A STUDY ON BEHAVIOUR OF LIFT CORE DUE TO LOADING COMBINATIONS

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By

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DECLARATION BY CANDIDATE

Me Zuhaira Mat Zain (2004335554) confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

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ABSTRACTS

In the early days, approximate techniques were being devised for specific; largely two dimensional, structural forms and the analysis of complex three dimensional systems represent a difficult challenge. With regard to horizontal loading, a building is essentially a vertical cantilever. So it can be calculated simplified as traditional method. But the manual method that applied is not accurate approximately for the very complex building. The computer software will assist to produce the faster result. The major part of this study thus concentrates the behaviors the lift core, one type of shear wall under various type of loading act to the building. A lot of outputs produce by the computer, but the main objective is to get the value based on the deflection, stresses and shear force. Real building structure is so complex that even an elaborate computational model will be a considerer able simplification, and the result from the analysis almost is approximate. With the aid of the graphical output result, we will more understand the behaviour and critical position on the lift core. This study also will create the virtual load as the input stage to recognize what happen to the life core if any possible matters like the extreme earthquake.

The purpose of the study is to identify the comparison between manual calculation and application of LUSAS software for lift core for high rise buildings. At the first stage, the lift core structure will be analyze using manual calculation by considering all the load such lateral load, wind load, earthquake and the torsion. These entire loads also will be recalculating by an application of LUSAS software. All the result from both manual calculation and LUSAS software should be quite same value, which are the different should be as small as possible.