

# PRECAST NEWS 10

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PRECAST NEW ZEALAND INC. WWW.PRECASTNZ.ORG.NZ



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**stresscrete**  
southland limited



## WORD FROM THE PRESIDENT



I have the pleasure of welcoming you to this 10th issue of the Precast New Zealand Incorporated (PCNZ) newsletter.

A primary focus since the last newsletter for the PCNZ Executive has been the implementation of the PCNZ Plant Certification Scheme. As you will read, two plants have completed the process and we offer them our congratulations. All Corporate Members are encouraged to submit their applications to Ross Cato as soon as possible to avoid any last minute log jam. Corporate Members are reminded of the requirement to have their plants certified by the end of this year – a deadline that is fast approaching. Any members wanting advice or guidance, or with questions or wanting further detail should contact Ross Cato without delay.

PCNZ sponsored the very successful PRESSS (Precast Seismic Structural System) Seminars held in Auckland, Christchurch and Wellington during March with presentations by Stefano Pampanin (University of Canterbury), Gary Haverland (Structex) and Alistair Cattannach (Dunning Thornton). Gary and Alastair have both designed and are overseeing the final stages of construction of the first two PRESSS Buildings in New Zealand. Stefano worked through a design example to show the process. The “homework” challenge from the seminar was for each of the 100+ consulting engineers attending to design at least one PRESSS building due to be handed in by March 2015. We will watch with interest as engineers take up the challenge.

We have also been working on next years budget and PCNZ’s strategic plan for the next 1 to 5 years. The construction industry has always been cyclical, and like our members, we are reacting to the current unfavourable market conditions. PCNZ has trimmed its costs and deferred a number of projects for the coming year. This is a delicate balance as despite the difficult times, we need to maintain sufficient resources to be able to provide the service required of our organisation, while giving our members value for their subscriptions.

Without the necessary framework, we will not be positioned to protect the interests of the precast industry, nor to take full advantage of the inevitable upturn. For PCNZ to remain “The recognised voice of the New Zealand Precast Industry” and protect our interests, we need to retain a presence and be able to react appropriately to the various issues that arise during the year. One such issue was the Building Act Review where our submission suggested the durability and thermal properties of precast concrete should be recognised.

As well as Rod Fulford (PCNZ Executive Director) representing our industry on several bodies, Ross Cato and other members of the Executive team are also spending their time on various committees, boards etc as Industry Representatives. PCNZ made a major contribution to the development of the new combined subcontract agreement, SA-2009, and Rod Fulford will be presenting seminars throughout the country in July.

Apart from Plant Certification the other major project for 2010-2011 is to review our marketing to maximise our return on any expenditure. Our website is several years old and is a severe restriction to our promotional activities. Aside from that we will be looking for any opportunities to add value or bring benefits to our industry and our members.

I especially welcome our new Associate Members, **Thorpe Reinforcing Ltd** in Tauranga and **Machinery Movers Ltd** in Auckland. And I sincerely thank all of our Associate Members for supporting our industry through these difficult times.

I’m looking forward to catching up with many of you again at the Annual Concrete Conference in Wellington 7th–9th of October where I hope you will attend our AGM at 11 am on Thursday 7th at the conference venue.

Thanks for your support and I trust you’ll enjoy the read.

**John Marshall**  
President

**01 Precast New Zealand Inc. - Plant Certification** > The Plant Certification program continues with Wilco Precast joining HEB Precast on the register of PCNZ Certified Plants. With commitments from other major producers, we expect plants responsible for 60 – 70% of factory produced precast to have completed their certification process well before the December 2010 deadline.



The photograph shows Paul Sweetman of HEB with Andrew Sinclair of Wilco who is receiving his certificate. Andrew and Paul are enthusiastic about the advantages the recognized quality systems bring to their plants, both claiming that the processes actually save them money as well as providing them with a marketing advantage. As Andrew pointed out, “you just have to eliminate one rejected panel to more than cover the cost of the system”

One feature of these programs is the requirement for continuous improvement which provides ongoing benefits and engages all staff in the process.

