

Cement & Concrete Association  
of New Zealand



*Submission to the*

# **Canterbury Earthquakes Royal Commission**

*on*

## **Discussion Paper: Training and Education of Engineers and Organisation of the Engineering Profession**

27 July 2012

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Dear Sir / Madam

## **Discussion Paper: Training and Education of Engineers and Organisation of the Engineering Profession**

### **BACKGROUND TO CCANZ**

The Cement and Concrete Association of New Zealand (CCANZ) represents a membership in excess of 300 corporates and individuals who collectively account for a significant proportion of the building and construction sector in New Zealand.

The cement and concrete industry annually produces and uses about 1.2 million tonnes of cement in New Zealand, which equates to around 3.3 million cubic metres of concrete for new residential, non-residential and commercial construction.

In total, the direct, indirect and induced economic impact of the cement and concrete industry resulted in close to \$7.5 billion of output across the economy in the year to March 2006. This activity supported more than 24,000 jobs and created a value add of about \$2.8 billion – around 2 percent of New Zealand's GDP in 2006.

In line with our mandate as representative of the cement and concrete industry, CCANZ has prepared the following responses to the *Discussion Paper: Training and Education of Engineers and Organisation of the Engineering Profession*.

### **COMMENTS**

#### **Section 1**

CCANZ has no comment to make.

## Section 2

CCANZ has developed close links with the engineering academic institutions in its efforts to co-ordinate education, training and research initiatives in concrete related areas over many years. This has been in the form of collaborative research projects, sponsoring fellowships and awarding prizes to encourage best practice in the design and construction of concrete systems.

With respect to the education of engineers, CCANZ believes that both graduates and industry would be better served by a wider consultation in terms of the syllabi provisions of the respective engineering institutions.

In answer to the specific question regarding a graduate programme of development, CCANZ welcomes the debate on this issue. CCANZ currently engages in continuing professional development activities for architects, and whilst CCANZ engages with engineering graduates, it is on a more ad hoc and informal basis. One reason for this is that there is no formal graduate development programme for engineers.

## Section 3

CCANZ believes that the role of professional societies and associations extends beyond the roles outlined in the discussion paper. Specifically addressing the first two questions raised in Section 3.

While interactions between engineers and experts in complementary technical disciplines are well established, there is little or no multi-discipline interaction with other decision makers in the construction value chain such as architects and urban planners etc.

In an extension of the point highlighted above, the learned societies and associations are well placed to raise technical issues from their membership. There is however few, if any, forums for exchange between associations representing disciplines further removed in the value chain.

The end result of this situation is that multi-discipline thinking and engagement are part of the new graduate's early career experience. Within a cost-conscious project, there exists a strong possibility that cross-discipline interactions can deteriorate and become adversarial.

CCANZ has identified this problem and has designed a number of programmes to promote early career support and encourage networking between disciplines with the overarching objective to increase dialogue and context, specifically around the appreciation of different incentives amongst disciplines.

The first CCANZ ArchEng 'proof of concept' project was run recently involving structural engineers from Canterbury paired with architecture students from Victoria. In a relaxed workshop environment the students were forced to engage and reach consensus in their project while senior members of the engineering and architecture community led field trips to completed projects highlighting how success hinged on collaboration delivering a premium outcome to the client.

CCANZ believes that industry associations are best placed as vendors for these initiatives as they are focused on work-place skills as distinct from specific professional skills and education. These forums and workshops also create the opportunity for industry bodies to interact and raise awareness of current issues and the involvement of career professionals and students promotes professional networking that should extend well into their careers.

Should clarification or further information be required in relation to any points raised in this submission please feel free to contact CCANZ.

We thank you again for this opportunity to comment on the document.

Yours faithfully

A handwritten signature in black ink, appearing to read 'R. Gaimster', with a long horizontal flourish extending to the right.

Rob Gaimster  
CHIEF EXECUTIVE OFFICER