



Lean  
Construction  
Institute

LEAN CERTIFICATION

# Lean Construction Institute-Certified Practitioner-Construction (LCI-CPC) Candidate Handbook



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The Lean Construction Institute reserves the right to make changes to this Handbook





## Congratulations!

By seeking information on Lean Construction Institute-Certified Practitioner-Construction (LCI-CPC), you have taken the first step to becoming recognized for your experience and expertise in Lean construction.

Certification is achieved through successful completion of an eligibility application and passing both a knowledge and a capability assessment.

This Candidate Handbook describes the application criteria, steps, and deadlines for the process in its entirety.

Thank you for your interest, and we wish you much success.

If you have any questions, you may reach out at [certification@leanconstruction.org](mailto:certification@leanconstruction.org).

Sincerely,  
The Lean Construction Institute

## STEPS TO CERTIFICATION

### STEP 1

3+ years of applying Lean Construction in real-life projects.

### STEP 2

Review Candidate Handbook, submit application, and pay fee.

### STEP 3

Take and pass a knowledge assessment exam based on the Content Outline.

### STEP 4

Submit portfolio based on Content Outline requirements.



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## INTRODUCTION

### Background

The mission of the certification program within the Lean Construction Institute (LCI) is to support the organizational Mission and Vision:

- To lead the building industry in transforming its practices and culture.
- A healthy and thriving building industry delivering outstanding project outcomes every time for everyone.

Over time, the need for and development of a certification credential that evaluates and recognizes the ability of individuals to effectively deploy Lean on projects has been recognized as a requirement if LCI is to succeed in accomplishing its mission.

This led to LCI undertaking a robust and rigorous process to bring forth a knowledge and capability-based certification.

### Benefits of Certification

For Lean Construction professionals, obtaining the LCI-Certified Practitioner-Construction (LCI-CPC) is more than passing an exam – it is a demonstration of your professional experience and knowledge essential to Lean principles in the construction industry. Additionally, your commitment to the recertification requirements shows your passion for continuous learning and participation in activities that help you stay current on ongoing Lean advancements and how new innovations are impacting construction processes.

- LCI's Lean Certifications are an important hallmark for the Lean Construction and Design community and can provide you with a career advantage, as it demonstrates a level of aptitude in applying Lean Construction principles, and your dedication to lifelong learning and a commitment to ethical behavior.
- If you are already applying Lean thinking and processes in Construction, becoming a LCI-Certified Practitioner-Construction will help you demonstrate that you can effectively apply your Lean knowledge and create value in all aspects of your work. It will also showcase your commitment to lifelong learning related to Lean principles.

- Certification is as a mark of distinction and trust that employers can utilize as a way to distinguish knowledgeable professionals who are committed to Lean Construction and Design and can effectively apply these principles to current and future projects.
- Lean Construction professionals with at least three years of experience in effectively applying Lean on real world construction projects are encouraged to become certified as a way to demonstrate applied knowledge and practice skills across multiple disciplines, meet the needs of employers and inspire public confidence.
- Because the LCI-CPC is a mark of distinction to help owners and employers identify knowledgeable and experienced Lean Construction professionals, certification is a critical step in your professional development and can differentiate you and your skill set from your peers.
- Make becoming an LCI-Certified Practitioner-Construction (LCI-CPC) part of your professional development plan. Discuss it with your employer so that they will support it as one of your annual goals. Demonstrating applied knowledge and skills related to the content areas of being Lean Certified professional will help position you to successfully work with your colleagues and be better prepared to meet your company's overall business objectives.
- For professionals with experience in the field, becoming an LCI-Certified Practitioner-Construction provides the perfect complement to your work experience and helps you stand out for Construction jobs. Attaining the LCI-CPC demonstrates to your employer a clear understanding of the interdisciplinary nature of Lean principles and practical real-world knowledge and skills needed for today's construction and design profession.



## About the Lean Construction Institute

The Lean Construction Institute is a non-profit organization seeking to make standard the use of Lean tools and techniques on all projects in the built environment. Lean thinking, processes and behaviors can integrate our siloed industry into high-performing, success-oriented teams that foster collaboration between all project participants from owners to trade partners.

Its Certification Commission is empowered by the LCI Board of Directors to provide oversight and governance for certification programs and to establish policies related to certification programs. The Certification Commission is solely responsible for all essential decisions related to the development, administration, and ongoing maintenance of all Lean Construction Institute certifications.

## Contact Information

To learn more about the LCI, the value of certification, requirements to earn and maintain certification, to file a complaint or appeal, visit LCI Certification or contact us at [certification@leanconstruction.org](mailto:certification@leanconstruction.org). Most of your questions can be answered by the Lean Construction Institute; however, we partner with two companies that support the technology behind our certification programs.

- Prolydian supports the certification process through their candidate management system, and continuing education manager. Many technical questions can be answered by visiting: <https://www.prolydian.com/test-taker-faqs>. Here you'll find information and videos on remote proctored exams, technical requirements, an overview of the exam-day experience and more. In the unlikely event you'll need technical support with your Prolydian account, you can contact [support+theLCI@prolydian.com](mailto:support+theLCI@prolydian.com)
- Examity provides the online proctoring system and personnel for the LCI certification that enables candidates to take the exam conveniently and securely from their own environment. Should you need support during your exam you can call 855-EXAMITY (select option 1), email [support@examity.com](mailto:support@examity.com) or chat directly through the Live Chat feature on the Examity dashboard.



## APPLYING FOR CERTIFICATION

### Candidacy Requirements

Participation in the Lean Construction Institute-Certified Practitioner-Construction (LCI-CPC) program is voluntary and open to anyone meeting candidacy requirements at the time of application.

#### Requirements:

- Employer verified Lean work experience of 3 years equivalent (2080 hours per year) (PDF)
- Two letters of reference each addressing your experience with both Respect for People and Driving Continuous Improvement (PDF)
- Agreement to comply with the Certification Code of Conduct in Appendix C

### Fee Schedule

#### Certification Application Fee:

Note discounts are offered based on LCI membership. If you, or your organization, is a member of LCI, you are entitled to the discount. Please check your membership prior to applying.

- \$999
- \$599 LCI Members

Note: LCI offers group discounts to Corporate Member organizations. Contact [certification@leanconstruction.org](mailto:certification@leanconstruction.org) for more information.

#### Exam Reschedule Fee: \$149

You may cancel or reschedule at no fee up to 72 hours prior to your scheduled exam. Any request to reschedule from 72 hours to the scheduled time incurs a fee.

#### Exam Retest Fee: \$149

The retest fee is only applicable to candidates who have previously taken the Lean Construction Institute-Certified Practitioner-Construction exam but did not receive a passing score. This fee is applicable to each retest.

#### Deficient Portfolio Resubmission Fee: \$149

The portfolio resubmission fee is only applicable to candidates who previously submitted a portfolio that was deemed to be deficient, and certification was denied. This fee is applicable to each resubmission.

#### Recertification Fee:

Note discounts are offered based on LCI membership. If you, or your organization, is a member of LCI, you are entitled to the discount. Please check your membership prior to submitting for recertification.

- \$439
- \$249 LCI Members

#### Certification Reinstatement Fee:

For certifications that require reinstatement, the fee is the original application amount plus \$149.

Fees are non-transferrable from one candidate to another.

#### Making Payment

Payments are made online by credit card at the time of the initial application and recertification application through the Prolydian portal. Visa, Mastercard or American Express are accepted.



