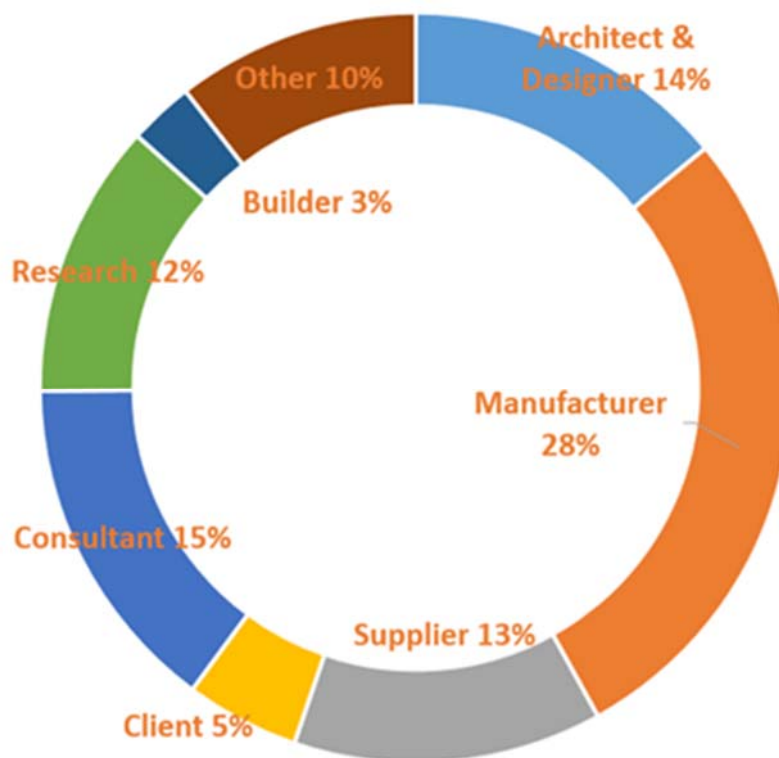


CEO Update February 2017

For those less familiar with PrefabAUS, our industry association was established only in 2013, and has enjoyed strong membership growth and excellent support from our emerging offsite construction industry. By its charter, the primary objective of PrefabAUS is to represent, showcase and advance Australia's prefabricated building industry through collaboration, innovation and education.



As can be seen in the chart at left, our membership includes a cross section of the construction industry; architects, builders, engineers and other technical consultants, manufacturers of prefabricated buildings and modules, flat packs, bathroom pods and sub-assemblies, component suppliers, project managers, client organisations, allied Industry associations, government agencies as well as the academic/research community.

2016 Highlights include:

- our third annual conference held in Sydney in October
- the launch of the Built Offsite publication (see below)
- pre-launch of the Modular Construction Code (see below)
- continued strong growth of PrefabAUS membership
- distributing PrefabAUS logos which members can use to as evidence of membership
- establishing a solid financial position for PrefabAUS to continue and expand it activities
- and the upgrade of our website which went live in September

Our **2016 PrefabAUS annual conference** took place in Sydney in October. This three day event started with a whole day of site visits followed by two days of conference presentations was attended by over 220 delegates, representing a very strong groundswell of interest.

An excellent response rate to the conference survey has provided PrefabAUS with valuable feedback and suggestions which will assist us in making this years' conference even better.

Conference survey prize winners are:

First Prize - One complimentary registration for the PrefabAUS 2017 Conference.


Winner: Rohan Forrest - Carter Grange

Second Prize - one dozen premium wines

Winner: Nick Forostenko - JLL

Third Prizes (5) - each 2 entry tickets to a PrefabAUS Networking event

- Winners:
- Robert Mansell - Hyne
 - Tim Boekhoorn - Hames Sharley
 - Lio Herbert - CUSP
 - Keith Savage - Savage Architecture
 - Tom Oosterhof - Eastcourt Property Group

<p><i>Built Offsite</i></p> <p>The Conference also marked the launch of <i>Built Offsite</i>, a new bi-monthly magazine dedicated to offsite construction and expertly produced by Boston Publishing. The inaugural and second editions are available in digital format at www.prefabaus.org.au/, with the third edition out later in February.</p>	
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In December 2016 PrefabAUS co-hosted the pre-launch event for the **Modular Construction Code**, the first of its kind in the world. Developed by the Modular Construction Codes Board (MCCB), it is a collaborative research project with Monash University, jointly funded by the Victorian Government and private industry.



James Murray-Parkes was instrumental in bringing about the MCCB and in the development of the Code document.

James is pictured here at the pre-launch in December.

The aim of the Code is to provide guidance to the industry on the design and construction of modular structures by consolidating leading-edge experience and knowledge of advances in modular manufacturing and construction for improving safety, productivity and quality in industrial practices. This Code seeks to provide integrated solutions and experiences to industry, government and the wider community.

