

University of Southern Queensland
Faculty of Engineering and Surveying

**Analysis of the feasibility of a 3D model for use in Civil
Construction (creating a 3D model for the first span of a
bridge)**

A dissertation submitted by

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Abstract

Background The construction industry has used 2D paper plans as the standard for construction. This practice however is not without its own flaws and problems. This dissertation attempts to provide a feasibility study of using computer simulated 3D models instead of the normal 2D paper plans.

Results A 3D model represents a more efficient method of viewing design data. There are multiple features available to computer programs which are time consuming or impossible to do by hand. An increase in the available information for engineers allows for a higher quality of work and understanding on what is to be constructed.

Conclusions 3D modeling is the direction that the construction industry is heading. However it is not without its challenges until it can become the standard. A lack of drive from clients and contractors is hindering the rapid uptake of 3D modeling. The general lack of a standard program for 3D modeling is also hampering uptake.

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CERTIFICATION

I certify that the ideas, designs and experimental work, results, analyses and conclusions set out in this dissertation are entirely my own effort, except where otherwise indicated and acknowledged.

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