## Submitting the Application

Applicants for LCI certification are required to complete and submit the online application within the LCI's certification management system operated by the LCI's partner, Prolydian, at <https://app.prolydian.com/>. If you do not already have a profile in the system, you will be prompted to create one. Applicants with a disability who require assistance in completing the application should contact the LCI at [certification@leanconstruction.org](mailto:certification@leanconstruction.org).

Applicants must complete the application in full, using their name exactly as it appears on a current approved government-issued photo ID. Approved government-issued photo identification includes:

- Government-issued driver's license
- Passport
- Non-US Military issued identification card
- Any Physical Government-Issued Identification Card (must include photo)

## Eligibility Requirements

At the time of application, applicants will be required to meet the following requirements:

- Employer verified Lean work experience of 3 years equivalent (2080 hours per year)

Applicant to upload PDF document(s) verifying Lean work experience:

- Company
- Verifier name
- Role
- Email address
- Phone number
- # Years of your Lean experience at company
- Signed dated by the verifier
- Reference Letters
  - Two separate letters of reference each addressing applicant's demonstration of both Respect for People and Continuous Improvement are required. These letters are to be uploaded into Prolydian directly by the reference provider.
- Agreement to comply with the Certification Code of Conduct in Appendix C.

## Review of Application and Notice of Status

The LCI will review applications and provide a notice of application status within 10 business days. If approved, you will receive a verification email with instructions on how to register for the examination. If you are not approved, you will receive notification of next steps. If you have not received a confirmation email with 10 business days following online application submission, you should contact [certification@leanconstruction.org](mailto:certification@leanconstruction.org) to confirm the status of the application.

## Application and Testing Deadlines

Since the examinations are offered online and year-round, there are no deadlines for applications. However, candidates must register and take the examination within 3 months of application approval.

## Scheduling the Knowledge Assessment

After application approval, follow the instructions in the approval email to schedule your examination. Once the examination has been scheduled, you will receive a confirmation email listing the date and time of the examination. The email will also contain instructions on how to prepare for a live remote proctored exam session. If you do not receive an email, please check your "junk" or "spam" email folders before contacting us.

## Testing Accommodations for Candidates with Disabilities

The LCI complies with the Americans with Disabilities Act (ADA) and strives to ensure that no individual with a documented disability is deprived of the opportunity to take the certification exam solely by reason of that disability provided that reasonable special accommodations can be made. Applicants requesting accommodations must notify the LCI prior to scheduling the exam. Please see the Policies section towards the end of this document for more information.

## Rescheduling

You may reschedule the exam, as long as you do so 72 hours in advance of the scheduled test time and if it is within your allowed three-month exam window. If, however, you cancel your appointment with less than 72 hours' notice, or if you miss your appointment, show up late or provide inadequate identification, you will not be able to make a new appointment without paying an additional testing fee. Specific instructions for rescheduling will be included in your exam scheduled confirmation email.



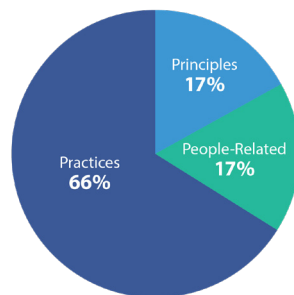
### Cancellation Policy

No fees will be refunded in the event a candidate fails to report at the scheduled time or fails to register for an exam within the allowed three-month exam window.

## KNOWLEDGE ASSESSMENT

### Examination Content Outline

The LCI knowledge assessment utilizes computer-based exams composed of multiple-choice questions administered in one session. The session is planned to be short enough in duration to not require a break. The exam has X questions of which Y are scored. The exam has 150 multiple-choice questions, each with four response options and one correct answer. The exam questions cover the topic areas detailed in the examination content outline included in Appendix A. The exam is comprised of 3 Domains: Principles 17%, People-Related 17% and Practices 66%. Candidates are encouraged to develop a study plan based on review of the content outline. The exams are currently offered in English only.



### Example Exam Questions

#### How do Conditions of Satisfaction support a project?

- They align a project team's focus and group decision-making, therefore bringing value to all team members.
- They confirm that the project team will hire only the right partners and vendors for the job.
- They ensure that the project will be run smoothly and with minimal obstacles.
- They ensure that all team members will finish the project with most of their objectives and ideas met to their liking.

**Correct Answer: A**

#### When you start planning for Lean implementation on a team with limited Lean experience, which first action will best support building a Lean culture?

- Scheduling a kick-off meeting, also called a "soft start," with key project participants to mandate the Lean implementation.
- Develop a responsibilities matrix so people understand who is accountable for each element of the Lean implementation plan should it fail.
- Facilitate a discussion reflecting on why this project is important to people individually and as a team, and how Lean practices play a role in supporting their shared goal.
- Make an assessment regarding the level of Lean buy-in each person on the project team has to determine if Lean practices are appropriate for this team.

**Correct Answer: C**

#### When work leveling, which of the following remains constant?

- Cost
- Time
- Inventory
- Manpower

**Correct Answer: B**





### Knowledge Assessment Exam Content Domains

Certifications offered by the LCI are developed using nationally recognized industry standards. The Lean Construction Institute-Certified Practitioner-Construction (LCI-CPC) examination conforms to a content outline based on a job task analysis of professionals working in Lean construction. The initial LCI-CPC practice analysis study was conducted in 2021 with participation from a diverse panel of subject matter experts (SMEs). The practice analysis study focused on identifying what LCI-CPC need to know and be able to do. Exam questions are based on this analysis, and it is an essential process in identifying required expertise and performance standards.

The LCI Certification Commission provides oversight for the development and ongoing maintenance of the certification examinations. The Board and the LCI staff work in partnership with testing specialists to ensure the examination is developed and maintained in a manner consistent with generally accepted principles for professional certification programs.

### Impartiality Related to Education and Training Leading to Certification

The LCI does not require, provide, approve, accredit, recommend, or endorse any specific educational programs, courses, study guides, review materials, or other examination preparation products.

The LCI resources list provided here will allow you to review topical material. Please review the LCI-CPC exam content outline in Appendices A & B for more specific topic areas.

### eLearning

- Introduction to Lean Project Delivery
- Introduction to Last Planner System®
- Effective Big Room
- Lean in the Design Phase (Pre-con)
- Last Planner System® in Design Phase (Pre-con)
- Target Value Delivery

### Classroom Learning

- Introduction to Lean Project Delivery
- Introduction to Last Planner System®
- Mindset of an Effective Big Room
- Lean in the Design Phase (Pre-con)
- Last Planner System® in Design Phase (Pre-con)
- Target Value Delivery
- Conducting Gemba Walks
- Business Case for Lean Project Delivery
- Kaizen
- 5S in Construction
- Ready, Set, Go Scrum!
- Lean Deployment Guide Workshop
- COAA/LCI Lean for Owners
- Rev Up Your Team: Liberating Structures
- Intermediate Last Planner System®: Practical Application

### Books

- (LCI) Transforming Design & Construction: A framework for Change
- (LCI) Target Value Delivery: Practitioner Guidebook
- (LCI) Don't Conform, Transform! A Guide to Better Project Outcomes
- Others as listed on LCI Website

### Reports/Workbooks/Templates

- Last Planner System® Workbook
- Last Planner System® Standard Work Guidelines
- Lean Deployment Guide
- Integrated Project Delivery: An Action Guide for Leaders
- Project Valuation Guide
- Lean Learning Health Assessment Tool for Individuals
- Lean IPD Health & Maturity Assessment Tool for Teams
- CMAA Managing Integrated Project Delivery
- Lean Contracting Strategy the P&G Way
- UHS Lean Project Delivery Guide
- Practitioner's Guide to Essential Lean Research
- Dodge Reports (3)



