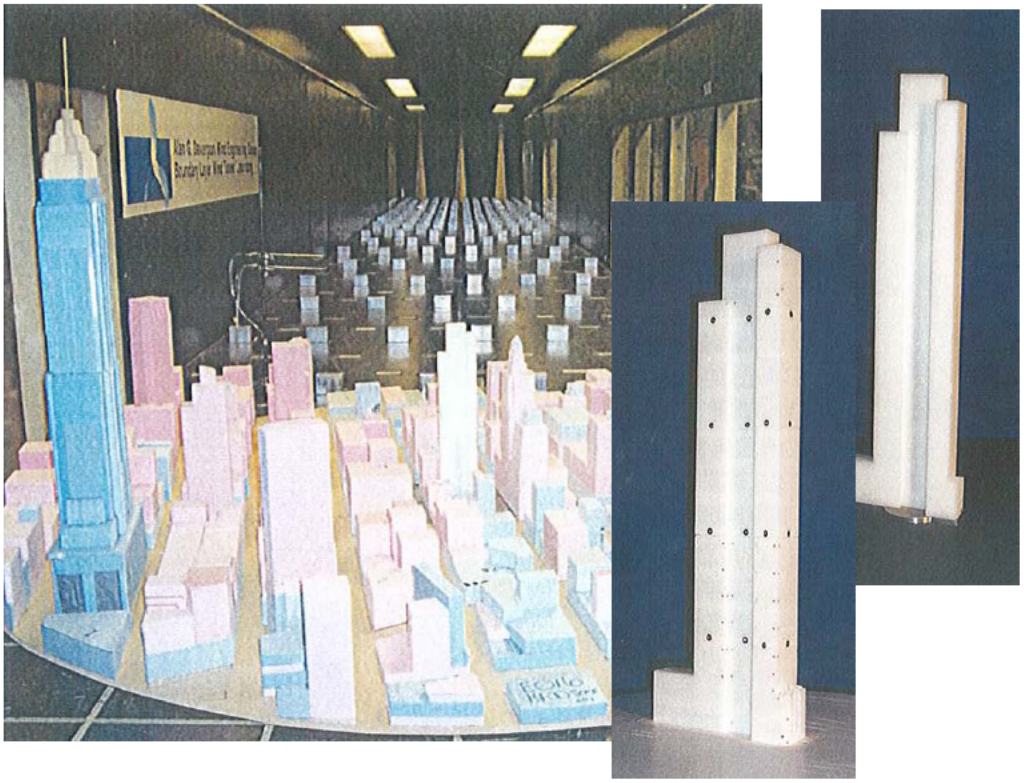
Sky House, New York, NY

Wind Engineering Study



Client	Engineers	Architect
The Clarett Group	WSP Cantor Seinuk	FXFOWLE
Height	**Year Studied**	**Model Scale**
183 meters	2005	1:400

The Project

The 54 storey residential tower is located in midtown Manhattan at 11 East 29th Street, next to a historic landmarked Church of Transfiguration also know as "Actors Church". The Parish hall facilities are located at the base of the tower.

The limited site footprint resulted in a tower which varies in width from 8.8 meters to 15.2 meters. This slender structure has a width to height ratio from 1:12 at its maximum width to 1:20 at its narrowest. Unique shear wall construction was used to provide the necessary stability against wind and gravitational loads.

The Wind Tunnel Studies

A high frequency force balance (HFFB) technique was used to determine the information on wind-induced structural loads and building motions.

The study of wind-induced cladding pressures was carried out for 299 measurement locations distributed over the tower and associated low-rise.

The Boundary Layer Wind Tunnel Laboratory

Western

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