

Draft PPP contracts need more flexibility

As part of its toolkit for 'Better Business Cases for Capital Proposals', NZ Treasury's National Infrastructure Unit has produced a Draft PPP Contract for consideration by industry.

Roving New Zealand has joined forces with the New Zealand Council for Infrastructure Development (NZCID) to provide comment on the draft contract.



Finance Minister Bill English

Finance Minister Bill English stated recently that alternative procurement options, including PPPs, must be considered for all projects with a whole-of-life cost over \$25 million, so the development of a draft contract is timely. The document forms a useful foundation for

forming PPP contracts in this country and a number of Roving NZ member companies have also made individual submissions on detailed aspects.

Feedback on the draft contract from members was generally positive but there was some concern that it could be seen as more heavily weighted in favour of the public sector. While we see this as understandable since it has been produced as a public sector document, NZCID and Roving NZ are concerned that inflexible application of the contract terms might inappropriately transfer risk to the private sector. This could increase project costs and potentially result in reduced value for money.

We believe that a flexible approach should be taken in implementing the generic contract form, on a contract by contract basis. The model looks to us to be more suitable for social infrastructure projects and will probably need

amending to make it more suited to economic infrastructure projects.

We also believe that in the future, as PPP contracts start to become more widely used, a new contract form will be needed that enables a more collaborative approach to traditional PPP bidding and contracting methods for lower value contracts. Such a contract could be a hybrid of Alliance, Early Contractor Involvement and PPP contracting methods, designed to reduce the overhead-bid costs traditionally associated with competitive PPP bid processes.

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PPP Contracts *(from page 2)*

Some more flexible contracting methods have been used successfully overseas, for example in Scotland.

We believe Treasury's generic contract form is a useful start, but that it should be regarded as a continuous "work in progress" and not applied in a rigid way for the progression of PPPs in New Zealand.

Both Rooding NZ and NZCID have offered to work with Treasury in the development of alternative forms of PPP contracting that could be more suitable to New Zealand sized projects.

Customer First Technical Workshop - 15 November

NZTA (Highways) recently announced a new Customer First focus aimed at improving the experience of those who use and are affected by state highways.

Colin Crampton outlined the initiative at the RNZ Conference in September (see page 8) and explained that its purpose was to identify opportunities from across the industry for putting customers first while works are being carried out on a "business as usual" basis in the road corridors.

Customer First involves "a high level strategic view of improved asset management practices" and how they affect road users. Industry bodies - including the Association of Consulting Engineers (ACENZ), NZ Contractors Federation (NZCF), Rooding NZ and the NZ Roadmarkers' Federation (NZRF) - have responded positively to the initiative and are fully supporting it.

Rooding NZ also believes that because the initiative will require changes in culture and behaviours, it should apply equally to local rooding work as well as state highway work.

Regional focus groups have been held around the country and will conclude on 11 November. NZCF is funding and facilitating the running of these focus groups, based on their 14 regional branches. They involve consultants and contractors engaged in works on or in the roadway and also local NZTA and territorial local authority representatives.

Next week, on November 15, a Technical Workshop will be held in Wellington (9.30am to 4pm at the James Cook Hotel), funded and facilitated jointly by RNZ and ACENZ, at which

speakers from NZTA, the Automobile Association (AA), the Road Transport Forum and the RCA Forum will discuss how customers can be put first from the differing perspectives of their groups.

Breakout groups at the workshop will look at implications for chipsealing, asphalt laying, pavement construction, maintenance, traffic management, road marking and other aspects of rooding activities.

The objective of both the focus groups and next week's workshop is to gather and submit "unfiltered" suggestions to an evaluation committee for assessment and recommendations to NZTA. It is expected that these recommendations will identify changes to best practice for putting Customers First while managing technical and legal risk.

To download the programme details for the Technical Workshop [click here](#).

ACC's Experience Rating proposal needs complementary tools

Rooding New Zealand recently made a submission to the Accident Compensation Corporation (ACC) on its Experience Rating Information and Consultation Document ([click here to view](#)). ACC is seeking feedback on its proposal to introduce experience rating into the ACC Work Account as from 1 April 2011.

