

# Constructing Excellence

## Revolutionary change in Evolutionary Steps



## Lean Construction Leadership Programme Green Belt (Practitioner) Certificate

Lean Construction (LC) principles and tools are a proven route to reduced waste, customer excellence and increased margin. The industry operates on a global average of 30% 'waste'. Where is this waste? How can you deliver faster, safer and better value projects?

LC tools deliver swift results if you have engaged the people at the workface or 'Gemba' in a culture of wanting to do things better. To achieve this, you will need to learn how to **Lead Lean Construction**.



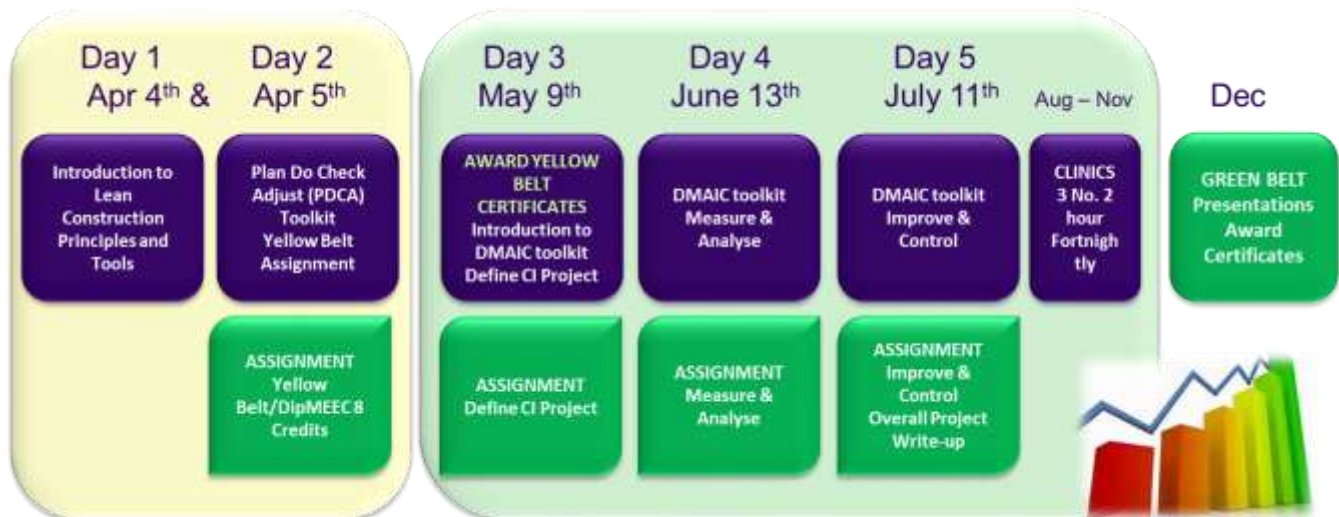
The Academy of Constructing Excellence's **LC Leadership Programme** will help you develop a deeper understanding of the Lean principles so that you can teach them to your team and lead initiatives that reduce waste and improve efficiency on your projects. The programme will take you through all stages of delivering a LC initiative including measuring the resulting savings. **These are typically \$10k to \$50k for the first initiative delivered as part of the programme.** The programme includes:

- **2 Day Yellow Belt Certificate\***: Introduction to the principles and tools including PDCA (Plan Do Check Act) 5S, STOP, Waste & Improvement cards, Target Value Design and Last Planner. Your assignment includes presenting to your team and implementation of one of the principles or tools.
- **3 Day Green Belt Practitioner Certificate**: Step by Step development of your ability to lead the design and delivery of a LC improvement initiative. Building on your yellow belt experience, you will become familiar with the DMAIC improvement cycle and suite of tools, (Define, Measure, Analyse, Improve, Control). Your assignment will involve developing your LC initiative on your project. Your assignments ultimately build towards your measured value improvement.
- **Coaching throughout and open clinics for your assignments**: Following the 5 taught days, 3 open clinic sessions will be held for you to receive coaching on your assignment.
- **Presentations and Certificate Award ceremony**: The programme will culminate in presentations of the assignments and value improvements, followed by the award of your LC Green Belt Practitioner Certificate.

