



Foreword

Hugh Morrison, Director of International Growth, Opus International Consultants

There are many endearing aspects to our industry – the construction industry. However one thing it is yet to become is a hot bed of science and innovation.

Low margins, highly competitive and fragmented, traditional, poor levels of equity and prone to boom / bust cycles, the construction industry globally, and the New Zealand industry in particular, has struggled to make a sustained investment in its own improvement.

Enter into this environment, over 10 years ago, two unlikely characters, Amanda and Tim Warren. Both had a passion for the industry, an integrity based approach and a direct experience in the construction industry shakeup that was taking place in the UK following the release of the Egan Report in 1998. In addition, Amanda brought with her training and people development experience from Mace, one of UK's leading construction companies. The early years must have been frustrating for the Warrens as they saw an industry in desperate need of improvement, but for the previously mentioned reasons unable to make the investment.

The Warrens' decision to bring the Constructing Excellence brand to New Zealand and to put their support behind the brand was a significant step. Constructing Excellence in the UK was gaining significant support and companies that were aligning with the learnings and using simple tools,

such as utilising the industry KPIs, were beginning to move away from the rest of the industry. The establishment of Constructing Excellence in NZ saw the establishment of the Construction Clients' Group; Workface Planner training programmes; Industry KPIs, tertiary education options targeted directly at industry practitioners and a number of other industry improvement initiatives.

Looking forward, there appears to be increased dialogue across the industry and initiatives such as the Productivity Partnership have been positive in trying to address the industry's deteriorating performance. However, we are far from turning around the issues of poor productivity and producing the traction needed from clients, designers and constructors to move the whole industry forward.

The cross-sector and learning focus of Constructing Excellence remains an important cog in improving the performance of the construction industry over the next 10 years and warrants the ongoing support

of companies and leaders in the industry.

Editor's Note:

10 years ago, Hugh Morrison was the CEO (NZ) and a Director of Arrow International; a project delivery company which worked to make a difference through innovative delivery models. Hugh is now Director of International Growth at Opus International Consultants.



Hugh Morrison

Inside this issue

Foreword	1
The Good Life? From Roosters to Performance Boosters...	2
Driving Change in Construction in the UK	3
Lean Applied Day to Day Wins International Award	4
The Impact of the Construction Clients' Group Over 10 Years	5
Redefining Leadership	6
Recycling of ACE Experience Key to Career Progression	6
An International Perspective Focus on the Supply Chain	7
The Last Word	8

The Good Life?

From Roosters to Performance Boosters...

**Amanda Warren, Partner,
Constructing Excellence NZ**

In 2004, Retirement was in view! After 15 years of 'workaholic, A-type' behaviour, with a variety of construction based organisations including a secondment to UK Government on the 'Egan Team' and latterly as Operations Director with London-based Mace, all the time driving the uphill battle towards the transformation of the UK construction industry, it was definitely time for a change!

We arrived in New Zealand with my expectations firmly set on creating an Eden – a 'lifestyle block' complete with chickens, own organic vegies, bees and the like. It was all in my grasp and boy was I looking forward to it. Alas! NZ had other ideas.

After a few days, meeting and greeting, I started to be asked to give the odd talk on how the UK was changing, in particular around Procurement, (a perennial NZ obsession, I have since come to know very well). I also began to notice the complaints around town that sounded oh so familiar; "If only we didn't have to procure on lowest price", "If only the subbies would perform", "we can't partner with our subbies because our clients won't let us!" I began to be introduced to people who really



Elsa Warren

believed that the big issues around poor practice could be solved and who were pretty passionate about attempting some serious change.

I was hooked! How could I not be? The challenges were all laid out, the industry looked just like the UK was 10 years prior and I knew – really knew – how to fix it – or so I thought!