Under an experience rating system, the ACC levies that employers pay would be based on their claims experience. So employers who have better-than-average injury and return-to-work rates would receive a discount on the 'current portion' of their work levy, while those with worse-than-average claims experience would receive a loading on the current portion of their work levy.

While we congratulate ACC on trying to provide financial incentives to improve workplace safety, we believe they should also work more closely with industry employers to provide effective industry-based tools for the task. While experience rating may provide an incentive for businesses to improve their safety record, it won't of itself improve workplace safety.

ACC could also work with other Government departments and agencies to improve procurement processes that would achieve better health, safety and injury prevention in the building and infrastructure construction

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ACC Experience Rating Proposal

(from page 2)

sectors. We believe that Government leadership in procurement of Government buildings and infrastructure may have potential for a greater influence in improving workplace safety than an experience rating scheme.

In our submission, we suggested to ACC that they should retain WSMP as a tool for employers to improve their experience rating; extend it to include behaviour based training and industry specific best practice requirements; and retain the current WSMP discounts as a further incentive.

We fully support ACC's recommendations to keep the combined Residual and Work Levies at the same rate for the scheme's general employer category, to keep the levy for new work injuries at the 2010/11 level, and to reduce the residual levy rate by 23%.

The proposed levy for new work injuries will remain much the same at 2010/11 levels. While

the lack of a reduction is disappointing, given the efforts of Operate Safe to reduce claim incidence and severity, we recognise that ACC has needed to maintain levy rates because of the economic crises of 2009.

The proposed 23% reduction in residual levy rates (by extending the period for fully funding these old claims) will help to spread the burden as members recover from difficult times, though ongoing attempts to accurately calculate and fund these pre-1999 claims is a concern.

The value of employer participation is at the heart of all experience rating. We believe there is too much complexity around the proposed rating model to minimize the negative effects of claim avoidance, by requiring groups of employers to be experience rated rather than individual employers. This could make adjustments for the final levy payment confusing, because of the need to use historical experience from April 2007 to assess employers' experience going forward.

Successful 2010 Asphalt Forum

Once again the Roding New Zealand Auckland Asphalt Group ran a very successful and well attended National Asphalt Forum on Tuesday 9 November 2010.

One feature of the annual Forum is that it provides an opportunity for young presenters to speak on a topic or project that they have been involved in.

This year's winner was Simon Dyne of Fulton Hogan. His presentation, titled 'Recycling Advancements - Recycled Products in Asphalt' suggested that 'Green is Good' and detailed a range of product options that can be incorporated into asphalt during the production phase. Simon also went on to describe the benefits these products provided in terms of their ability to lessen environmental effects such as less cartage, less fuel burned during production and less waste.

Simon also enthused over the opportunities provided by using wise treatment selection, making durable products and ensuring good workmanship, along with how clients can assist in the process by allowing innovation and providing appropriate contract conditions that promote good project outcomes.

Simon finished his presentation with a case study of a road rehabilitation project he had been involved with at Henry Rose Place in Albany, Auckland which is an industrial site with significant heavy traffic volumes. The project

utilised crushed concrete aggregate recycled from footpaths that was used in both the base materials and the asphalt surfacing material.

Simon Dyne of Fulton Hogan (left) receives the award from Roding NZ's Industry Manager Alan Stevens for this year's best young presenter.





Opening this year's Conference, the Minister of Transport, Hon Steven Joyce, congratulated Roding New Zealand on this year's theme, Productivity and the Future, and the excellent line up of speakers.

He also congratulated those contractors, clients, engineers and other industry participants who had entered this year's Roding Excellence Awards and especially those category winners who had been presented with their awards the previous evening.

Your conference theme, Productivity and the Future, is important and topical for New Zealand, he told delegates. Investing in our infrastructure has never been more important, and you are playing a key part in making this happen because the Government is investing heavily in the roading network that your members are building and maintaining.

The RoNS programme represents one of New Zealand's biggest ever infrastructure investments and is a key part of the Government's National Infrastructure Plan and the Government Policy Statement for transport. It is the basis of the investment priorities outlined



in NZTA's National Land Transport Programme (NLTP).

