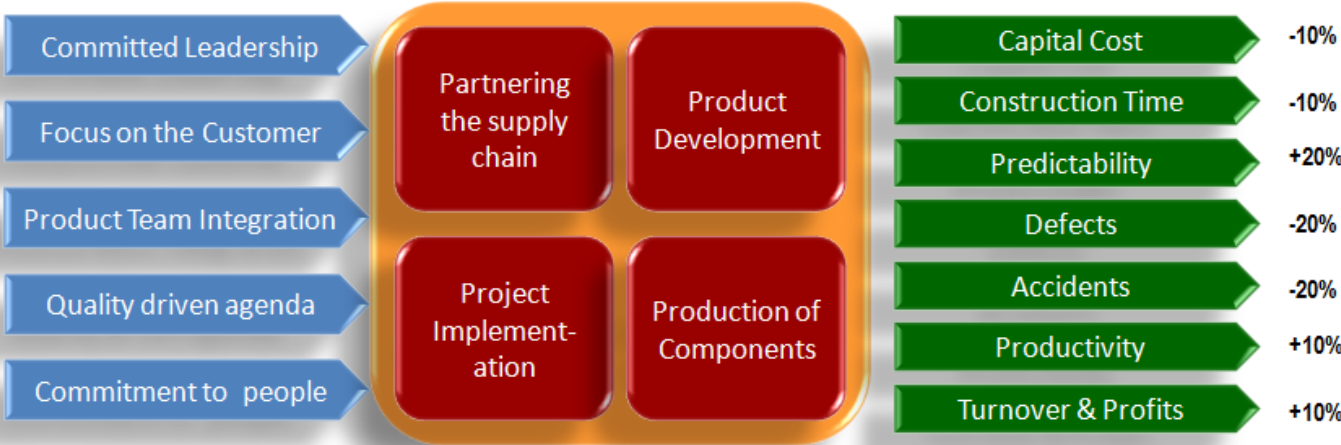


Constructing Excellence Lean Construction Last Planner Implementation Programme

Driving Business and Project Excellence



1 Introduction

Lean Construction and its associated tool, Last Planner have been highly successful in the New Zealand infrastructure environment.

Take-up of the concepts began in 2009 when Constructing Excellence NZ first introduced the concepts into New Zealand. Since then, many projects have reported a range of benefits, not least the Manukau Harbour Crossing project completing 7 months ahead of schedule and one large contractor reporting a 30% increase in profitability since using Last Planner.

Organisations such as Fletchers, Fulton Hogan, NZTA, Arrow International and Naylor Love and now use Lean Last Planner, often as a standard approach for their projects.

Last Planner is a methodology which empowers a collaborative culture of planning and enables a team to manage programme risk on a daily basis.



2 Benefits

Benefits are often surprisingly quick to be realised and are usually tangible and measurable. Typical benefits include:

- Waste is targeted, owned and identified across the full range of people working on a project.
- Productivity is measured and tangibly improves within weeks.
- The method fosters a collaborative approach which enables people to work in an enjoyable environment of Trust, Openness & Honesty.
- The project team becomes integrated; each individual gains a better understanding of their part in the overall project and importantly how their performance impacts others.
- Delays are mitigated or if introduced to a project in delay, it can substantially help to get the project back on track.
- Communication is improved significantly.
- “Fire-fighting” is dramatically reduced
- Profitability increases for supply chain members whilst other important performance criteria such as completing to time and budget improve
- The team gains a better understanding of project risks and manages them on a daily basis as part of a collaborative team
- Winning teams of suppliers are developed which encourage them to stay together for the future

3 The Approach

From experience, we have designed a package of activity which is aimed at achieving a fast and thorough take-up of the principles and ensures that the team stays on track to reach the project goals.

1. **An initial fact finding meeting** and recommendations for implementation tailored to the project or programme. (1 to 2 hours with project leader and planner(s)).
2. **A Collaborative Programming Workshop (Start-Up Workshop):**
A knowledge transfer session which includes the establishment of a collaborative programme and the first 'Weekly Production meeting'. (half to one day workshop).
The session includes Delivery of world class training in the concepts of Lean Construction (Module used from NZQA Level 6 Academy of Construction Excellence Diploma)
3. **Health Check and Advisory:** Two to three follow-up visits at production meetings, (normally 2 to 3 weeks apart) to check all is on track, working well and advise on any additional opportunities for improvement. (1 hour each)
4. **Ongoing weekly advice/tips/suggestions** as appropriate following the LP meetings via email. (as required)
5. **Full Review** (Optional) This includes a final visit at project close with full report on lessons learned/case study. (time depends on project)

4 Investment

Our standard fees for the programme described are set out below. All fees are exclusive of GST and travel expenses. For Auckland, the fees include travel time.

