



# FTMA TECH TALK

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## ***“Of all the gin joints in all the towns in all the world, she walks into mine.”***

I recently had a moment where I felt just like Rick Blaine in *Casablanca*, pondering over a coincidence so unlikely and so poetic that it could very well have been taken from a movie. This month's Tech Talk is a story – my story – of how we as manufacturers, designers, and engineers hold the integrity and reputation of this industry in our hands, and how quickly we could lose it.

I'm currently building a new family home, a 'forever home' that will accommodate three growing children and whatever life has in store for us. It is designed to suit elderly parents one day, and if housing affordability doesn't improve it could well be home for future spouses and grandchildren. Everyone I love, under one roof.

That is a lot of responsibility for one roof, and everyone involved in building it. There is an incredible level of trust in the products we supply, and without it the value proposition of offsite prefabrication is almost entirely lost. We supply fully engineered, compliant, high quality building components designed to create homes for people and families that last for decades, often untouched, and just as often forgotten about for the life of the structure.

I wanted to be like that. Just another home buyer, letting the builder and trades do their work, and moving in like any other family without giving the frames and trusses behind the plasterboard a second thought. Of course, I'm not just another home buyer, which means I scrutinised the truss designs and watched intently as they went up. That was when I noticed that the nailplates didn't come from the same supplier as the software used for the design.

There are a host of reasons why this is a problem. Fundamentally, without proper engineering sign off, it can become a compliance issue and delay the build. The Producer Statement explicitly states the need for the connection products to match the design, and this applies to all the tiedowns and connections between members, not just the nailplates. Once the building surveyor is aware of this, as I ensured he was, there is no possibility of them certifying that the frame stage is complete, which means

no progress payment for the builder until the situation is resolved.

You can imagine how they felt about not getting paid, but getting it right is important. If something were to go wrong, was it a software/design issue, or a product one? It's a recipe for a protracted battle, with the builder on the hook, assuming they honour their warranty, and the fabricator and their suppliers under scrutiny. With limited insurers left in the ANZ market who will underwrite professional engineering services, and eye-watering growth in their premiums, businesses have little choice but to rigorously defend the need to make a claim, especially when there is any ambiguity. All the while, the homeowner suffers the consequences.

To my dismay, my Site Supervisor was unconcerned. "Like for like substitution of gang-nail plates is common", he replied. His response underlined for me just how much trust there is in Australia's fabricators, as well as the need to keep educating this industry on the fundamental tenets that have built that trust over decades.

Thankfully there is a happy ending, and building work has resumed. There are several compliance pathways available to rectify this situation, ranging from replacement to a complete re-design or an engineering certification. Our investigations revealed a window of time during a nailplate changeover when the new software was in use, but the new plates were not yet in the factory. An engineer from the nailplate supplier took the responsibility to identify the impacted jobs, complete a thorough design review, and issue a letter of compliance, which satisfied both me and my building surveyor.

This is the story of my *Casablanca* moment. Of all the houses, in all of Australia, in 2023, the trusses with the mis-matched nailplates went into mine. What's the moral of the story? Vigilance. In the words of Rick Blaine, if any of us make an error like this and someone is left without a home, injured, or worse - you'll regret it. *Maybe not today. Maybe not tomorrow, but soon and for the rest of your life.*

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