**02 Building & Construction ITO (BCITO) Quality Products through Staff**

**Training** > Precast NZ (PCNZ) is working with BCITO assisting in the preparation of Unit Standards to train factory workers to a level that will ensure that quality products will be delivered to the market place. Our representatives to BCITO are Colin Beavis (Wilco) and Greg Fleming (Bradforads).

New Unit Standards trainees to May 2010 number 7 NZ wide. There have been 6 completions since 25 September 2009.

Total number undergoing unit standard training within the precast industry is 61. A total of 9 trainees were discontinued nationally.

**03 NZ Specialist Trade Contractors Federation Inc (NZSTCF) > Registered Master Builders (RMB) Standard Subcontract Conditions –**

With publication of the Subcontract Agreement SA-2009, and Ministerial approval, the focus

now shifts to promotion of the document and education for its users. In March, Rod Fulford who was a member of the working group responsible for its development, gave a seminar on use of the document for PCNZ members. Following feedback, a seminar series on use of SA-2009 is scheduled for Christchurch, Wellington and Auckland on 26, 27 & 29 July respectively. This will be directed at anyone involved in pricing or administering subcontracts including subcontractors, builders, quantity surveyors, adjudicators etc. A flyer has been distributed with details. Further copies are available by emailing [ross.cato\\_precastnz@xtra.co.nz](mailto:ross.cato_precastnz@xtra.co.nz)



The prospect of familiarization with a new 34 page legal document may seem daunting, but attendees will leave the seminar with a better understanding of its benefits and will be able to use the document with confidence.

The interdependency of the various parties means it is in everyone’s interest to have a fair and clearly understood basis for working together. It is expected that the new document will bring benefits to all parties involved.

For further information please contact **Rod Fulford at 09 360 2033**

**04 Health & Safety > Dept. of Labour – Approved Code of Practice 2010 Review. Code of Practice for the Safe Handling, Transportation and Erection of Precast Concrete (ACOP) –** A working group of Precast New Zealand and industry representatives have completed the Code of Practice (2002) review.

The draft ACOP has been displayed on the DoL website for public comment. Three comments were received of which only one required to be considered by the working group responsible for the document.

The ACOP has now been forwarded to the DOL Communications and Marketing team for final review.

Precast NZ will have the opportunity to review the final document. Subsequently the ACOP will proceed to ministerial approval and sign off and circulation to industry.

For further information please contact **Ross Cato at 09 638 9416**

**05 FLOORING > Flooring Overview Group (FOG), Dept. of Building & Housing (DBH) –** The work of the Flooring Overview Group (FOG) continues. In depth analytical studies have indicated the possibility of failure modes that have so far not been observed in tests or in actual seismic events.

Because the focus was on existing buildings that were not constructed to current standards, it has been considering matters that are not specific to hollowcore floors, and matters that do not relate to buildings being constructed to the current standards. Because the group was originally formed to look at hollowcore floor issues, their work and delays in issuing their final report has caused some uncertainty amongst designers around using hollowcore floors in current designs.

To address this uncertainty, PCNZ and CCANZ are producing a design guide on the use of hollowcore flooring systems. This will be presented as a paper at the Concrete Conference in Wellington in October.

The matter is fairly straightforward. Design in accordance with NZS 3101. For the majority of buildings with low inelastic seismic deformations there are unlikely to be any further issues to consider that relate specifically to hollowcore floors. For buildings with large inelastic seismic displacement, some structural configurations may require further consideration of details and the guide will address these.

It is expected that other papers will be presented on the work of the FOG and other parties involved, so this will be an excellent opportunity to present a balanced view and help designers who are confused by the amount of “noise” surrounding use of hollowcore floors.

**Flange Supported Double Tees – Loop Bar Detail**

The loop bar flange support may be one of the most tested structural details in New Zealand. Despite that, and 35 years of problem free use, there are analytical studies indicating circumstances that could lead to failure. These have never been observed in testing, or in use, or during demolition.

Members that manufacture double tees have taken the opportunity to prepare and

implement innovative, economic and seismic tested alternative solutions to existing flange hanger alternatives in the market.

Further work is planned to address these issues but it will be incorporated into a prioritized testing program being undertaken by Stresscrete Northern to ensure cost effective use of resources.