1. Pre-planning (meeting or telecom) and preparation for 2. below - \$950 .
2. Collaborative Workshop - between \$1950 and \$3950 depending on project size (based on number of participants and facilitators).
3. Health Check and Advisory: Follow-up per visits including follow-up reports - \$950 per visit.
4. Ongoing weekly advice/tips/suggestions - \$Included with above.
5. Provision of Excel Administration tool including customisation to the project and initial support to project administrator - \$950.
6. Final Visit, lessons learned review and case study report - \$ as per proposal as each project is unique.

A typical full implementation fee will be in the region of \$6k to \$10k depending on the size and complexity of the project.

Our fees have been proven to be repaid within the first 3 months of the project through removal of waste and time savings on the project and its administration. By the end of the project the investment can be repaid in excess of ten times the original amount.

5 Endorsements and References

We are happy to provide reference contact details if required of individuals using or having used Lean Construction and Last Planner on their projects and in their businesses.

We have also produced a number of case studies which describe the process working in live projects.

To date, every project which Constructing Excellence has helped to implement Last Planner has been on time or early, even when there have been significant delays at the outset of implementation. Some comments from users are:

“I have worked with Constructing Excellence for more than 3 years mainly in the delivery of Last Planner but more recently in the introduction of Lean Construction. Last Planner has been a very successful planning tool at Victoria Park and also here at Waterview. The introduction of Lean has had the biggest influence on reducing waste and improving efficiency across the project. Amanda delivers in a relaxed but professional manner and gets full participation from her audience.”

“Having completed the Diploma Managerial Excellence in Engineering and Construction through Constructing Excellence this has given me the confidence and skills to make great changes in the way we reduce waste improve efficiency and develop teams. This has by far been the most influential training I’ve had and the results from this project are proof of how effective it can be.” **Callum McCorquodale, FCCAK, Well-Connected Alliance**

“Last Planner has made a huge impact and the results speak for themselves. When you came in and ran the initial workshop the project was running six weeks behind programme due to consent delays and inclement weather hindering progress.

We managed to pull back four of the six weeks and finish Stage One two weeks behind programme. A huge achievement! We have had great buy in from all our sub-contractors and your presentation in that initial workshop was perfectly pitched to get everyone's participation. After the workshop we found your visits to site over the next three weeks were invaluable too. Working with the site team to implement the processes, and generally supporting them in the practical rollout of Last Planner helped immensely and has given them the vision that things can always be done better. **Craig Davison, CM StanleyGroup**

“Last Planner is great. It seems similar to good construction practices but gets much better results through a few simple but fundamental tweaks. The forethought that goes into the short-term planning not only helps with the programme but also health, safety and quality whilst measuring your performance and reasons for not achieving planned activities helps you to improve through the life of the project rather than wait for the next one. The increased communication that stems from this method can also lead to better understanding and relationships across the project. I see great potential for this to be used in a myriad of complex situations, not just on construction sites.” **Hannah Hyde, NZTA**

“Last Planner has been an outstanding help in bringing our project in on time” **Fulton Hogan, Auckland**

“We would not have delivered this project nor made our margin without last Planner” **Higgins, Wellington**

“Our Hunua 4 project has embraced last planner and is producing great results in a very challenging and evolving project environment.” **Andy Spittal, Watercare, Auckland**

“The Last Planner tool works. This tool produces bottom line results by including and communicating to all levels & designations of construction delivery and operations. Highly recommended.” **James Worthington, Worthington Contractors, Christchurch**

Constructing Excellence have a long history of providing high value training in the construction industry and particularly in Fletchers. Starting with Last Planner at Dowse to Petone Amanda and her team demonstrated an easy learning style that connected with all levels of the team. The simple messaging enabled the team to immediately see value and in the long run bring back a tight programme ahead of schedule.

This training has been repeated many times and in recent years expanded to Lean Construction (of which Last Planner forms part of). The easy to understand material and interactive games enable the key principles to be communicated effectively across all levels. It is from this training and continued consultation that Waterview recently won the Fletcher Building Construction Group ‘Best Site Improvement Award’. **Darron Monaghan, FCCAK, M2PP, Wellington.**

6 Resources

Amanda Warren, our Lean Construction facilitator is New Zealand’s leading authority on Lean Construction and the tool Last Planner. Amanda regularly teaches Lean Construction in addition to facilitating implementation of the principles on a wide variety of projects. Amanda operates a team of highly skilled Lean practitioners. Her specialist skill is in Project Rescue for projects running over time. She has an extensive record of helping late projects gain back time and deliver to the planned milestones.



