

# ptNEWS

Newsletter 4 - 2011



## PRESIDENT'S REPORT

With the end of 2011 now on us, I wish all members all the best for the Festive Season. I hope all have a happy and prosperous 2012.

Special thanks should go to those on the Board and Committees who have contributed to the PTIA during this past year. I would like to record special thanks to Mr. Kevin Abrams, our very diligent secretary, who has kept much of the operation ticking along all year.

2012 seems to be a year where we all wonder what is ahead on the international scene. The impact on our local market is yet to be seen. Locally prospects do seem to show positive signs. We can only hope all is on the improve.

For 2012 the PTIA intends to progress forward with more training, certification and especially technical papers to assist members.

The Board and Committees will continue their best efforts for all members. Those who might wish to be more involved with PTIA during the coming year please contact the secretary as we are always seeking more committee members and candidates ready to join the Board.

**Michael O'Neill**  
*President*

### New Board of Directors for 2011 – 2013

Following its AGM held in September 2011, the new Board of PTIA consists of :

Michael O'Neill (Australian Prestressing Services), President;  
Craig Kilpatrick (Australian Prestressing Services), Vice-President;  
Max Schweiger (Structural Systems), Secretary/Treasurer;  
Andrew Castle (ABC Consultants), Technical Director;  
Russell Forster (VSL Australia);  
Brad Parkinson (Structural Systems);  
Bruce Grady (OneSteel Wire); and  
Russell Wheeler (Refobar Australia)

## PTIA IN REVIEW

Formed in August 2006, the Post-Tensioning Institute of Australia (PTIA) represents the post-tensioning contracting industry in Australia. PTIA seeks to maintain a viable and competent industry, with high post-tensioning system standards in design and construction.

The PTIA aims to ensure high standards in design, construction and materials for PT systems, to develop works standards which establish appropriate skills of employees, a safe working environment and environmental responsibility, and to achieve ongoing technical advances in materials and systems for PT.

Membership of PTIA is available under several categories:

- Corporate membership for post-tensioning contractors
- Associate membership for PT materials and equipment suppliers, consulting engineers and organisations with interests in the PT industry
- Association membership for relevant industry associations
- Individual membership including Student members.

Corporate and Associate members must meet specific criteria for PTIA membership and verify that they meet those criteria on annual renewal of their membership. These criteria have been determined to ensure that PTIA standards are met by all members.

Recently, the Corporate membership criteria was extended to better provide for PT contractors who do not have in-house design capabilities, namely those who undertake 'supply and install' works only and 'ground anchor' works.

**Training:** From the outset, PTIA placed emphasis on training for the PT workforce. Its early Skills Training Program now forms part of the Certificate III in Steelfixing. It's anticipated that it will form the core units for a Certificate III in Post-tensioning in 2012 (see page 3).

The fundamentals from this training material are presented as a short course for people related to PT such as project managers, safety officers, and recent graduate engineers, who need to have a level of understanding of PT construction methods and safety requirements.

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The course can also include the Industry White Card (see more opposite).

**Technical information:** PTIA provides technical information to members and others in the industry, primarily through technical documents on the website and seminars addressing PT. Seminars are presented through state branches of the Concrete Institute of Australia, and some of these presentations can be found on the 'downloads' page of our web site.

PTIA has progressed well with its objectives to ensure quality in design, construction, materials and workforce standards and training, and will continue to do so. The clear benefits of its achievements flow to members at all levels and to their clients and asset managers, and the community at large. PTIA is committed to ensuring that PT construction offers economical, sustainable, and quality assets well into the future.

**Looking ahead:** PTIA will continue its training courses and seminars. It will also aim to develop an applied building design course for consulting engineers, with emphasis on current practice and PT systems, efficient site detailing, layouts, and applied design practices.

There will be a strong focus on technical activities during 2012/2013. In particular, PTIA is embarking on a strategy to engage with the Green Building Council and other organisations regarding the environmental advantages of PT as a construction system which results in substantial reductions in embodied energy, particularly in building construction.

