

# Seismic Analysis of G+10 RCC Building with and without Shear Wall

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**Abstract:** On day of 26th January 2001 India had face the immense calamity because of tremor happened in Bhuj with an extent of 7.7 richter scale and the field of structural design detects the noteworthiness of adjustment in the study of seismic behavior of structure. While conversing about the seismic design of structure, it ought to have the lateral force resisting system which will embraces the least dimension of structural member. So as to give the best possible lateral resisting system for high rise or tall structure, structural designer has to provide Special Moment Resisting frame or the shear wall with the group of Special Moment Resisting frame according to the suitability of structure and economy. The inspiration of this investigation is a usable utilization of shear walls with precise location in structure and to attest that the shear walls can be replaced to column without increasing the quantity of concrete, in order to achieve the economy. The study is confined up to the seismic analysis of a G+10 residential building according to the rules given in IS 1893 (Part 1):2002. The powerful utilization of shear walls studied with the three models in different zones of earthquakes ZONE II, ZONE III, ZONE IV, ZONE V with the parameters like Story drift, Base Shear, lateral Displacement, Overturning moment in all zones for all models by utilizing the product E-tabs 2016.

**Keywords:** Shear wall, E-tabs, framed structure, seismic behavior

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