

9. Seismic Isolation Retrofit for Existing Building - Practical Example of First Floor Seismic Isolation System for Existing Building -

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The seismic isolation retrofit method was applied to the nine story's existing building, and the modulus of layer shearing force was decreased at the rate of 50%. As the output of the seismic isolation project, the optimal way to select the floor where the seismic isolation system should be applied was gotten. And other results are as follows.

- i . Confirming the seismic isolation effect by earthquake response analysis using correct earthquake motion data and the structural design method by which shearing displacement was control within approval level.
- ii . The efficient method to install the seismic isolation device to existing column keeping the earthquake-proof safety under the construction.
- iii . The advanced type of fire resistant design for seismic isolation devices and other which is inevitable as long as seismic isolation system is applied to the living floor.
- iv . Low noise and low vibration demolition method by which construction work can be continuing even though people are doing daily work in the building.

Key words : seismic isolation retrofit, fire resistant design, low noise and low vibration demolish method