### Events

- Annual Congress (Fall)
- Design Forum (Spring)
- Community of Practice (CoP)

### Additional

- Lean Construction Journal
- LCI Blog
- Newsletter
- LCI Glossary of Lean Terms

### Non-LCI Resources:

- AGC Lean Construction Education Program
- Construction Accelerator Series
- Lean IPD Course
- EBFC Show Podcast
- PMI's Construction Professional in Built Environment Projects (CPBEP) Program

### Before the Exam:

The knowledge assessment is delivered through Prolydian and proctored by Examity. Prior to beginning the exam candidates must complete an Examity profile setup, including the upload of a government issued Photo ID. **Candidates MUST complete the profile setup and computer requirements check prior to beginning an exam.**

### Follow the steps below to complete your profile setup:

1. Log into your Prolydian account at <https://app.prolydian.com> (provided by the LCI in the application approval email)
2. Click the "Access my Examity account" button from your Prolydian exams dashboard
3. Click the "My profile" button
4. Click the "Edit" button in the Account Information section, add your phone number, and then click Save.
5. Upload a photo of your government issued ID in the examiSHOW section and then click the Upload button.
6. Click the "Edit" button in the examiKNOW section. Select your security questions, provide your responses, and then click Save
7. Click the "Edit" button in the examiKEY section. Provide the required typed input and then click Save.

8. Check your computer readiness by clicking on "computer requirements check" or by clicking on the following link when you are on the computer you will be testing with: <https://prod.examity.com/systemcheck/check.aspx>

### IMPORTANT NOTE

Be sure that your computer and the location where you intend to take the examination meet the requirements specified in your confirmation email **BEFORE** examination day. If they do not meet the requirements, you will not be able to complete the test, and you will not receive a refund.

We strongly encourage you to review these helpful resources to ensure a successful testing experience:

- Online Test Taker FAQ: <https://www.prolydian.com/test-taker-faqs>
- 5 Tips to Boost Test Taker Success: <https://www.examity.com/5-tips-to-boost-test-taker-success/>
- Online Proctoring Troubleshooting Guide: <https://examity.com/online-proctoringtroubleshooting-guide-for-test-takers-v4/>
- Examity Check-In Process: <https://www.youtube.com/watch?v=1J7Fm8fXyo0>

### Technical Requirements

Be sure that the computer and the location where you intend to take the examination meet the requirements specified in your confirmation email **BEFORE** examination day. If they do not meet therequirements, you will not be able to complete the test and you will not receive a refund. Additional instructions will be provided to applicants in their confirmation email.

- Browser: Google Chrome or Mozilla Firefox with popup blocker disabled. Other browsers are not supported and may not work as expected.
- A working built-in or external webcam and microphone
- Desktop computer or laptop (tablets, Chromebook and cell phones do not meet the proctoring requirements)



- Laptops must remain connected to a power source for the duration of the exam.
- macOS X 10.5 or higher, Windows Vista or higher. Examity does not support Linux or Chrome OS
- Internet speed must be at least 2 Mbps download and 2 Mbps upload. Hot spots are not recommended.

### How to Disable Pop-Up Blockers

#### How to Disable Pop-Up Blocker if you are using Chrome (Desktop)

1. Open your Chrome browser
2. In the upper right-hand corner, click the three vertical dots, then select Settings
3. At the bottom of the menu, click Advanced
4. Scroll down to "Privacy and security," and select Site Settings
5. Select Pop-ups and redirects
6. At the top of the menu, toggle the setting to Allowed to disable the pop-up blocker

#### How to Disable Pop-Up Blocker if you are using Firefox (Desktop)

1. Open your Firefox browser
2. Click the Menu button, then select Options
3. Select Privacy & Security
4. Under Permissions, uncheck Block pop-up windows to disable the pop-up blocker

### Power Failure or Loss of Internet

Computer-based tests are delivered via secure Internet connections. Internet connections are subject to local Internet providers. While it is not the norm, Internet connections can on occasion be lost momentarily, requiring the proctor to log you back into your exam. If you lose your Internet connection, inform the proctor, who will assist you in logging back into your exam. Upon logging back into your exam, you will resume at the first unanswered question. Your exam time remaining will be the same as it was when the Internet connection was lost.

### On exam day:

Log in at least 10 to 15 minutes prior to the exam to do the secure verification process.

To access your exam:

1. Log into your Prolydian account at <https://app.prolydian.com>
2. Click the "Access my examity account" button from your Prolydian exams dashboard
3. Click the "Start exam" button
4. Install the Examity extension by following the instructions on the exam start page
5. Click the "Connect to proctor" button. A proctor will:
  - Confirm candidate identification (see Identification Requirements below)
  - Direct the candidate to pan the examination room with their webcam
  - Release the exam for the candidate to start testing

### Identification requirements

Candidates are required to present a valid, government issued, photo identification to the proctor to gain access to the exam. Acceptable forms of identification (photograph and signature required) include:

- Government-issued driver's license
- Passport
- Non-US Military issued identification card
- Any Physical Government-Issued Identification Card (must include photo)

***The name and photo on the identification presented must match the examinee as identified at the time of registration.***

Candidates will not be permitted to test without proper identification and all fees will be forfeited.

### Applicant Statement of Understanding

During the online application process, each applicant will see the Applicant Statement of Understanding. Applications will not be approved without verification of reading and agreeing to the statement containing the following items. Where other documents are referenced, a link to that document will be provided. These documents are also included in this Handbook; the Lean Construction Institute Certification Code of Conduct in Appendix C and the Exam Rules in the next section.



1. I agree that all information provided in my application is complete and accurate.
2. I agree to comply with all rules, policies and provisions of the certification program including the Lean Construction Institute Certification Code of Conduct.
3. I agree to provide any information needed to determine my eligibility for initial and/or continued certification and to cooperate fully with any disciplinary investigations.
4. I agree to make claims regarding certification only with respect to the scope for which certification has been granted. I further agree to not to misuse the credential, certification mark, and or certificate, or to use them in a misleading manner.
5. I agree that the LCI examinations are highly confidential and that the examination questions are the property of the LCI. I further agree that unauthorized disclosure of the examination questions is prohibited under copyright laws.
6. I agree to comply with all rules of the LCI certification exams, which are included the next section.
7. I agree to not copy, release, share, or otherwise disclose confidential examination materials or participate in fraudulent test-taking practices.
8. I further understand that:
  - a. Candidates will be observed by a proctor through a web cam at all times while they are taking the Lean Construction Institute-Certified Practitioner-Construction examination. Proctors may not necessarily inform candidates of their observations, but they are required to report behavior that may violate the terms and regulations of the LCI or other forms of irregular behavior.
  - b. Any cheating and/or breach of confidentiality/security or any attempt to subvert the examination process by any candidate violates the purpose and principles of the examination. Any candidate, who carries out, takes part in, or who witnesses such behavior must report it to the proctor and/or the LCI as soon as possible.
  - c. The LCI reserves the right to cancel or withhold any examination results when, in the sole opinion of the LCI,

a testing irregularity occurs; cheating has occurred; there is an apparent discrepancy in, or falsification of, a candidate's identification; a candidate engages in misconduct or plagiarism; when aberrancies in performance are detected for which there is no reasonable and satisfactory explanation; or the results are believed to be invalid for any other reason.

- d. Conduct occurring before, during or after testing that violates principles detailed in this Statement of Understanding may result in invalidation of examination results and/or other penalties and will be reported to the LCI.

