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PRECISION AND ACCURACY

Prefabricated timber trusses have been extensively used in Australia for over 50 years.

In recent decades, we have seen huge advances with computer technology in the way trusses are designed and manufactured. A truss that once would have taken an engineer many hours of manual computations to process can now be designed in a matter of seconds.

Nail plate manufacturers spend millions of dollars fine tuning their software and testing their products to ensure that the most efficient and competitive design outcomes are achieved.



With the power of the advanced software making more accurate calculations, we can also allow our designs to be trimmed "closer" to the limits. In addition, advances in timber grading technology and a widening range of engineered timber products have led us to be more efficient in material use.

On the other hand, the structures we build are becoming increasingly more complex. Houses are getting larger, floor layouts encompass more open plan living with fewer partitions and window and door openings are becoming bigger than ever before.

The end result is that there is now less

redundancy or buffer in the homes we build.

In other words, all this is fine in a theoretical world but in the field of construction, more complex loads



compounded by more refined designs mean that due diligence is all the more necessary during the building phase.

I should therefore be excused for the frustration I feel when I repeatedly see the same issues of poor installation on site recurring again and again, as demonstrated by the following examples taken in recent weeks at separate job locations.

Photo 1 shows a Universal Trip-L-Grip that has clearly not been correctly installed. The bracket orientation and the number of nails used do not come near to the manufacturer's instructions.

Photo 2 shows a Mkill Girder Bracket

that also does not have the correct number of screw fixings.

Photo 3 shows joist hangers with an obviously inadequate and imbalanced nailing pattern.



These examples demonstrate a lingering careless attitude and a clear disregard for good workmanship. The end result of all of these examples is that the connections are likely to be insufficient to carry the loads applied and lead to failure at a later date.

So, with the precision and complexity of modern day construction, it is critically important to eradicate any "she'll be right" attitudes that may have prevailed in the past.

It is vital that skilled installation crews receive ongoing continuous educational training and have the confidence, knowledge and pride to do the job correctly.