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### Your Programme



<b>Learning Programme Module</b>	Lean Construction Yellow Belt and Green Belt (Practitioner) training and certification for a select number of delegates. Including live practical assignments, coaching, mentoring and facilitation of teams running specific LC Initiatives.
<b>Module Time Periods</b>	<ol style="list-style-type: none"> <li><b>Module 1 Yellow Belt training and certification (LC-YB 17A)</b> <ol style="list-style-type: none"> <li>Part 1 – 2 full days LC-YB learning programme</li> <li>Part 2 – LC-YB Assignment (includes email and telephone support throughout programme).</li> </ol> </li> <li><b>Module 2 Lean Construction Green Belt Practitioner (LC-GB 17A)</b> <ol style="list-style-type: none"> <li>Part 1 - 3 full days LC-GB learning programme</li> <li>Part 2 - 3 two hour follow up sessions</li> <li>Part 3 - 1 three/four hour LC-GB presentation and certification session (includes email and telephone support throughout programme).</li> </ol> </li> </ol>
<b>Dates</b>	<ol style="list-style-type: none"> <li><b>Module 1 Lean Construction Yellow Belt (LC-YB 17A)</b> 4<sup>TH</sup> &amp; 5<sup>TH</sup> April 2017. Final certification August 2017.</li> <li><b>Module 2 Lean Construction Green Belt (LC-GB 17A)</b> 9<sup>th</sup> May, 13<sup>th</sup> June, 11<sup>th</sup> July – August, September, October - 3 No. 2 hour clinics. Final certification December 2017.</li> </ol>
<b>Investment</b>	<ol style="list-style-type: none"> <li><b>Lean Construction Yellow Belt (LC-YB 17A) \$1450 (plus GST) per person.</b></li> <li><b>Lean Construction Green Belt (LC-YBGB 17A) \$3950 (plus GST) per person.</b> (Includes LC-YB)</li> <li><b>Green Belt (LC_GB 17A) Only (Must have completed YB) - \$2950 (plus GST) per person.</b></li> </ol>

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No. Delegates	All Modules - 6 (min) to 15 (max) delegates.
Venue	Auckland
Refreshments	Morning tea, Lunch and Afternoon tea are included and will be provided during breaks.
Benefits and Value Proposition	<p>The value proposition for you and your organisation is to build in-house capability to improve processes that will:</p> <p>As a guide Yellow Belt and Green Belt projects should target an average of net savings of \$10k and \$50k per project respectively.</p>
Learning Outcomes	<p>Individuals attending this course will achieve the following:</p> <ul style="list-style-type: none"> <li>➤ Understanding in the value of and ability to apply Lean Design and Construction principles to their projects and to the overall business organisation, structure and culture.</li> <li>➤ Engage project teams in achieving 1% Kaizen type improvements every day on the projects and across the programme, especially around cost savings/value enhancements.</li> <li>➤ Empower and equip team members to develop (Yellow and Green Belt) level improvement initiatives on their design and construction projects.</li> <li>➤ Understand the value and principles of and ability to apply Last Planner and other LC tools on the projects at design and construction stages.</li> <li>➤ Follow-up facilitation to share success stories and lessons learned, (part of certification).</li> </ul>

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### Course Content Details

#### Lean Construction Yellow Belt (LC-YB)

Yellow Belt training in Continuous Improvement is for team members who are looking to take part in a project and require the fundamentals of LC tools and roadmaps.

The training is a two day module and will include hands-on tuition covering

- LC Principles and Case Studies
- Last Planner
- Lean Toolkit.
- 5S, STOP, Target Value Design, Waste Cards, Kanban
- Continuous Improvement & Problem Solving roadmaps including Plan Do Check Act.
- Intro to change acceptance.

The training includes a pre-reading list, a LC Handbook and handouts of all the slides used plus certificates.

Candidates will receive an YB certificate for attending the two days and showing evidence in their assignment that they have taken part in implementing some of the tools.

#### Lean Construction Green Belt Practitioner (LC-GB)

Green Belt training is for Yellow Belts who are looking to co-lead/lead a continuous improvement initiative and therefore, require more 'depth and texture' in terms of the DMAIC process roadmap and tools used. LC-YB is a prerequisite for Green Belts.

The Green Belt (Practitioner level) course is three days practical hands-on training. Three follow up sessions (two hours each) plus a final certification session (three to four hours) are all included as part of the development process.

The assignment builds throughout the module and includes leading/co-leading a real, live LC initiative on your construction project, (or in your business). Your assignment will result in measureable, tangible value improvements or savings, typically in the region of \$50k.

The training includes a pre-reading list and handouts of all the slides used plus certification.

Candidates will receive a LC-GB Practitioner certificate for attending the three days and demonstrating evidence in their assignment that they have co-led or led a project to completion and are proficient in the tools they have used.

The training agendas for both Yellow and Green Belt (Part 1) courses will follow the modules shown in the table overleaf:



### Certificates

All Certificates and NZQA credits for the Yellow Belt Certificate will be issued based on assignments and learning log evidence approved by Lean6Sigma Ltd and by Constructing Excellence NZ Ltd.

Key Contact: Amanda Warren m: 021 892 124 t: 09 585 2218

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### Lean Construction Green Belt (Practitioner)

Roadmap	Content	Schedule
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### Lean Construction Yellow Belt

LC Principles & Tools	<ul style="list-style-type: none"> <li>5 Principles of LC and Case Studies</li> <li>Last Planner, 5S, STOP, WASTE, Kanban, Target Value Design, Visual Control</li> </ul>	Day 1
PDCA	<ul style="list-style-type: none"> <li>Change Acceptance</li> <li>PDCA problem solving tools – using a simulated project</li> </ul>	Day 2
Assignment	<ul style="list-style-type: none"> <li>Teach Principles to peers</li> <li>Implement one or more of the tools</li> </ul>	Post-teaching