### Remote Proctored Exam Rules

To provide a fair and consistent environment for all candidates, exams are delivered using standardized procedures following strict security protocols. Candidates are required to follow all testing rules at all times. Failure to follow these rules may result in termination of a candidate's testing session, invalidation of the candidate's exam score and/or disciplinary action. To ensure the security of the Lean Construction Institute-Certified Practitioner-Construction examination, the following rules will apply.

- Candidates arriving more than 15 minutes after their scheduled exam start time will be required to reschedule the examination
- Candidates are permitted a beverage only if in a clear, spill-proof container
- No other individuals are permitted in the testing location with the candidate
- Talking is prohibited unless directly to the proctor
- Webcam, speakers, and microphone must remain on throughout the test
- No watches, cell phones, or other electronic devices are permitted
- No resources, notes, books, or references of any type are allowed
- Exam room lighting should be adequate for the proctor to view the candidate and surrounding area
- The candidate must remain in view of the proctor
- Dual monitors are not allowed



- Reading out loud or any attempts to capture exam content (e.g., taking photos, copying questions, etc.) are prohibited
- Attempts to remotely control the computer, resize browsers, or print the screen are prohibited
- The Prolydian exam notepad or whiteboard may be used for notes, etc.

Note: The only materials candidates should have within reach as they check in are their ID and computer. A beverage as described above may be kept on the desk.

### **Violating Rules and Dismissal**

Any candidate who is observed engaging in any misconduct will be subject to dismissal from the examination, may be barred from future examinations for a period ranging from one year to permanent dismissal, and may be required to forfeit their current examination fee and/or period of eligibility. Proctors are authorized to take immediate, appropriate measures against candidates who are caught violating testing rules. The candidate is entitled to appeal the dismissal determination.

### **After the Examination**

At the conclusion of the knowledge assessment, you will receive an email confirming receipt of the exam. Exam results will be provided by email within 4 business days of testing. The examination score reports will reflect overall scaled score(s) and pass or fail status for the overall examination, based on the passing standard set by the Certification Commission.

### **Retesting**

Retesting Candidates who fail the exam must wait 30 calendar days from the initial exam date before retaking the exam. A retest fee must be submitted during the rescheduling process. If the candidate fails the second attempt, they must wait at 30 calendar days before retaking the exam another time.

### **Appeals**

All candidates have the right to file an appeal of an adverse decision resulting in a denial of certification or recertification based on a failure to satisfy application requirements, payment of fees required by the LCI, or failure of the certification examination caused by conditions beyond the candidate's control. See the Appeals Policy later in this Candidate Handbook.

## **CAPABILITIES ASSESSMENT**

### **Capabilities Assessment Content Outline**

The LCI capability assessment utilizes a portfolio submission. The submission requirements are developed by subject matter experts with guidance provided by Lean Construction Institute's contracted psychometrician. The portfolio requirements cover the topic areas detailed in the Capability Assessment Content Outline. The assessment includes 3 domains: Principles, People-Related and Practices. Candidates are encouraged to develop plan for submission based on review of the content outline. The portfolio submission is currently offered in English only.

Certifications offered by the LCI are developed using nationally recognized industry standards. The Lean Construction Institute-Certified Practitioner-Construction (LCI-CPC) Capability Assessment conforms to a content outline based on a job task analysis of professionals working in Lean construction. The initial LCI-CPC practice analysis study was conducted in 2021 with participation from a diverse panel of subject matter experts (SMEs). The practice analysis study focused on identifying what LCI-CPC need to know and be able to do. Submission requirements are based on this analysis, and it is an essential process in identifying required expertise and performance standards.

The passing standard for the Capabilities Assessment has and will continue to be set using a criterion-referenced methodology. Subject matter experts assigned by the Lean Construction Institute were guided by the contracted psychometrician to determine the passing standard. Rubrics will be scored per Classical Test Theory, with the number of points awarded needed to pass the assessment set via the standard setting process.

The LCI Certification Commission provides oversight for the development and ongoing maintenance of the Capability Assessment. The Board and the LCI staff work in partnership with testing specialists to ensure the assessment is developed and maintained in a manner consistent with generally accepted principles for professional certification programs.



## Capabilities Assessment Information

In addition to the knowledge-based test, LCI will utilize an essay/portfolio-based capabilities assessment to evaluate candidates' knowledge of Lean practices.

The submission requirements are developed by subject matter experts with guidance provided by Lean Construction Institute's contracted psychometrician. The portfolio requirements cover the topic areas detailed in the Capability Assessment Content Outline and detailed further herein. The portfolio submission is currently offered in English only.

Certifications offered by the LCI are developed using nationally recognized industry standards. The Lean Construction Institute-Certified Practitioner-Construction (LCI-CPC) Capability Assessment conforms to a content outline based on a job task analysis of professionals working in Lean construction. The initial LCI-CPC practice analysis study was conducted in 2021 with participation from a diverse panel of subject matter experts (SMEs). The practice analysis study focused on identifying what LCI-CPC need to know and be able to do. Submission requirements are based on this analysis, and it is an essential process in identifying required expertise and performance standards.

The passing standard for the Capabilities Assessment has and will continue to be set using a criterion-referenced methodology. Subject matter experts assigned by the Lean Construction Institute were guided by the contracted psychometrician to determine the passing standard. Rubrics will be scored per Classical Test Theory, with the number of points awarded needed to pass the assessment set via the standard setting process.

The LCI Certification Commission provides oversight for the development and ongoing maintenance of the Capability Assessment. The Board and the LCI staff work in partnership with testing specialists to ensure the assessment is developed and maintained in a manner consistent with generally accepted principles for professional certification programs.

## Capabilities Assessment Content

This assessment will be broken up into two sections. Each section will have specific prompts where the candidate will have to respond to several questions either by essay or portfolio submittal.

- The first section will include seven mandatory prompts focusing on the Last Planner System® content. Each prompt will include two parts. (Prompts 1-7)
- In section two, the candidate will select four of the seven remaining prompts. Again, each prompt will include two parts. (Prompts 8 -14)

The candidate will receive a score for each section. The candidate must pass both sections in order to pass the capabilities assessment.

### Timeline:

- The candidate will have 1 year from the notification to proceed with the capabilities assessment to complete the portfolio.
- Upon completion, the portfolio will enter in the review process with notification of being granted or denied certification within 90 calendar days.
- The assessment may be completed over time with revisits to the Prolydian site as needed. The entries will be saved.



The tables below illustrate the major topics presented in the capabilities assessment. This is followed by an example for each part, and the assessment scoring details.

