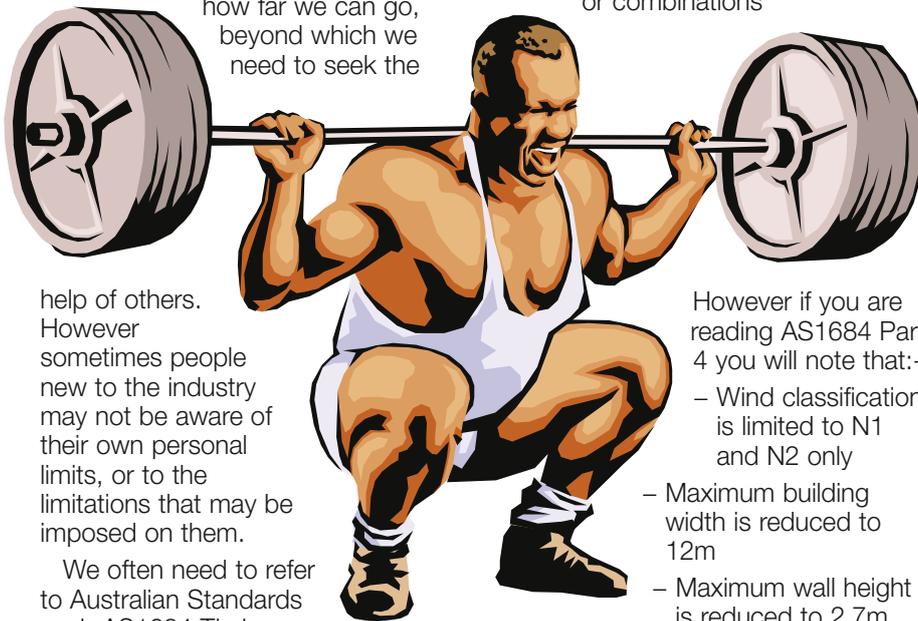


ANOTHER MITEK ADVANTAGE

KNOWING THE LIMITS

Every great sports person or successful business person knows their own personal limits and the limitations of their equipment. They know how far they can go. And if they need to go further they will know where to find the resources.

The same applies to our industry. We all have limitations on how far we can go, beyond which we need to seek the



help of others. However sometimes people new to the industry may not be aware of their own personal limits, or to the limitations that may be imposed on them.

We often need to refer to Australian Standards such AS1684 Timber Framing Code or AS4440 Installation of nailplated timber roof trusses in designing prefabricated trusses and frames. Have you taken the time to familiarise yourself with the "Scope" located at the start of these documents? The "Scope" will explain what the limitations are for that particular document.

If we take AS1684 for example, the "Scope" will change depending on which part of the document you are reading. For example AS1684 Part 2 is suitable for:-

- Class 1 and Class 10 buildings as defined by Building Code of Australia (BCA)
- Single and two-storey construction
- Wind classifications N1 to N4
- Building plan to be rectangular, square, L-shaped, or combinations including splayed-ends and boomerang-shaped buildings.
- Maximum building width of 16m
- Maximum wall height of 3m

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- Maximum roof pitch of 35°
- Wall bracing elements at no more than 9m spacing
- Roof construction of hip, gable, skillion, cathedral, trussed, pitched or combinations

However if you are reading AS1684 Part 4 you will note that:-

- Wind classification is limited to N1 and N2 only
- Maximum building width is reduced to 12m
- Maximum wall height is reduced to 2.7m
- Maximum roof pitch is reduced to 30°

AS1684 Part 3 is for cyclonic areas therefore the wind classifications are increased to include C1 to C3.

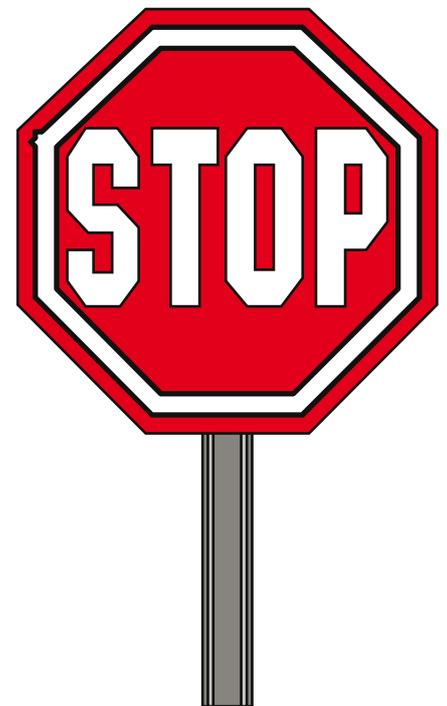
You will also notice that AS4440 has similar limitations to AS1684.2 however the roof pitch has been increased to 45° (with a note that above 35° the supporting structure may need special consideration).

What then do you do when the limitations of the documents are exceeded? Hopefully you would seek advice and/or designs from a qualified engineer. Guessing or trying to extrapolate beyond the limitations of these codes can be a dangerous practice and it places you in a very vulnerable position should things go wrong. The cost of professional help in these circumstances is inexpensive when you consider the cost of potential rectification and litigation.

Your truss design software will also have limitations on what you can

personally do without seeking designs from a qualified engineer. These limitations are often in line with those from AS1684 and AS4440, however there may be a few special cases to consider. Make sure that you take the time to understand what limitations you have. These are often found in the flash screens on the start up of your design program.

Also you must ensure that you have been adequately trained in all areas of the software that you are currently using. Truss design software is very sophisticated and powerful today and you need to ensure that you are taking full advantage of it but at the same time produce safe and economical designs. Speak to your nail plate supplier about the training available.



If you are not completely clear on your own limitations then you will not know how far you can go. Maybe you are not extending yourself to your full potential or more importantly you may not know you are exceeding your boundaries. The golden rule here is "If in doubt, ASK!"