

Rebuilding of Tokyo's SUITENGU shrine

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Abstract

Tokyo's Suitengu is a traditional Japanese shrine located in the urban area that is often visited by people praying for safe delivery in childbirth. There are two structural features which provide both quakeproof and high fire-resistance required in the urban area. Its main structural features are the integral base isolation system for several buildings of different sizes and the application of base isolation to the low-story section that extends throughout the entire shrine precincts. The second feature is main shrine buildings constructed with a traditional wooden visible interior and exterior and an inner structure of reinforced concrete that ensures both earthquake safety and fire-resistance. These features are useful to rebuilding the traditional buildings which is often seen in the developing world in rapid urbanization area which requires high safety of buildings.

Keywords: Integral base isolation system; super-fine octagonal column; ultra-high strength concrete; hybrid construction of concrete and wood.

1 Introduction

Tokyo's SUITENGU is a traditional Japanese shrine known for praying for safe delivery. We designed new SUITENGU based on the concept that it connects solemn old shrine and modern townscapes as a rebuilding of regional landmark familiar from 200 years ago. Therefore, we

harmonize traditional wooden design of the main building of shrine which is made full use of MIYADAIKU carpenter's skills, and modern design of buildings for waiting and gathering which is an abstraction of nagaya-mon (gate) and KURA (warehouse) of samurai residences.



Photo 1. Exterior view