## SECTION 1: Candidate must complete all seven prompts

Prompt #	Prompt Name
1	Milestone Planning – Part 1 and 2
2	Phase Pull Planning – Part 1 and 2
3	LookAhead Planning – Part 1 and 2
4	Weekly Work Planning – Part 1 and 2
5	Learning / Improving: Daily Huddles – Part 1 and 2
6	Learning / Improving: Percent Plan Complete – Part 1 and 2
7	Learning / Improving: Variance Management – Part 1 and 2

## SECTION 2: Candidate must complete four of seven prompts

Prompt #	Prompt Name
8	Visual Management – Part 1 and 2
9	Risk / Opportunity Management – Part 1 and 2
10	Problem Solving Using A3 – Part 1 and 2
11	Root Cause Analysis / 5 Why – Part 1 and 2
12	Process Mapping – Part 1 and 2
13	Conduct Gemba Walks – Part 1 and 2
14	5S Implementation – Part 1 and 2



## PART 1: Example Questions

### Milestone Planning (Prompt 1)

Question	Grade
1a. Describe the key goals for milestone planning.	
1b. Describe the actions taken to prepare for the milestone planning session.	
1c. Describe who was involved in the session.	
1d. Describe when in the process the milestone planning session was held and the logic for the timing.	
1e. Describe how the term milestone was defined and how the milestones were identified and characterized.	
1f. Describe the impact of the milestone plan for the project.	
1g. Describe how the plan was used moving forward.	
1h. Include Milestone Planning artifact (materials submitted). Example of a portion or full milestone plan you worked on (i.e., readable picture of plan on wall, digital plan, screen shot, etc.) Photos of the team in action during the planning session, photos indicating visual use of milestones	
<b>Total for Prompt 1, Part 1</b>	<b>SCORE</b>

## PART 2: Example Questions

### Milestone Planning (Prompt 2)

#### Part 2

Identify how 3 of the 6 Tenets relate and briefly describe how your team supported the behaviors to create the Lean culture for each of the 3.

- Tenet 1: Respect for People
- Tenet 2: Optimize the Whole
- Tenet 3: Generate Value
- Tenet 4: Eliminate Waste
- Tenet 5: Focus on Flow
- Tenet 6: Continuous Improvement





## Capability Assessment Scoring

The scoring scale for all Part 1 prompts will be as follows:

0	1	2	3	4
Does not answer question; Answer does not correctly apply	Identifies correct answer but offers no or incorrect description	Identifies correct answer and offers minimally satisfactory description	Identifies correct answers and offers competent description	Identifies correct answers and offers exemplary description that exceeds expectations

The scoring scale for all Part 2 prompts will be as follows:

0	1	2	3	4
Does not answer question; Answer applies completely incorrect tenets / behaviors	Identifies how 3 relate but offers no or incorrect description and supporting behaviors	Identifies how 3 relate but offers minimally satisfactory description and supporting behaviors	Identifies how 3 relate and offers competent description and supporting behaviors	Identifies how 3 relate and offers exemplary description and supporting behaviors that exceeds expectations



### **Impartiality Related to Education and Training Leading to Certification**

The LCI does not require, provide, approve, accredit, recommend, or endorse any specific educational programs, courses, study guides, review materials, or other examination preparation products.

### **Assessment Submission**

#### **Assessment Review and Notification**

Once your submission is scored, you will be emailed an individual score report. The individual score reports will contain an indication of “pass” or “fail” for the overall assessment, based on the passing standard set by the Certification Commission.

#### **Resubmission**

If a candidate’s portfolio submission is deemed “Deficient”, the candidate may resubmit a revised portfolio within 6 months with a fee of \$199. Candidates may resubmit up to 2 times after the original submission. If the portfolio remains deficient, the candidate may apply for the certification.

#### **Appeals**

All candidates have the right to file an appeal of an adverse decision resulting in a denial of certification or recertification based on a failure to satisfy application requirements, payment of fees required by the LCI, or failure of the certification examination caused by conditions beyond the candidate’s control. See the Appeals Policy later in this Candidate Handbook.

#### **Certificate & Badge**

A certificate and badge will be awarded to candidates that are successful in passing the Lean Construction Institute-Certified Practitioner-Construction knowledge and capabilities assessments.

Go to <https://app.prolydian.com/organizations/LCI> and click on your “My Achievements” section to download your certificate.

Digital badges are unique to each individual. A link is automatically emailed out when certification is achieved. If you do not receive the link email [support+the LCI@prolydian.com](mailto:support+the LCI@prolydian.com)

The certificate and badge may only be displayed during the time period for which the credential is valid.

## **MAINTAINING CERTIFICATION**

### **Purpose**

Those holding a LCI certification demonstrate their commitment to stay abreast of best practices by ensuring their knowledge and expertise remain current via recertification.

### **Recertification Process**

Certificants must recertify every 3 years to maintain active Lean Construction-Certified Practitioner-Construction status. Recertification requires:

- Continued agreement and compliance with the Lean Construction Institute Code of Conduct
- Submission of 60 units of continuing education or activities credit (CEU)
- Self-attestation of continued work experience in Lean Construction for the equivalent of 1 year (2080 hours) minimum during the 3-year period
- Payment of recertification fee

All continuing education activities must take place following the date of certification to be eligible for credit.

### **Continuing Education Credits**

Certificants must earn 60 units of credit (CEU) in education and development activities focused on advancing knowledge, skills and capabilities in Lean construction. The credits are to be distributed among each of the domains of Lean Construction and must include a minimum of 10 credits in each domain.

- Principles
- People-related
- Practices

All CEUs must be entered online via the Prolydian portal. A listing of pre-approved CEUs is available via the Prolydian online portal, but other courses may be submitted for approval.



**Education and development activities may include the following:**

<b>Activity</b>	<b>Description</b>	<b>Qualifier</b>	<b>Credit Earned</b>	<b>Limit</b>
Lean-Relevant Education	Attend college, continuing education class, employer education or approved program	Credits earned for time spent in actual learning. Breaks, networking, etc. may not be applied toward credit.	Each hour spent in learning earns 1 credit	Unlimited
Event Attendance	Participate in Lean event or program including in-person, virtual or webinar. The event must be of a learning level appropriate to advancing the certificant's knowledge, not of a introductory level.	Credits are earned for time spent learning. Note: LCI events eligible for CEU will be noted as such in invitations.	Each hour spent in learning earns 1 credit. Attending LCI Congress core days or LCI Design Forum earns 5 credits per day	Unlimited
Present	Present on a subject relevant to Lean at an event or program	Credits are earned for the first-time presenting material. Re-presenting materials multiple times may not be applied toward credit.	Each hour spent presenting earns 1 credit	12 maximum credits allowed
Develop LCI Educational Materials	Develop Lean educational materials accepted by LCI for inclusion in LCI course offerings	Materials must be vetted and approved by LCI.	Each hour of course earns 3 credits Example: 4-hour course earns 12 credits	24 maximum credits allowed
Exam Development	Serve as an Item Writer for updates to the LCI certification exam	Write and have accepted, a minimum of 5 items (questions) for updates to the LCI certification exam	5 Items earns 1 credit	Unlimited
Author Book	Publish a book on a Lean-relevant topic		Publishing a book earns 20 credits	20 maximum credits allowed



Publish a White Paper	Write and have a white paper peer reviewed and officially published, have a blog post published on a Lean topic	A white paper must address a relevant Lean topic in-depth. It must be peer-reviewed and published to be considered a white paper for credit.	Publishing a white paper earns 5 credits Publishing a blog post earns 1 credit Examples of official organizations include: IGLC, LCI, Lean Construction Journal, Lean Enterprise Institute and Shingo Institute	15 maximum credits allowed
Read	Read a Lean-relevant book		Each book earns 2 credits	10 maximum credits allowed
Independent Learning	Submit a self-report on a Lean undertaking	Self-report must include how the activity supported your growth in Lean Construction	Self-report earns .5 credit for each hour spent	10 maximum credits allowed



## Ownership and Use of the Credential

The certification marks and logos are the property of the LCI. Permission to use the certification marks or logos are granted to certified persons at the discretion of the LCI for permissible uses only.

### Persons Authorized to Use the Marks

Use of any the LCI certification marks and logos is limited to those persons who have been granted the certification by the LCI and who satisfy all maintenance and recertification requirements established by the LCI. Use of the mark and logo by individuals who have not been granted and maintained the certification is expressly prohibited.

