

# Keeping Track



PWI NSW Newsletter  
August 2020

## Full steam ahead for PWI NSW amidst pandemics and lockdowns







What a year 2020 has turned out to be! I hope you, your family and industry colleagues are all keeping safe as we collectively navigate our way through this pandemic.

For the PWI NSW, it has been a case of review, reset and full steam ahead. Committee meetings have been held as usual, albeit now virtually; planning for the Annual Convention is underway, although we are planning for several different scenarios; technical meetings have been held in a virtual environment with the June Technical Meeting our first hosted on Teams with great success. We are also taking this opportunity to work on some new initiatives, such as launching the PWI NSW cadet program - a multi-year scholarship, mentoring experience and work placement in the rail industry, as well as developing a new website and event booking system. Preparations are also underway for a revised format and date for the popular PWI Country Meetings.

In light of NSW Government restrictions and best practice health and safety, we have had to postpone some of our major events this year. These have included the Executive Breakfast and the Winter Dinner, which will be held once it is safe to do so. The committee has been exploring alternative dates for the Winter Dinner and alternative formats for the Executive Breakfast. I have no doubt these events will be even bigger and better in 2021.

Elsewhere, governments and businesses are recognising the opportunity this period provides, and are turning to infrastructure investment including rail to rebuild and strengthen economies. Let's all keep showing how resilient and solid the rail

### In this issue...

-  **2020 PWI Annual Convention**
-  **2020 PWI Executive Breakfast Update**
-  **2020 PWI Winter Dinner Update**
-  **June Technical Meeting Wrap Up**
-  **August Technical Meeting**
-  **PWI Cadet Program**

industry is, and promoting the economy-boosting potential of rail investment.

The PWI NSW committee is working as hard as ever for our members in this challenging climate. We very much recognise the need to continue to share knowledge and build networks and the role of the PWI NSW in facilitating that.

It would also be remiss of us not to take this opportunity to thank our Enhanced Members, particularly our Platinum Members - CPB Contractors, Lendlease, Laing O'Rourke, and John Holland – for the ongoing commitment and support that they provide the PWI. Without their support, and the support of our membership as a whole, we would not be able to bring you the high standard of events while keeping the costs down. We thank them sincerely and look forward to their ongoing support for years to come!

Hope to see you online at our upcoming August Technical Meeting and AGM, which will be a live Teams event.

Mark Harris  
**PWI NSW President**

## BURSTING THE BUBBLE

## DISRUPTION AND INNOVATION IN THE WORLD OF RAIL

### Bursting the Bubble - Disruption and Innovation in the World of Rail

After our hugely successful regional event in 2019, planning for the 2020 PWI Convention is well underway and advancing strongly. As we all know, group events like the Convention have been heavily impacted by the current COVID-19 constraints, however the PWI Committee is optimistic that these constraints will have eased in time to allow the Convention to proceed as normal, and in any case the Convention Subcommittee is also putting together a contingency plan should our optimism prove to be misplaced. Either way, the PWI is committed to bringing the 2020 PWI Convention to our members and guests irrespective of the situation.

The rail industry has long been known as a 'slow turning ship' when it comes to changing the way it operates, and in particular its willingness to adopt new technology. And whilst the operational impacts to a large integrated network of railway can mean new technology is not easy to deploy, the rest of the world seems to be changing at a much more rapid rate than us. The generational gap across the industry has no doubt played a role in this, however, as we strive to close this gap and encourage more youth into the industry, the younger generation is challenging the industry in this area and questioning why we can't be more advanced in our thinking and, more importantly, in our actions. Through unfortunate circumstances, the 2020 COVID-19 pandemic has highlighted that, when forced to do so, the industry can adapt to new ways of working and deploy these very quickly – so why do we need to wait for a pandemic to force the change?!

This year's conference theme is **"Bursting the Bubble – Disruption and Innovation in the World of Rail"** and will explore the future of rail through the lens of innovation and technology. Whilst we will be cognisant of the risks and challenges of change management in an industry that is unique for its heavy regulatory and political constraints, we will seek to learn from other industries and international experience, and explore the potential of innovation and technology on efficiency in asset management/operations, skills development, and climate change and sustainability benefits. We will look at what some of the technology leaders of the world are doing in other industries, what is available in rail and transport, and where the future of rail innovation should focus.

