

CONSTRUCTION ENGINEERING MASTERS DISSERTATION ABSTRACT

Exploration of the building design process and design documentation errors in a large architectural organisation

Deficiency in design documentation and deliverables has been recognised as a prevalent issue among the architecture, engineering and construction (AEC) industry. This study employs evidence from a large architectural organisation to explore the different types of common design deficiencies at the technical design stage. Technical design deficiency comments from the organisation's independent review panel on ten building projects were categorised by building design deliverables, with drawing standards emerging as an additional category. The data were further categorised into technical and non-technical design deficiencies. A workshop was conducted with participants from the organisation to interrogate the technical design deficiency findings and possible causes of the deficiencies and to comment on how the current design process in the organisation can be improved. The result of this research is a detailed list of technical design deficiencies which can offer architectural practitioner an opportunity to prevent these common; some deficiencies examples are 'The external area should fall away from the entrance at minimum 2%'; 'Show roof falls, spot levels, drainage outlets location' and 'Door ironmongery missing'. A few of the recommendations made in this study are: 'encourage mentoring culture', 'focus training sessions' and 'incorporate experts from different teams to the review' to improve the organisation's design process.

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