

# Training Course on Lean Construction Principles and Practices

## Professional Development Training Course Outline

|          |                        |               |                         |
|----------|------------------------|---------------|-------------------------|
| Category | Construction Institute | Duration      | 5 Days                  |
| Base Fee | \$1,500 USD            | Delivery Mode | Online / On-site Hybrid |

### Course Introduction

This comprehensive training course delves into the core **Lean Construction principles**, a transformative methodology focused on maximizing value and minimizing waste throughout the entire construction lifecycle. Participants will gain a thorough understanding of how to apply **Lean thinking** to streamline processes, improve collaboration, and ultimately achieve superior project outcomes. By mastering **Lean practices**, construction professionals can enhance efficiency, reduce costs, and deliver projects with greater predictability and client satisfaction. This course equips individuals and organizations with the knowledge and tools necessary to foster a culture of continuous improvement and drive significant advancements in project performance.

Training Course on Lean Construction Principles and Practices is meticulously designed to provide a practical and actionable understanding of **Lean in construction**. Through a blend of theoretical knowledge, interactive exercises, and real-world **case studies**, participants will learn to identify and eliminate waste, optimize workflow, and empower project teams. Key objectives include understanding **value stream mapping**, implementing **pull planning systems**, and mastering **Last Planner System® techniques**. This training empowers attendees to become champions of **efficient construction**, driving innovation and delivering exceptional value in today's competitive landscape.

### Programme Curriculum

#### Training Course on Lean Construction Principles and Practices

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### Course Duration

5 days

### Course Objectives

This training course aims to equip participants with the following key skills and knowledge:

1. Comprehend the fundamental **Lean principles** and their applicability within the construction industry.
2. Recognize and categorize the eight wastes (**TIM WOODS**) prevalent in construction processes.
3. Learn to create and analyze **value stream maps** to visualize and optimize project workflows.
4. Master the techniques of **pull planning** to improve workflow and reduce dependencies.
5. Effectively implement the **Last Planner System®** for improved planning reliability and commitment.
6. Understand and apply **Just-in-Time** principles for efficient material and resource management.
7. Utilize **visual management** tools to enhance communication and transparency on project sites.
8. Foster a culture of **continuous improvement** through the application of Kaizen methodologies.
9. Implement **standardization** of processes to reduce variability and improve predictability.
10. Enhance **collaboration and communication** among project stakeholders through Lean practices.
11. Apply Lean techniques to effectively **reduce project lead time** and accelerate delivery.
12. Understand how Lean principles contribute to **improving project quality** and reducing defects.
13. Gain practical experience in implementing various **Lean tools and techniques** in real-world scenarios.

### Organizational Benefits of Lean Construction Training

- Streamlined processes and waste reduction lead to more efficient project execution.
- Minimizing waste and optimizing resource utilization directly lowers project costs.
- Enhanced planning and coordination result in more predictable and timely project completion.
- Lean fosters better communication and teamwork among all project stakeholders.

- A focus on process improvement and waste reduction leads to fewer defects and higher quality deliverables.
- Delivering projects on time, within budget, and to a high standard enhances client satisfaction.
- Lean principles often lead to safer work environments through better organization and risk management.
- Organizations adopting Lean practices gain a significant edge in the competitive construction market.

## **Target Audience**

1. Project Managers
2. Construction Superintendents
3. Site Engineers
4. Foremen and Supervisors
5. Estimators
6. Architects and Designers
7. Owners and Developers
8. Subcontractors

## **Course Outline**

### **Module 1: Introduction to Lean Construction**

- Understanding the evolution and core concepts of Lean.
- Identifying the key principles of Lean thinking and their application in construction.
- Differentiating Lean Construction from traditional construction methodologies.
- Exploring the benefits and challenges of implementing Lean in projects.
- **Case Study:** Analysis of a construction project that successfully adopted initial Lean principles, showcasing early improvements in workflow.

### **Module 2: Identifying and Analyzing Waste (TIM WOODS)**

- Detailed exploration of the eight types of waste: Transportation, Inventory, Motion, Waiting, Over-processing, Over-production, Defects, and Skills (Non-Utilized Talent).
- Techniques for identifying and quantifying waste in various construction processes.
- Understanding the impact of waste on project cost, schedule, and quality.
- Practical exercises in waste observation and categorization on simulated or real project scenarios.
- **Case Study:** A project where a specific type of waste (e.g., waiting time) was identified and its impact quantified, leading to targeted improvement strategies.