This year's event will be held on Friday, 6 November 2020 at the Grand Ballroom in the Fullerton Hotel, Sydney (formerly the Westin Hotel at No. 1 Martin Place). So save the date, and keep an eye out for more information to come over the next few months as we count down to the 2020 PWI Convention.

**Steve Naumovski**

Convention Sub-committee Chair

# 2020 PWI Executive Breakfast

Permanent Way Institution NSW

## Executive Breakfast



Joint keynote guest speakers

**Howard Collins OBE, Chief Operations Officer,  
Transport for NSW**



**Alexander Wendler, Chief Development Officer,  
Transport for NSW**



## 2020 PWI Executive Breakfast to be postponed to 2021

It was very unfortunate that the timing for our Executive Breakfast this year coincided with the rapid transition to isolation and social distancing laws, which meant that we had to cancel the event.

We were looking forward to hearing about the future of the NSW Transport industry through the eyes of both Howard Collins OBE in his new role of Chief Operations Officer, and Alexander Wendler in his role Chief Development Officer.

The PWI thanks them both for their commitment and support during the event planning process, and we hope we can have the chance to bring them onto the stage at future events.

We were also very much looking forward to bringing together the executive representatives from our corporate membership, who have enjoyed our previous breakfast events and relish the chance to network with their industry peers – we have had nothing but positive feedback from those who have attending in the past, and so we intend to keep the Executive Breakfast in our event calendar.

Unfortunately, given the tight schedule of events over the remainder of this calendar year, our next opportunity for an Executive Breakfast will not be before Q1 2021. Keep an eye out for them – we will provide more information early in 2021!



Permanent Way Institution NSW

# Technical Meeting and AGM



**Thursday 13th August 2020 at 5.00pm**

Teams Meeting (go to [pwinsw.org.au](http://pwinsw.org.au) for details)



*WSP is one of the world's leading engineering professional services consulting firms.*

*In the rail space, we have a national team of approximately 230 rail specialists, project managers and digital professionals.*

*In Sydney, our team of 75 are currently involved in the design and delivery of city shaping projects including Sydney Metro City and Southwest, Sydney Metro West, Parramatta Light Rail, Regional Rail and Fast Rail.*

The August technical meeting and AGM is proudly sponsored by WSP

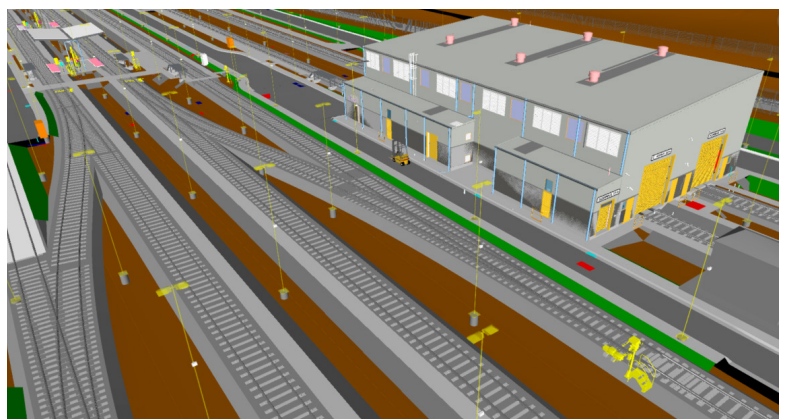
The team from WSP will explore the recent use of Digital Engineering on a new maintenance facility and lead you through the processes used and benefits from this approach.

## Digital Engineering in Practice

The presentation will feature the use of Digital Engineering (DE) on a new maintenance facility project, and will highlight the workflows used, and the advantages that derive from the application of DE to the design of the project.

In addition to track design, WSP were responsible for all other engineering disciplines, and the lead digital engineering role for the project.

DE provides a shared and collaborative environment which enables innovative solutions to be identified, developed and rapidly validated by all project stakeholders; the Digital Engineering model being at the core of the way the project participants operate as a team



The technical meeting will follow the AGM and will conclude at 6.30pm

PWI NSW is proudly supported by its  
Platinum Corporate Members



**JOHN  
HOLLAND**





## New Country Meeting date proposed

Following cancellation early in the year of the Hunter Valley country meeting due to COVID-19 restrictions, a new date of the 23rd September has been proposed.



