

“But Construction’s Different.....”

At Constructing Excellence we have had a very busy last quarter. We have undertaken some particularly interesting assignments looking into the drivers of sector productivity. We have been working with Local Authorities interested in benchmarking their asset maintenance contract performance and assisting a range of companies working to raise specific project performance through process improvement and collaborative planning.

While there is plenty of talk about the challenges we face around productivity, there is some excellent work going on resulting in improved outcomes. As in most situations, the 80/20 rule prevails and we commonly see great outcomes coming from the same short list of factors:

- **Less reliance on historic performance as a benchmark and daily attention to continuous improvement.**
- **Great leadership from at least one individual.**
- **A belief that risk is minimised and opportunity is maximised if the project process is truly integrated and accepting this as the primary management challenge.**

I am often castigated by construction practitioners when I talk about the auto industry. *“But construction’s different, they say, and you just can’t compare the two!”* Well, why is it that the factors which we see repeatedly producing great construction outcomes are the same as those which are at the centre of manufacturing success?

The answer is simply that the principles around efficiency of any project or production process are the same. The difficulty our practitioners have with this is that they have been trained in skill sets which in some cases are steeped in centuries of tradition. The skills remain relevant, but the traditional demarcations and cultures are not conducive to systems or process thinking. This, along with leadership, forms the great skills challenge.

In 1913, Henry Ford built a moving car assembly line for \$3,500.00 and immediately effected a 60% to 70% improvement in the productivity of his workforce. The production cost savings were significant and provided a handsome return which was duplicated many times over by flow-on benefits.

Forty years later, Taiichi Ohno, Toyota’s technical chief, was invited to Detroit by Henry Ford to learn about high volume steel panel pressing. He saw large numbers of presses stamping long runs of identical parts. He also saw teams of highly skilled die setters taking a full day to change the dies between runs.

Ohno was impressed with what he saw at Ford but he didn’t have the capital to buy as many presses as Henry owned. He returned home and set to work. Within 18 months he had perfected a system where dies could be changed in 2 to 3 minutes by workers with only assembly line skills. He needed only a small number of presses and reduced the panel inventory he needed to keep up with assembly to almost zero.



Phil Skinner, Fulton Hogan explains how post-it notes are a vital tool in the weekly & fortnightly programming

We can see from the Ford and Toyota experiences that:

- **Productivity improvements never travel alone. There are often unexpected collateral benefits.**
- **Smoothing of the process and integration of its component parts is fundamental to improving productivity.**
- **Productivity gains require a culture of continuous improvement and rising expectations.**
- **The potential for productivity gains is theoretically limitless.**
- **Productivity improvement requires high level ownership and leadership.**

And if you are still unconvinced, Toyota are currently very active in the Japanese modular building market!

written by the Editor.

Engineering a career across two cultures.

I'm Jerry Giango, Project Controls Manager for the New Zealand Transport Agency in Auckland. I have just finished the Cohort 9 DipMEEC and am underway with my project work.

I was born and raised in the Philippines. At high school, we were required to make career choices so that our course could be tailored for later University study. I was fascinated with computers back in the late 80's and had a passion for computer engineering.



Jerry "at work" on the Auckland Harbour Bridge walk.

However, my Dad was a Civil Engineer and took me to see much of the work he was involved in. I was equally fascinated by the creation of engineering works and structures from two dimensional construction drawings.

Unfortunately my talents were never tested in the IT world. Computer engineering came a close second and I commenced study towards a Civil Engineering degree. After graduation, I worked as a site engineer, then as a project engineer. A few years into my Engineering career I studied Law as a means of broadening my skill base and employment options. This supplemented my engineering

knowledge and broadened my horizons around contracts and procurement.

