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A 102-story Art Deco style high-rise in midtown Manhattan-New York City, the Empire State Building is perhaps the world's most widely recognized office building over the last century. The tallest building in the world, from its development in 1931 until 1970 (New York City World Trade Center), the building is a historically significant cultural icon.

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# Empire State Building | New York, NY

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## Architecture & Design Features

- ◇ Typical pre-World War II Art Deco style with Indiana (blonde) limestone and steel panels comprising the buildings exterior façade
  - ◇ The amount of material used during construction resulted in a very stiff and structurally- sound structure
  - ◇ Observatories on the 80th, 86th and 102nd (top) floor
- ◇ The inside of the spire is hollow (no floors) between levels 86 and 102.
- ◇ The 1916 Zoning act required the architect to design the structure with setbacks resulting in lower floors being larger than upper floors.
- ◇ Original main lobby access is from Fifth Avenue on the building's east side.
  - ◇ Lobby walls comprise two tiers of lighter and darker marble panels and a zigzag pattern of terrazzo tiles on the floor.
- ◇ A 200' radio antenna was added in 1953, 21 years after building construction.
- ◇ Leadership in Energy & Environmental Design (LEED) Gold for Existing Buildings (2010)
  - ◇ 2012 extensive building exterior light system upgrade with 1,200 LED fixtures



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# Empire State Building

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## PROJECT SUMMARY

Project Description	An architectural icon and historically significant building, original plans were modified 15 times ultimately leading to development of the tallest building in the world. Designed and constructed between 1929 and 1931, the Empire State building is considered the ancestor of all future steel-framed skyscrapers developed through the 20th century chronicle of modern day real estate.
Official Building Name	Empire State Building (derived from the State of New York nickname 'Empire State')
Location	Midtown Manhattan (New York City)
Address	350 Fifth Avenue, New York, NY
Construction	Commenced March 17, 1930   Completed April 11, 1931   Opening May 1, 1931
Occupancy   Use	Office Building   Observation Deck

## PROJECT DESIGN & CONSTRUCTION

Developer	Empire State Inc.
Architect	Shreve, Lamb and Harmon
Structural Engineer	Homer Gage Balcom
Main Contractor	Starrett Brothers and Eken
Owner	Empire State Realty Trust   Qatar Investment Authority
Façade	Art deco style with large-block limestone cladding and reflective steel panels parallel to the windows. The structure is topped with an ornamental metal spire crown.
Structure	Steel framed with concrete comprised of 4 enormous columns and accompanying pre-fabricated steel columns, girders and beams.

## BUILDING CONSTRUCTION SUMMARY

Size   Category	2,248,355 GSF   208,879 GSM   Class A Office and Observatories
Height Rankings	#41 tallest in world   #6 tallest in Unites States
Height Details	Tip: 1,454 feet / 443 meters   Occupied Floors: 1,224 feet / 373 meters
Number of Floors	102 Above Ground   1 Below Ground
Elevators	73 Elevators   Otis Elevator Company

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# Empire State Building

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## NOTABLE FACTS

- ◇ Original site of the 1,300-room Waldorf-Astoria, the largest hotel in the world at the time
- ◇ The original owner-developer Empire State Inc., was comprised of a group of individual wealthy investors, including Alfred E. Smith, the former Governor of New York.
- ◇ In a race to develop the tallest building in the world, building design was modified to incorporate the 100+ story building and architectural spire. New York City's Chrysler Building and 40 Wall Street were two competing developments underway with intent to build the world's tallest building.
- ◇ Architectural firm Shreve, Lamb & Harmon produced design drawings in just two weeks.
- ◇ Unimaginable even by today's high-rise development standards, the building was constructed during the Great Depression in a record time of 14 months.
- ◇ The project involved more than 3,500 workers, predominately Irish and Italian immigrants.
- ◇ The opening included an event attended by N.Y. Governor Franklin D. Roosevelt with the building lighted remotely (Washington, D.C.) by U.S. President Herbert Hoover.



Empire State Building | LED Lighting - Top Portion of Building

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# Empire State Building

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## NOTABLE FACTS

- ◇ With the building opening coinciding with the Great Depression, occupancy was constrained for many years with local New Yorkers sometimes referring to the nickname Empty State Building.
- ◇ To compensate for loss of rental income, the observation decks were promoted leading to \$2 million in revenue during its first year of operation (1931).
- ◇ Original plans called for the Empire State Building's spire to incorporate an airship docking station.
- ◇ Featured in more than 250 TV shows and movies including the infamous release of King Kong in 1933.
- ◇ Named one of the Seven Wonders of the Modern World by American Society of Civil Engineers.
- ◇ U.S. National Register of Historic Places and U.S. National Historic Landmark
- ◇ July 28, 1945 a B-25 Mitchell bomber crashed into the north side of the building, between the 79th and 80th floor killing 14 people.



Empire State Building | New York City Skyline

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# Empire State Building

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## New York City Skyline

View from Midtown to Lower Manhattan