#### 06 University of Auckland projects >

Masters and Doctorate candidates in the Faculty of Engineering at the University of Auckland require projects for their theses. Associate Professor Jason Ingham has previously approached PCNZ to gauge our interest in supporting projects of relevance to our industry as thesis subjects, but we have not previously participated.

Stresscrete Northern have stepped in and offered product, test facilities, office space and support for Max Fowler to undertake his thesis. Max will work under the supervision of Jason Ingham but will have additional support and advice from PCNZ. Max's thesis will be on the McSaveney hanger and will involve analysis and testing.

This may involve construction of more sophisticated testing facilities that will be available for future projects.

It will be advantageous to the industry, and individual producers, for PCNZ to provide further thesis subjects. This opportunity should not be neglected and input or suggestions from any PCNZ members would be welcomed as we hope to build a mutually beneficial relationship.

#### Seismic Retrofit Research Board

No further meetings or action.

#### 07 Prison Labour - Corrections Inmate Employment (CIE) > Market Place

**Activities** – Precast NZ is working with CIE with a view to developing strategies for the training of inmates. Progress has not been as smooth as expected but PCNZ is endeavoring to keep engaged with CIE and moving forward.

#### 08 Honorary Life memberships >

Honorary Life memberships of Precast NZ were granted to Len McSaveney and Ross Cato at the Precast New Zealand Annual general meeting held on 08 October 2009. The Life memberships recognised many years of outstanding support and contribution to the precast concrete industry in New Zealand.

#### 09 NZ Concrete Industry Conference October 2010 >

This year's NZ Concrete Industry Conference will be held at the Wellington Convention Centre from 07-09

October 2010. The conference will be an engaging and entertaining weekend providing plenty of opportunity for networking, learning and fun, in New Zealand's capital city.

The Precast NZ **Annual General Meeting** will also be held at the conference – presently scheduled for 11am Thursday 7th October.

#### 10 National Precast Concrete Association of Australia (NPCAA) >

Links to NPCAA technical publications – Are you interested in obtaining technical / architectural data about precast buildings and sustainability? Then the following link will take you to the NATIONAL Precaster published by the National Precast Concrete Association of Australia.

<http://www.npcaa.com.au/datasheets/Prec53.pdf>

Or for the latest edition of Precaster 56 go to

<http://www.npcaa.com.au/datasheets/Prec56.pdf>

# MEMBERSHIP

## CORPORATE MEMBERS

	PHONE No.
Ashburton Prestress Concrete	03 308 2397
Atlas Tilt Slab	09 426 9497
Bradford Precast Ltd	03 308 9039
Busck Prestressd. Conc Ltd	09 438 3059
C. Lund & Son Ltd	03 349 6900
Emmetts Civil Construction Ltd	06 349 1788
Formstress Precast Ltd (Waiuku)	09 235 7257
Heb Precast	07 575 2325
Hynds Pipe Systems Ltd	09 274 0316
Lattey Civil Engineers Ltd	06 879 8364
Precast H.B. Ltd	06 835 8315
Smith Crane & Construction Ltd	03 359 7759
Stahlton Engineered Concrete	0800 STAHLTON (0800 782 45866)
Stresscrete Northern Ltd. (Papakura)	09 295 0610
Stresscrete Southland Ltd	03 218 6709
Stresscrete Wellington Ltd. (Otaki)	06 364 8126
Theilin Construction	03 544 8906
Wilco Precast Ltd	09 295 1060

## ASSOCIATE MEMBERS

	PHONE No.
0800 Ducting Ltd	0800 38 28 46
Allied Concrete	03 217 1612
Argon Construction Ltd	09 274 5672
Austin Carr (2008) Ltd	09 817 6202
BASF Construction Chemicals NZ Ltd	09 414 7233
Bridgeman Concrete	06 879 7254
Canzac Ltd	03 343 4254
Demden Ltd	07 575 5410
Firth Industries /Certified Conc.	09 525 9193
Fletcher Reinforcing Ltd	09 270 4247
Golden Bay Cement	09 525 9031
Holcim New Zealand Ltd	09 634 0132
Humes Pipeline Systems	09 580 0781
Machinery Movers Ltd	09 278 6700
Mainzeal Property & Construction Ltd	09 375 2100
Mike Herlihy Consulting Ltd	03 325 1165
Nawkaw Australia	09 486 1615
RC Macdonald Ltd	04 472 4924
Reid Construction Systems	09 9204360
Sika (NZ) Ltd	09 828 7002
Thorpe Reinforcing Ltd	07 575 7803
Vulcan Steel Ltd	09 273 7214
Unicon Systems Ltd	03 351 9952