An excerpt from the draft code is shown here:

A2.1 Material Reduction Factors

A2.1.0.1

The reliance of *Modular Construction* upon off-site manufacturing processes allows for greater *accuracy* and *precision* in finished products taken to site for assembly. The design rationale of *Reliability* accounts for these factors, and permits appropriate credit in the design process (for example, increase of capacity reduction factors). *Reliability* analysis is outlined in the *NCC* and mandated where a Deemed-to-Satisfy solution is not used. *Reliability* analysis is covered in detail in **Section A3.5 Reliability**.

A2.1.0.2

Where the *Reliability* approach is used to establish material capacity design values by testing, a methodology should be proposed by the *Designer* for obtaining and calibrating test data against proposed design output.

A2.1.0.3

Examples of capacity reduction factors for commonly used materials to Australian design standards are presented in the subsequent sections for reference.

It should be recognised that these capacity reduction factors are based on *Reliability* analysis. Alternate factors suitable to the client may be able to be utilised in some cases, depending on *risk*. This is discussed further in **Section A3.5 Reliability**.

For combined actions the in-plane constraint applies:

$$M_x^* \leq \phi M_{rx} \tag{A8}$$

where

M_x^* = Design bending moment about major principle axis
 M_{rx} = Nominal section moment capacity, reduced by axial force

$$= M_{sx} \left(1 - \frac{N^*}{N_s} \right)$$

N_s = Nominal section capacity
 M_{sx} = Nominal section in-plane moment capacity

Also for combined actions, the out-of-plane constraint applies:

$$M_y^* \leq \phi M_{ry} \tag{A9}$$

where

M_{ry} = Nominal section out-of-plane moment capacity, reduced by axial force

$$= M_{sy} \left(1 - \frac{N^*}{N_s} \right)$$

M_{sy} = Nominal section out-of-plane moment capacity

The following overall constraint must also be satisfied:

$$\frac{N^*}{\phi N_s} + \frac{M_x^*}{\phi M_{sx}} + \frac{M_y^*}{\phi M_{sy}} \leq 1 \tag{A10}$$

For further guidance on determining nominal section and member capacities, refer to **AS 4100** Sections 5-8 or the appropriate Standard for the *Designer's* jurisdiction. Typical capacity *reduction factors* for Australian steel structures are given in **Table A13**. See **Table A15** for additional guidance for cold-formed steel structures.

Additional information about the Codes Board is available at www.prefabaus.org.au/mccb/

2017 year is certainly shaping up as another exciting year where we can look forward to:

- the national roll-out of the Modular Construction Code exposure draft;
- our first study tour to Sweden to study their panelised building industry which produces around 80% of the country's houses (more information below);
- the fourth Annual PrefabAUS Conference to be held 11-13 September in Melbourne; and
- developing further our valued relationships with alliance partners such as the Modular Building Institute.

PrefabAUS 2017 Conference

Mark your diaries for the 2017 Conference which returns to Melbourne this year on Monday 11 September (Site Visits) and Tuesday 11 & Wednesday 12 September for the Conference formal program. Preparations are now underway to ensure another highly successful conference this year. Indicative of the very positive feedback is that over 25% of the 2016 delegates completed the survey. We are especially pleased that more than 95% of respondents intend participating in our 2017 conference.

PrefabAUS Sweden Study Tour

Sweden is the leading exponent of panelised building systems, with around 80% of its houses being factory-built to reap the construction time, quality and labour efficiency advantages. This study tour program has been designed to showcase panel systems for detached and apartment (mid-rise) construction and features unparalleled access to factories, projects and industry experts (presentations and technical discussions).

Study tour delegates will experience a selection of Swedish prefabricated housing manufacturers from manually produced elements using 'butterfly tables' with very low capital investment through to firms utilising highly automated high volume production lines. Beyond the manufacturing processes involved, the program will also consider the initiation, design, marketing and delivery of panel system projects.

The tour departs Australia the evening of Friday 5 May and arrives back in Australia the evening of Saturday 13 May.

Indicative cost of the study tour is \$5,000 covering:

- Return economy air flights (Australian capital cities to Copenhagen via Dubai on Qantas/Emirates)
- Hotel accommodation including breakfast in Copenhagen, Denmark (Saturday night)
- Hotel accommodation including breakfast in various locations in south-west Sweden, Sweden (5 nights)
- All ground transport
- Welcome dinner and Closing dinner

Excluded are other meals, travel insurance and incidentals.

Study tour confirmations are now required so if you haven't already done so you need to be quick: [Register](#)

CoLab is PrefabNZ's major annual industry event and is on next month in Auckland. Tuesday 21 March is the conference and Wednesday 22 March the site visits. The site visit day is in collaboration with New Zealand Institute of Building (NZIOB). PrefabAUS Members are welcome to attend at the PrefabNZ Member price: <http://www.prefabnz.com/Events/CoLab2017>

Finally, a reminder that all Corporate, Associate, Professional and Small Professional members are eligible to be listed in the **member directory** on the PrefabAUS website. The member directory is an increasingly popular destination for visits to the website. Please check your listing to see if it would benefit from updating. Eligible members have been sent reminder emails to provide the requisite information. However, if your organisation is not listed in the directory, please contact accounts@prefabaus.org.au.

With best wishes

Warren McGregor