

S05: JAE Special Session
 S05-01:
 Spectacular Projects of
 Base-Isolated Buildings

UNIQUE ARCHITECTURAL FORMS ENABLED BY BASE-ISOLATION

Masayoshi Nakai

PRADA Boutique Aoyama

- Location : Minami-aoyama, Minato-ku, Tokyo, Japan
- Client : PRADA Japan
- Design architects : Herzog & de Meuron
 Associate architects : Takenaka Corporation
 Structural & M/E Engineers : Takenaka Corporation
- Contractor : Takenaka Corporation
- Program : Shop, office
- Site area : 953.51 m²
 Building area : 369.17 m²
 Total floor area : 2,860.36 m²
 Number of floors : 7 stories above the ground &
 2 underground stories
- Building height : 32.46 m
- Main structure : Steel construction &
 Reinforced concrete construction



Exterior View



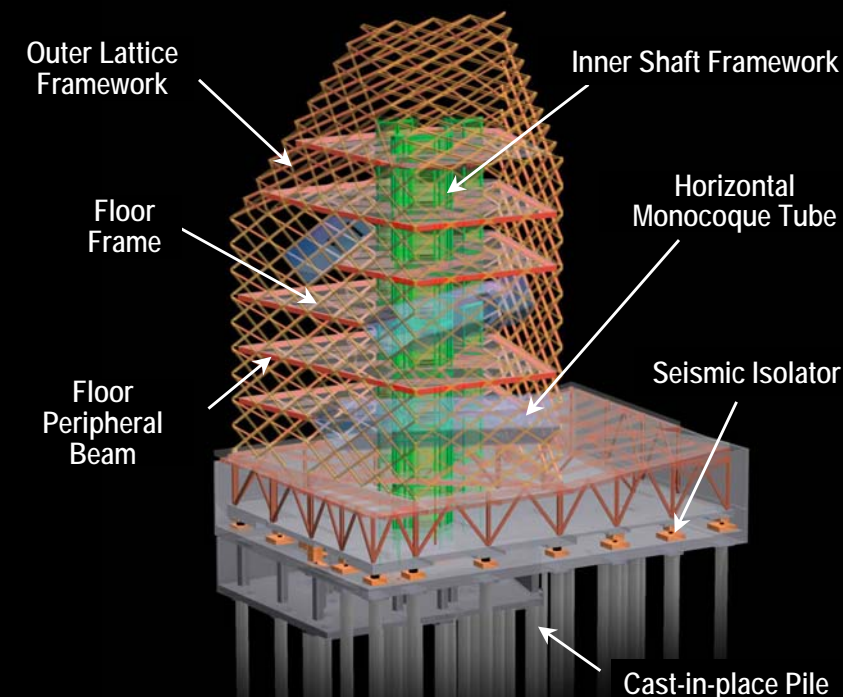
3F Interior View



Façade



Night View



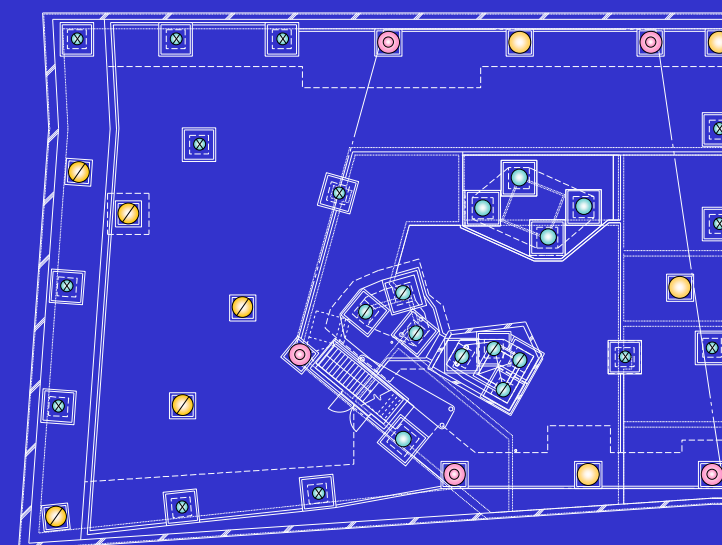
Overall Framework

Masayoshi Nakai
 Takenaka Corporation, Japan



■ Structural Concept

The façade of PRADA Boutique Aoyama, the flagship shop of the brand in Japan, is the diagonal lattice structure integrated with glazing. The façade structure undertakes approximately half of the vertical loads and almost all of the horizontal loads. The whole building is seismically isolated using 14 rubber bearings and 25 sliding bearings in order to minimize earthquake input thus enabling the thin and elegant proportion of the lattice members (H-sections of 250mm x 150mm). The base isolation also contributes to the minimization of the vertical and horizontal deformation of each diamond grid, which in turn enables the use of fire-resistant direct finish and the compact details of the glazing attachment.



Symbol	Type	Diameter	Quantity	Symbol	Type	Diameter	Quantity
⊙	LRB	650	5	●	SSR	450	5
●	RB	650	4	●		350	7
●		600	5	⊗		300	13

Layout of Seismic Isolators