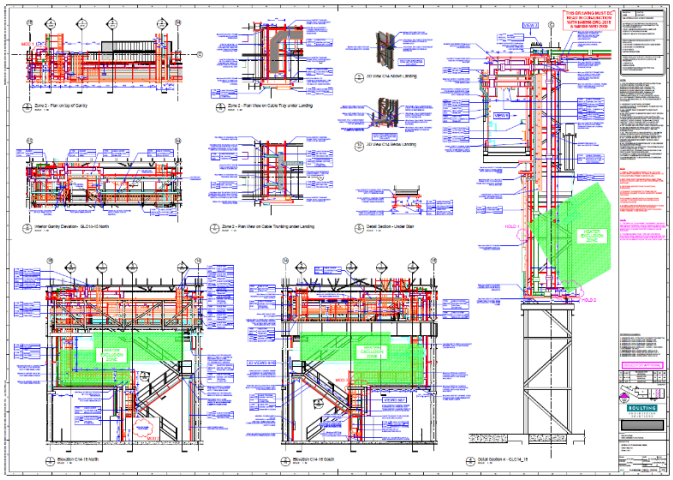
# Effective Design using Digital Twin Model Extracts – BIM

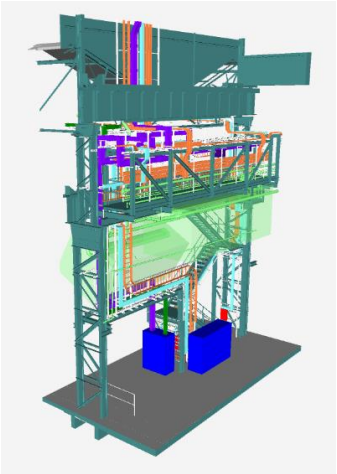
The move towards BIM has seen the development of “digital twin” 3D modelling in software such as Autodesk Revit. This is the construction of a digital version of the physical design, to provide an intelligent model which exists on a digital platform alongside the physically “built” design.

With complex designs and congested service areas designs are “digitally built” once with any number of views and sections immediately available for output onto a traditional 2D drawing sheet. Any design changes in the digital twin model will only need to made once and will automatically be reflected in any relevant views which have been set up. Building the digital twin model also reduces uncertainty and misinterpretation of design.

Additionally, it is possible to extract small sections and animations of the digital twin model to software such as Navisworks, which can then be issued to support the traditional 2D drawings. These smaller 3D model views are fully manoeuvrable and can be used by the site team (via the free Navisworks viewer) to visualise the design contained in the 2D drawings. “BIM” intelligence is also held in these extracts and can be used to identify asset information.



*Traditional 2D Sheet*



*Extract from Digital Twin Model*

## Key Benefits

- Design is only “drawn” / Modifications made once.
- Multiple views are available immediately for export onto 2D sheets.
- 3D visualisation makes complex design drawings easier to understand for site team.
- Installation team productivity/accuracy is increased.
- Small model section is easily viewed and interogated on free viewer software.
- BIM model contains assett information.
- Model can be viewed on tablet “on site” to further aid visualisation.
- Model can be used as a training aid.

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