Like many others, I left the Philippines in August 2006 and came to New Zealand. This was a permanent move to provide better opportunities for myself and my family. Initially I found the environment difficult and disappointing. Even though the Industry was very busy, I was unable to find employment as an engineer or project manager. I lacked the '*New Zealand experience*' that many companies wanted and which without the right job I couldn't obtain. I had to accept that my career would go sideways a little before it went forward and I began working as a quality auditor, an estimator and then a programmer before I became a project engineer for the Auckland Regional Transport Authority (now Auckland Transport).

My time with Auckland Transport raised my interest in project management from a Client perspective. I started working as a Project Controls Manager for the NZ Transport Agency in October 2009 and was given responsibility for the Puhoi to Wellsford project. This the biggest and most challenging project I have been involved in, with a final out-turn budget expected to be around \$1.69b.

My input in the project management services team has spread to other project work in the Auckland-Northland area. As a project controls manager, I focus on the con-



Jerry and family at home.

trolling functions which sit in behind and underpin project execution. Our team covers planning and scheduling and earned value analysis along with cost, change and risk management. When we're dealing with projects with budgets around \$1bn(NZ) then these functions can provide a significant return on investment!

When I started in my current role, I felt that some extension to my skillsets would be helpful, the Diploma of Managerial Excellence in Engineering and Construction broadened my knowledge in the areas of business excellence, leadership, performance management, change management and customer relationships. These have been taught in a manner which makes them easy to apply around my role and are areas which were not covered within my formal University courses.

Now back to doing my project so I can graduate from Dip MEEC this December!



NZ TRANSPORT AGENCY
WAKA KOTAHI

Introducing: Sarah Dowling

2012 DipMEEC Scholarship Recipient



Growing up in a small rural western Southland town has not stopped Sarah Dowling from forging a successful career in local government asset management.

Now she is set to take that career to the next level as the 2012 recipient of the NZIM Diploma in Managerial Excellence in Engineering and Construction (DipMEEC) scholarship.

From the small southern town of Tuatapere, Sarah completed her secondary school education at Waiau College before heading to Dunedin to complete a New Zealand Diploma in Engineering (Civil) at Otago Polytechnic.

When she graduated in 2004 she already had a couple of years of experience up her sleeve, courtesy of securing work with OPUS Consultants while completing her studies.

Sarah said engineering was a natural career path for her – *“I have always had an interest in doing something that helped communities and providing essential services to people”*.

Prior to joining the staff at the Gore District Council, Sarah spent six years with the Southland District Council. Starting out as a technical officer in the water and wastes department, the 28-year-old evolved the role into a fulltime asset management one. Among her duties was creating asset management plans for the 3 waters for the SDC’s 2009 LTCCP.

Sarah has only been with the Gore District Council since early 2011 but again has demonstrated aptitude and enthusiasm to expand her role from one of technical support to a variety of functions and responsibilities.

Latterly, she has stepped up to manage the in-house service provider team responsible for the 3 waters networks and treatment plants for the Gore district.

With an eye on progressing to a senior management role within local government, Sarah sees the Diploma course as enhancing her career plans and complimenting the corporate aims of the district council. *“I believe this course will greatly improve my strategic abilities.”*

Sarah was grateful for the opportunity offered by Constructing Excellence and was excited to be following in the footsteps of inaugural scholarship winner Camilla Gibbons, who went on to take the 2011 IPENZ Young Engineer Award. She will also be sharing some learning opportunities with Paul Withers, the Gore District Council asset manager who is a member of Dip MEEC cohort 9.

This is the first year the scholarship for local government has been offered.



Inside this issue

But Construction’s Different...	1
Engineering a career	2
Introducing: Sarah Dowling	3
IAP has been thinking: BIM	4
Risk Assessment & Management	5
Joe Hollander has the tidiest lawn	6
Mark Colborn: a new face at CCG	7
Programme & Events	8

Industry Advisory Panel has been thinking!

The Academy for Constructing Excellence's Industry Advisory Panel provide 'real time' guidance on the needs of the sector and its aspiring leaders. The panel has confirmed plans to bring leading international practitioner, Derek Salkeld, back from the UK again to lead the Dip MEEC Risk Module and to introduce a BIM Module to the Diploma in 2012.