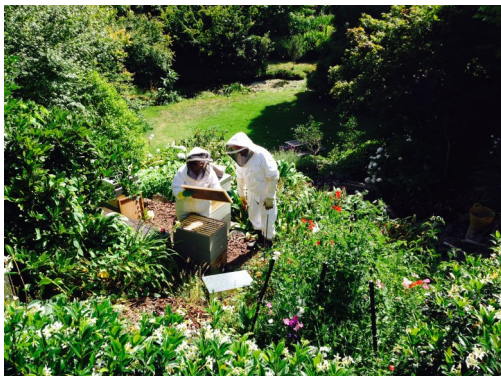
In early 2005, Constructing Excellence and the Construction Clients' Group (CCG) was born. We started in a very small but enthusiastic way. A number of people including Joe Hollander (then Massey University), David Quinlan (then Opus), Gail Calder (then BNZ) Adam Tyrie, (then Auckland Airport) Karl Hutton (then Ministry of Education) Simon Guillemin (then Auckland Council Transport) and Ian Wheeler, (then Housing NZ) set about creating a series of workshops to 'show and tell' best practice and debate how the NZ Construction Industry could become world class.

We knew that there were three perennial problems, NZ's obsession with lowest price tendering on each individual

project, the uncertainty of workload due to the 7 year boom bust cycle, the huge number of very small businesses in an attempt to be agile and survive the cycles. These businesses by their very nature fail to reinvest in their growth and development and valuable lessons on every project were lost through the project team breaking up to go to new projects. A true 'vicious cycle' resulting in almost negligible profits and most often losses. On top of this, there were no industry measures to even see where the problems were.

Ten years on, has it changed? Well, I did manage to acquire some chickens (see Elsa pictured) and some bees! The occasional carrot and a mountain of silver beet appear from the garden and this year, I even bottled our peaches. But what about the industry I hear you ask? Well, we now have a robust suite of measures that do tell us that the industry has improved. There are true pockets of Excellence and early adopters of best practice such as Naylor Love and Arrow International have shown significant improvements across a range of performance areas, not least customer satisfaction. Young people joining the industry are eager to learn about Lean Construction and how to remove waste. Safety has improved no end thanks to the efforts of Site Safe and other passionate individuals throughout the industry. Many clients in the public sector are beginning to trial new ways of procurement and some are even taking a programme management approach. Recognition that more leadership skills are needed is happening in major organisations.

Whilst carrying out a recent customer survey with a significant client for a major contractor, I was



The Bees!

continues on page 3

continued from page 2

genuinely moved by the sheer excellence of the client relationship and the value that had been achieved. The passion that has never really left, shrieked at me to leap up and tell everyone that it really truly can be done!

Perhaps chickens, veges and bees have to live alongside my small contribution to the NZ performance drive? The Roosters had to go, (not allowed in central Auckland) but the Performance Boosters are here to stay!



Amanda Warren



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Driving Change in Construction in the UK

Don Ward, Chief Executive, Constructing Excellence UK

I am looking forward to meeting colleagues in Auckland, Wellington and Christchurch, and contributing to your tenth anniversary events. It is seven years since my last visit, and much has changed in the New Zealand industry as well as in the UK and around the globe. Thanks to their many international connections including our own international network, Tim and Amanda Warren are well connected to use their understanding of the trends domestically and globally to support improvement in New Zealand to best effect, and it is great to see them celebrating a decade of success!

Thanks to our KPIs, shared with New Zealand, we know that UK construction has come a long way in the last twenty years since the Latham and Egan reports of 1994 and 1998 respectively. It is 70% safer, clients are 30% more satisfied, and the sector is responding to pressures on carbon. This is particularly true at the leading edge where big repeat clients, including many in the public and utilities sectors, and their suppliers are more mature in their understanding of risk. Some are reaping the 'rewards' of reverting to type in what was an especially deep recession, but many recognised that construction is usually "high risk-high value" and thus needs to be procured in such a way as to enable collaborative working.

The latest news from the UK is that, as I write, the population is going to the Polls to elect a new government – and all the talk is of the need for another coalition, and probably a hiatus as the Parties dance around the handbags to see who can find a workable partnership. As far as we can tell the parties seem aligned on the



Don Ward

key policies that have such a bearing on us, such as the demand for housing, and modern infrastructure. Whichever party or combination thereof comes to power, there seems to be a Political consensus about the importance of good infrastructure in enabling better performance in the rest of the economy, this developed as we focused on growth and investment to recover from the recession.