PTIA and CCAA have formed a joint working group to review PT Concrete specifications and other technical documents, to define clear guidelines related to the use of SCMs in concrete for PT, early age strength requirements, site and laboratory curing of cylinders and related matters. The joint working group aims to develop a new concrete specification aimed at meeting construction requirements and sustainability rating system requirements.

PTIA will also expand its technical information documents and guidelines during 2012 for the benefit of members and others in the industry.



## PTIA MEMBERSHIP CRITERIA

PTIA requires high standards of its members. All company members of PTIA are required to comply with certain criteria, verified by independent assessors, and confirmed annually with membership renewal.

Additionally, PTIA's Code of Ethics provides a set of ethical behaviour standards expected of PTIA members, and a means of addressing any complaints made against members, backed by disciplinary procedures if warranted.

Membership criteria can be found on the PTIA web site. There are different criteria for different forms of membership, briefly summarised below.

### Corporate Members

All Corporate Members must meet specific standards in relation to their technical systems, insurance cover, statutory financial obligations, compliance with Registered Industrial Agreements, QA OH&S and Environmental Management plans, and experienced full-time professional staff.

A further requirement of Corporate PTIA members is that they undertake workforce training. This training provides assurance to clients and asset owners that buildings and structures constructed by PTIA Corporate members are completed by an accredited, trained, and skilled workforce.

### Associate Members

This membership category includes suppliers of PT materials and equipment, suppliers of other materials and equipment related to PT construction, Consulting Engineering firms, and other organisations with an interest in PT or the PT industry.

Suppliers of PT materials and equipment are required to maintain QA plans relevant to their materials or equipment, minimum insurance cover, and demonstrated experience in their field.

Suppliers of other materials and equipment are required to maintain relevant QA plans.

Consulting Engineering firms who are Associate members of PTIA must provide evidence of QA plans relevant to PT design, a minimum level of Professional Indemnity insurance, qualified and experienced engineering staff, and demonstrated experience in their field of PT design expertise.

### Membership Applications

Organisations and individuals interested in becoming a member of PTIA can send an enquiry to [info@ptia.org.au](mailto:info@ptia.org.au). Alternatively, application forms can be downloaded from our website ([www.ptia.org.au](http://www.ptia.org.au)) under the "Membership" tab.

## TECHNICAL DEVELOPMENTS

In 2012, the PTIA Board plans to produce technical and work guidance notes, to expand on information available on the website. Guidance notes currently under preparation, include:

- Post-formed holes through PT slabs
- Stressing Access
- Safe Stressing Procedures (mono-strand)
- Safe Stressing Procedures (multi-strand)
- Safe Stressing Procedures (Bar)
- Safe Grouting Procedures
- Specifications for a Stressing Barricade

The PTIA has agreed to join with CCAA in a joint technical work group, to review and update technical information related to concrete for post-tensioning. A new PT Concrete specification, aiming to include requirements for meeting the Green Star Rating criteria, will also be produced. Other topics will relate to:

- Supplementary cementitious materials
- Early age strength requirements
- Site vs laboratory cured cylinders
- Drying shrinkage
- Watertight concrete

The PTIA Board has also approved a technical sub-committee to prepare data and reports related to the sustainable advantages of post-tensioning, particularly in building construction. This information will form the basis for interaction with the Green

Building Council of Australia and other relevant organisations.

The aim is to develop procedures which recognise the significantly lower embodied energy from post-tensioned building systems.

Members and readers may also be interested in a paper, 'Optimising Building Design for Sustainability Using High Performance' presented by Doug Jenkins at the recent Concrete Institute Concrete 2011 biennial conference.

The conference this year was titled, 'Optimising Building Design for Sustainability Using High Performance Concrete'. A copy of the paper can be found on the PTIA website, under 'Downloads'.