### Non-Assignability and Non-Transferability

Permission to use the certification marks and logos is limited to the certified person and shall not be transferred to, assigned to, or otherwise used by any other individual, organization, or entity.

### Mark and Logo Use

Those persons who have been granted permission to use the certification mark and logo shall do so pursuant to the rules and guidelines established by the LCI. Persons granted permission to use the certification mark and logo must familiarize themselves with the established rules and guidelines for use and must execute approved agreements setting forth such rules and guidelines for use.

The marks and logos may not be revised or altered in any way. They must be displayed in the same form as produced by the LCI, and they cannot be reproduced unless such reproduction is identical to the mark provided by the LCI.

The initials "LCI-CPC" may be used on materials, such as business cards, stationery, letterhead and similar documents on which the name of the individual certified is prominently displayed to promote themselves personally as an individual certified in the maintenance and reliability profession.

The mark or logo may not be used in any manner that could bring the LCI into disrepute or in any way considered misleading or unauthorized. The mark or logo may not be used in any manner that would tend to imply a connection between any business and the certification which, in fact, may not exist.

This includes any use of the mark or logo that the public might construe as an endorsement, approval, or sponsorship by the LCI of a certificate holder's business or any product or service thereof.

### Proper Use of the Credential

After meeting all eligibility requirements and passing the examination, individuals may use their credential in all correspondence, on resumes/CVs, and promotional materials, such as stationery, websites, business cards, etc. The mark or logo may be used only with the name of the individual certified.

Individuals who have met the certification requirements are authorized to use the following certification mark according to the following guidelines:

- The credential may be used as LCI-CPC or Certified Lean Construction Institute-Certified Practitioner-Construction
- The credential is used after the certificant's name and following any academic degrees or licenses (e.g. Mary Smith, RN, LCI-CPC)
- The credential must be clearly associated with the individual certified or be referenced in general terms:
  - Examples of correct use:
    - Mary Smith is a Lean Construction Institute-Certified Practitioner-Construction
    - Mary Smith, LCI-CPC
    - Three X Corporation employees hold the LCI-CPC certification
  - Example of incorrect use:
    - X Corporation organization employs three Lean Construction Institute-Certified Practitioner-Construction

## Verifying Certification Status

An online directory of the LCI Certified Credentialing Professionals will be available at [leanconstruction.org/lean-certification](https://leanconstruction.org/lean-certification). You can choose whether or not you'd like to be listed in your Prolydian account at <https://app.prolydian.com>.



## POLICIES

### Contact Information Changes

The LCI online portal (Prolydian) is the primary method used for communication regarding exam confirmations, exam results and recertification. As a candidate and certificant, you have 24/7 access to exam-profile details and are responsible for ensuring that your contact information in your profile is kept up to date. The LCI recommends using a personal email address and phone number in the event of changes in employment. This information will be handled according to the LCI's Confidentiality and Privacy of Information Policy (see below).

### Nondiscrimination

The LCI does not and shall not discriminate on the basis of age, gender, gender identity, gender expression, ethnic origin, color, religion, race, disability, pregnancy, childbirth or related medical conditions, marital status, sexual orientation, or military status in any of its activities or operations. These include, but are not limited to, approval of certification/recertification applicants, staff decisions (including but not limited to hiring, discipline, promotion and termination), selection of volunteers and vendors and provision of services. The LCI is committed to providing an inclusive and welcoming environment for certification candidates, certificants, volunteers, staff members, clients, subcontractors, vendors and clients.

### Statement of Impartiality and Fairness

the LCI's leadership and management, including its Certification Commission, endorse the principles of impartiality and fairness and commit to

- implement its policies and procedures impartially and fairly,
- not restrict certification based on undue financial or other limiting conditions, and
- not allow commercial, financial, or other pressures to compromise impartiality in certification activities.

### Confidentiality and Privacy of Information

The LCI shall hold in confidence, and in a secure manner, the information obtained in the course of certification program activities at all levels of the organization, including the activities of all personnel (paid, contracted, or volunteer) acting on its behalf. Except as required in this Policies & Procedures Manual, information about a particular individual is considered confidential information and shall not be disclosed to a third party by the LCI staff, volunteers or contractors without prior written consent of the individual. Where the law requires information to be disclosed to a third party and unless the law restricts it, the individual shall be notified in writing beforehand of the information disclosed.

### Testing Accommodations for Candidates with Disabilities

The LCI complies with the Americans with Disabilities Act (ADA) and is committed to providing necessary testing accommodations for examinees with documented disabilities, consistent with the requirements of the law. Accommodations may also be approved for examinees with documented qualifying medical conditions that may be temporary or are not otherwise covered by the ADA, such as pregnancy or a temporary impairment following surgery, including conditions that require the use of medical devices or medication during the examination. The LCI will also provide testing accommodations for candidates testing in other jurisdictions, to the extent required by applicable laws in those jurisdictions.

An individual is not considered to have a disability requiring accommodation if the limitations arising from the individual's impairment do not significantly restrict the individual's major life activities when compared with the abilities of the average person. Non-specific diagnoses such as individual learning styles, learning differences, academic problems, computer phobias, slow reading, and test difficulty or anxiety in and of themselves do not constitute a disability or impairment.



**The decision as to whether a medical condition that is not covered by the ADA is a “qualifying medical condition” for purposes of the Lean Construction Institute-Certified Practitioner-Construction exam accommodation is at the sole discretion of the LCI.**

Accommodations are provided on an individual basis and depend on the nature of the disability or medical condition and documentation provided. The LCI will make reasonable efforts to provide the requested accommodations to examinees provided the functional impairment has been demonstrated through adequate documentation, and the accommodations do not fundamentally alter the measurement of the skills or knowledge the examination is intended to test, do not jeopardize examination integrity and security, are compatible with the nature and purpose of the examination or assessment program, and do not result in an undue burden to the LCI. Accommodations cannot be made to the actual content of the examination. A range of available accommodations are considered to assist examinees with disabilities or qualifying medical conditions.

### **Examination Accommodations**

Lean Construction Institute-Certified Practitioner-Construction examination applicants may request accommodations by completing a Request for Accommodation form upon application submission prior to scheduling their examination. In order to fulfill any accommodations, the LCI requires at least 30 days between the approved accommodation and the testing date. The Request for Accommodation form is available online at [leanconstruction.org/lean-certification](http://leanconstruction.org/lean-certification).

All requests for examination accommodations are strictly confidential, and documentation submitted in support of the request is used solely for the purpose of evaluating the request. Failure to provide the LCI with adequate supporting documentation in a timely manner will cause a delay in the review process and the applicant’s ability to schedule and take the examination.

An applicant may request more than one accommodation; however, supporting documentation is required for each requested accommodation.

Examinees cannot schedule their Lean Construction Institute-Certified Practitioner-Construction examination, nor can the examination be administered until the process described above has been completed.

### **Common Accommodations**

The LCI will base the accommodations on the requests and required documentation received. Common accommodations include extended time for testing (1.5 time or double time), frequent or additional breaks, access to auxiliary items (food, medication, or medical devices), or provision of a reader and/or scribe. Candidates will not be charged any additional fees for approved accommodations.

### **Required Supporting Documentation**

Adequate supporting documentation from a qualified medical professional certifying to the applicant’s disability or qualifying medical condition, with specific identification of the requested accommodation and the medical basis for the request, must be submitted to the LCI, either directly from the medical professional or by the applicant. The LCI will verify the authenticity of any submissions sent by the applicant. A qualified professional is someone with the credentials, training, and expertise to diagnose the reported disability or qualifying medical condition. The primary relationship of the attesting professional to the individual must be that of a treating medical professional to a patient; there must be no familial, intimate, supervisory or other close relationship between the qualified professional and the individual requesting the accommodation(s).

