

# ptNEWS

Newsletter 1 - 2012



## PRESIDENT'S REPORT

Your Board continues to work actively in progressing two major aspects of PTIA industry aspirations. These are to improve and broaden training for employees in the post-tensioning industry, and to obtain a more appropriate assessment of post-tensioning regarding sustainability and Green Star rating of buildings.

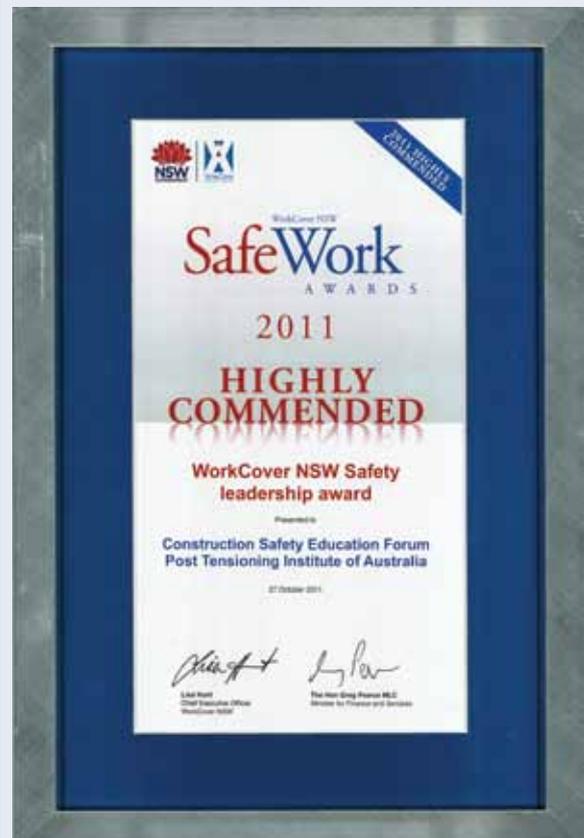
With regards to training of site employees, we are now at a stage in NSW where PTIA training or a similar level of accreditation is being considered for incorporation into new Enterprise Agreements to be introduced by companies working in the industry. Such a requirement will mean most, if not all employees involved with stressing should have a more formal accreditation and PTIA is positioned to provide this to members. The CFMEU in NSW is keen on seeing such training for its members and supports PTIA initiatives this area. We do hope to have WorkCover more formally accept our initiatives and courses.

In relation to energy considerations and savings, PTIA is very aware of the importance to the construction industry of the Green Star rating system for buildings. To date post-tensioning has not been favourably looked upon when it comes to consideration of energy savings for concrete structures. We, as a part of the general industry have not promoted ourselves forcibly to achieve credits we should be due. To enhance our position now, your Board is in discussion with Engineered Material Solutions (EMS), a group working in and experienced with sustainability consideration for buildings.

We hope to be able to use the services of EMS to put forward a well-constructed proposal for appropriate assessment of post-tensioning for Green Star rating. Our progress in this regard will be reported in future Newsletters.

I wish members continued success over these difficult times where we see various levels of activity in different markets around the country.

**Michael O'Neill**  
President



## PTIA RECEIVES WORKCOVER NSW WORKSAFE AWARD

PTIA was delighted to be presented with a WorkSafe Safety Leadership Award from WorkCover NSW for its presentation to the Construction Safety Education Forum in NSW in October 2011.

This award recognises the continued efforts by PTIA to develop and promote training and safety in the PT workforce. Details of these courses are on pages 3 and 4 of this Newsletter.

## *Fiona Stanley Hospital*

Location: *Murdoch, Western Australia*

Client: *Department of Health Western Australia*

Contractor: *Brookfield Multiplex*

Post-tensioning Contractor: *Structural Systems (Western)*

Consulting Engineer: *BG&E*



Planning for a healthy future is a high priority for the Western Australian Government. In 2003, the WA Government conducted a review to determine how to prepare for the future demands on the state's public health system due to a rapidly growing population. The outcome was a commitment to an ambitious and widespread health reform in which existing hospitals were to be expanded and new hospitals were to be built.

The \$2 billion Fiona Stanley Hospital development is an integral part of the State-wide hospital reconfiguration and is to become the major tertiary health facility in the south metropolitan area, offering services to communities in Perth's southern suburbs.

Located in Murdoch, approximately 15kms south of the Perth CBD in Western Australia, the hospital is situated within walking distance of the Murdoch bus / rail interchange and is easily accessible via the Kwinana Freeway and other major roads. The site is also located in close proximity to Jandakot Airport for major trauma and emergency services from outside the Perth metropolitan area.

The forward earthworks for the project were completed in early 2009 under a separate contract, with construction commencing in July 2009. Construction is expected to be completed in late 2013 with the hospital becoming operational in 2014. Once completed, the health facility will provide over 150,000m<sup>2</sup> of usable floor space.

