorate if not used right away. The loss of these materials will affect the allocated budget.

Transport Errors

- If the project has more than one construction site, the possibility of transfers is possible. However, the sudden transport of equipment, workers, or construction material before the scheduled use is a waste of energy and time.

Mismatched Job Descriptions

- When an unqualified worker takes the job of another, it often leads to problems. With that, incorrect job assignments will affect the flow of work in the construction site.

Overproduction

- A project that finishes before the completion date is excellent. But when accomplished and the next step will not start right away, this will become a loss for the client and construction company.

Faulty Work

- Despite being careful, projects will still encounter defects. These flawed works require reworking and the use of more materials. The time spent in remaking the faulty parts is wastage in resources and time.

Problem With Distance

- Distance is another problem in construction projects. Some clients prefer hiring workers that live far from the construction site. This, however, adds is a waste of money and time for the project heads and client's part. Moreover, choosing suppliers far from the [location site](#) is not advisable for the project.

Create A Flow of Work

- After identifying and eliminating wastes, the next step is to create an ideal workflow system for the project. It follows a sequence of events, like an annual schedule, to make sure that the use of time is well spent. The team will also allow adjustments to the plan to suit the needs of the project. Sometimes, the team also considers factors like [organization structure](#) to create better schedules.

Establish Pull

- In creating an efficient work schedule, the planners know that communication is crucial. Unlike other methods that only focus on one aspect of the project, the lean construction approach recognizes collaborative efforts between contractors, subcontractors, suppliers, and owners. The group follows the progress together, analyzing the parts that need extra help and which areas are almost complete. An ideal building project has no delays, and the methods of lean construction avoid these problems.

Seek Perfection

- Lean construction aims to improve the planning mechanisms and scheduling processes of a project. More opportunities in development are possible when creators identify flaws and unnecessary additions to the plan. In time, the schedule of values construction, resource delivery schedules, and other parts of the project will be free from redundancy and nuisance.

Why Use Lean Construction?



Construction companies need to obtain projects for their businesses to flourish. The company hires suitable and professional workers while employing practical business goals and project [safety management](#) plans. Besides these essentials, construction businesses make use of methods that lessen their workload—schedules, modern equipment, and setting boundaries. But the changing time requires the use of better techniques for the convenience of everyone involved in the project. And that’s when enterprises apply lean construction in the procedures of their projects.

Lean construction, as mentioned in the previous paragraphs, uses different approaches to meet the best option to take for the proposed plan. Now, this section answers why using lean construction is essential for the preconstruction and construction processes of a project.

Efficient Safe Work Practices

- As lean construction focuses on decreasing wasted energy, time, and resources, it looks at practices that might hinder productivity and cause physical pain to workers. For instance, workers transferring wood or sacks of cement from one place to another take time. Instead of doing other tasks, they have to do the transfer which transport carts can do. However, lean construction creates a plan for the safety of the workers and maximizes time for more essential tasks.

Reduces Waste

- Construction sites face different problems. From the people working in the site to the unorganized work and delivery schedules, project managers have a lot on their plates. Lean construction helps reduce these kinds of stressors for the managers. By using a [cost management](#) plan and a budget planning scheme, there will be a reduction in the wastes produced by the project. Later on, there will be no more waste, such as resources, time, and energy in the processes of the project.

Cost-Saving

- When the project utilizes options that cut down costs, more resources will go to the areas that require more help. In addition, money saved can go to the [safety plans](#) of the project. With a safety swot analysis, the planners can decide the [budget plans](#) for future predicaments in the construction site. If permitted, saved resources can go to construction project safety plans.

Increase in Productivity

- With less time worrying about the schedule of the project's processes, there will be an increase in productivity. Since other activities are under the care of other workers (transport of tools and materials) or supervised by project managers, the actual physical work of erecting the building has more workers. Moreover, having a schedule tailored by lean construction is more efficient and productive.

Improves Risk Management

- The methods of lean construction include improvement in all aspects of the project. Whether it's a [risk management](#) plan or a budget proposal plan, the goal of lean construction is to help the contractors and owners find the methods that suit their needs and resources. With this approach, the construction company can determine risks in the project to align solutions and alternative routes. An improvement in the risk management plan will assure everyone that fewer legal problems will occur during the duration of the project.

Increases Employee Collaboration and Accountability

- Using lean construction for a project lessens dilemmas between employers and employees as the approach also considers the welfare of the people involved in the project. If the plan recognizes the possible problems of the workers and the owners, then the planners can add more beneficial plans for both parties. When

this happens, the professional relationship between workers and owners will become better.

How Lean Construction is Different From Other Construction Methods

Like any other business, construction companies apply several techniques to strengthen their [marketing action plans](#), business processes, and legal advantages.

Despite the range of methods that these companies can try for their enterprise, there's one approach that they have to incorporate in their project plans and current marketing strategy. That is, construction businesses have to use the methods of lean construction for their processes. This technique produces reliable results for the company and the clients as it considers all factors of the project, regardless if it's part of the actual construction or not. If there's something that sets lean construction different from other methods, it's the approach's take on all aspects of the project—no matter how small they may seem. As a combination of different construction processes, lean construction is the compilation of concepts that make the business better.

Lean is A Key to the Future of Construction



Nowadays, clients want direct results from their investments in a small span of time. The emergence of more meticulous [planning techniques](#), stronger equipment, and

high-quality communication tools make the procedures in business easier. For construction companies, there are various methods that aid in the success of their enterprise. Besides bidding websites and construction software, the lean construction approach is one key element that construction companies should try to incorporate in their project planning.

Lean construction, with its organized and well-developed plan, is the future for construction businesses. With this method, less time on rework and fewer costs and wastes will encourage other investors to contribute to the growth of the market's economy. As a whole, construction companies will have excellent results with lean construction as their primary methodology in project planning.