### **Module 3: Value Stream Mapping (VSM) in Construction**

- Learning the fundamentals of Value Stream Mapping and its symbols.
- Step-by-step process of creating current and future state value stream maps for construction processes.
- Analyzing value-added and non-value-added activities within a project lifecycle.
- Identifying opportunities for process improvement and waste elimination through VSM.
- **Case Study:** The application of VSM to analyze the material procurement process for a building project, resulting in a redesigned, more efficient flow.

### **Module 4: Pull Planning and Workflow Management**

- Understanding the principles of pull versus push systems in construction scheduling.
- Implementing pull planning techniques to improve workflow and reduce dependencies.
- Facilitating collaborative pull planning sessions with project team members.
- Integrating pull planning with other Lean tools like visual management.
- **Case Study:** A road construction project that implemented pull planning for different phases, leading to better coordination and reduced delays between trades.

### **Module 5: The Last Planner System® (LPS)**

- In-depth exploration of the five core components of the Last Planner System®: Master Planning, Phase Planning, Make Workable Planning, Weekly Work Planning, and Learning.
- Roles and responsibilities within the LPS framework.
- Techniques for improving plan reliability and commitment at the workplace.
- Measuring and analyzing Planned Percent Complete (PPC) to drive continuous improvement.
- **Case Study:** The successful implementation of the Last Planner System® on a high-rise building project, demonstrating improved schedule adherence and team collaboration.

### **Module 6: Just-in-Time (JIT) and Material Management**

- Understanding the principles of Just-in-Time inventory management in construction.
- Strategies for optimizing material procurement, storage, and delivery to minimize waste.
- Implementing visual controls for material tracking and management on site.
- Coordination with suppliers and subcontractors for efficient material flow.
- **Case Study:** A modular construction project that utilized JIT principles for the delivery of prefabricated units, significantly reducing on-site storage and handling.

### **Module 7: Visual Management and Standardization**

- Implementing various visual management tools for communication, transparency, and problem-solving on construction sites (e.g., Kanban boards, visual schedules, safety dashboards).
- Developing and implementing standardized work processes to reduce variability and improve quality.
- The role of 5S (Sort, Set in order, Shine, Standardize, Sustain) in creating an efficient and organized work environment.
- Using visual metrics to track progress and identify areas for improvement.
- **Case Study:** The use of visual management boards on a large infrastructure project to track progress, manage resources, and communicate potential delays effectively.

### **Module 8: Continuous Improvement and Lean Culture**

- Fostering a culture of continuous improvement (Kaizen) within construction teams.
- Implementing problem-solving methodologies like Plan-Do-Check-Act (PDCA).
- Conducting regular team huddles and lessons learned sessions.
- Empowering team members to identify and implement improvements.
- **Case Study:** An organization that successfully embedded a Lean culture through regular Kaizen events and employee involvement, leading to sustained improvements across multiple projects.

### **Training Methodology**

This training course will employ a blended learning approach, incorporating:

- Interactive lectures and presentations
- Group discussions and brainstorming sessions
- Practical exercises and simulations
- Real-world case study analysis
- Video demonstrations of Lean tools and techniques
- Collaborative problem-solving activities
- Action planning for implementation

**Register as a group from 3 participants for a Discount**

Send us an email: [info@fineskilltrainingcenter.org](mailto:info@fineskilltrainingcenter.org) or call +254769199797

### ***Certification***

*Upon successful completion of this training, participants will be issued with a globally- recognized certificate.*

### ***Tailor-Made Course***

*We also offer tailor-made courses based on your needs.*

### **Key Notes**

- a.** The participant must be conversant with English.
- b.** Upon completion of training the participant will be issued with an Authorized Training Certificate
- c.** Course duration is flexible and the contents can be modified to fit any number of days.
- d.** The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.
- e.** One-year post-training support Consultation and Coaching provided after the course.
- f.** Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

## **Upcoming Scheduled Sessions**

| Start Date  | End Date    | Location | Price   |
|-------------|-------------|----------|---------|
| 21 Sep 2026 | 25 Sep 2026 | Online   | \$1,000 |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$1,500 |

| Start Date  | End Date    | Location | Price |
|-------------|-------------|----------|-------|
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0   |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0   |
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| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0   |
| 21 Sep 2026 | 25 Sep 2026 | Physical | \$0   |

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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