Structural Systems (Western) is contracted by Brookfield Multiplex Construction to supply and install the reinforcement and post-tensioning to the main hospital. The 9 storey building is expected to take 2½ years to complete and will contain 643 of the 783 beds, mostly in single, private rooms.



Structural Systems worked closely with engineering consultants, Bruechle Gilchrist & Evans, during the preliminary design of the ward levels to incorporate a fully post-tensioned slab.

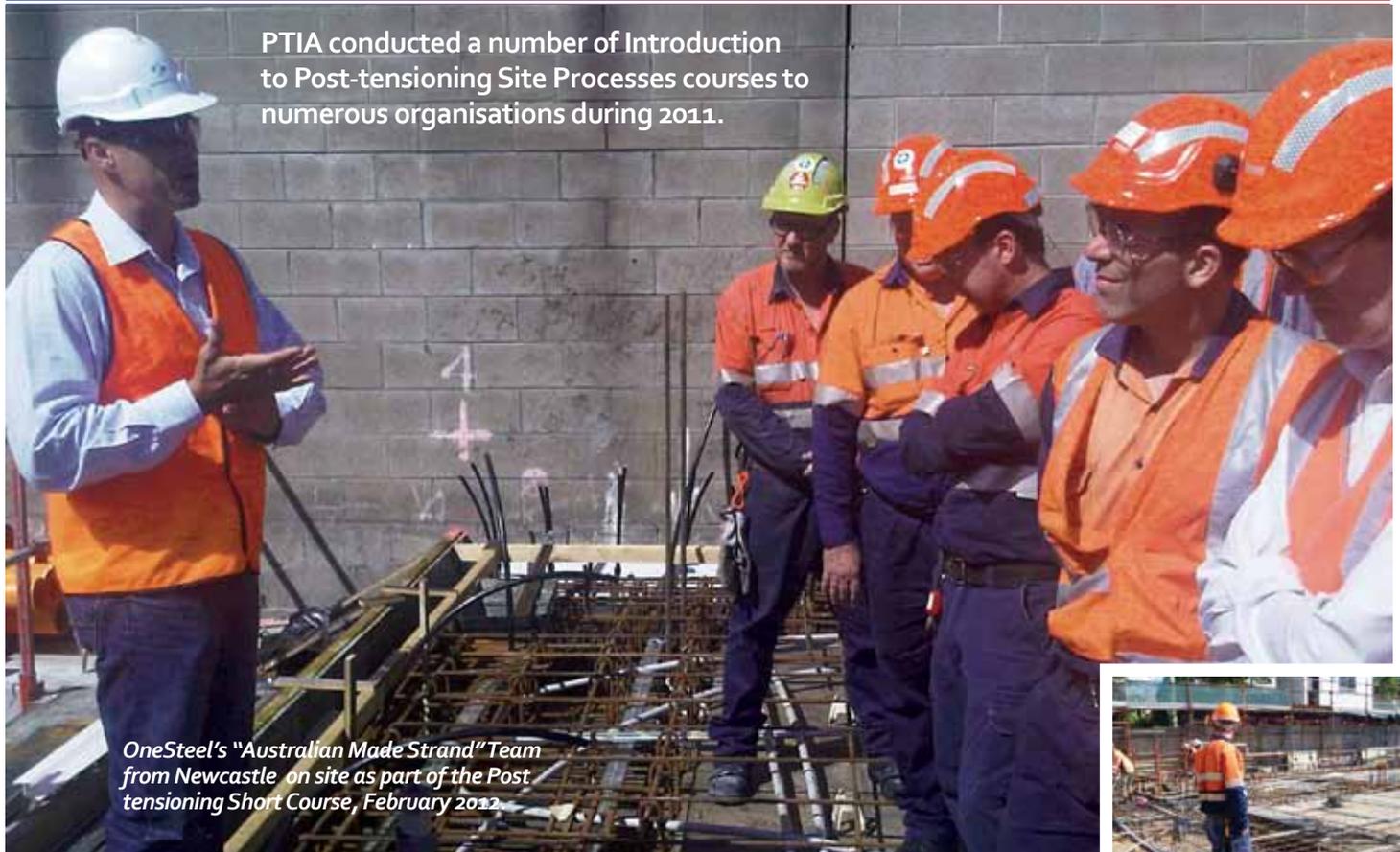
The four lower podium levels are designed as conventional reinforced slabs supported by post-tensioned beams. The main wards are located within six upper tower levels, which are designed as fully post-tensioned flat plates.

Structural Systems worked closely with engineering consultants, Bruechle Gilchrist & Evans, during the preliminary design of the ward levels to incorporate a fully post-tensioned slab.

