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Comparative Study on Wind Analysis on High-Rise Building Structure with Different Aspect Ratios with Normal Building and Building with Shear Wall

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Abstract: *The rapid increase in the population in developing countries such as India has an acute shortage of land and space. To get rid of all these problems, people have resorted to multistory or tall buildings both for commercial as well as for residential purposes. As the height of the building increases wind flow is an important consideration for the designers if the height of building exceeds 10metres than only we can consider wind loads. It is well recognized that the incorporation of lateral load resisting systems in the form of shear walls, bracing systems etc. improve the structural performance of buildings subjected to lateral forces due to lateral loads like wind loads. The building with structural shear walls Improve the lateral load resistance. In the present project, an analytical parameter study is done for the G+16 .In this project ,6 models were created in that 3 models were created normally i.e without using shear wall and of increasing aspect ratios and then 3 models of same aspect ratios as of previous 3 models were created but here shear wall is used and this models with shear wall and models without shear wall are compare and by seeing results conclusion is made USING ETABS .The results in terms of Storey drift, Storey displacement, Storey shear ,Base shear and Time period are seen.*

Keywords: High-rise structure, ETABS, Time Period, Base shear, Storey Drift, Storey displacement

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