



## Structural Design of Ningbo Global Shipping Plaza

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### Abstract

Design of Ningbo Global Shipping Plaza represents a sincere collaboration between architectural and structural design intentions. Emotions of architectural design are to offer the public and comfort common area inside the private super-high rise office building with high aspect ratio in China, and structural designing passion was to realize both architectural requirements and rationalities. This paper will introduce the design as one of examples of the design solution.

**Keywords:** Sustainability, Mega-Trussed system, Composite structure, high-rise buildings, high aspect, Open atrium, China, Twin-Core

### 1 Introduction

Contribution to sustainability from the aspect of structural engineering is not only for strength and material durability.

For a super high-rise office building, originally intended as private property, following design approach is realized by adopting the Mega Structural system;

- To enhance the public nature and openness to the city
- To aim the long life as social infrastructure from the point of view of increasing the affinity of the building

Ningbo Global Shipping Plaza adopts a twin-core system using Mega Structural system as its structural system, instead of the most common center-core system in China. This system enables the realization of a flexible, large space for offices and an open atrium with no pillars on the lower part of the tower.



Figure 1. Building outline-1