GANG-NAIL GUIDELINES No.97

ANOTHER MITEK ADVANTAGE

HOW ARE YOUR TRUSSES USED ON SITE?

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Timber roof trusses have been used in Australia for more than 40 years, yet some trades people do not appreciate that trusses are very important structural components of the roof, and as such should not be modified or altered in any way.

Trusses are engineered components which are very strong, provided that none of their members or connections are compromised.

One common problem that we often hear from the building sites is that someone has modified a truss because it didn't quite fit, or it interfered with the services.

For many trades the easy option is to modify the truss.

However modification will almost certainly compromise the structural integrity of the truss and the whole structure.

"AS 4440 Installation of nailplated timber roof trusses" states that "Under no circumstances shall a truss be modified by cutting, drilling, or by any other method that may interfere with its structural integrity, without being approved."

Installation instructions supplied by nailplate manufacturers will also have similar instructions.

Would you allow your mechanic to drill a hole in the bonnet of your brand new car to change the oil? I don't think so.

And I don't think your mechanic would even consider the option.

So why do we still have so many 'trades people' that do not give a second thought about modifying a structural component.

warning stickers that should be affixed to every truss to alert all trades to the dangers of cutting or using damaged trusses.

If you become aware of any area in the structure where a conflict may arise bring the problem to the attention of the builder before proceeding.

Clear documentation on the exact location of trusses and other components may help to avoid a headache at a later date.

■ *Floor truss cut and web removed to allow for services.*

What actually happens if a truss is modified?

Firstly all of the loads redistributed through the truss, dramatically alter the designed capacity of the structure.

The result can be disastrous!

The timber size and grade, or nailplates, may not be sufficient to carry the changed forces so compromising structural integrity of the building.

This can lead to problems such as truss deflection resulting in uneven roof, floor and/or ceiling lines or at worst a collapse.

Often these problems can be overcome with a little fore sight.

Nailplate manufacturers supply

■ *Section of truss has been removed and replaced with strap nails.*

■ *Plates have been removed.*