LESSONS PROBED AT CONFERENCE

As any civil engineer will tell you, much of the sector’s collective expertise and wisdom comes from dealing with the aftermath of nature’s tantrums and – sometimes – from the lessons provided by human error.

Graphic examples of these learning experiences will be presented and discussed at this year’s Conference (10-12 October at the Dunedin Centre) – by guest speakers David Rowland and Alessandro Palermo.

David – an Associate (Geotechnical) at Beca Ltd – led the North Canterbury Transport Infrastructure Recovery (NCTIR) Alliance following the 7.8 magnitude earthquake of along the Kaikōura Coast in November 2016. NCTIR was a collaborative partnership between the NZ Transport Agency, KiwiRail, Downer, Fulton Hogan, HEB Construction and Higgins – an agency formed to move mountains and reconnect the affected communities.

His presentation – The NCITR Story - Moving Mountains to Reconnect Communities – details the seemingly impossible milestones that punctuated the initial recovery work, the drive to get the road and rail links back open. It took two million work hours to complete.

The rail freight was restarted in September 2017 and the road was first opened on the 15th December 2017, a year, one month and a day after the earthquake. The project was voted the winner of the Institution of Civil Engineers (ICE) 2018 People’s Choice Award (in London).

An adept story-teller, David’s career has been defined by the ‘rebuilding-after-a-natural-disaster’ theme. Prior to NCTIR he was the Geotechnical Lead at SCIRT, a $2.5b programme of works to rebuild the Christchurch Infrastructure following the 2010/2011 Canterbury Earthquake Sequence.

Alessandro’s presentation deals with the catastrophic collapse of the Pocevera Bridge in Genoa, Italy, in August 2018. The Ponte Morandi, part of the Pocevera Viaduct, partially collapsed without warning killing 43 people.

The presentation – The Collapse of the Morandi Bridge: Chronicle of a Death Foretold? – explores the background and philosophy of the designer Morandi, overviews the construction/design of the Genoa bridge and highlights the possible causes of the collapse. The presentation concludes with some lessons that could be relevant to New Zealand bridge infrastructure.

Bridges are a speciality for Alessandro. His expertise is focused on implementation of seismic low-damage technologies for precast concrete bridges and buildings, and his research varies from monitoring and seismic assessment of existing bridges to the use of novel materials such glass reinforcing and ultra-high performance concrete.

He runs a very popular bridge-building competition within the University of Canterbury undergraduate programme and supervises research projects on innovative pedestrian bridge design using novel materials, technologies and 3D visualization.

He has been heavily involved in reconnaissance of Canterbury and Kaikoura bridges and he is currently coordinating the Canterbury Bridge Group.

CONCRETE AWARDS REMINDER

This year’s deadline for the submission of entries to the prestigious Concrete Awards in October is around the corner (6 July), and if you haven’t yet managed to get your material together, now is not the time for navel-gazing.

And if you’re wondering whether your project is worthy of submission and consideration – well, stop wondering. Of course it is. One of the Awards’ most unique features is the way the event embraces entries of all sizes and budgets.

It’s worth considering that previous winners have been relatively small projects – distinctive for their innovation and delivery rather than their budgets. It’s also worth noting that submissions are judged across a range of categories – among them Architecture, Infrastructure, Landscaping and Technology.

For more information about the categories and conditions of entry, please email the Society secretary at: concrete@bluepacificevents.com
CALLING EXHIBITORS

One of the most popular components of every Concrete Conference is the displays erected by sponsors and exhibitors. Particularly appealing to delegates are the ‘live’ displays, where exhibitors have adequate space for demonstrating the features of their equipment and technology.

This year’s event in Dunedin underscores this focus, with an extensive area set aside for exhibitors near the city’s Octagon Square.

While all of the patron spots have been snapped up, there are still a few stands available for sponsors and trade exhibitors. Contact the organisers to secure one (concrete@bluepacificevents.com).

To provide maximum exposure for exhibitors, all lunches and receptions – as well as morning and afternoon teas – are held in the trade display areas. In addition, a trade exhibitor directory will be included in the conference publication, along with a passport competition for delegates. Delegates having their ‘Conference Passport’ stamped by every exhibitor go into the draw for a prize (yet to be determined).

END OF AN ERA

As part of the recent merger within the concrete industry, the previous NZ Concrete Society is being wound up as an incorporated society. It has been replaced by the new organisation – Concrete New Zealand – Learned Society.

While the Learned Society is now formally a part of Concrete New Zealand, the reserve funds built up over many years by the old Concrete Society have been tagged for future use by the industry, at the Learned Society Council’s discretion.

C5 GUIDELINE SEMINARS

If you’ve not yet managed to attend a C5 Guideline Seminar, you have two more opportunities to do so in July – one in Auckland and the other in Christchurch.

To re-cap: the revised Part C5 of the Engineering Assessment Guidelines was released in late 2018 to help with ‘non-earthquake-prone’ assessments of concrete buildings. The update was built on more than 12 months of local research and drew extensively on international guidance.

The revised guidelines provide a simpler, more comprehensive means of assessing existing concrete buildings in common use throughout New Zealand. This new content was presented at two very successful seminars earlier in the year – in Wellington and North Harbour – and feedback from delegates has been overwhelming enthusiastic.

The Presenters

Professor Ken Elwood serves as the MBIE Chair in Earthquake Engineering and Director of QuakeCoRE: New Zealand’s Centre of Research Excellence for Earthquake Resilience. He is actively involved in research related to the seismic response of existing concrete and masonry buildings. This includes extensive research related to the performance of precast concrete floors. Ken was leader of the MBIE working group tasked with revising and expanding the appendix of Part C5 focussed on precast concrete floors.

Nicholas Brooke is a consulting engineer and Principal at Compusoft Engineering, and was previously a lecturer in the Department of Civil & Environmental Engineering at the University of Auckland. He has a broad experience in analysis, design and research related to reinforced concrete, including having had extensive involvement in the assessment of earthquake-damaged structures.

Nicholas was technical editor and chair of the committee responsible for producing the revision for Part C5 of the assessment guidelines that was released in late 2018.

To register for the remaining two seminars (and to download the brochure), visit this link.