The documentation must:

1. Be on letterhead, typed in English, dated and signed and include the name, title, and professional credentials of the qualified medical professional.
2. Contain contact information including address, telephone number, and/or e-mail address of each professional providing documentation.
3. Include the name of the specific disability or medical condition.

The LCI reserves the right to request further verification, if necessary, of the evaluating professional’s credentials and expertise relevant to the diagnosis, to verify the authenticity of



the supporting documentation, and to seek clarification of the information provided by the evaluating professional.

### Review of Requested Accommodations

The LCI will consider requests for examination accommodations following receipt of an examination application and all required documentation in support of the request. The applicant will be sent a notification of the LCI's decision regarding the requested accommodation(s).

If accommodations have been approved, the notification will be in the form of a Testing Accommodations Agreement indicating the accommodation(s) that has/have been approved. The applicant must sign the Agreement and return it to the LCI by the date indicated within the Agreement. The application for an applicant requesting examination accommodations will not be complete until the signed agreement is received by the LCI.

## Appeals

An appeal is a formal request for special consideration regarding a decision made by the Certification Commission or its representatives related to an individual's achievement or retention of a certification.

### Appeal Submission

An appeal must be submitted electronically on the LCI website. The appeal must be submitted no later than 30 days after notification by the LCI of the adverse decision. All relevant supportive documentation must be included or referenced in the appeal submission.

### Initial Appeal Review and Determination

The LCI Director, Education & Certification or their designee will serve as the first level of appeals review. The review will occur within 10 business days of receipt, and a response will be sent to the appellant via email. Staff members will recuse themselves from the appeal consideration if there is any reason for which impartiality might reasonably be questioned or there is actual or apparent conflict of interest.

The LCI Director, Education & Certification or their designee will review the appeal to determine whether it meets the definition of an appeal and whether appeal submission requirements are met. If it does, the LCI Director, Education &

Certification or their designee will investigate and consider the appeal, including but not limited to taking into account the results of previous similar appeals, and make a determination on appeal action.

The initial response will be one of:

- Appeal denied  
The response will be accompanied by an explanation for the denial and/or information on an alternate course of action where applicable. The denial will include information on the appellant's further recourse if the appellant wishes to pursue the appeal.
- Appeal approved
- Appeal forwarded to the Appeals & Complaints Panel
- Appeal delayed to provide time to gather further information
- Within 30 calendar days, the appellant will be sent either an appeal denied or appeal forwarded notification.

Written notice of the Appeals Panel determination (appeal denied or appeal approved) or a progress notice (appeal forwarded or appeal delayed) will be provided to the appellant within 10 business days of the determination.

### Procedure: Second Level Appeal Review and Determination

If applicable, appeals are sent to a three-member team pulled from the Appeals Panel for consideration. The appeal will be considered no later than 90 days after the appeal receipt.

Members of the Appeals Panel will recuse themselves from the appeal consideration if there is any reason for which impartiality might reasonably be questioned or there is an actual or apparent conflict of interest.

The appeal will not include a hearing or any similar trial-type proceeding.

The function of the Appeals Panel in a given case is to review the decision being appealed based on the record that was presented at the time of the determination.

The Appeals Panel will review the appeal, including but not limited to taking into account the results of previous similar appeals, and make a determination on appeal action.





The second level response will be one of:

- Appeal denied
- Appeal approved
- Appeal delayed to provide time to gather further information

Written notice of the Appeals Panel determination (appeal denied or appeal approved) or a progress notice (of appeal delayed) will be provided to the appellant within 10 business days of the determination.

### **Procedural Appeal Review and Determination**

If an appellant feels their appeal was handled improperly by the staff or Appeals Panel, a procedural appeal may be filed with the Certification Commission.

The appeal will be considered no later than 90 calendar days after the appeal receipt.

Members of the Certification Commission will recuse themselves from the appeal consideration if there is any reason for which impartiality might reasonably be questioned or there is an actual or apparent conflict of interest.

The appeal will not include a hearing or any similar trial-type proceeding.

The function of the Certification Commission in a given case is to review the handling of the appeal to determine if The LCI policies and procedures were followed.

The procedural appeal response will be one of:

- Appeal denied
- Appeal approved

In such cases, a new Appeals Panel will be assigned to consider the full appeal again.

Appeal delayed to provide time to gather further information

Written notice of the Certification Commission determination (appeal denied or appeal approved) or a progress notice (of appeal delayed) will be provided to the appellant within 30 business days of the determination.

## **Program Complaints**

Individuals with concerns regarding the certification program materials, personnel or activities are encouraged to discuss these with the individuals involved to try to resolve the matter informally. In some cases, however, informal resolution is not possible, and individuals may wish to file a formal complaint.

### **Submission of Formal Program Complaints**

A formal complaint will be submitted electronically on The LCI website at [leanconstruction.org/lean-certification](http://leanconstruction.org/lean-certification) within 90 days of the incident's occurrence. In the case of complaints related to exam administration, those must be submitted within two weeks after the applicable exam administration. The submission will include sufficient objective evidence to substantiate the claim(s) and appropriate action to be taken. Dissatisfaction based on hearsay will not be considered as a complaint. Anonymous complaints will not be considered.

### **Staff Level Review**

The LCI Director, Education & Certification or assignee will serve as the first level of complaint consideration to determine its validity. They will investigate the circumstances of any valid complaint and take one of the following actions:

- Determine and implement corrective action
- Refer the complaint to a different suitable staff member to determine and implement corrective action
- Escalate the complaint to the Certification Commission for review

If the complaint is not immediately resolvable, written notice of progress (of a referral or escalation) will be provided to the complainant within 10 business days of complaint receipt.

In all cases, The LCI Director, Education & Certification or assignee will communicate the proposed resolution to the complainant within a period of no longer than 30 days.

If for any reason the target deadlines in this policy are not able to be met, a progress notice will be sent to the complainant, outlining when the findings will be communicated.

### **Procedure: Certification Commission Review**

If a complaint is found to warrant escalation, the Certification Commission Chair will be notified, and the complaint will be reviewed by the Certification Commission or its designees. A



decision will be communicated to the complainant within a period of no longer than 30 days.

If for any reason the target deadlines in this policy are not able to be met, a progress notice will be sent to the complainant, outlining when the findings will be communicated.

### Procedure: Appeal of Complaint Determinations

If the determination of LCI staff or the Certification Commission is unsatisfactory and is appealable, the Appeals policy will apply.

### Complaints against Candidates or Certificants

Lean Construction Institute candidates and certificants commit to adhering to the standards set out in The LCI Code of Conduct the LCI shall have a process for handling complaints against candidates or certificants in a constructive, impartial and timely manner.

#### Complaints

A complaint against a candidate or certificant must be submitted electronically on The LCI website at [leanconstruction.org/lean-certification](http://leanconstruction.org/lean-certification). A complaint must meet four criteria:

- Specific to a section of the Lean Construction Institute Code of Ethics or certification rules
- In writing by the individual lodging the complaint
- Supported by specific evidence of such accusation
- Made against a current candidate or holder of an the LCI certification

#### Complaint Handling and Communications

- The complaint and all related documentation will be dealt with in a strictly confidential manner.
- The complaint form on The LCI website will include a statement that the complainant must agree to hold in strict confidence the filing of the complaint. They will not announce or promote in any manner, or use personal or institutional communication vehicles, to announce filing of a complaint.
- If a preliminary investigation of the information/evidence reveals a valid complaint, the individual(s) named in the written complaint will be sent a "Notice of Complaint." The Certification Commission will also request any additional

information needed and a specific timeframe for providing such information. If this additional information is not received, a decision shall be rendered based on the information initially provided.

