

# structurally sound



## BOTTOMS UP

**SINCE IT WAS COMPLETED** in 1973, much attention has been paid to the top of Chicago's Sears Tower (now Willis Tower).

Its roof height of 1,450 ft made it the tallest building in the world for more than two decades—even without counting its two “rabbit ears” antennae, which soar to 1,729 ft. And with over a million visitors a year, Willis Tower's observation deck is one of the city's biggest tourist attractions.

Now, Blackstone Group, the tower's owner, is hoping to make the base of the building an attraction in its own right. While thousands of tourists ascend the tower every day to take in the spectacular views—not to mention the more than 15,000 people that work in the building and the thousands of other workers and visitors in the immediate vicinity on a daily basis—the building's base was identified as the key to its repositioning. The three building entrances had been built at different times and were not in harmony, and the amenities within the tower were not in synch with the iconic office space. As such, the tower is currently in the midst of a \$668 million renovation involving a five-story, 300,000-sq.-ft steel-framed addition at the base (three floors above grade and two below) that will house retail space and multiple dining options, including a food hall, and will be topped by 30,000 sq. ft of roof deck and garden space as well as expansive skylights. The project also encompasses the reconfiguration of 460,000 sq. ft of existing building space, including 150,000 sq. ft of space reserved for

tenant use that will house a fitness center, multiple lounges, private event space and concierge services. The renovated and new space will complement the nine 75-ft by 75-ft structural “tubes” that define the building's footprint. The project is being built in two phases, with the first expected to open later this year and the second in 2020. The first phase will include the reopening of the new Wacker and Jackson entrances and lobbies, while the second phase will include the completion of the new Franklin lobby and opening of the retail spaces and public amenity spaces inside the tower base.

Designed by architect Gensler and structural engineer Thornton Tomasetti, with Turner/Clayco acting as general contractor, the structural steel framing includes more than 100 column transfers in order to transition the structural tube grid of the tower to the lower levels' irregular grid, which was originally designed to support a future hotel building. Long-span structural steel members, together with a grid-shell structure, will create exciting new open spaces within the addition.

In all, the addition and renovation space will incorporate 2,500 tons of structural steel, fabricated by Zalk Josephs Fabricators, LLC (an AISC member/certified fabricator) and erected by Chicago Steel Construction, LLC (an AISC member/certified erector).

Visit [www.modernsteel.com/willis](http://www.modernsteel.com/willis) for more construction photos of the project. ■