



COMMON SITE ISSUES

Construction schedules can often be challenging and any impacts to the flow of installation can be costly and lead to frustration. However, a number of the issues we see are repetitive and can be easily avoided on site with a little attention to detail in the design and planning stage. There are a number of common site issues but today we'll focus on two of the most common and easily avoidable.

One of my perennial favourites is mechanical services units or HVAC systems. Nearly every residential house has these as part of their design and construction. However, sufficient information is often left out of the architectural plans. In this digital age we need to be doing better!

Not allowing sufficient space to accommodate these units can cause major delays on site, as trusses will often need to be site-repaired to accommodate the voids required to house the units and potentially the ducting systems.

A key consideration to accommodate the units is the pitch of the roof – as this pitch decreases the allowable space to house the units decreases.

At some stage the ability for a unit to be housed within the void spaces created by the truss webs will diminish – see below.

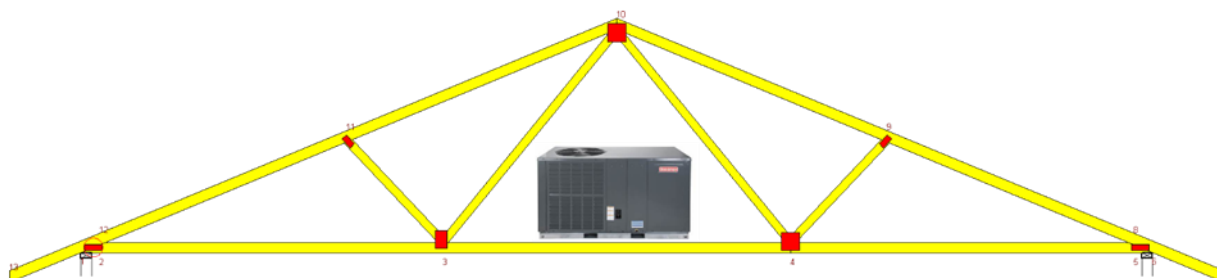


Figure 1: A truss with large pitch can reasonably accommodate an AC unit.



Figure 2: A low pitch truss which will create conflicts with housing the AC unit in the roof space

If the size, location, and weights of these units are known at the design stage they can be easily detailed into the job. For shallow pitch trusses, girder trusses running either side of the unit and trimming beams running between the girders can be utilised to house the unit. A typical example is seen right.

If there are no AC units on the plans it is a good idea for the detailers to raise this with the builder at the design stage to save headaches on site.

Another common issue occurs with conflicts created by pipework for waste systems – usually in floor spaces in bathrooms or other wet areas. Without sufficient detail on the plans, floor trusses/joists can often be in the way of the pipework required in the floor space.

A typical example is shown right.

These can be a major problem as rectification work normally has to work around the in-situ pipework, which can be challenging. The software providers typically have allowances to create void spaces and conflicts zone on their layouts, so if these areas are known at the design stage they can easily be worked around.

With a little attention to detail and some planning at the design stage, these common issues can be avoided and a smooth flow of trades will lead to an efficient build.

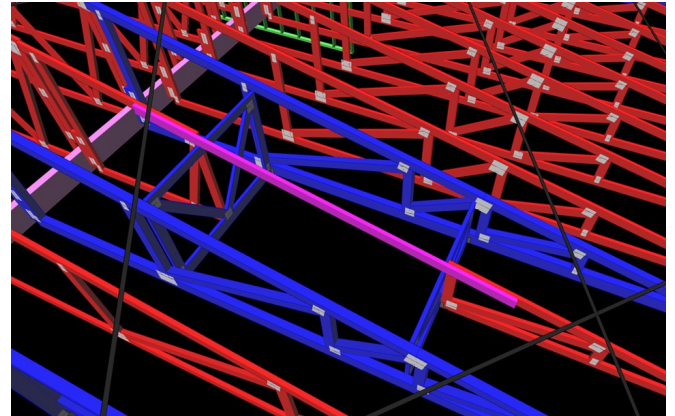
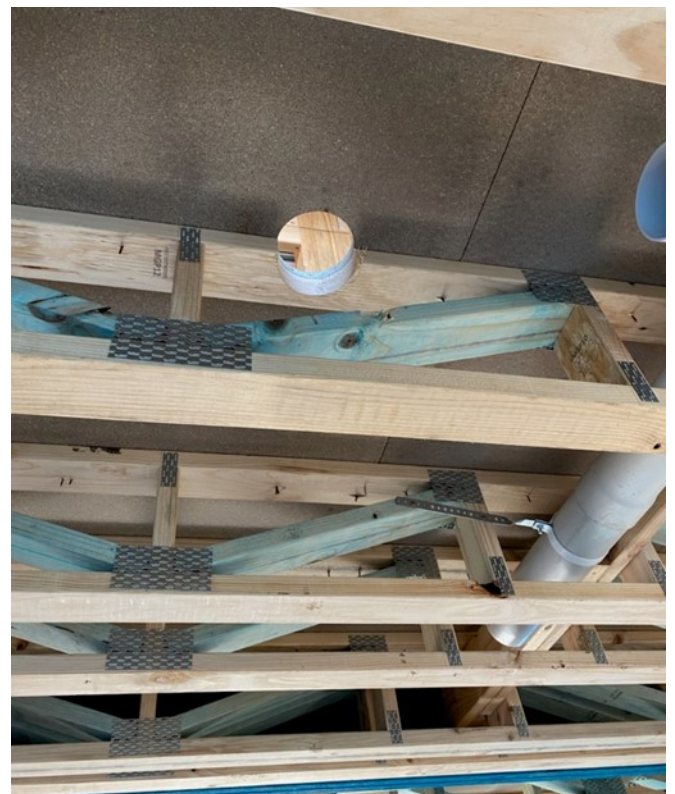


Figure 3 (top right): Void space created to house AC unit

Figure 4 (bottom right): Hole cut in floor truss to accommodate pipework



This edition of FTMA Tech Talk was written by Ian Hayward, Engineering Manager of our Gold Sponsor, Pryda.

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