One World Trade Center

**Facts**

**Official Name**
One World Trade Center

**Name of Complex**
World Trade Center

**Other Names**
Freedom Tower

**Structure Type**
Building

**Status**
Completed

**Country**
United States

**City**
New York City

**Street Address & Map**
1 World Trade Center

**Postal Code**
10048

**Building Function**
office

**Structural Material**
composite
- Core: Reinforced Concrete
- Columns: Steel
- Floor Spanning: Steel

**Energy Label**
LEED Gold

**Proposed**
2005

**Construction Start**
2006

**Completion**
2014

**Official Website**
One World Trade Center

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**Companies Involved**

**Owner**
- Current: 1 World Trade Center LLC
- Past: Silverstein Properties

**Developer**
Port Authority of New York and New Jersey; The Durst Organization

**Architect**
- Design: Skidmore, Owings & Merrill LLP
- Peer Review: Leslie E. Robertson Associates

**Structural Engineer**
- Design: WSP Group; Schlaich Bergermann und Partner
- Peer Review: Leslie E. Robertson Associates

**MEP Engineer**
- Design: Jaros, Baum & Bolles
- Peer Review: STV

**Project Manager**
STV

**Main Contractor**
Tishman Construction

**Other Consultant**
- Acoustics: Cerami & Associates
- Building Monitoring: Viridian Energy & Environmental, LLC
- Civil: Philip Habib & Associates
- Code: Code Consultants, Inc.
- Cost: AECOM
- Energy Concept: Viridian Energy & Environmental, LLC
- Environmental: Arnold & Porter LLP
- Façade: Viridian Energy & Environmental, LLC; Benson Industries; Permasteelisa Group
- Façade Maintenance: Lerch Bates
- Geotechnical: Mueser Rutledge Consulting Engineers
- Landscape: Mathews Nielsen Landscape Architects; Peter Walker Landscape Architects

**Height: Occupied**
386.5 m / 1,268 ft

**Height: To Tip**
546.2 m / 1,792 ft

**Height: Architectural**
541.3 m / 1,776 ft

**Height: Observatory**
386.5 m / 1,268 ft

**Floors Above Ground**
94

**Floors Below Ground**
5

**# of Elevators**
73

**Top Elevator Speed**
10.16 m/s

**Tower GFA**
325,279 m² / 3,501,274 ft²
### About One World Trade Center

One World Trade Center recaptures the New York skyline, reasserts downtown Manhattan’s preeminence as a business center, and establishes a new civic icon for the country. It is a memorable architectural landmark for the city and the nation, and connects seamlessly to the city with linkages to an extensive underground transportation network. Extending the long tradition of American ingenuity in high-rise construction, the design solution is an innovative mix of architecture, structure, urban design, safety, and sustainability.

The tower is a bold icon in the sky that acknowledges the adjacent memorial. While the memorial, carved out of the earth, speaks of the past and of remembrance, One World Trade Center speaks about the future and hope as it rises upward in a faceted form filled with, and reflecting, light. This tower evokes the slender, tapering triangular forms of great New York City icons such as the Chrysler Building and Empire State Building and replaces almost one quarter of the total office space lost on September 11, 2001 in a single building.

As the tower rises from a cubic base, its edges are chamfered back, resulting in a faceted form composed of eight elongated isosceles triangles. At its middle, the tower forms a perfect octagon in plan and then culminates in a glass parapet whose plan is a 150-foot-by-150-foot square, rotated 45 degrees from the base. Its overall effect is that of a crystalline form that captures an ever-evolving display of refracted light. As the sun moves through the sky or pedestrians move around the tower, the surfaces appear like a kaleidoscope, and change throughout the day as light and weather conditions change.

### One World Trade Center

#### CTBUH Initiatives

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#### Research Papers

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<td>Using Height-Relative Variables To Design Tall Buildings</td>
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