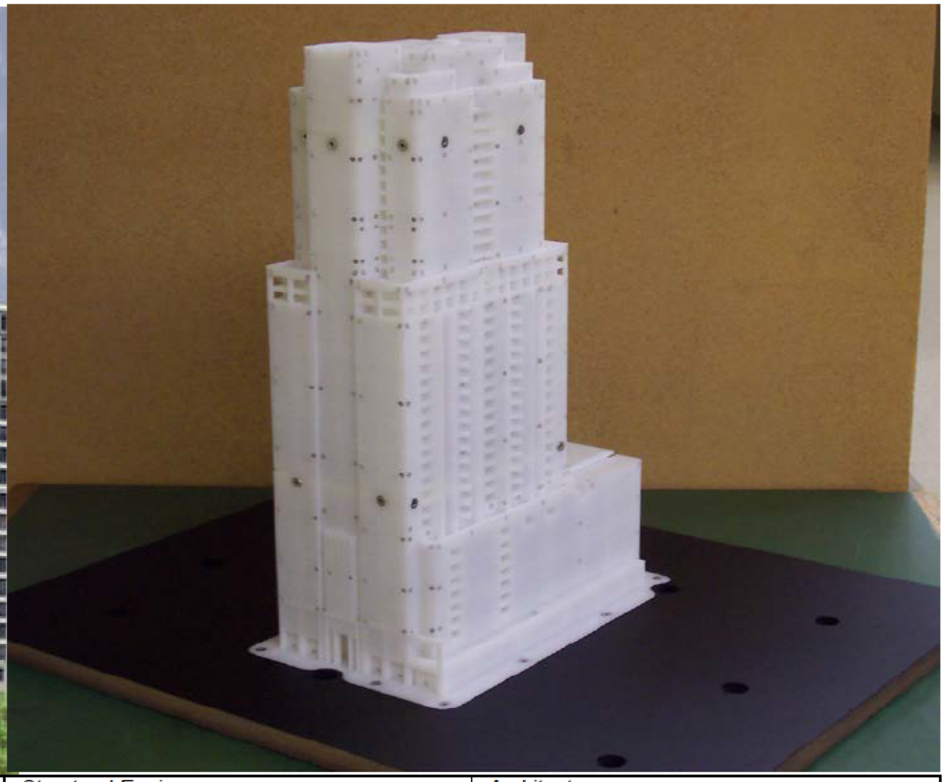
1000 South Michigan Avenue Tower, Chicago, IL, USA

Wind Engineering Study



Client	Structural Engineer	Architect
Renaissant Development Group	Halvorson and Partners	De Stefano and Partners Ltd
Height	**Year Tested**	**Model Scale**
425 feet	2006	1:400

The Project

The 1000 South Michigan Avenue tower in Chicago, Illinois consists of a 43-storey building with residential occupancy. The site is located in the South Loop and is bounded by South Michigan Avenue, East 9th Street, East 11th Street and South Wabash Avenue.

The residential tower sits on a 9-storey parking podium. Features of this building include a green roof system to lessen the energy needs of the building and upper-level setbacks to ensure more sunlight at street level.

The Wind Tunnel Studies

The wind engineering studies for 1000 South Michigan Avenue included a study of the wind-induced structural loads and responses, local cladding pressure loads and pedestrian level winds.

The study of overall structural loads and responses was determined for the condominium tower using the force balance technique.

A study of wind-induced cladding pressures was carried out for 531 measurement locations distributed over the tower and podium.

The Boundary Layer Wind Tunnel Laboratory

Western

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