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

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.

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 workface.
- 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 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
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com