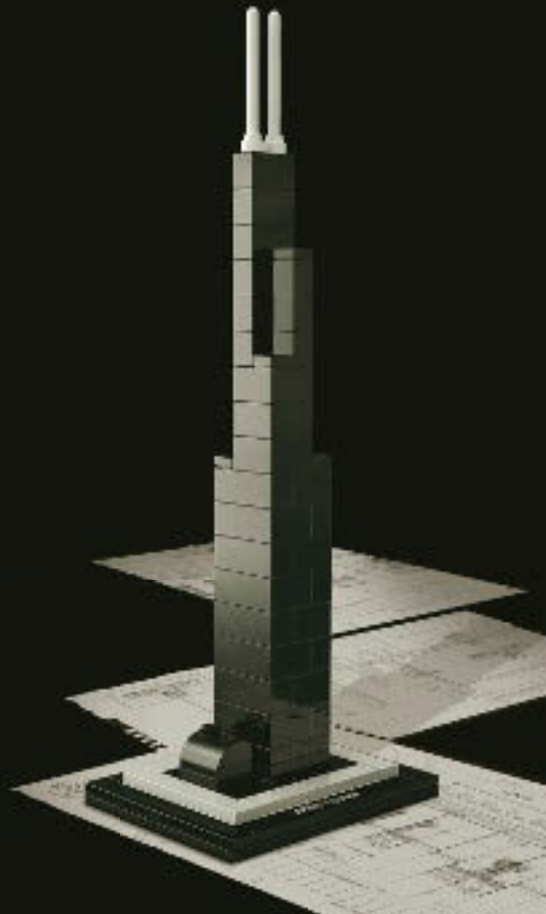







Architecture

Willis Tower

Chicago, Illinois, USA



 Booklet available on:
 Livret disponible sur:
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Architecture, Engineering and Construction

The Willis Tower is an “international style” design consisting of square tubes in a 3 by 3 tube arrangement, with each tube having a footprint of 75 by 75 ft., in essence creating a unified bundle of nine tubes. The Willis Tower was the first building for which this type of “bundled-tubular” construction was used. This design provides stability against high winds and also allows for future upward growth if so desired by the owner.

The 222,500-ton or 445 million pound building is supported by 114 rock caissons secured into bedrock. The foundation and the floor slabs combine to equal 2 million cubic feet of concrete. 76,000 tons of prefabricated steel frame sections measuring 15 x 25 ft. were put in place. The Willis Tower has more than 16,000 bronze-tinted windows and 28 acres of black aluminum cladding or “skin”.

As the building climbs upward, the tubes begin to drop off giving the Willis Tower its characteristic setback or “step-back”. This geometry of the 110-story tower was developed in response to the original interior space requirements of Willis, Roebuck &

Company. The configuration incorporates the unusually large office floors necessary to Willis’ operation along with a variety of smaller floors.

A revolutionary vertical transportation system was instrumental in the Willis Tower reach in soaring to new heights never previously achieved. 16 Double-decker express elevators travel from the first two floors to “sky-lobbies” located at floors 33/34 and 66/67, where passengers transfer to single local elevators serving all other individual floors. Among the world’s fastest the elevators servicing the observatory travel at 1,600 ft. per minute.



Facts at a Glance

Location: 233 S. Wacker Drive, Chicago, Illinois, United States
Architect: Skidmore, Owings and Merrill LLP.
Classification: Supertall
Construction Type: Steel Frame and Curtain Wall
Materials: Aluminum, Concrete, Glass and Steel
Year: 1970-1974
Height: 1,458 ft. (442 m.)
Footprint: 225 ft. x 225 ft. (68 m. x 68 m.)
Pinnacle Type: East Antenna 1,720 ft. (521 m.), West Antenna 1,740 ft. (527 m.)
Stories: 110
Cost: \$175 million (1970)
Floor Area: 4,400,000 ft² (409,000 m²)
Zoned: Commercial: Office, Communication, Retail & Observation
Elevators: 104