The post-tensioned design was one of several concepts being explored, including precast concrete and conventional reinforced concrete. Concerns were raised about vibrations and noise within the structure due to post-tensioned slabs typically being constructed much thinner than conventional slabs. This was overcome by adopting a minimum slab thickness of 300mm, which despite being thicker than structurally required, remained the most economical method. The post-tensioned system also allows for earlier removal of formwork for reuse elsewhere, and results in a faster construction program.

Once completed, the main hospital building will contain over 530 tonnes of slab post-tensioning and 5,200 tonnes of reinforcement bar and mesh.

## PTIA TRAINING AND SAFETY COURSES WELL RECEIVED BY INDUSTRY



PTIA conducted a number of Introduction to Post-tensioning Site Processes courses to numerous organisations during 2011.

*OneSteel's "Australian Made Strand" Team from Newcastle on site as part of the Post-tensioning Short Course, February 2012.*

These courses provide new and existing building and construction industry participants with introductory knowledge for the site process, procedures, hazards and controls of Post-tensioning.

These six hour courses involve four hours classroom instruction and two hours site instruction.

It is expected that participants should acquire knowledge, skill and understanding of the following areas:

- 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.

The courses can also be structured to provide the required instruction and assessment for the Construction Industry General Induction certificate (White Card) – see details on page 4.

Courses have been conducted for several organisations, including the Construction Safety Education Forum (NSW), Hickory Developments (VIC), Victorian Construction Safety Alliance, WorkCover NSW, Probuild Contractors (VIC), and OneSteel Wire (Newcastle).

The focus on training and safety by PTIA is bringing favourable responses from organisations such as WorkCover NSW and other such organisations, as well as the CFMEU. PTIA is proud to have received a "Highly Commended Safe Work Award" from WorkCover NSW for its presentation to the Construction Safety Education Forum (see article on front page).

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### Workforce Training Dates

PTIA offers training in Mono Strand Post-tensioning (CPCCSF3002A), Multi Strand Post-tensioning (CPCCSF3003A), and Stress Bar Post-tensioning (CPCCSF3004A). RPL assessments are also offered. These training modules are part of the Certificate III Steelfixing qualification. Good progress is being made to provide a Certificate III in Post-tensioning through the Construction and Property Services Industry Skills Council. Approval has been given to proceed with the development of this course, based on strong stakeholder support.

PTIA will provide training in Sydney and Melbourne on the following dates in May 2012:

- Melbourne – between 7 and 11 May
- Sydney – between 21 and 25 May

Courses can be conducted for a specific organisation, or for a grouping of people from different organisations. A minimum number of twelve participants is required to conduct a course. For enquiries and bookings, contact PTIA by email to: [info@ptia.org.au](mailto:info@ptia.org.au)



## PTIA TRAINING NEWS

### Training Course Schedule

Enquiries and applications for all courses should be directed to:  
PTIA at [info@ptia.org.au](mailto:info@ptia.org.au)

Courses will be run on demand when a minimum of 12 people have registered. Details are shown on the PTIA web site.

Enquiries and applications for all courses should be directed to PTIA at [ptia.org.au](http://ptia.org.au)

Course	Non- Member fee	PTIA Member fee
<b>Skills Training &amp; Assessment course</b>		
• Mono Strand (CPCCSF3002A)	\$1,100.00	\$550.00
• Multi Strand (CPCCSF3003A)	\$1,100.00	\$550.00
• Stress Bar (CPCCSF3004A)	\$1,100.00	\$550.00
<b>RPL assessment</b>	\$935.00	\$467.50
<b>Short course in PT including White Card</b>	\$484.00	\$242.00

### Skills Training & Assessment courses will be conducted in:

- Melbourne: between 7 - 11 May 2012
- Sydney: between 21 - 25 May 2012

A minimum of twelve people are required to conduct a course.

## MEMBER COMPANIES

### Corporate Members

Australian Prestressing Services Pty Ltd  
(founding member)  
Structural Systems Pty Ltd  
(founding member)  
VSL Australia Pty Ltd (founding member)

### Associate Members – suppliers

Ajax Foundry Pty Ltd  
Ancon Building Products  
Haggie Reid Pty Ltd  
Holcim (Australia) Pty Ltd  
OneSteel Wire Pty Ltd  
Refobar Australia  
Sanwa Pty Ltd  
Severs Technical Systems Pty Ltd  
Usha Martin Australia Pty Ltd

### Associate Members – consulting engineers

ABC Consultants  
Arup  
Bornhorst + Ward Pty Ltd  
Costin Roe Consulting Pty Ltd  
Hyder Consulting Pty Ltd  
McVeigh Consultants Pty Ltd  
Parsons Brinkerhoff  
SCP Consulting Pty Ltd  
Taylor Thomson Whitting



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