- If it is determined that no further action is warranted, the complainant will be advised in writing of the outcome of the initial assessment. The target date for this communication is within 30 days after receipt of the complaint.
- If the initial investigation supports the complaint, an independent investigation will commence, and the information shall be handed over to the Certification Commission.
- The Certification Commission will issue a written report of its findings within 60 working days of receiving all further requested supporting information.
- The final disposition will be communicated to the complainant. The target date for this communication is within 10 working days of the written report findings being accepted.
- If for any reason the target deadlines in this procedure are not able to be met, a progress notice will be sent to the complainant, outlining when the findings will be communicated.

#### Potential Disciplinary Actions

If a complaint is found to have valid grounds, the Certification Commission may recommend one of the following disciplinary actions depending on the severity of the infraction:

- Warning. A written warning could be issued that outlines the consequences if the situation occurs again, or if there is another violation.
- Suspension. Lean Construction Institute-Certified Practitioner-Construction certification or eligibility to become certified could be suspended.
- Revocation of Certification. Lean Construction Institute-Certified Practitioner-Construction certification could be revoked.

#### Appeals of Certification Commission's Findings

The subject of the complaint may appeal the disciplinary actions. The Appeals policy will apply.



## APPENDIX A: KNOWLEDGE ASSESSMENT EXAM CONTENT OUTLINE

### Exam Details:

The exam has 150 multiple-choice questions, each with four response options and one correct answer.

### Test Blueprint

Domain	# Items	Percent of Exam
Domain 1: Principles	26	17%
Domain 2: People-Related	26	17%
Domain 3: Practices	98	66%
<b>Total</b>	<b>150</b>	<b>100%</b>

Domain / Sub-Domains	# Items
<b>Domain 1: Principles</b>	
1.1: Identify key features of a Lean culture	3
1.2: Recognize Lean Operating System (Lean Project Delivery System) as an organized implementation of Lean Principles and Tools supporting a Lean culture	3
1.3: Determine if actions represent Respect for People	3
1.4: Determine if actions represent Optimizing the Whole	2
1.5: Determine if actions represent Generating Value	3
1.6: Distinguish 8 types of Waste	2
1.7: Determine if actions reduce or eliminate waste	2
1.8: Determine if actions represent Focus on Flow	3
1.9: Determine if actions support Continuous Improvement/Plan Do Check Act (PDCA)	3
1.10: Identify key features of Integrated Project Delivery/IPD	2
<b>Total</b>	<b>26</b>

<b>Domain 2: People-Related</b>	
2.1: Determine if actions represent creating a Lean Culture	3
2.2: Identify key items to include during Onboarding/Team Forming	2
2.3: Determine if actions represent building a High-performing Team	3
2.4: Recognize the importance of assessing the emotional health of the team regularly	2
2.5: Recognize advantages of Early Stakeholder Involvement	3
2.6: Determine if actions support a culture of Commitment/Accountability	3
2.7: Determine if actions support making a Reliable Promise/Commitment	3
2.8: Identify how Conditions of Satisfaction support the project	2
2.9: Determine if actions represent Distributed Leadership	2
2.10: Recognize the importance of Transparency to a Lean culture	3
<b>Total</b>	<b>26</b>

**Domain 3: Principles**

3.1: Identify the 5 Connected Conversations (levels) of the Last Planner System®	2
3.2: Determine if actions represent Pull methodology	3
3.3: Determine if actions support creating a Milestone Plan	3
3.4: Determine if actions support creating a Phase Pull Plan	3
3.5: Identify effective practices for LPs tag content	2
3.6: Identify the relationship between Handoff Work Planning and Phase Pull Planning	2
3.7: Determine if actions support creating a LookAhead Plan	3
3.8: Determine if actions support Constraint Identification	3
3.9: Determine if actions support Constraint Mitigation	3
3.10: Determine if actions support creating a Weekly Work Plan	3
3.11: Determine if actions support Percent Plan Complete Tracking	2
3.12: Determine if actions support Variance Management	2
3.13: Determine if actions support conducting the Daily Huddle	3
3.14: Determine if actions support Work Structuring	2
3.15: Determine if actions support Work Leveling	2
3.16: Determine if actions support implementing Takt Time methodology	2
3.17: Recognize key differences between Last Planner System® implementation in construction vs. design	2
3.18: Determine if actions support an Effective Big Room approach	2
3.19: Distinguish the difference between leading and facilitating	3
3.20: Determine if actions represent effective Visual Management implementation	2
3.21: Determine if actions represent a Target Value Delivery approach	2
3.22: Determine if actions represent effective use of the Cost Model for proactive forecasting and budget management	2
3.23: Determine if actions represent proactive Supply Chain Management	2
3.24: Recognize the connection of the Cost Model to Target Value Delivery	2
3.25: Determine if actions support Risk/Opportunity Management	2
3.26: Determine if actions support PDCA through the ability to move to target state from current state	2
3.27: Determine if actions represent collaborative problem solving using A3/PDCA Thinking	2
3.28: Determine if actions support 5 Why Analysis	2
3.29: Recognize the connection between Root Cause Analysis and 5 Why Analysis	2
3.30: Determine if actions represent Continuous Reflection/Retrospective	2
3.31: Determine if actions support conducting a Plus/Delta	2
3.32: Identify circumstances to implement Value Stream Mapping	2
3.33: Identify circumstances to implement Process Mapping	2



3.34: Determine if actions and behaviors support conducting effective Gemba Walks	2
3.35: Determine if actions support conducting effective First Run Studies	2
3.36: Determine if actions support implementing 5S	2
3.37: Recognize appropriate implementation of Declaring a Breakdown/Stopping the Line	2
3.38: Determine if actions represent effective Mistake Proofing	2
3.39: Recognize the connection between BIM and Lean	2
3.40: Identify the key purpose of Choosing by Advantages	2
3.41: Determine if actions support effective use of buffers with Just-in-Time (JIT)	2
3.42: Recognize how Standard Work supports continuous improvement	2
3.43: Recognize the connection of Modularization to Lean	2
3.44: Recognize how Lean implementation enhances Safety and Quality	3
<b>Total</b>	<b>98</b>



## APPENDIX B: CERTIFICATION CODE OF CONDUCT

As a certified LCI-CPC, certificants agree to adhere to the Certification Code of Conduct for as long as their certification is valid.

**Certificants shall:**

- Be accurate, truthful, and complete in any and all communications, direct or indirect with any client, employer, regulatory agency, or other parties as related to the credential.
- Not make misleading or unauthorized statements about the certification, not use the certificate issued in a misleading manner, and not use the certification in such a manner as to bring LCI or its certification program into disrepute.
- Abide by the permissions and use of the certificate and badge as outlined the Candidate Handbook.
- Comply with requirements for recertification as outlined in the Candidate Handbook in order to maintain valid certification.
- Acknowledge the certification and all associated marks or logos are the property of LCI and agree to discontinue use of all references to certified status should certification be suspended or withdrawn. Agree to return or destroy the certificate and badge if the certification is withdrawn.
- Not have been convicted of a felony in the role of a Lean Construction practitioner (refer to bullet #2).