Our hope, and reasonable expectation, is therefore that the government's industrial strategy for the sector, "Construction 2025", will remain in place, with its ambitious targets for further improvement of between 30-50%, the key themes in which are People, Smart, Sustainable, Growth and Leadership. Getting there still means collaborative working, the common theme running through our change agenda over the last twenty years. We still need to improve trust, foster a collaborative culture and eliminate adversarial relationships, and sort out processes such as early involvement, selection by value, common processes and aligned commercial arrangements. The journey still involves respect for people and digital technologies to enable Lean to deliver value. We are at a crossroads in industry improvement, and although the sector is coming out of recession, an era of relative austerity and serious pressures on client budgets is ahead of us.

Lean applied day to day wins International Award

In this newsletter a number of contributors have reflected on 10 years of work 'rethinking construction'. Egan's and the UK Industry taskforce's work is now nearly 20 years old. However, much remains deeply relevant. In this, it gave an industry with a proud technical legacy but with leadership most adept at fighting fires, the permission to look at continuous improvement as a baseline skillset and to learn from other Industries and production environments.

Callum McCorquodale is the Site Superintendent for Fletcher Construction's Waterview Tunnel Great North Road Interchange. He is a Dip MEEC alumnus and has been working closely with CENZ infusing the Lean culture across the project.

Callum was a welder-fabricator by trade. As a Site Manager, he worked in the UK, South East Asia, Israel and Europe before emigrating and joining Fletcher in 2004. Prior to the Waterview Tunnel project he undertook a wide range of assignments. However, one stands out and set him on the learning path. "I was assigned to run the Onewa Road interchange project north of Auckland including both civils and structures. The project finished within programme, with zero defects, no return visits, and a bottom line well ahead of forecast. I didn't realise at the time just how the stars had aligned. Our team had an intuitive understanding of Lean philosophies and were all best practice orientated but we were unable to articulate what was happening at the time."

Callum was keen to understand just what it was that had resulted in a great outcome. He searched for an appropriate qualification and found the Academy of Constructing

Excellence's Dip MEEC.

Assignment to Waterview came about the same time as completing the Dip MEEC Lean module. "I was keen to generate the traction I had seen at Onewa Road. We had an excellent safety culture and good reporting. I wanted to replicate this with waste but I first had to build a view of current wasteful practices and build a database to measure and document progress." To do this Callum set up a blue card system. On one side the source of waste was identified and on the other a suggested 'fix' was required. Cards were categorised and analysed according to the Toyota seven waste principles.

"A piece of low hanging fruit set the scene. One site team member had observed that a barrow load of concrete from each truck was being taken off for testing purposes; most of which was unused and left in small piles on the ground. A quick calculation revealed that if this was avoided there would be a \$60,000 concrete cost saving to the project. This was followed by the salvage of returnable pallets, much tighter quantity control for ordering and in short order about \$1.5m in savings had been identified and realised. This set the ball rolling and gained the confidence of the Alliance Board.

Callum's next target was process. "Every programme activity was examined. Hours, days and sometimes weeks were peeled out through questioning methodology, sequence and scope of activities". This work led to a critical examination of the working week and the programming cycle. It became evident that, yes, the work was expanding to fill the time available. Weekly goals for the standard 6 day week could readily

be achieved in 5 days with just a little more planning. "This challenged the traditional 6 day remuneration structure but did improve work/life balance. A 3.00pm Friday finish has now become standard and \$1.5m savings will accrue to the project."

These were 'ground-up' initiatives, but Callum's leadership of the programme which has produced \$5m in savings for the project to date earned him the Fletcher Building World-wide award for "best site improvement." The competition included Fletcher's factory based production facilities. For Callum this goes to show that "Construction isn't as different as we think." "The opportunity to effect cultural change is now a key personal driver and my Dip MEEC Lean and Leadership learnings have been an important part of this."



Fletcher Building Best Site Improvement Award

The impact of the Construction Clients' Group over 10 years.

He who pays the piper calls the tune!

**Trevor Kempton, Partner,
Constructing Excellence NZ**

Whoever coined this phrase has long since departed the earth without, I suspect, realising that he or she left behind a philosophical dilemma.

Traditional Client behaviour in New Zealand was to call the tune before they knew the make-up of the Band which was inevitably compromised by their drive to minimise the fee. The music was awful, everyone blamed the drummer, but the Client determinedly repeated the exercise hoping it would be better next time.