The September Country Meeting will be sponsored by Loram. The revised Country Meeting is planned to take advantage of an outdoor environment in an active ARTC possession.

Event will be subject to COVID-19 restrictions at the time.

Stay updated with details on [pwinsw.org.au/events](https://pwinsw.org.au/events).



# PWI Cadet Program



## Mentors and Industry Placements wanted!

The PWI NSW is implementing a Cadet Program to invest in the development of skills in the industry. The objective of the program is to support the rail industry by investing in the development of three cadets each year. Cadets will complete a tailored 'Certificate 3 in Permanent Way' over a period of three to four years in parallel with the completion of their engineering degree (or approved equivalent). Cadets graduating through the program will be highly sought after and recognised within the rail industry as having essential knowledge across a range of disciplines relating to permanent way.

As part of the Cadet Program, the PWI NSW will facilitate industry placements, which will notionally be 12 weeks in duration aligned with the summer university breaks. The industry placements are designed to ensure each cadet achieves a minimal level of technical competence within a permanent way related field during their cadetship. Cadets will also be required to complete a log book to substantiate the learnings achieved through practical and theoretical course work. Cadets will be required to gain exposure to a broad range of permanent way related disciplines during their course work and industry placements. Cadets will ideally be exposed to rail operations, maintenance, design, construction and project management during these placements.

The PWI NSW are seeking expressions of interest from Corporate Members who may wish to be involved in providing industry placement positions, as well as current PWI individual members who may wish to be a mentor to a cadet through the program.

For more information on this amazing opportunity to help develop the next generation of rail professionals, contact the PWI Cadet Program Coordinator, Stuart Sutherland at [cadet@pwinsw.org.au](mailto:cadet@pwinsw.org.au).

# PWI Cadet Program

## The Don Hagarty Cadet Program

Don was lifelong servant of the Rail Industry in NSW and held various senior roles in the NSW Government Railways throughout his career. Don along with Ken Swan were instrumental in setting up the Permanent Way Institution – NSW Branch in NSW in 1974. Don was one of the inaugural members and was on the PWI Committee as our first Treasurer from 1974 to 1982. He was awarded life membership of the Institution in 2005.

In the Railways, Don started as an Apprentice and climbed the seniority ladder from Cadet through Division Engineer positions in the Way & Works Branch, to a reasonably senior position until retirement in 1990 at age 60 during the first major upheaval of all levels of the management structure of the entire organisation for around one hundred years.

Don and Nancy married in August 1957 and enjoyed the early years of Don's work life living around country NSW before moving permanently to St Ives in November 1971. They had two daughters, and two grandchildren and a series of beloved family dogs including in order: a sheepdog, corgi, labrador, two Australian terriers and finally a stray Burmese cat who adopted Don and kept him company for the 3 years following Nancy's passing.

In his retirement Don developed his life-long interest in railway history by taking an active role in the Australian Railway Historical Society. Founded in 1933, Don had joined in 1959. He served on various sub-committees – the publication committee, the Railway Resource Centre Trust and more. In 2004 his contribution was recognised by the society making him a life member.

In 2005, the Society published Don's book 'The Sydney Railway – 1848-1857' on the story of the engineers who built the Sydney Railway to Parramatta and Liverpool. This was part of their contribution to the NSW Railway's Celebrations in 2005, of the opening of the first part of a great railway system one hundred and fifty years before.

Don writes: "I started researching material for a history of the first engineers of the Sydney Railway Company around 1988 expecting to find most of the research done and all I would be doing would be updating old material. Much to my surprise I found there had been no such research! Yes, there are several 'political' and general histories of the Company but not one discussing the actual building of the railway from an engineering basis."

Don continues: "Hopefully the book places the reader in the 1850's... I have deliberately avoided the use of hindsight and commenting on the results of decisions. I have been surprised how often this research has shown the popularly held ideas of the Company's history not to be 'really right!'"

Bill Phippen concludes: "Don had been an infrequent visitor to the Railway Archives in recent years and the question often heard was "Have you seen Don? How is he getting on" and the following sentence was always the same "He is such an old gentleman". In the last few weeks as I have spread the word of his passing, the response has always been the same: "He was a gentleman – of the old school. We won't see his likes again."

Don was heavily involved in the NSW Railways Cadet Program throughout his career, and so it is only fitting to recognise a lifetime of achievements and dedication to research and learning by naming the PWI Cadet Program in his name.





