

BASE ISOLATION TECHNIQUE FOR DESIGN OF EARTHQUAKE RESISTANT STRUCTURES

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ABSTRACT

An earthquake is the shaking of the surface of the Earth, resulting from the sudden release of energy in the Earth's lithosphere that creates seismic waves. The earthquake generated vertical inertial forces are to be considered in design unless checked and proven by specimen calculations to be not very significant. Special attention should be taken to the effect of such vertical component of ground motions. It is the responsibility of the structural engineer to protect the building against such vibrational forces. In practice no building can be earthquake resistant. In other words, it is impossible to make a building which can resist the earthquake completely. But, efforts can be made to reduce the damage caused by it. Many researches and studies have been done to develop such concepts that can help to minimize the structural damages to the building and thereby reducing the casualties caused during an earthquake. Base isolation is one such concept which can be employed in the buildings so as to reduce the damages caused due to earthquakes and at the same time strengthening the structure.

KEYWORDS: Base Isolation, Earthquake Lead Rubber Bearing