Richard Simpson – founder of New Zealand's leading BIM/BIEM practice will lead this session – he is internationally recognised and already well known to CCG members after his recent well-attended presentations. His company, Next Space, already work with Auckland Transport, MBIE and Christchurch City Council.

BIM (Building Information Management)

BIM is seen as one of the few technologies which are central to raising sector productivity. Recent research indicates that it is the construction industry which is leading the use of BIM within the sector. It has proven an effective tool for clash identification, as a visual aid for detailing and assembly, and to identify dimensional errors at a point where re-work can be avoided. Time and cost dimensions have been included to enhance its value as a potent planning tool. However, there is still huge potential for it to be used as a project integration tool linking all project elements from conception to facilities management.

With integration in mind, we are including a half day introduction around how BIM can be the focal point for project teams. Leading a BIM based project is about shared technology, collaboration and requires leadership to achieve the well documented efficiency gains. It will bring into context overseas experience where, both in the UK and USA, BIM is mandatory on government and state projects. It will cover work in New Zealand where world leading technology has been developed in city mapping. We will look at aircraft design and in particular the Boeing 787 Dreamliner design process and how this could be transferred into our sector.

Richard is an early pioneer of the New Zealand computer graphics industry. He founded Cadabra, one of the first New Zealand companies devoted to the development and application of 3D design, simulation and visualisation technology. He is an appointed member of the Executive Committee for the International Society of Digital Earth (ISDE) and has served as an Auckland City Councillor. In this capacity he chaired Auckland's Transport Committee and was Deputy Chair of the Economic Development Committee. **Prior to joining Next Space he was head of innovation and business manager for the Auckland Bioengineering Institute, leading research in mathematical modelling of the human body for drug discovery and testing.**

CHRISTCHURCH 26th October 2012, 8:30am-12pm
\$350 + GST

<http://www.constructing.co.nz/Events/?eventID=107>



Risk Assessment & Management

Derek Salkeld's inaugural Risk Measurement & Management module in 2011 brought many attendees from beyond the Dip MEEC cohorts.

To satisfy demand we extended his programme with enterprise sessions run for Auckland Transport and Genesis Energy. This year we are very pleased to bring Derek back to NZ to deliver his "hands on" laptop based intensive six module training session.

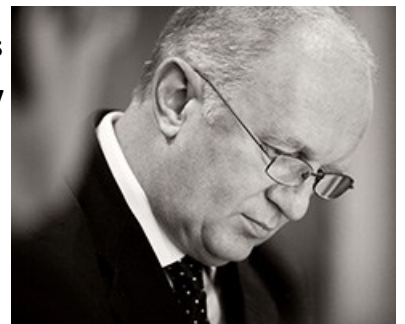
Derek has some refreshing angles on project cost over-runs. He will make a case that overspends are a function of the quality of thinking and risk appreciation at inception. This is the focus of the module. Having completed all six modules you will be able to make a case to project sponsors for the right amount of funding and the right amount of time that will be needed to deliver the project with confidence, and you will be able to provide a strategy for the project delivery team that will assure a successful project for everyone involved.

Derek's skills are in constant demand both on new projects and in recovery work on projects which are in difficulty. Derek is a partner in a risk management consultancy. **He has just completed the Emirates Olympic cable car bridge across the Thames and is currently working on London's Cross-Rail scheme; currently Europe's largest construction project.**

AUCKLAND 25th & 26th October 2012, 8:30am - 5pm
\$1,750 + GST

<http://www.constructing.co.nz/Events/?eventID=90>

**Pre-registration is essential. *Wireless laptop is required.*



**THE
ACADEMY of
CONSTRUCTING EXCELLENCE**

Coming Events...