McShane-Fleming Studios
Chicago, Illinois

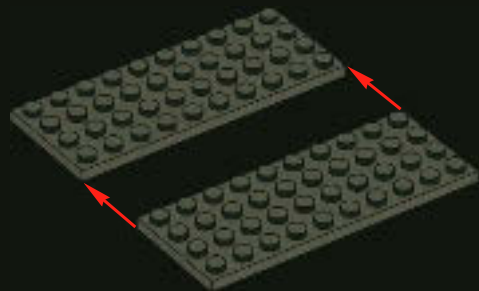
Points of Interest

There are four sets of distinctive black bands wrapping around the perimeter of the building which appear between the 29th-32nd, 64th-65th, 88th-89th, and 104th-109th floors. These black bands are actually louvers

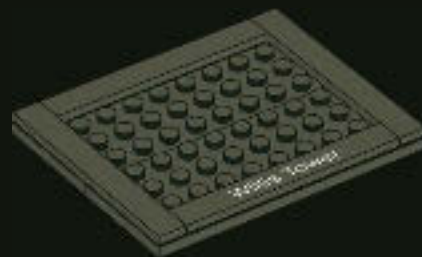
which allow ventilation for service equipment and also serve to hide the structure's belt trusses which the Willis, Roebuck & Company did not want to be visible.



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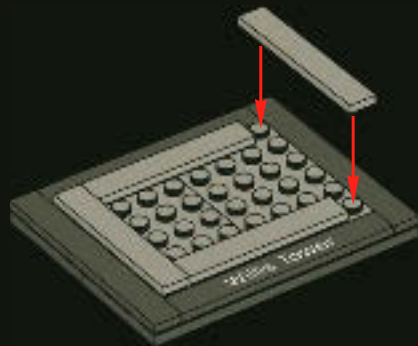


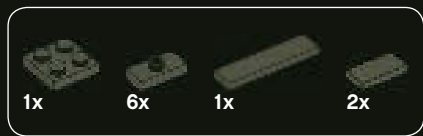


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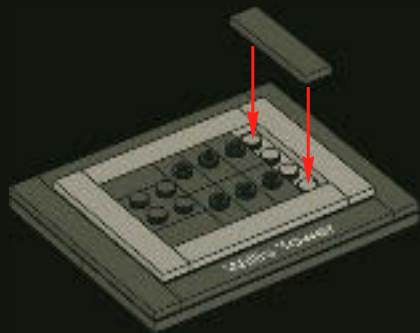


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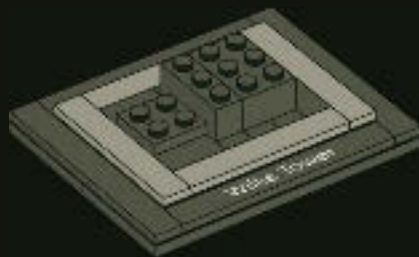




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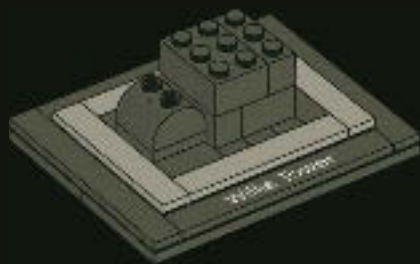


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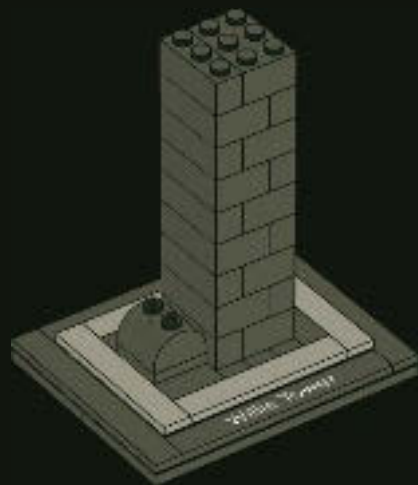




