Shanghai Tower

### Facts

- **Official Name**: Shanghai Tower
- **Other Names**: Shanghai Center
- **Structure Type**: Building
- **Status**: Completed
- **Country**: China
- **City**: Shanghai
- **Street Address & Map**: Lujiazui Financial Center, Pudong New Area
- **Postal Code**: 200120
- **Building Function**: hotel / office
- **Structural Material**: composite
  - Core: Reinforced Concrete
  - Columns: Concrete Encased Steel
  - Floor Spanning: Steel
- **Energy Label**: LEED Platinum BD+C: Core and Shell
- **Proposed**: 2008
- **Construction Start**: 2009
- **Completion**: 2015
- **Official Website**: Shanghai Tower
- **Height: To Tip**: 632 m / 2,073 ft
- **Height: Architectural**: 632 m / 2,073 ft
- **Height: Occupied**: 583.4 m / 1,914 ft
- **Floors Above Ground**: 128
- **Floors Below Ground**: 5
- **# of Elevators**: 106
- **Top Elevator Speed**: 20.5 m/s
- **Tower GFA**: 420,000 m² / 4,520,842 ft²
- **Development GFA**: 521,000 m² / 5,607,997 ft²
- **# of Hotel Rooms**: 258
- **# of Parking Spaces**: 1,794
- **Height: Observatory**: 562.1 m / 1,844 ft

### Companies Involved

- **Owner/Developer**: Shanghai Tower Construction & Development
- **Architect**
  - **Design**: Gensler
  - **Architect of Record**: Tongji Architectural Design (Group) Co., Ltd.
  - **Peer Review**: East China Architectural Design & Research Institute
- **Structural Engineer**
  - **Design**: Thornton Tomasetti
  - **Engineer of Record**: Tongji Architectural Design (Group) Co., Ltd.
  - **Peer Review**: China Academy of Building Research
- **MEP Engineer**
  - **Design**: Cosentini Associates; Aurecon
  - **Engineer of Record**: Tongji Architectural Design (Group) Co., Ltd.
  - **Peer Review**: WSP | Parsons Brinckerhoff
- **Project Manager**: Shanghai Jianke Engineering Consulting Co., Ltd.
- **Main Contractor**: Shanghai Construction Group
- **Other Consultant**
  - **Cost**: Shanghai Shenyuan Property Consultants; Rider Levett Bucknall
  - **Damping**: CEES-Advisors; KoopX; Vidaris, Inc.
  - **Energy Concept**: EFC Engineering Consulting Company, Ltd.; Aurecon
  - **Façade**: Rolf Jensen & Associates
  - **Geotechnical**: STS Consultants, Ltd.
  - **Landscape**: SWA Group
  - **LEED**: WSP | Parsons Brinckerhoff
  - **Life Safety**: Arup
About Shanghai Tower

As the third tower in the trio of signature skyscrapers at the heart of Shanghai’s new Lujiazui Finance and Trade Zone, Shanghai Tower embodies a new prototype for tall buildings. Placed in close proximity to Jin Mao Tower and Shanghai World Financial Center, the new tower rises high above the skyline, its curved façade and spiraling form symbolizing the dynamic emergence of modern China. But its twisting form goes beyond just creating a unique appearance; wind tunnel tests confirm a 24 percent savings in structural wind loading when compared to a rectangular building of the same height.

More than a landmark, the mixed-use tower offers a sustainable way of living in a vertical city, with a unique mix of restaurants, shops, offices, and hotels spaced throughout the building. The tower’s program is organized into nine vertical zones. Each of these vertical neighborhoods rise from a sky lobby, a light-filled garden atrium that creates a sense of community and supports daily life with a varied program catering to tenants and visitors. The sky lobbies function much like traditional town plazas and squares, bringing people together throughout the day. These civic spaces recall the city’s historic open courtyards, which merge interiors with exteriors in a landscaped setting.

Shanghai Tower is one of the most sustainably advanced tall buildings in the world. A central aspect of its design is the transparent second skin that wraps around the entire building. The ventilated atriums it encloses conserve energy by modulating the temperature within the void. The space acts as a buffer between the inside and outside, warming up the cool outside air in the winter and dissipating heat from the interior in the summer. The tower also notably employs a tri-cogeneration system, a grey water/rainwater system, and several renewable energy sources.

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Videos

A Vernacular Megatall: Shanghai Tower
3 Nov 2016 – Jianping Gu, Shanghai Tower C&D; Grant Uhlir, Gensler

Interview: Shanghai Tower
3 Nov 2016 – Jianping Gu, Shanghai Tower C&D; Grant Uhlir, Gensler

CTBUH Video Interview – Andrew Nicholson
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