27th & 28th September 2012

AUCKLAND - Performance Measurement & Managing Change
CHRISTCHURCH - Supply Chain Management

25th & 26th October 2012

CHRISTCHURCH - Business Strategy, Finance & BIM

Joe Hollander has the tidiest lawns in Palmerston North



Joe Hollander has been Chairman of the Construction Clients' Group since its inception in 2005. He has influenced and encouraged this group to become a very significant force for change across New Zealand's built environment. He stepped down from chair in June 2012 and the editor had the pleasure of an hour talking with Joe before sharing his company over dinner with Wellington CCG members. At the dinner, Joe's role as Founding Chair was formally established as one which gives Joe on-going personal membership of the CCG and in turn gives the CCG the benefit of his on-going affiliation.

Pretty much everybody knows Joe Hollander. A quick scan of his CV will explain why. Joe has mixed an extensive engineering based military career with major roles in facilities management, asset development and management, executive education and marketing within a fledgling electricity industry. His direct vocational contributions have been backed up by a comprehensive list of leadership roles in industry bodies associated with his lines of work, and an impressive range of roles in community groups.

Joe has never been one to let the grass grow under his feet!

Joe is a born and bred Cantabrian. In the early 60s he got a job as an engineering cadet with Southern Cross Engineering; one of a range of innovative companies working out of Christchurch at the time. Southern Cross specialised in agricultural, forestry and mining engineering, built the first conveyor luggage handling facility in New Zealand and were specialists in hydraulics, solenoid valves and air controls. Part time study for NZCE and a NZIM Management Diploma followed while the opportunity for a little simple design, fitting, turning and welding was snapped up.

Many careers were kick started as a result of national service military training in the post-war years. Joe was balloted in and was very quickly collared for officer training with the Engineer Corps. Upon completion of NS, Joe became commander of the Territorial Force Dunedin troop of the South Island field engineer squadron, before joining up in the Regular Force. Over the next 20 years or so came postings and assignments in the Pacific Islands, Australia, South East Asia, the United Kingdom, Europe and Scandinavia and completion of advanced officer and professional registration training with the Royal Australian Engineers and US Army Corps of Engineers. Senior roles such as Force Engineer, South East Asia, Chief Instructor of the NZ Army School of Military Engineering were topped

off with a stint as Director of Army Land and Works (Engineering) before 'retirement' in early 1991.

'Retirement' was simply a change of direction for Joe who moved into ECNZ, our fledgling electricity supply SOE as a market development manager. Here he ran a small team specialising in demand side efficiency, focusing on primary industry and managing programmes for the development and promotion of new technologies and applications until 1993.

A strong belief in education and professional development was nourished in the Army environment and then put to very good use as Manager of the Institute for Executive Development at Massey University which has now developed into the Graduate School of Business. This was followed in 1996 by Joe's "return to the trade" in the appointment as Director, Property Management and then Director, Strategic Facilities Management, responsible for the development of Massey's campuses nationwide.

As at 2008, Massey's campus was one of the largest single-owner estates in New Zealand. It comprised 5,600 ha of land, 297 significant buildings with a total floor area of 310,000 m² and a valuation around \$1 billion. Joe's team was responsible for all campus planning and Capex and Opex programmes and under his guidance, developed a reputation for excellence and continuous improvement; particularly around collaborative working and procurement. After over a decade in this role Joe had his 'second' retirement in 2008.

Joe's professional and industry affiliations are peppered with the words "Fellow", "Life Fellow", "Chairman" and "President". His community affiliations read similarly. However, one or two stood out for mention by Joe as we talked. Joe has a long association with the Scout Association. He has held positions in the Scout movement since 1967 and is currently Chairman of Trustees of the Scout Youth Foundation. Likewise he is a Justice of the Peace and is convenor of the Central Districts Education and Training Committee on the local JP Council.

Joe Hollander's career has been an extraordinary one. So far there has been one consistent theme. Making a positive difference every day is important to Joe. To him, doing the same thing you did yesterday and expecting a better result is truly a mark of insanity!