Mr Joyce noted that improving productivity went hand in hand with improving procurement processes and he was sure the conference presentations would contribute to that. "Developing long-term procurement strategies is an important part of developing a more productive environment."

Japanese construction is twice as productive as ours

Adam Bevins, Downer New Zealand's National Asset Manager, recently went on a study tour of Japan organised by the Construction Clients' Group of Constructing Excellence. He told delegates that four members' preconceptions about Japanese production were mainly to do with cultural differences and that some might say there was little value in studying their performance in order to learn from them.

The reality, he said, was that they were 'blown away' by Japan's construction performance. Projects were generally finished before time and always on budget. "It's extremely rare for variation claims to be presented," he said. "When Japanese companies give a contract price of \$X, then the bill is \$X!"

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Recent examples were the IBM Data Centre, an estimated 26-week project that was completed in 11 weeks, and the huge Taisei road link project, projected to be delivered 17 months early (a 30 percent time saving).

Mr. Bevins described visits to the Shinagawa Project on the Tokyo Expressway and the Taisei and Kajima tunnel projects, where he found the main drivers of success were specialist technical knowledge and long experience. Experts in techniques such as segmental tunnel construction tended to be moved from one project to another, thus providing solid relevant experience.



Think Big - Japanese tunnel boring equipment.

This experience often results in innovations on projects, such as technical innovations in plant, improved construction methods, and efficient planning and communication.

This was borne out by the experience of international construction firms working in Japan. Global consulting engineers Arup have found that they create better buildings the



Adam Bevins told delegates that "the quality and performance of Japanese constructors is excellent".

earlier the constructor is involved, and that changes are often made to improve the constructability of the project.

Global asset management and construction consultants Currie & Brown provide support to Japanese constructors and confirmed that "quality and performance of Japanese constructors is excellent".

So what can we learn from Japan? First, improving skill at all levels is critical. Allied to this is the value of keeping good teams together and planning for long term succession. "We're currently handicapped by 'the cost of cheap', resulting in a loss of overall productivity to the country," Adam Bevins told the conference.

Another important learning was about 'Dandori'.

Translated into English, Dandori is a philosophy that says, "I believe most of our work is preparation, in any kind of occupation. The actual work is just one moment. We keep preparing for a long time with trial and error, just for this moment. Work is like this."

[Download the presentation as a PDF here.](#)

Barriers to Achieving Improved Construction Productivity and how to overcome them



Andrew Wolstenholme's keynote address reflected on the progress made since the landmark UK report, *Rethinking Construction*, widely known as the Egan Report after its author Sir John Egan, was published in 1998.

It was Wolstenholme who led a just-published review of progress by Construction Excellence, the group set up by the UK Government to implement that report, which sought to establish whether the principles Egan set out were still relevant, how industry had responded to the report and what major issues were facing UK construction over the next decade?

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He told delegates there had been a series of reports into the construction industry from 1944 (the Simon report), again in 1962 (the Emerson report), all of which found that the industry was fragmented and relationships were adversarial, requiring a more collaborative culture and new educational standards.

The latest review, *Never Waste a Good Crisis*, authored by Wolstenholme, found that while there had been some progress, it was nowhere near enough. While all the targets had been met on the many hundreds of demonstration projects, the success of these demonstration projects" had not been rolled out across the sector.

Seven targets for improvement	Industry	Demos
Capital cost -10%	✗	✓
Construction time -10%	✗	✓
Predictability +20%	✗	✓
Defects -20%	✓	✓
Accidents -20%	✓	✓
Productivity +10%	✓	✓
Turnover & profits +10%	✓	✓

Target improvements met successfully on demonstration projects were not reflected in industry.

In some sectors, such as housing, construction 'simply does not matter', because there is such limited understanding of how value can be created through the construction process. "There's not enough awareness of the *business outcomes* resulting from construction projects," he said. "Industry thinking needs to focus on getting the right outcome, not just on the project."

His review team found that industry in the UK has been largely sheltered during the boom times of the last decade and few organisations had therefore found it necessary to change. The 'waste' that prevented high construction productivity was still evident, so the need to change was as relevant today as it was ten years ago when Egan's report was published.

