1. INTRODUCTION
This paper outlines the design of the high-rise building whose top floor is isolated and utilized as the mass of a large-scale mass damper, and describes the effect of the vibration control system realized by the design.

2. STRUCTURAL OUTLINE
The framing work is in a pure rigid-frame RC structure, and a double tube structure is used, where columns are intensively laid out along the perimeter and around the center core.

3. OUTLINE OF LARGE-SCALE MASS DAMPER
The view lounge and helideck are individually base-isolated, which forms a dual structure of seismic isolation. The weight of the view lounge accounts for about 2.2% of the building weight above the ground, and the weight of the helideck accounts for about 0.2%.

4. OUTLINE OF ISOLATION SYSTEM
The isolation system under the view lounge consists of the following elements. We have developed a long-stroke oil damper that can follow large displacements.

5. SEISMIC RESPONSE ANALYSIS
In the analysis on an elastic building, the damper is the most effective when the natural period of mass damper is set to the optimum value; 3.8 sec which is theoretically estimated. On the other hand, when the building is elasto-plastic, it will have to be as longer as about 8 sec. to attain a sufficient damping effect.

6. CONCLUSION
Sufficient mass and a long stroke enable the mass damper to be practically effective enough against large earthquakes. The natural vibration period of the mass damper should be set by considering the nonlinearity of the building.