

Using 3D Modelling to Pre-determine Service Penetrations

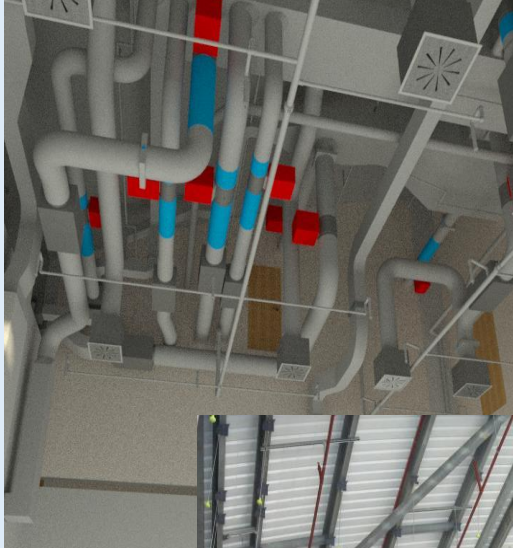
The Problem / Challenge

When running services through walls, it is critical to ensure the opening is properly sealed to maintain fire integrity along with acoustic and heat loss performance. Typically, services are run first and then the wall is built around them but this has implications:-

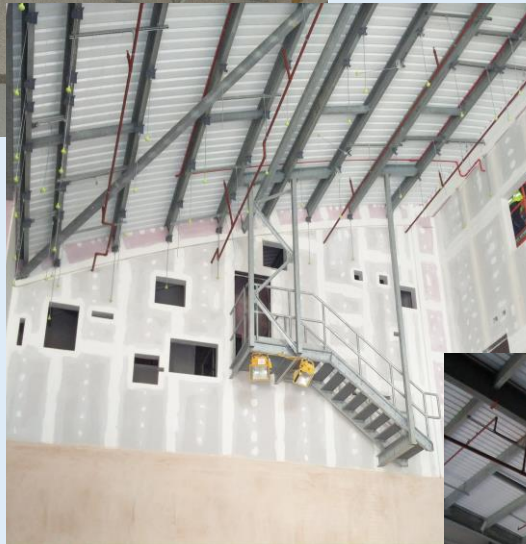
- Difficult access around the services (safety, cost and time)
- Loss of quality in top of wall construction
- Potential for damage to services

The Solution

Utilising the output from 3D Modelling we were able to issue elevation drawings and full dimensions at the time of wall construction



It is far easier and cheaper for the wall to be constructed first and to form the service penetrations. Also access was much safer with the services not in place



Subsequent access for service installation is still good.



Key Points

- NOTE: Need to ensure M&E designs are fully co-ordinated and complete.
- Safe access throughout
- Minimises the potential for costly damage to services
- Enables walls to be built to a higher quality standard and maintains fire and acoustic integrity through the sides of the penetrations
- Minimises multiple trades trying to work in the same area
- Overall construction time is reduced with less chance of the need to carry out repeat making good works and snagging.

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