

Design and BIM

Design disciplines have had a head start in appreciating the benefits of BIM in their phase of an asset life cycle, including improved collaboration, greater design optimisation, visualisations and process efficiencies.

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BIM FOSTERS a collaborative design process in the consultant team, enabling the sharing of design information from early stages in the project. Each consulting party can add their modelled geometry and associated information to the BIM, creating a single source of truth, enabling a greater overview of the design and improving design decisions.

Collaboration leads to efficiencies

This collaborative approach enables process efficiencies, particularly in the area of coordination. Each consulting party is responsible for their areas of expertise - for example, services engineers for calculations and circuitry of electrical items and architects for positional requirements. This allows for a single item to be placed in the model, reducing the potential for duplication and unverified model geometry.

The benefit of this is explained in an upcoming case study published on the BIMinNZ website - see www.biminanz.co.nz/casestudies.



BIM use allows improved collaboration across a project.

Design optimisation and visualisation

By working in the collaborative 3D environment and having access to up-to-date contextual modelled information, design decisions can be made with more surety. Realisation of a more functional room layout or simply where a duct can be rerouted to avoid a firewall leads to saved time and rework.

BIM enables greater visualisation of designs for both the design team and clients. Design teams are finding benefit in using

virtual reality (VR) alongside their normal design processes. This delivers improved context along with enabling coordination issues to be identified during the design phase, providing further downstream benefit on site.

For clients, the use of BIM alongside VR during the design process allows them and the facility end-users to experience the buildings in a virtual 3D environment. This provides a higher level of interaction and