Fortunately for the sector, Joe hasn't finished yet.



**Construction
Clients' Group**
CONSTRUCTING EXCELLENCE



Mark Colborn

A new face at Constructing Excellence

Constructing Excellence is pleased to welcome - Mark Colborn to our consulting team as the new CCG National Coordinator.

Mark is a continuous improvement and best practice enthusiast with a strong 'big picture' view of the sector. This will be put to good use from the outset as he works closely with the Construction Clients' Group network guiding and supporting its on-going development as one of the sector's more progressive and influential membership based organisations.

Mark is a professional procurement practitioner having over 12 years New Zealand experience in the financial, local government and construction sectors. He has significant Client side experience in strategic planning, operational issues and management of procurement related activities.

Mark retains his Sunderland, (North East England) accent and to this day remains a fan of the local football team.

Prior to moving to New Zealand he had amassed in the UK 20 years' experience as a carpenter, then an estimator, through to managing an office dealing with construction defects and disputes.

Mark is a Fellow of the Chartered Institute of Building (FCIOB) and a corporate member of the Chartered Institute of Purchasing and Supply (MCIPS) as well as having a masters degree in construction management from the University of Bath (UK).

Phone: 021 932 000

Email: mcolborn@constructing.co.nz



**Construction
Clients' Group**
CONSTRUCTING EXCELLENCE

Coming Events...

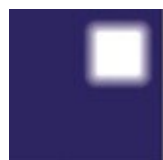
26th September 2012, 7:00 to 10:00am - AUCKLAND

NEW BREAKFAST FORMAT!

Procurement & Supply Chain Integration

31st October 2012, 8:30 to 12:30pm - WELLINGTON

Productivity



**JUNE 2012 Cohort 11
AUCKLAND**

TERM 1 2012

26 th & 27 th Jun		26 th & 27 th Jul		30 th & 31 st Aug		27 th & 28 th Sep		25 th & 26 th Oct		15 th & 16 th Nov	
Course Outline	Excellence	Leadership		BIM	Finance	Performance Measurement		Risk Assessment (Integrated Teams)		Customer Relationship Management (CRM)	
Excellence	MBTI	Communication Skills		Business Strategy		Perf. Meas.	Managing Change	Risk Management		Customer Relationship Management (CRM)	

TERM 2 2013

28 th Feb & 1 st Mar		21 st & 22 nd Mar	15 th & 16 th Apr	30 th & 31 st May	27 th & 28 th Jun
Supply Chain Mgt	Project Feedback	Lean Construction	Collaborative Working	Team Building	Project Review
Supply Chain Mgt	Continuous Improvement In the Supply Chain	Integrated Teams	Leadership Skills	Project Review	

2012

30 th & 31 st Aug		Sept 27 th & 28 th		Oct 25 th & 26 th		1 st & 2 nd Nov		Nov 22 nd & 23 rd	
Course Outline	Excellence	Supply Chain Mgt		Business Strategy		Risk Assessment (Integrated Teams)		Lean Construction	
Excellence	MBTI	Supply Chain Mgt		Finance	BIM	Risk Management		Continuous Improvement In the Supply Chain	

2013

Feb 21 st & 22 nd		18 th & 19 th Apr		23 rd & 24 th May		20 th & 21 st Jun		18 th & 19 th Jul		22 th & 23 th Aug	
Team Building		Collaborative Working		Customer Relationship Management (CRM)		Performance Measurement		Leadership		Project Review	
Pro. FB	Leadership Skills	Integrated Teams		Customer Relationship Management (CRM)		Perf. Meas.	Managing Change	Communication Skills		Project Review	

Note: Modules and dates are subject to confirmation.

New Cohorts starting:
AUCKLAND - February 2013
CHRISTCHURCH - March 2013



CENZ NEWS CONTACT INFORMATION

Editor Trevor Kempton
Phone 027 221 5208
Email admin@constructing.co.nz