## Stresscrete Southland Limited:

Stresscrete Southland Limited was formed in June 2007 after the purchase of the Invercargill operation of the former Fletcher Concrete and Infrastructure Stresscrete business. The Invercargill business is now independent of any other precast concrete manufacturer and is owned by Ian and Francesca Sutherland, Rachel Beck and Jason Crosbie.

The Stresscrete name is well known in the southern regions and the current Southland team is working hard to keep the name synonymous with quality precast and prestressed concrete products.

Stresscrete Southland is currently involved with two of the Precast Concrete Contracts for the Otago Stadium in Dunedin. The Precast Beams contract to construct the flooring support beams and large stepped raker beams that support the bleacher's is now complete. A total of 2150 tonnes of precast concrete has been delivered from Invercargill to Dunedin in 100 trips. A third of the items delivered required special permits and pilots to allow transportation by road due to their length and weight being over what is normally allowed on the road. The largest beams constructed and delivered were 17m long and 32 tonne each.

Stresscrete Southland continues their involvement with the project with the construction of the Precast Wall Panels and Stairs. There are approximately 2000 separate items in this contract which range from small stair treads to complicated vomitory entry panels with unusual shapes. Special permits have also been required for this contract with some items higher than what is normally allowed on the road. A special route has had to be taken for some of the deliveries due to them being too high to pass over the Balclutha Bridge and under Dunedin motorway overpass bridges.

The award of a portion of the precast concrete for the Otago Stadium to Stresscrete Southland builds on a strong list of achievements for this locally owned and operated business. Since being formed Stresscrete Southland has constructed the precast concrete for a number of significant projects in the South including; Pounamu Apartments – Queenstown, Remarkables Park Building 11 – Queenstown, Dairy Trust Drier Tower Awarua – Invercargill, Fonterra Edendale Drier 4 – Edendale, Remarkables Primary School – Queenstown.





### Firth Industries:

Firth is the largest national manufacturer offering a complete range of concrete products, systems and solutions. All Firth masonry and Dricon products are available from leading building merchants around the country.

The Firth brand is one of New Zealand's best known, most trusted and after more than eighty years is one of the most enduring trade names. A brand that is synonymous with concrete innovation, leadership, consistent product quality, and superior customer service.

Firth has a team of about 580 people, working in more than 65 plant sites throughout New Zealand, delivering a complete range of concrete products, systems and solutions to customers throughout the country.

It's divided into three product groups.

### Certified Concrete®:

The Certified Concrete name has been synonymous with concrete quality since 1938.

Firth has worked with a variety of customers, helping New Zealand's development including residential housing and the creation of national icons such as The Museum of New Zealand - Te Papa Tongarewa, The Auckland Sky Tower and Wellington's Westpac Trust Stadium.

### Masonry Products:

Firth's national manufacturing operations produce a vast range of masonry blocks, pavers, retaining wall products and bricks. It's a product range that is constantly updated to meet changes in technology, building techniques and fashion. Masonry products can be made to order and special one-off requirements can be met including specified colours, abrasion-resistance qualities, strengths and mix designs.

### Dricon®:

Dricon's pre-mix concrete and sand products are incredibly easy to use and are equally popular with our DIY and trade customers. Dricon pre-mix products have all the ingredients already in the bag and these products include HandiCrete®, RapidSet™ and a range of Trade Mortars.

### For More information:

Please refer to our Company Website:

[www.firth.co.nz](http://www.firth.co.nz)

[www.dricon.co.nz](http://www.dricon.co.nz)



Firth's new Hamer Street (Auckland) Certified Concrete® plant.



Manukau Harbour Crossing project (MHX) which will be completed August 2010.



Firth retaining wall adjacent to MHX project using Diamond Pro bevelled retaining blocks in Rockface.