About Constructing Excellence NZ Limited

Constructing Excellence aims to achieve a step change in construction value, productivity, & customer service.

Through focused programmes in Innovation, Best Practice Knowledge, Productivity and Engagement, Constructing Excellence has developed strategies to deliver the process, product and cultural changes that are needed to drive major productivity improvements in the sector.

Constructing Excellence focuses upon and establishes new thresholds of performance based on cross industry networking and collaboration combined with a strong regional engagement strategy. Tools have been developed which offer industry the capability to change its image and improve performance exponentially.

Whilst beginning life in the UK in 1998, via a series of MOUs, Constructing Excellence is fast becoming a worldwide network of knowledge sharing organisations. Constructing Excellence NZ is a hands-on organisation that delivers complementary services across New Zealand.

Vision

For the NZ construction industry to realise maximum value to all clients, end users and stakeholders and exceed their expectations through the consistent delivery of world-class products and services.

Mission

To deliver initiatives, tools & services which influence & assist individuals, corporates and the industry to achieve excellence in construction.

Constructing Excellence achieves its mission

By working with key industry stakeholder groups from construction clients through to specialist trades & material suppliers through a range of industry initiatives aimed at catalysing innovative processes, strategic business improvement, advanced systems and state of the art technologies.

“To have a skilled team on every project, working to a common management system using tools to provide a consistent approach to best practice and best profit”

Extract from presentation by Costain on their IBP programme – UK Study Tour CCG Oct 2006



Constructing Excellence NZ Limited

Curriculum Vitae

25 years of Experience of Management in the Construction Industry

Amanda Warren, Partner

Key Skills

- Delivering measured success in business and project performance improvement
- Procurement and Supply Chain performance strategies
- Lean Construction and Last Planner Training and Implementation
- Performance Improvement strategies and implementation
- Performance measurement
- Training in Best Practice and Innovation techniques
- Facilitation and coaching

Summary of Experience

Amanda is founder & Managing Consultant of Constructing Excellence NZ Limited.

Amanda is a highly experienced international industry coach who has delivered successful outcomes on a wide range of change programmes specifically within the construction sector both in New Zealand and UK.

Amanda is also a director and founder of The Academy of Constructing Excellence, a specialist training organisation dedicated to teaching practical knowledge on business and project excellence to future industry leaders through its NZIM backed Diploma and other short courses.

Amanda is New Zealand's leading expert on Lean Construction and last Planner.

Since arriving in NZ from the UK in 2004, Amanda established The NZ Construction Clients' Group, a quorum of likeminded individuals who share the vision of Constructing Excellence and meet regularly across the country.

Projects include designing and implementing corporate and project change programmes, the development of strategies and systems for Best Practice, establishing Benchmarking and Performance Management Programmes and implementing Supply Chain Management strategies and tools.

Amanda has been employed by or consulted to several major organisations including, Auckland City Council, QLDC, Building Research, ANZ Bank, Naylor Love Construction, UK Government, BAA, Carillion and Skanska (Previously Kvaerner), a range of Local Government bodies in UK, Nationwide Building Society. She was employed as Operations Director for Mace Ltd (an award winning Project and Construction manager) (www.mace.co.uk) for five years before moving to New Zealand.

In New Zealand, Amanda has carried out ground-breaking work on KPIs and Pathfinder Projects. She has worked with or presented to organisations such as NZTA, BNZ, Ministry of Education, Local Government New Zealand, Site Safe, Vector and Auckland City Council. Amanda has been a National Evaluator for the pan industry NZ Business Excellence Awards.

Both National Contractors Naylor Love, Arrow International have seen substantial performance improvements since Amanda started working with them on their Best Practice Programmes.

Having joined Mace in 1999, as Best Practice Manager, Amanda initiated the Mace Best Practice Programme (MBPP) which has gone on to win awards year after year. She subsequently established Mace Performance Management and as its director, Amanda then lead a team of specialist consultants working with all members of the construction supply chain.

Her main area of focus in recent years has been in developing integrated supply teams for clients with repeat programmes of work such as schools, housing, high street branches etc. She has developed and implemented a seven step methodology for achieving tangible and dramatic improvements in delivery performance. Amanda has a wide range of experience in coaching and facilitating and regularly presents on Best Practice and Innovation across the world.