Permanent Way Institution NSW

# Cadet Program



## Get paid to study!

**Fast-track your engineering career - become a PWI Cadet**

**\$10,000 pa over four years**

**Work for companies such as CPB Contractors, Laing O'Rourke, John Holland, Lendlease, Transport for NSW and other Corporate Members of the PWI during your study breaks**

The NSW Permanent Way Institution is offering first year students the opportunity to join an exciting new PWI Cadet Program.

As a PWI Cadet, you will receive \$10,000 per annum to go towards your Bachelor of Engineering degree (or equivalent) course costs.



Cadets will complete 12 weeks of industry placement each year. Your PWI mentor will arrange industry placements, which will be designed to provide you with the diverse experience required to achieve PWI Cadet Course competency units.

**FAST TRACK YOUR CAREER NOW!**

Formal applications will be called for in June 2020, so keep an eye on the PWI NSW website for more details: [pwinsw.org.au](http://pwinsw.org.au)

For more information, please contact:

Stuart Sutherland, PWI Cadet Program Coordinator

[cadet@pwinsw.org.au](mailto:cadet@pwinsw.org.au)



# PWI Annual Convention Awards Are Open

PWI NSW has five annual awards each year for welding, track maintenance, young achievers, innovation and platelaying (track/turnout installation).

Presentation and recognition of permanent way achievement in the past 12 months not only acknowledges efforts, it is also an opportunity to advertise your achievements amongst industry peers and prospective clients.

## PWI NSW Awards Nominations

To nominate you must be a financial PWI NSW member or have at least one financial PWI NSW member in your team.

**We want our managers and leaders for all our member organisations to encourage both individual and teams to nominate for these prestigious awards in 2018.**

These awards are presented during the PWI Annual Convention in October. All Award submissions, except the Young Achiever Award, close at the end of July each year with projects completed in the previous 12 months eligible for entry.

Award categories are:

- **Alan Barham Maintenance Award**
- **Ken Erickson Innovation Award**
- **Steve Maxwell Platelaying Award (Minor and Major categories)**
- **Welders Award**

Submission templates, criteria and other relevant information for each award category can be found on the PWI website: [pwinsw.org.au/awards](http://pwinsw.org.au/awards)



# Ken Erickson Innovation Award

The graphic features a black background with a yellow geometric design on the left consisting of several vertical and horizontal lines of varying lengths. To the right of this design, the words "KEN ERICKSON INNOVATION AWARD" are written in a large, bold, yellow, sans-serif font, stacked in three lines.

## KEN ERICKSON INNOVATION AWARD

### Entries open! Check out the website for details

This Annual Ken Erickson Innovation Award has been incorporated in the PWI Awards to recognise an initiative or significant advance in rail technology which has promoted improvement in any part of the rail industry during the last year. The award recognises the contribution of a business or individual who has implemented a novel approach, strategy, or tool that has improved outcomes in the rail industry. Successful applicants are not necessarily required to have generated a new product, rather, this award equally considers the use of current technologies and approaches in new ways to solve problems within the Rail Industry.

The field is open to all relevant disciplines within the rail industry, this could include perway, stations, systems, management, design, electrical and signalling. Eligible entries may focus on areas such as design, componentry, techniques, construction, maintenance, mechanisation, or automation.

To assist any companies looking to submit a nomination an information session will be held on the 25th August to provide information and answer questions. Check out the website for more details or contact Gareth Beynon on [gareth.beynon@linkrailandcivil.com.au](mailto:gareth.beynon@linkrailandcivil.com.au)



# Special Offer for PWI Members

## Timber Truss Railway Bridges of New South Wales

By Bill Phippen

While many have suffered through the COVID-19 lock-down, one positive has emerged in that it did stimulate the production of a book about timber truss railway bridges. This book has now been completed, with delivery of printed copies on 22 July 2020.

The Timber Truss Railway Bridges of New South Wales is a complementary volume to Don Fraser's well known and respected 1995 book Bridges Down Under, and to Lenore Coltheart with Amie Nicholas' 2020 publication for NSW Roads and Maritime Services (RMS), The Timber Truss Bridge Book.