**“This group will produce a new PT Concrete specification which will aim to include requirements to meet green star rating systems.”**

## TRAINING COURSES

In its early years, PTIA put considerable effort and resources into developing a Skills Training Program for the PT construction workforce. This resulted in around 350 PT workers, trained and certified under the PTIA scheme. Eventually, in conjunction with CSTC (Brisbane based registered Training Organisation), the PTIA training program was incorporated in the Certificate III Steelfixing course. A PTIA proposal for the creation of a Certificate III in Post-tensioning, is currently under consideration by the Construction and Property Services Industry Skills Council. It's hoped the certificate will be available in 2012. Current units related to post-tensioning are:

- CPCCSF3002A Carry out Mono Strand Post-tensioning
- CPCCSF3003A Carry out Multi Strand Post-tensioning
- CPCCSF3004A Carry out Stress Bar Post-tensioning

The PT workforce of PTIA Corporate members who completed the original Skills Training Course will be reassessed under Recognition of Prior Learning for accreditation in these units. New workers are now able to undertake training in these units. In Queensland, training is through CSTC, elsewhere in Australia through PTIA.

PTIA also offers a one-day course in PT suitable for consulting engineers, project managers, safety officers, union officials, and students undertaking work experience. This course includes six hours of classroom time and two hours of site demonstrations and learning. It will also include the required instruction and assessment for the Construction Industry General Induction (CPCCOHS1001A) certificate (White Card). Course participants should acquire knowledge, skill and understanding of:

- OH&S requirements for Post-tensioning on site
- The fundamental concept of Prestressed Concrete



- Post-tensioning terms and definitions
- The processes for the installation, stressing and grouting of Post-tensioning systems
- Post-tensioning construction hazards and control measures.
- OH&S legislative requirements
- OH&S communication and reporting processes
- OH&S incident response procedures

Course dates will be on the PTIA website, January 2012. Courses can be held on request, with a minimum of 12 attendees.

Applications for courses should be sent to [info@ptia.org.au](mailto:info@ptia.org.au)



# onesteel

## OneSteel Strand

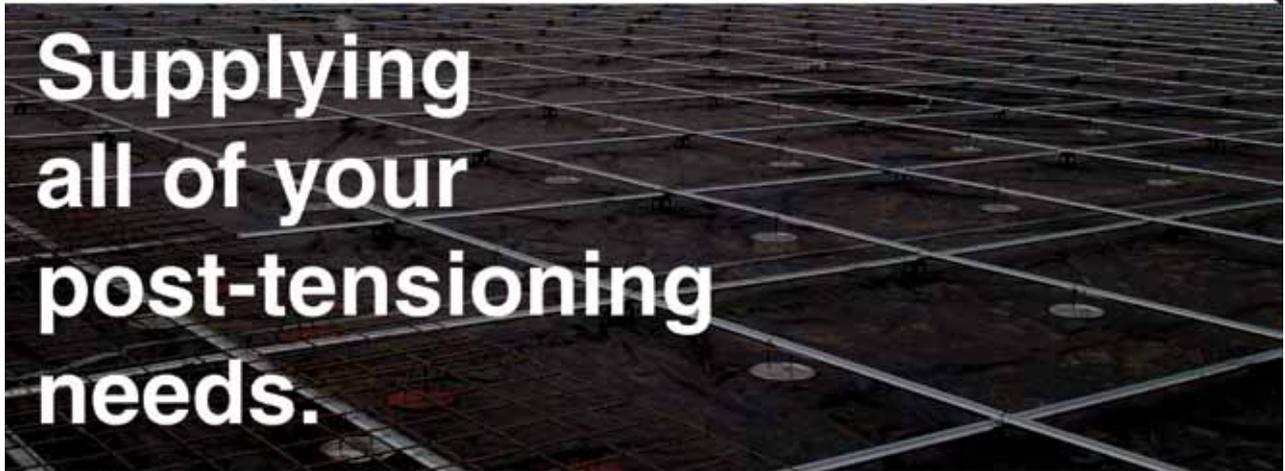
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