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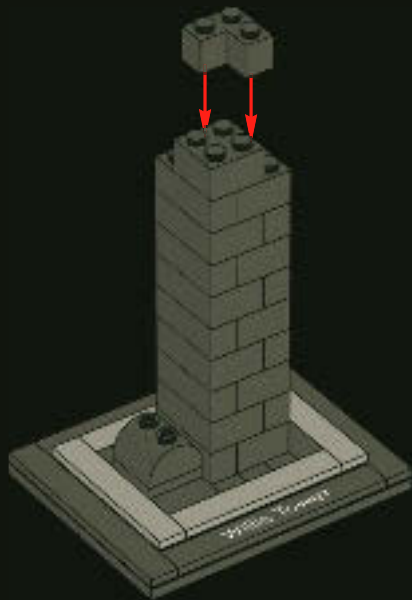


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9



2x

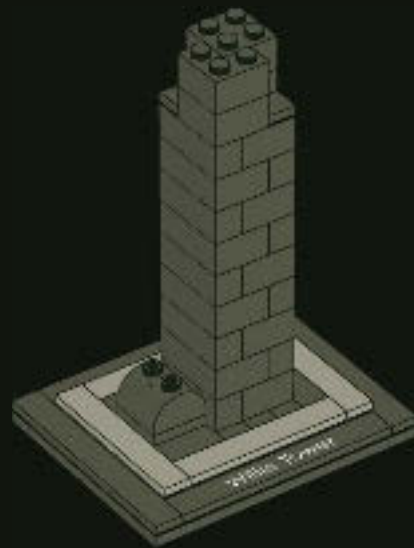


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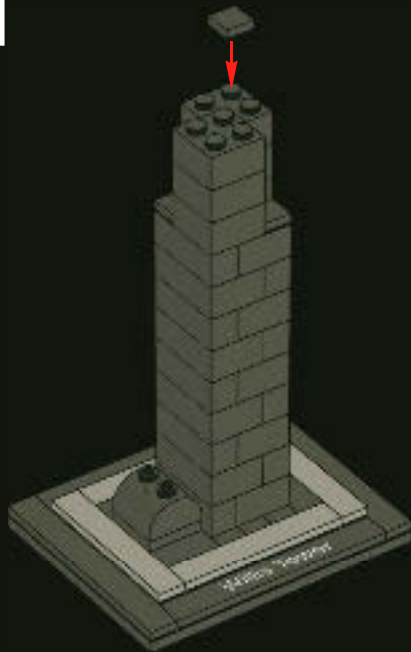
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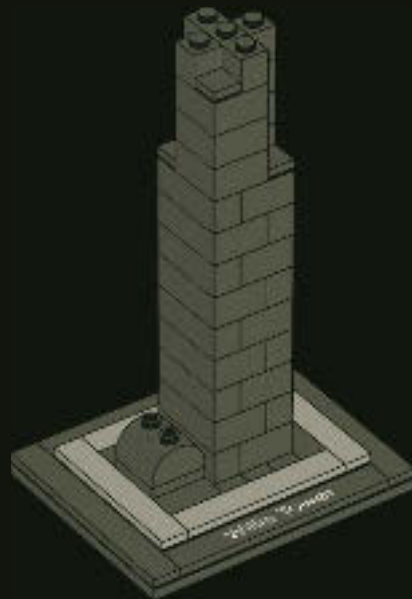




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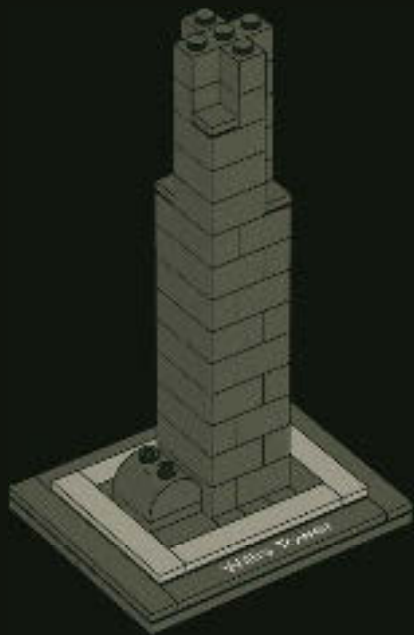