Enter the Construction Clients' Group (CCG); a membership organisation set up by Constructing Excellence in May 2005 and based on the very successful UK model. This was initially a small group of Clients and their like-minded supply chain who understood that a better and more enduring musical experience might result from choosing the right band, making a collective decision on the tune and then paying enough to ensure they would be around to rehearse and play it even better next time.

Joe Hollander, a nationally prominent and very experienced Client and estate manager had an ear for music and had long been frustrated with what he heard. He accepted the founding Chairmanship of CCG and immediately set about building membership along with a national profile with a quarterly round of gatherings in Auckland, Wellington and Christchurch respectively. With Joe's retirement in 2012 the current Chair Warren Parke, then a Lieutenant Colonel in the New Zealand Defence Force, now the Ministry of Education's Strategic Procurement Manager, took over this work. Membership is now running at close to 50 diverse organisations.

The CCG has influenced the manner in which thinking has evolved around built environment development over the past decade. 10 years ago, many projects were being delivered on a 'best for nobody' basis. A first step was 'best for project' thinking although this tended to focus on collaboration in the execution phase of a project. CCG focus has moved on to a 'best for asset' philosophy recognising that the dominant value proposition lies in the return achieved through both the operation and occupation of an asset over its full operational life. Consequently, the CCG has attracted a strong cohort of asset managers which has facilitated a unique link with those developing the assets and helped to build understandings. These are of particular value in such areas as the growing PPP environment.

From the beginning, CCG was seen as an organisation which would agree and publish baseline best practice for Clients. A Client protocol setting out the values and ethos of the CCG set the scene with a focus on benchmark behaviours around leadership, procurement, integration, people, quality and value.

Specific best practice guides covering the key protocol benchmarks have been designed to provide direct guidance on how to improve productivity, an on-going theme over the life of the CCG, and create 'best for asset' environments. Emerging technologies such as Lean Construction and Building Information Modelling are demonstrated and member networks established to foster their uptake and further development.

CCG has, with the help of a range of Industry sponsors, maintained the national Industry KPIs which have allowed direct comparison of the New Zealand construction

Industry with its international peers and has provided quantitative evidence on how the Industry performs across a boom/bust cycle. This information has seeded a number of recent Government initiatives.

Government has worked closely with CCG through the Productivity Partnership; particularly in the aftermath of the Christchurch earthquakes. It has undertaken research and presented its thinking in the Government Agency conference environment. Opportunities to submit and make comment on planned Government initiatives are also taken up. Government recognise CCG as an important 'route to Industry'.

Over the past decade, the Industry leadership space has been cluttered with new organisations planning to effect improvements. The success of these organisations has been significantly dependent on clarity of vision. The early participants in CCG were mindful of this and laid a solid foundation through early development of the Client protocols. This level of insight remains as important today. CCG is now seeing a second generation of Clients and supply chain practitioners coming through. This provides an opportunity to build intergenerational understandings which will provide added impetus to the building of culture related understandings and reinforcement of core values over the next decade.



Trevor Kempton

Redefining Leadership

Tim Manning, a Dip MEEC graduate from 2011 has gained something of a reputation as a team builder and project leader. As Project Manager for Fulton Hogan on Auckland Council's Central Connector project, a difficult hard bid corridor upgrade project, he demonstrated that a collaborative environment can be developed regardless of the method of project procurement.

Tim started a new role as Executive GM Industries and Paving in Auckland about the same time as he started his Dip MEEC course. Upon graduation, he was quoted as saying, "Back then my business felt like a 6 month old baby with teething pains and lots of nappy changes. It now feels like it's at school, toilet trained, great advances, but different focuses and still no spare time." In this role Tim recognised and acted on ethnic differences between his teams and what this meant for leadership style.

Tim is now General Manager, Rail for Fulton Hogan heading up the FH/John Holland joint venture team. He was asked what has changed for him and the Industry over the last 10 years.

"In April 2005 my wife and I moved back to New Zealand from a 4 year stint in the UK. I joined Fulton Hogan and New Zealand felt like a breath of fresh air. Workers were focused on doing work, clients were not stuck in their ways and there was a 'can do' attitude.

I remember being proud of my contract law skills that I had refined overseas. Only to be told 'this is not how we do it in Fulton Hogan, we are a small industry so put your contract away and focus on relationships'.