With a less favourable economic climate ahead and the urgent need for industry to respond to the carbon agenda, the review team's report identified the 'big themes' that needed to be addressed.

Andrew Wolstenholme said that the current economic crisis was a perfect opportunity for industry to think again, and it should not be wasted.

Never Waste a Good Crisis – Some quick wins

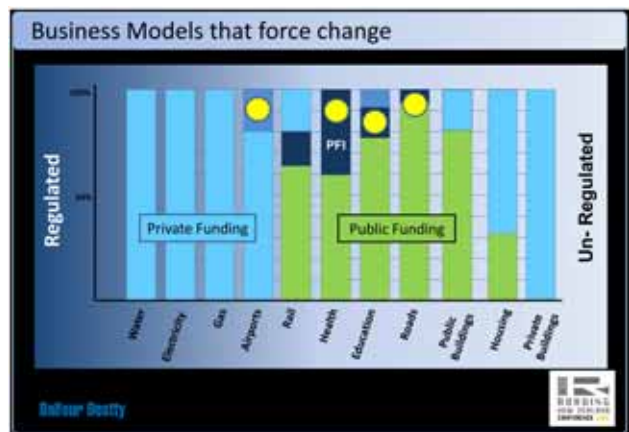
- **Industry**
 - There is a compelling business case to improve productivity – do it
 - Do not wait for permission to change – no one will give it to you
 - Innovate – clients want it but do not know how to ask
 - Early adopters in the Carbon race will win
- **Clients**
 - Business models that demand change
 - Design for business outcomes
 - Manage the brief – 50% of your projects are late and over budget
- **Government**
 - Develop Policies that drive change
 - Keep strong leaders in place
 - Role model – the rest will have to follow

Balfour Beatty

Some of the 'big themes' that needed addressing.

"Looking ahead, there are major challenges on the horizon. Most clients have already cut their long-term investment plans, and capital budgets will be at risk for many years to come as we anticipate a long period of recovery from the current recession.

He said industry needs to develop business models that promote faster change, develop design solutions that affect business outcomes over the life of an asset and encourage more innovation from the supply chain.



Business models that force change.

He said there were many examples across the industry in UK where client teams, and their supply chains, had delivered significant productivity improvements over the last ten years. "By looking at these projects, from both the public and private sectors, we can look ahead with some confidence to the future."

With a new round of infrastructure investment ahead, it would seem timely for the construction industry in New Zealand to understand some of the lessons from the UK.

To download the whole presentation (as a PDF) [click here](#).

Economic outlook for New Zealand

In any consideration of productivity and the future you've got to have an economist in the mix, and ANZ's Cameron Bagrie is experienced at explaining the ins and outs of the economy to various industries. He travels widely providing economic advice to ANZ's customers here and overseas.



Cameron Bagrie

In his always entertaining style, Bagrie reminded delegates that around 2003 the message we were being given was "spend up" if you want profits to go up.

This led, he said, to a period of massively unrestrained growth, the worldwide

effects of which we are now only too familiar with.

"We've been borrowing growth from the future," he said, "It's time to get the horse back in front of the cart. What's needed now is creating tradeable, not non-tradeable assets."

Stressing that global rebalancing requires global steps, he added, "It's no good just doing those conferences, getting the Hawaiian shirts and then going home. It's all about altering behaviour, not just economics."

Referring to the growing importance of India and China in world trade, and especially the increasing pool of wealth in China, he said it was time to re-mobilise our labour market. "We're spitting out too many lawyers," he added. "We need more engineers."

None of us would disagree with that, would we?

NZTA Productivity Improvements and Customer First

Colin Crampton, Manager of Highways and Network Operations for NZTA, gave a short introduction to the authority's plans for extracting greater value out of state highway expenditure by a customer focussed approach, and how suppliers can help achieve this.

Congratulating the winners of RNZ's Roding Awards on the success of their various projects, he said there was still room for the industry as a whole to do even better with its service delivery.

"When we fill potholes, for instance, we need to remember that what we're really doing is *increasing safety*. That's the real outcome.