This latest volume looks in detail at the 54 NSW Railway bridges which were more than just basic girders. These were remarkable examples of railway engineering, both in design and construction, and were essential elements in the railways opening up New South Wales. Thus, it would appeal to anyone with an interest in railways, engineering heritage, structures and timber engineering.

The book is 192 pages, A4 landscape format with soft cover and is lavishly illustrated with photographs and plans. The Timber Truss Railway Bridges of New South Wales is written, designed and published by Bill Phippen. Guidance and support were provided by Michael Clarke and Amie Nicholas, fellow members with Bill Phippen of Engineering Heritage Sydney, in Engineers Australia.

The recommended retail price of the book is \$29, plus \$12 postage if required. 10% discount off the RRP is offered to members of Engineers Australia. **Bill has kindly also offered this 10% discount off the RRP discount to members of the PWI NSW.** The books are packed in boxes of 18. On seller enquiries are welcome and 40% wholesale discount is applicable to orders for whole boxes.

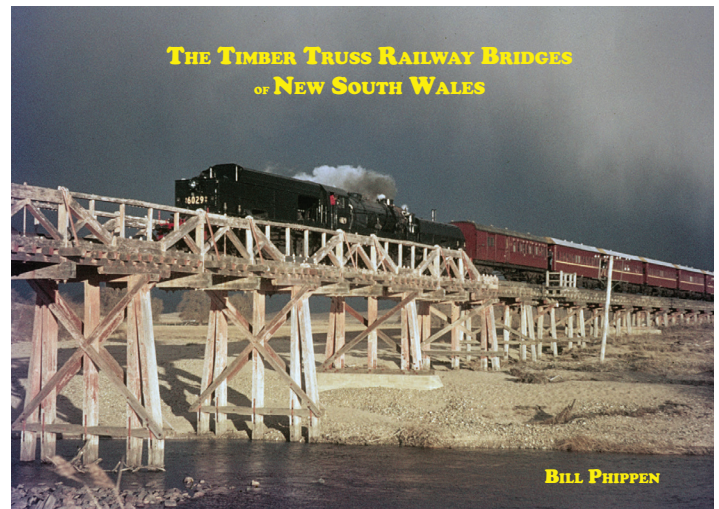
To purchase a copy of The Timber Truss Railway Bridges of New South Wales, you can contact Bill Phippen at [billhippen@telstra.com](mailto:billhippen@telstra.com) or 0412 379 236.

The book is also available through the Australian Railway Historical Society of NSW (ARHSnsw) bookshops on Central Station Grand Concourse and at 5 Henderson Road, Alexandria.

### About the author

Bill Phippen is a graduate in civil engineering from the University of Sydney. After a career in the building industry, he had a change of direction in 2010, becoming the manager of the Archives Section of the Australian Railway Historical Society of NSW (ARHSnsw). Although formal retirement came in 2018, Bill retains an interest in railway and engineering heritage through the ARHSnsw Archives, NSW State Archives and Engineers Australia Heritage.

Bill is a life member of ARHSnsw, a Fellow of the Institution of Engineers, Australia, and in 2013 was awarded the Medal of the Order of Australia for service to people with disability and the community.



# PWI Sponsors

Welcome to our new Gold Enhanced PWI member, **ALTRAC Light Rail**

ALTRAC Light Rail is the consortium responsible for the design, construction and operation of the CBD and south-east light rail network on behalf of Transport for NSW.



Welcome to our new Corporate Members, Preston Hire and Willow Inc.



For over 50 years, Preston Hire had provided quality construction equipment hire and services that many of their customers have come to count on. Preston Hire mission is to provide the highest quality products and services to our customers, supported by innovative use of the best in current technology, cost-efficient practices and safety initiatives. Preston Hire are a national supplier of innovative, industry-leading Hi-Rail equipment for rail projects across Australia.



Willow is the digital twin for the built world. Willow create virtual representations of physical assets, overlaid with real-time information from devices, equipment, people and places. Their solution enables owners and operators of major portfolios and infrastructure to manage with greater efficiency, drive operational improvements at scale, and provide their occupants or users with an enhanced experience.



# PWI Sponsors

The Permanent Way Institution would like to thank its Enhanced Corporate Members for their continued support.

## Platinum Enhanced Members



# PWI Sponsors

## Gold Enhanced Members





# PWI Sponsors

## Silver Enhanced Members



# PWI Sponsors

## Corporate Members

The Permanent Way Institution would like to thank its Corporate Members for their continued support.