Now if I reflect on how we as an industry have changed over the last 10 years I am glad to have been part of the journey and the

improvements we have seen for our industry and New Zealand Inc.

There are the obvious things that have changed, jobs have got bigger, collaborative working is the norm in my neck of the woods, and there is a focus on achieving great outcomes rather than pure compliance.

However the change that motivated me the most was the focus on people and what was classified as good leadership.

We have seen a drive to empower the workforce. As a result we have seen some businesses and projects change the way they do business. It's been about involvement and connection. The creation of ownership at all levels with a particular focus on supporting the guys on the ground so that they can actually make a difference actually make a difference. This makes sense. If we motivate our staff, connect them to making a difference we create a future for them, then business becomes easy.

10 years ago I can remember a Supervisor, bright red, angry and yelling instructions. Now I see teams planning together and owning their approach. Yelling at people does not motivate them and the reality is it's an indicator that you personally have failed long before that.

The industry has realised where value can be created and we are training and coaching people to get there.

We now see leaders who don't need to be the glory boys and are happy for their team and people to get the accolades."



Recycling of ACE experience key to career progression



Al Christ

Al Christ, Academy of Constructing Excellence graduate from cohort 4, was an Operations Manager with Downer working in their Auckland roading network maintenance team in Auckland when he enrolled in the Dip MEEC course.

Before the course was completed, Downer heavily restructured their Auckland regional operation to create a Client facing contract management team to manage the interface between Clients and their operational units. Al was appointed to this team as Regional Planning Manager with responsibility for the efficient coordination of all operating units. Each unit had a long history of autonomy and Al's task represented a direct challenge to past management practices.

Al encountered an issue which is increasingly prevalent as companies restructure to build a service delivery reputation which displaces a reputation for

continues on page 7

technical expertise. At the time, Al was part way through the Dip MEEC course and relied heavily on his learnings from the Change Management module to working across work stream and geographic silos to achieve the necessary cultural change without line authority. Al noted that a critical success factor was the commitment and support of senior line management. This was graphically demonstrated in practice and further reinforced in his next assignment.

It was a significant technical shift from roading maintenance to Downer's UFB roll-out. As contracts manager, the work was spread across most of the South Island and half the North Island. Al recalls this as an exciting time. "In the early stages the project was highly stressed with an acute shortage of supply chain resource. However, with the introduction of project leadership which was both empowering and endorsing, the opportunity to create a strong continuous improvement ethos emerged. Dip MEEC course material was dusted off again. A focus on Lean and Continuous Improvement principles from Toyota with a heavy reliance on the DMAIC structure produced results which we were very proud of. In fact, the CI focus took me to the place where I split my own position into three to reduce costings and effectively made myself redundant!"

For his efforts, in May 2013, Al received the Downer leadership award for "cross-sector collaboration".

Al's most recent move was an interesting one. "I now had a taste for business unit transformation and a role as Road Corridor Access Manager at Auckland Transport came to my attention. My new team processes an average of 1300 Corridor Access Requests (CARs) per month across the Auckland

regional roading network, most of which have the potential to disrupt network operations and anger ratepayers. I have 'inherited' a passionate team and another opportunity to rebalance the technical and the customer focus."

Within the first month in this role Al had completed a successful strategy day developing a vision statement with his team, mapping their process and defining what they did in customer orientated terms. Value stream mapping and affinity diagram analysis of their constraints provided every member of the team with a specific CI project to lead. Al noted that "within Auckland transport the team had been largely anonymous but it has already gained stature which is improving its ability to work across the organisation. I have been able to align private to public enterprise performance imperatives and show my team that in a customer driven organisation these are very similar."

Al sees the DipMEEC course as an important part of his development. In particular he recalls the 'one on one' time that was readily available and the opportunity to discuss issues specific to his role. "There was always the opportunity to discuss issues in real time and to learn from others on the course while the talks from recognised Industry leaders were motivational and a great way to start off each session."



An International Perspective – Focus on the Supply Chain

In November 2005, Mark Leech was working on Heathrow Terminal Five; at that point Europe's largest construction project and connected with Amanda Warren and delegates on Constructing Excellence in NZ's first international study tour. Mark had visited New Zealand twice before and in March 2006 made a permanent move here taking up the position of Operations Manager for Naylor Love in Auckland. He has recently moved to Fletcher as their Auckland Regional Manager.