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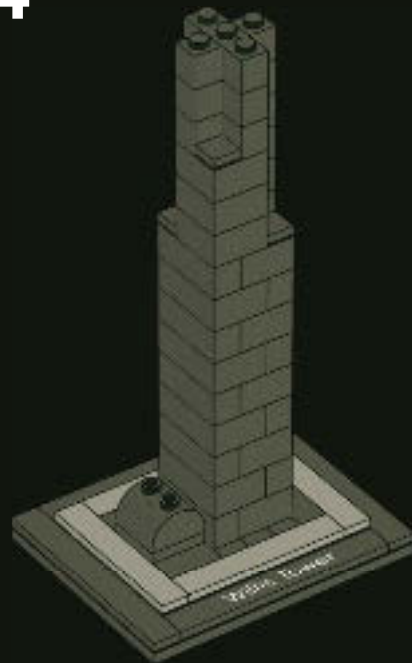


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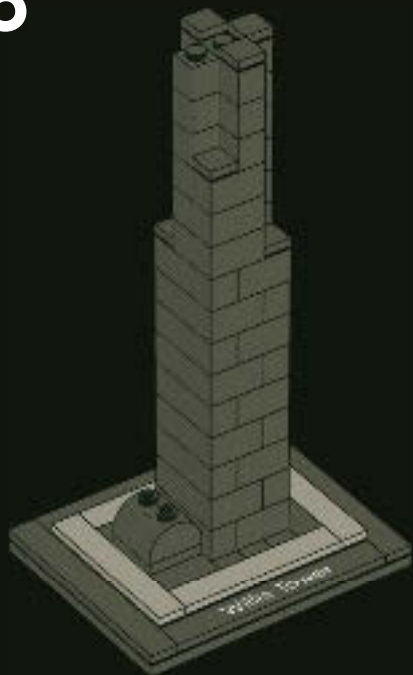
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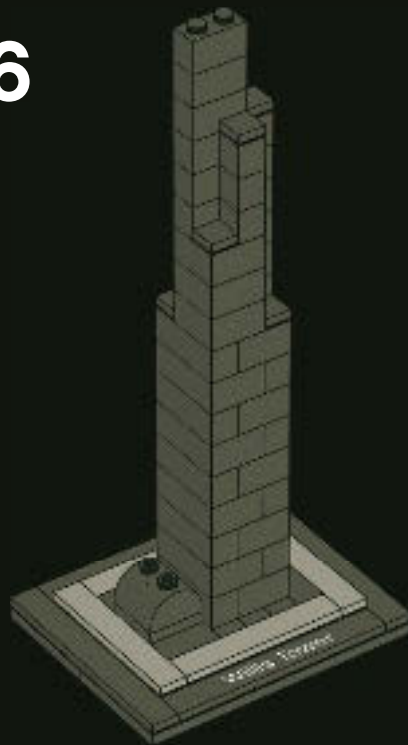
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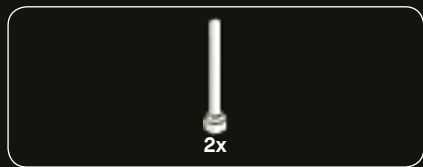
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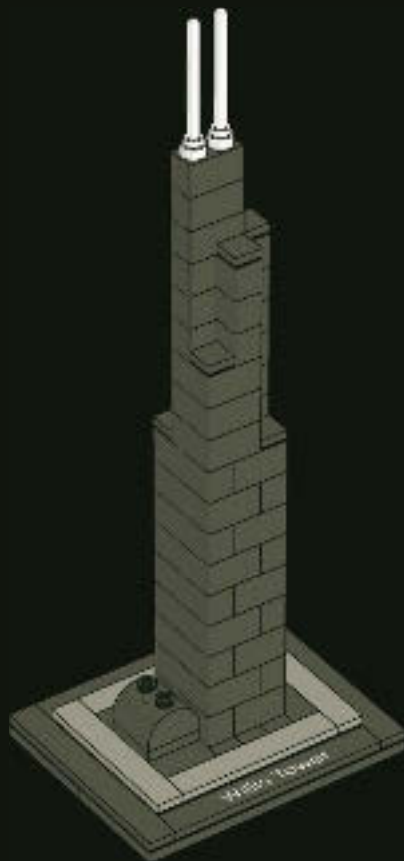
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A Word from the Artist