"Customer First involves a strategic view of improved asset management practices and how they affect our customers. We want to see how our macro policies, and how we implement them, are perceived by our customers. This will involve looking at issues including travel time, safety, and social responsibility.

"One of the things I personally plan to do, for instance, is to take a truck ride in the coming year to experience first hand how truckies perceive the safety levels on our roads, including not only the pavement but such things as the roadside environment."

NZTA is currently reviewing its strategies under four headings - planning, investing, procurement and access - preparatory to introduction of a Customer First initiative. "I think we're pretty good with our technical know-how," he said, "but we need to change the language and turn around our outcomes to focus on customer service.



Colin Crampton

He told delegates there was now also a tool for identifying the relative safety of our roads, known as the KiwiRAP Star Rating.

Road safety has got to be one of our customers' greatest needs and Star Rating is a proactive approach to road safety. It enables sections of road with a relatively high level of risk to be identified before a crash occurs. The Star Ratings cover almost 90 percent of state highways and will enable drivers (customers) to be aware of the relative safety of the roads they use, as well as helping to identify roads that would benefit from safety improvements.

The degree of risk, or just how safe a road is, depends partly on whether built-in safety features have been incorporated into the design. These include wide lanes, shoulders, and safety barriers that are known to reduce the impact and severity of a crash.

In summary, Mr. Crampton concluded, our goal for the future is "Think Customer".

Delivering Productivity Improvements in the Infrastructure Sector

Peter Cunningham was responsible for implementing the UK's industry reform agenda from 2000, and now, as CEO of the Construction Clients' Group (CCG), he is putting his considerable industry experience to work in such activities as the Pathfinder Project Programme and Constructing Excellence NZ's research strategy.

His presentation highlighted that New Zealand's position in the international productivity league table has fallen, to 22nd out of the 30 OECD countries and 42nd out of 133 countries internationally. He pointed out that our infrastructure affects our competitiveness ranking, and that it was now critical to improve productivity, especially in the construction industry.

Referring to the *Report of the Building and Construction Sector Productivity Taskforce*, published last December, he said that while our economy had grown, construction productivity in the building sector had declined. Innovation, he said, had been stifled and procurement practices were over complicated, though the approaches used by the NZTA could be an example for non-residential construction.

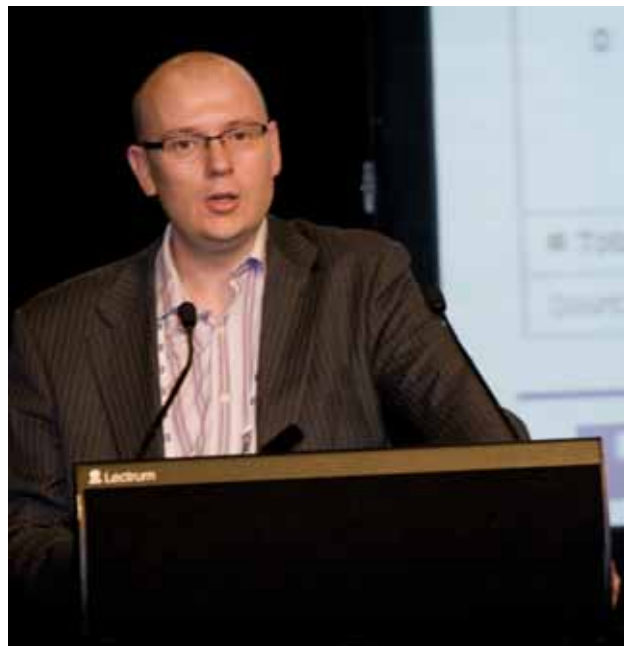
To improve sector performance, productivity and value for money a number of economic levers would be needed. These included transparency of forward Government workloads, improved procurement practices, a sharing of knowledge and best practice procedures and fixing a highly fragmented industry.

Industry needs to recruit and retain talented entrants with specific sector skills and provide a level of job security and training that will enable career path development.

Other issues Mr Cunningham highlighted from the taskforce report included the need for:

- early contractor involvement;
- reduced cost of tendering;
- increased client competency;
- whole-of-life costings and whole-of-life values (procure on value not lowest cost);
- benchmarked performance throughout industry; and
- using procurement to leverage investment in skills.