After a short period working for a traditional general contractor, not unlike Naylor Love, Mark spent 10 years working with the British Airports Authority on ground breaking alliance projects. BAA were one of the first to move into alliancing in the wake of the Egan report and as Mark explains, "It took several years to develop respect for the collaborative ethos and to convert the sceptics both within and beyond. However, by



Mark Leech



the time I came to New Zealand the BAA alliancing model had attracted world-wide attention."

It was while at BAA that Mark saw the benefits of focus on the supply chain. "Alliancing struck a new equitable deal with all participants. Risk/Reward opportunities underpinned by a performance measurement culture were extended to all participants which stripped out the traditional padding of the hard bid environment and allowed them to lower their guard without fear."

Upon his arrival in New Zealand, Mark identified a small number of companies which had the advantage of a good return and negotiated client base and which had respectful relationships with their supply chain. However, for the most part relationships were adversarial and tempered only by a slightly more 'easy going' Kiwi attitude compared with a harder 'take no prisoners' approach prevalent in the UK.

Over the past 10 years, Mark has seen considerable change in the procurement environment in New Zealand. "Clients are asking many more questions of the Industry. They are less concerned about methodology and more interested in process. They expect the Industry to put forward process options. They require multi-dimensional and transparent propositions which interface well with the way they do business"

Recognition of the huge impact a high performing supply chain can make is growing steadily. "Clients are taking an increased interest in the quality of key supply chain participants and their relationship history with the head contractor. Increasingly the supply chain is taking on an international flavour and this is also being factored in"

Mark sees continuous improvement and the role of organisations such as Constructing Excellence as having become a permanent feature of the New Zealand scene. "10 years ago, those who were thinking about continuous improvement programmes had a

competitive advantage. Now, you are significantly disadvantaged without one. The same goes for having in-house capacity to lead the pre-construction phase of a project both technically and commercially."

Although skills shortages are still getting plenty of air time, Mark has observed an increasing depth of supply chain skill and with it an ability to integrate more meaningfully in wider project planning. This has been particularly prevalent in the structural trades. While we have had a decade of importing skills Mark is seeing more Kiwis staying in the country. "We are seeing local stars emerge and Kiwis coming home. With good management we have the opportunity to lift the Industry's sustainable skill base through the current upturn. There is a pressing need to develop a more extensive technology culture and Kiwis are proving very adaptable in this area."

There has been a major uplift in the Industry's understanding of leadership. "At Naylor Love I was immersed in a comprehensive leadership programme and this emphasis has been maintained in the Fletcher environment. Potentially the ability to build leadership is today's competitive advantage. This is one area in which Constructing Excellence have made an impact. The value of good leadership in building Lean environments and collaborative planning initiatives and the international influence which is brought to bear have made a real difference."

The Last Word

Shane Brealey

"How time races by - 10 years already. It seems like only yesterday Amanda and Tim Warren stepped off the plane with their English accents and heads full of ideas from Mace, other Industry leaders and, of course Constructing Excellence (UK). Add

in the direct influence of Trevor Kempton; my then counterpart at Naylor Love, and Constructing Excellence in NZ (CENZ) was born. A very important element of the early growth of CENZ was an actively sought partnership with Industry. Through this many from the sector were able to make significant contributions to CENZ's growth and continue to maintain a strong feedback loop.

No doubt there were many frustrating times and many questions asked about how much impact CENZ was having on our market. The international research and principles behind the strategy of working in smarter and more collaborative ways is unquestionable in my mind. I believe the impact of CENZ has been significant. The many seeds it has planted in the minds of thousands of people attending the training sessions, Construction Clients' Group meetings and overseas tours, and the many students that have graduated from Academy of Constructing Excellence courses, will bear fruit for the Industry long into the future.

Our industry hasn't changed all that much in 4,000 years. On this scale the incremental change promoted and supported by CENZ may in years to come be seen as a major turning point.

The next 10 years will be just as important. For productivity gains, quality improvements in construction and career satisfaction for all of us involved in the property and construction industry the huge strides made by CENZ must continue to be built on. Keep up the great work and congratulations on all you have achieved in your first decade."