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Australian Rail Track Corporation Ltd

Beca Pty Ltd

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Endeavour Mutual Bank

Gartner Rose Pty Ltd

Geofabrics Australiasia Pty Ltd

GHD Pty Ltd

Gilgandra Shire Council

Harbinger Infrastructure

HKA Global Pty Ltd

InfraSol Group Pty Ltd

Infrastructure Nation Pty Ltd

Jacobs Group (Australia) Pty Ltd

Kellogg Brown & Root

Liftronic Pty Ltd

Link Rail and Civil

Linmag Australia Pty Ltd

Loram

Martinus Rail

Meadows Consulting Pty Ltd

Middleton Group

Mott McDonald

Multi Civil & Rail Services Pty Ltd

Northern Fencing Specialists

Pidgeon Civil Engineering

Plateway Pty Ltd

Preston Hire

Rail, Tram & Bus Union NSW

Randstad

Rhomberg Rail Australia Pty Ltd

Robson Civil Projects

Rocla Concrete Sleepers

SEQR Talent

Strukton Rail Australia

Sydney Trains

Taylor Rail Australia

Thermit Australia Pty Ltd

Thompson Controls

Turnbull Engineering

VAE Railway Systems Pty Ltd

VIZIONX Pty Limited

Vossloh Cogifer Australia

Willow Inc

# Benefits of PWI NSW Corporate Sponsorship

## Platinum Membership

- Entry to the Convention for up to 10 employees (or clients)
- Large Logo on the Convention banner
- Recognition on the front cover of the yearly Journal
- Company logo on luncheon tables at the Annual Convention
- Company advertising / promotional items provided into Convention registration bags (supplied by Sponsor)
- Opportunity to chair a session at the Annual Convention
- Recognition and logo on back cover of the yearly Journal
- A Platinum membership certificate provided at the AGM
- Recognition as a Platinum Member in the PWI newsletters
- Recognition as Platinum Member on the PWI website
- Three free entrants to the Annual PWI Golf Day if sponsorship is offered
- Double sided A4 colour advertisement in the yearly Journal
- Framed Membership Certificate issued upon joining and updated certificates issued annually

## Gold Membership

- Entry to the Convention for up to five employees (or clients)
- Large Logo on the Convention banner
- Company advertising / promotional items provided into Convention registration bags (supplied by Sponsor)
- Recognition and logo on the inside front cover of the yearly Journal
- Separate recognition in the Journal as a Gold Member and supporter of PWI
- A Gold membership certificate will be provided at the AGM for each year you are a Gold Member
- Recognition as a Gold Member in the PWI newsletters
- Recognition as Gold Member on the PWI website
- Two free entrants to the Annual PWI Golf Day if sponsorship is offered
- Double sided A4 colour advertisement in the yearly Journal
- Framed Membership Certificate issued upon joining and updated certificates issued annually

## Silver Membership

- Entry to the Convention for up to three employees
- Logo on the Convention banner
- Recognition and logo on inside back cover of the yearly Journal
- A Silver membership certificate will be provided at the AGM for each year you are a Silver Member
- Recognition as a Silver Member in the PWI newsletters
- Recognition as Silver Member on the PWI website.
- One free entrant to the Annual PWI Golf Day if sponsorship is offered
- Double sided A4 colour advertisement in the yearly Journal
- Framed Membership Certificate issued upon joining and updated certificates issued annually

## Corporate Membership

- Entry to the convention for one employee
- Single page advertisement in the Journal
- Recognition of membership in Newsletters and the yearly Journal
- Logo displayed on the day of the convention (at random between sessions)
- Opportunity to provide presenters and sponsorship of Technical meetings
- Opportunity to provide additional sponsorship for PWI Golf Day and Winter Dinner events including one free entry for sponsor
- Annual Membership Certificate available for download and printing

## Annual Membership

Platinum Corporate (limit of 4)	\$11,300 (incl. GST)
Gold Corporate (limit of 8)	\$5,600 (incl. GST)
Silver Corporate (limit of 16)	\$3,400 (incl. GST)
Corporate	\$1,140 (incl. GST)

## Membership correspondence to:

Membership Secretary  
Peter Boonstra  
Email: [membership@pwinsw.org.au](mailto:membership@pwinsw.org.au)  
Phone: 0412 424 438