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GN GUIDELINES NO.245

ANOTHER MITEK ADVANTAGE – DECEMBER 2017

By Tim Rossiter, state manager, NSW and WA

If it ain't broke don't fix it

This principle is just as important in building construction as it is in everyday life. The root cause of any problem should always be identified first, before trying to fix it. With building activity at such a hectic pace in most parts of the country, the pressure is certainly there to get on and off site as quickly as possible, and it's tempting to take a shortcut.

The old saying I learnt from my dad, "If it ain't broke, don't fix it", has just as much relevance in the truss and frame industry. Murphy's Law dictates that, "Anything that can go wrong, will go wrong" during construction, as it does anywhere else; but undue haste – which leads to quick assumptions and even quicker "fixes" – will more than likely develop into a much bigger problem for someone else later on.

I cannot emphasise enough what has constantly been laid out in previous Gang-Nail Guidelines: that it is imperative to pinpoint the real source of the problem before attempting to repair it. This sounds simple, but our engineers regularly find trusses that have been unnecessarily packed off walls or modified because they were hastily assumed to be the problem. It may be time-consuming to investigate the origins of any defect, but making a wrong assumption in the interest of saving time and effort will probably cost more time and money instead.

When you find a bump in the ceiling, before assuming that the truss above has sagged, ALWAYS stretch a stringline along the truss bottom chord to check for straightness first.

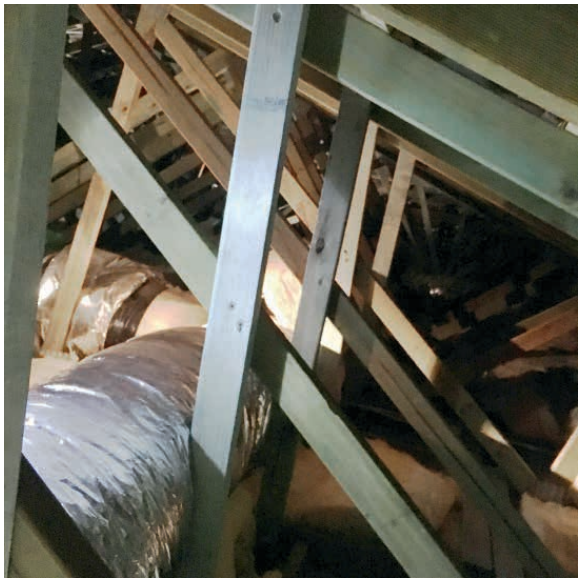
I have lost count of the number of times when I have found a "deflecting" truss that has been packed off an internal wall, which forced the bottom chord to hog up instead! They are sometimes accompanied by guesses at extra timbers to "make the truss stronger" (Ref Photo at right – the "Don't" photo). These modifications may have been well intentioned, and possibly an attempt to duplicate a previous rectification, but were unauthorised and totally inappropriate in this instance.

In the vast majority of cases, it is the level between tops of supports and internal walls (near the bump) that are often found to be undulating, and not the trusses themselves, which are usually found to be straight from heel to heel.

In the case of the photo here, the builder had to remove the cornices and all packing material on internal non-loadbearing walls, allow a couple of weeks for the trusses to settle down, reset the ceiling and cornices, and re-paint. This fix, on top of the previously unnecessary fix, wasted him time and money that could have been avoided all along.

In cases like this, the prevention could have been quite simple. Make certain the tops of external supporting walls and internal walls are level before standing the trusses. If there are any floor or foundation level variations, they can be resolved by suitable packing under studs where required.

Remember my warning at the beginning of this article: taking shortcuts because of pressure to get on and off site often leads to sub-standard work.



Above: *a veritable forest of extra timbers added to trusses, which were in turn packed off an internal non-loadbearing wall. When checked, the bottom chords were found to have hogged upwards by up to 20mm!*

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There are Guides to Standards and Tolerances published by building authorities in every state, and the latest 2017 edition issued by NSW Fair Trading lists the following as a slab defect:

2.8 Levelness of Concrete Floors

Except where documented otherwise, new floors are defective if, within the first 24 months of handover, they differ in level by more than 10mm in any room or area, or more than 4mm in any 2m length. The overall deviation of floor level to the entire building footprint shall not exceed 20mm.

In conclusion, I offer another one of my dad's sage sayings: "A pinch of prevention is worth a pound of cure". Believe it or not, staying within the slab level limits set out above will definitely reduce the instances of ceiling level issues. T

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