Turning to the Government's National Infrastructure Plan, published in March, he said this represented a step change in the level of



Peter Cunningham

Government investment, with expenditure targeted at key infrastructure priorities. It was aimed at improving decision-making and management of the Government's infrastructure assets, and improving the regulatory environment to facilitate private sector investment in infrastructure.

The plan brings together information on New Zealand's current and proposed infrastructure. With a \$7.5B spend over five years, it calls for better use to be made of existing assets, procurement based on whole of life cost effectiveness and improving buying power.

In return Government hopes to encourage innovation, from funding, design and construction through to management of assets. "We've seen that lowest cost doesn't work," said Mr. Cunningham, "New Zealand now needs to improve the competence of its procurement agencies, to procure by value, for whole of life. "Business processes can no longer be driven by lowest cost; that doesn't promote innovation."

Mr. Cunningham presented examples of successfully managed and delivered projects, such as the Dowse to Petone project, the Manukau Harbour Crossing, Palmerston North clock tower and the Wellington Community Sports Centre (planned for completion before next August). He also cited international learning and best practice as providing examples for major industry reform initiative in New Zealand.

To download the whole presentation (as a PDF) [click here](#).

Improving Productivity the Wanganui Maintenance Alliance

Rui Leitao has been Wanganui District Council's Rooding Network and Assets Manager since 2006 and shared with delegates his experience of introducing a collabortive model of delivering maintenance services to the Council.



Rui Leitao

The Wanganui Maintenance Alliance is a partnership between Downer and the Council. Mr.Leitao described it as a 'pure alliance' because it is characterised by shared risk, as opposed to the allocated risk common in other types of alliance.

"Back in the 80s," he added, "the engineer was always right and the contractor was always wrong. In the end it was the principal who paid for the results of conflict and risk."

Things are now heading in a different direction, he said, with collective sharing and

management of all risks; a no fault/no blame understanding between alliance participants; unanimous long term asset management decisions; and an integrated project team.

He told the conference that having a single delivery team in one office has removed duplication, reduced overheads, and improved efficiency in all areas. There is also complete transparency of all costs and the team is performance focussed.

Since the alliance has been operating there have been significant improvements in operation, management costs, reduced



Has it made a difference?

	2007/2008 Traditional	Now Single Team
Customer Request Closures	7 days (avg)	< 2 days
Network Management Costs	\$2.2 M/Yr	\$1.2 M/Yr
Operational Cost on delivery	0%	-10%/Yr
Pre-reseal repairs completed the preceding season	10%	70%
Routine Maintenance – Programmed vs. Reactive Work	40% programmed	90% programmed
Engineers time spent doing administration (CM, Eng Rep)	40-50%	<10%
Penetration of Asset Management Plans (lowest management level)	Engineers Rep (NMC)	Foreman

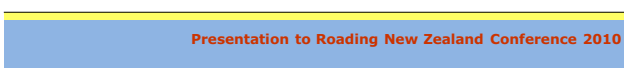
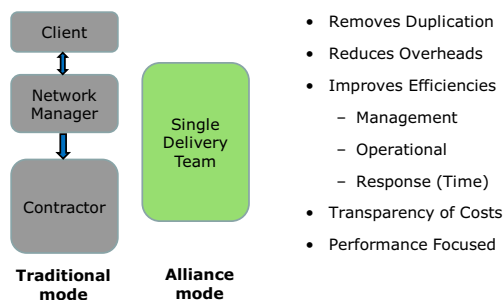


Productivity improvements resulting from Wanganui's maintenance alliance.

'reactive' maintenance work, and administration (see diagram below).

Intervention strategies have shifted the network management focus from reactive maintenance to long term proactive solutions, and all network tasks are linked to asset management plan objectives (and in turn to the Council's LTCCP).

To download the full presentation [click here](#).



Benefits of the alliance mode

Impact of the Christchurch Earthquake on infrastructure

Ross Herrett of Christchurch City Council and Michael Fulton of Fulton Hogan gave a harrowing account of their experiences from the very first call in the early hours of 4 September, alerting them to the scenes of devastation around the city, through to the setting up of an emergency operations centre and the subsequent huge task of assessing and then repairing damage to infrastructure.



