

Comcast Center

One Pennsylvania Plaza

Philadelphia, Pennsylvania

Owner

Liberty Property Trust

Client/Architect

Robert A.M. Stern Architects

Environmental Consultant

Atelier Ten

Completion Date

2008

Construction Cost

\$330.5 million

Total Area

1.35 million sf

Height

975 feet (297 meters)

Number of Stories

57



At just under 1,000 feet, the Comcast Center is not only the tallest building between New York and Chicago, it also reflects engineering and design lessons Thornton Tomasetti learned after leading the assessment of the 9/11 collapse of the World Trade Center towers.

Elevators, sprinklers, communications systems and stairwells are encased in a massive concrete core that stretches the full height of the building. Since the building is slender with a small footprint, the building height to core ratio is high with thicker than usual exterior walls (54 inches thick up to the 20th floor).

In addition to integrating new safety designs, the building has expansive open public spaces, which needed to be designed without columns. This was achieved by 15-story tall vierendeel trusses. A nine-story glass winter garden leads to a three-story lobby and atrium that is 90-foot column-free span. In addition, a tuned liquid-column mass damper — a 300,000-gallon reservoir of water — is installed at the top of the building to increase the comfort of the building occupants by limiting its wind induced accelerations.

The structure achieved LEED Gold Certification under the LEED Core and Shell Pilot Program by the US Green Building Council and uses 40% less water than characteristic office buildings of this size.