### Lean Construction Green Belt (Practitioner)

LC Principles & Tools	Continuous Improvement Overview Introduction to the National Industry KPIs	Day 3
DMAIC 1. DEFINE	<ul style="list-style-type: none"> <li>Creating a project contract – scoping, selecting metrics</li> <li>Forming a Team</li> <li>Capturing Voice of Customer</li> <li>Mapping the current process</li> <li>Managing Change</li> </ul>	
2. MEASURE	<ul style="list-style-type: none"> <li>Collecting Data</li> <li>Current Process capability</li> <li>Identify the Issues</li> </ul>	Day 4
3. ANALYSE	<ul style="list-style-type: none"> <li>Prioritise the issues</li> <li>Propose Solutions</li> </ul>	
4. IMPROVE	<ul style="list-style-type: none"> <li>Validate solutions using trials</li> <li>Implement improvement</li> </ul>	Day 5
5. CONTROL	<ul style="list-style-type: none"> <li>Putting Controls in Place</li> <li>Assess new process capability</li> <li>Closing the project</li> </ul>	
Assignment	Assignment builds through each 1 day module to culminate in a written demonstration of the candidates implemented initiative and a presentation.	Post-teaching

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### Facilitators



#### **Chris Reed, Associate, Constructing Excellence**

Chris is a Lean Six Sigma Master Black Belt, is qualified to master's degree level and is a highly experienced trainer and facilitator in business, cultural change and Lean six sigma projects. Chris has delivered training courses for 40 Black Belts and 160 Green Belts in Lean Six Sigma in 15+ countries around the world and implemented continuous improvement programmes for Air NZ Technical Operations, Textron David Brown, Westinghouse Brakes and Alvis plus others.

Chris's passion is in helping businesses change and improve their performance by coaching and empowering individuals and teams in process improvement and cultural acceptance.



#### **Amanda Warren, Partner, Constructing Excellence**

Amanda is a leading expert in Lean Design & Construction and has played a key role in establishing Lean principles and tools, in particular, Last Planner across the New Zealand construction industry.

Amanda is a past, (founding) Industry Chair of LCI NZ, (Lean Construction NZ). She teaches Lean Construction regularly to the industry. As Project Coach, Amanda has assisted a number of 'project rescues' for projects in distress as well as helping project teams to realise better value and efficiencies through innovation and empowerment of Lean tools and principles.

Some examples of projects that have successfully used Lean Construction tools to drive out waste and improve efficiencies are Water view, M2PP, Hunua 4, Sky City, Lincoln Road, Kiwirail Electrification, MHX, Dowse to Petone, Victoria Park Tunnel, Auckland Airport, plus many more.

### Endorsements

#### **Andy Spittal, Manager, Major Projects, Watercare – 2 one day training sessions for 30 PMs**

*Thank you for the high quality workshop sessions you facilitated for Watercare. Both (training) sessions were extremely well received by our projects team and served to extend the thinking of our audience beyond the 'business as usual' management techniques.*

#### **Callum McCorquodale, Fletcher Construction, Waterview Well-Connected Alliance**

*I have worked with Constructing Excellence for more than 3 years. The introduction of Lean has had the biggest influence on reducing waste and improving efficiency across the project.*

#### **James Worthington, Worthington Contractors**

*The Constructing Excellence training has challenged our culture of thinking... the course material is relevant and interesting with a practical interactive content that demands attendees' buy-in, all our staff enjoyed the training sessions thanks to the factual and fun structure. Highly recommended.*

### Key Contacts

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### Registration Form

<b>Module</b>	<b>Lean Construction Green Belt (LC-GB17A)</b>
<b>Date &amp; Times</b>	9 <sup>th</sup> May, 13 <sup>th</sup> June & 11 <sup>th</sup> July 2017 - 9.00am to 4.30pm each day
<b>Investment</b>	<ul style="list-style-type: none"> <li>Yellow Belt &amp; Green Belt (LC-YB17A and LC-GB17A) \$3950 (plus GST) per person (Includes LC-YB17A).</li> <li>Green Belt (LC-GB 17A) <u>Only</u> (Must have completed YB) - \$2950 (plus GST) per person.</li> </ul>
<b>Venue</b>	Auckland
<b>Name (s)</b>	1. 2. 3.
<b>Role (s)</b>	1. 2. 3.
<b>Company</b>	
<b>Tel:</b>	
<b>Email:</b>	
<b>Address &amp; PO for Invoice</b>	
<b>Pay by Credit Card</b>	<input type="checkbox"/> Please contact me for credit card details. I understand that there is a small surcharge for credit card payments.
<b>Signature &amp; Date</b>	<input type="checkbox"/> I have read the terms below*

Please email or post to:

[admin@constructing.co.nz](mailto:admin@constructing.co.nz)

Marianne Tunley

**Constructing Excellence NZ Ltd**

PO Box 25932, Auckland 1740

t: +64 (0)9 358 4545

\*Terms: Payment is required on 7 day invoice at course acceptance and before course commencement. \*Cancellation is accepted with full refund up to 2 weeks before the event. \*Within 2 weeks of the event will result in a credit for a future course.



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