

Overview of Discipline

Client

The client is a party that has the ultimate need for the particular purpose built structure.

A client can be an individual development company, a government department, or any other organisation (large or small)

The owner or developer can often be represented by an initial specialised design team to manage the cost, complexity, and time requirements. These selected teams comprise quantity surveying, design (architectural and engineering) and project management.

The full project team during the project include, but are not limited to, architects, interior designers, surveyors, civil engineers, cost engineers (or quantity surveyors), mechanical engineers, electrical engineers, structural engineers, and fire protection engineers.

Their purpose is to develop an appreciation of the structure as an advanced technological system requiring close integration of many sub-systems and their individual components, including sustainability.

In response, many companies are growing beyond traditional offerings of design or construction services alone and so building engineering is an emerging discipline that attempts to meet this new challenge. It also enables the placing of more emphasis on establishing relationships with other necessary participants.

The creation of the Building Information Model (**BIM**) provides the potential for a virtual information model, which can be handed between the design team, where each member would add their own additional discipline-specific knowledge.

The resultant BIM greatly reduces the information loss that occurs when a new member of the team takes "ownership" of the project and enables them to track any changes.

The extensive information contained in the single 3D model of the structure would eventually be delivered back to the client, which is a significant additional resource far beyond that which they have been accustomed to receiving in the past.

So, rather than the client having to explore the physical structure of the project, he can refer to the BIM and for example see exactly where a specific item/member is located in that structure along with its size, manufacturer, part number and any other information relevant to it. This model can then be used in maintenance and upgrade requirements later on in the building life. By providing accurate data BIM can aid in the future proofing (extending the buildings efficient life) by making modifications to the building a later stage more reliable and cost effective.