As an Architectural Artist my desire is to capture the essence of a particular landmark into its pure sculptural form, especially at this small scale. I first and foremost do not view my models as literal replicas, but rather my own artistic interpretations, harnessing the essence of these landmark's through the use of LEGO® bricks as a medium. The LEGO brick is not initially thought of as a material typically used in creating art or used as an artist's medium. I quickly discovered the LEGO brick was lending itself as naturally to my applications as paint to a painter or metal to a blacksmith. As I explore how to capture these buildings with the basic shapes of the bricks, I find the possibilities and challenges they offer almost magical.



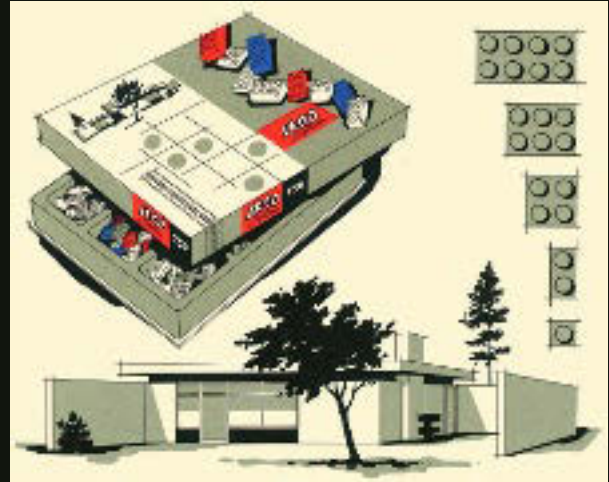
– Adam Reed Tucker



LEGO® Architecture, bringing two worlds together

The LEGO Group and Adam Reed Tucker are excited to bring you this new line of distinctive landmark building sets. Our hope is that this will inspire minds of all ages whether you're young and eager to learn or young at heart and simply intrigued by these modern day marvels. The idea behind LEGO® Architecture is to celebrate the past, present and future of architecture through the LEGO Brick. Through products and events we wish to promote an awareness of the fascinating worlds of Architecture, Engineering and Construction. Initially, we are featuring a pair of Chicago's most famous landmarks: The Willis Tower and The John Hancock Center. Eventually, we wish to offer other famous landmarks throughout the world celebrating influential architects and movements that have shaped the environment around us. We hope to inspire future architects around the world with the brick as a medium. We hope you enjoyed this experience.

The LEGO Group



Visit www.LEGO.com/architecture or
www.Brickstructures.com for more information



Architecture

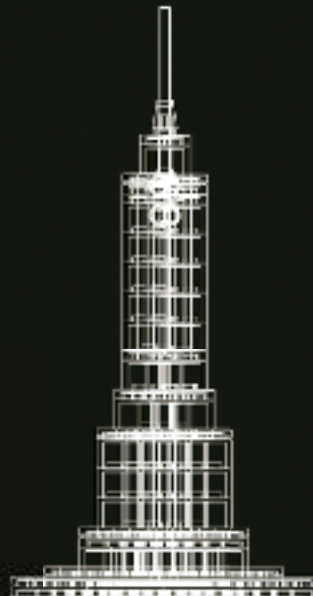
The landmark series



Willis Tower



Space Needle



Empire State Building