Top: Ross Herrett. Lower: Michael Fulton

Their presentation featured mainly graphic illustrations of the now familiar scenes of damage to roads, railway lines, bridges and buildings, interspersed with personal reminiscences of their respective roles as contractor and client in programming and carrying out this work.

Conference delegates were starkly reminded of the power of nature to wreak havoc on a massive scale, but also of the resourcefulness, dedication and technical ability of engineers to restore vital infrastructure assets to working order in a relatively short time.

To download the presentation [click here](#).



ABOVE: A few of the many photos recorded by Christchurch City Council and Fulton Hogan staff and included in their presentation.

The Pros and Cons of NEC (New Engineering Contract) for use in New Zealand



Andrew Brickell

Andrew Brickell is Director of Project Management with MWH Asia-Pacific based in Auckland. He had an early involvement with what became NZS 3910 and has run training seminars on contract administration. While "a big fan" of NZS 3910 he believes it has shortcomings and is currently looking at possible revisions for Standards New Zealand.

Mr. Brickell told the conference that the genesis of the NEC was the recognition in 1985 by the UK Institution of Civil Engineers (ICE) that traditional contracts had shortcomings. They started work on developing a new form of contract and by 1991 published a 'consultative edition' of the NEC. The first edition was published in 1993 and that while regarded by many as a curiosity its use gained traction in the UK on several big construction projects.

Litigation on some projects led to substantial revisions being made and NEC3 was published in 2005, with other modules in the suite published between 2005 and this year.

In the UK, NEC has become the mainstream contract for civil construction and ICE this year announced discontinuation of publication of its traditional contracts. NEC is also used by South Africa's major energy generator, and there is limited use in New Zealand, mainly by Meridian Energy, and a few local authorities.

The 16 different NEC3 contracts were outlined and their key characteristics explained. They are generally regarded as enabling foresighted, cooperative project management with different (some say better) risk management attributes. The choice of modules fills a gap in what is available locally.



While NEC is regarded as a brilliant piece of work and has a lot of enthusiastic users, there are a number of areas where it is potentially misaligned with NZ requirements. Unfamiliarity with its somewhat complex business processes has caused tenderers to shy away from bidding, while there are reservations around the brevity of many contract provisions.

As to whether NEC3 could be appropriate on local projects, Mr. Brickell's opinion is:

- for a traditional strategy capital works project, **probably not** as it is more complex to administer;
- for a target price or management contracting arrangement, **probably yes** as the terms and conditions are well thought out;
- for road network maintenance, **it's doubtful** as NZS 3910 Appendices A and B have worked well;
- for complex operations and maintenance contracts **definitely yes** as the Term Services Contract is superior to NZS 3910 for these contracts.

New Zealand based training on NEC3 is available through Ingenium, IPENZ and through one-day introductory seminars to be given by Thomas Telford Publishing.

The New Engineering Contract (NEC) is published as a series of 26 booklets containing 16 separate contracts with guidance notes. The contracts are also available electronically.

Download Mr. Brickell's presentation by [clicking here](#).

The 16 NEC3 contracts:

The Engineering & Construction Contract:	Other contracts:
• ECC Option A: Priced Contract + Activity Schedule	Adjudicator's Contract (AC)
• ECC Option B: Priced Contract + Bill of Quantities	Professional Services Contract (PSC)
• ECC Option C: Target Contract + Activity Schedule	Framework Contract (FC)
• ECC Option D: Target Contract + Bill of Quantities	Term Services Contract (TSC)
• ECC Option E: Cost Reimbursable Contract	Term Services Short Contract (TSSC)
• ECC Option F: Management Contract	Supply Contract (SC)
ECC Short Contract (ECSC)	Supply Short Contract (SSC)
ECC Subcontract (ECSS)	
ECC Short Subcontract (ECSS)	

A formidable list, but all prepared with common vocabulary and generally consistent clause structure / recommend not trying to read them all, but first start with Option A, then E, then C, then ECSC, TSC