Flushing Metro Center, New York, NY, USA

Wind Engineering Study

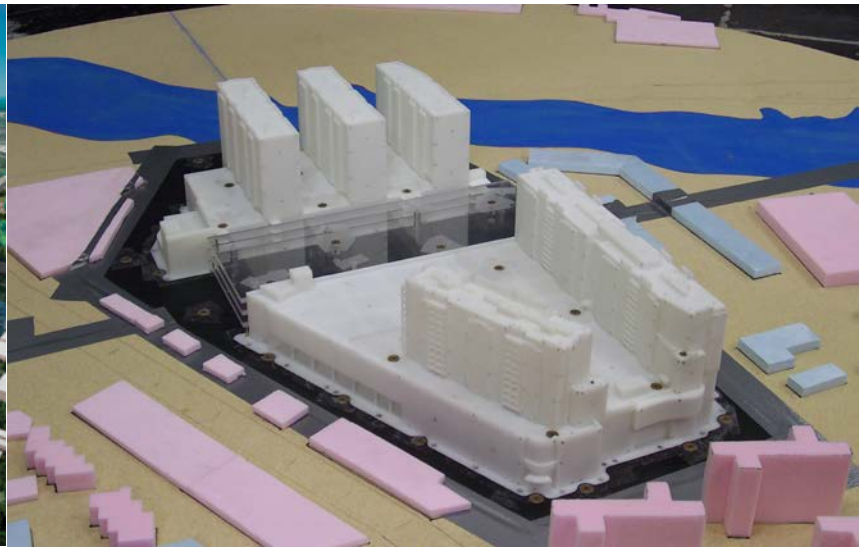

Image Credit: Perkins Eastman

Client	*Structural Engineer*	*Architect*
Wall Design Associates	DeSimone Consulting Engineers	Perkins Eastman
Height	*Year Tested*	*Model Scale*
Condo Towers – 220 feet Retail Podium – 80 feet	2007	1:400

The Project

The Flushing Metro Center development in New York City consists of six residential towers connected by a common 6-storey retail podium. The site is located in downtown Flushing and is bounded by College Point Boulevard, 40th Road, Roosevelt Avenue and Van Wyck Expressway.

The retail and condominium complexes will accommodate approximately 750,000 square feet of retail, about 1,000 residential units and a 2,650 car parking structure.

The Wind Tunnel Studies

The wind engineering studies for Flushing Metro Center included a study of the wind-induced local cladding pressure loads and pedestrian level winds.

A study of wind-induced cladding pressures was carried out for 900 measurement locations distributed over the six towers and podium.

A flow visualization study was conducted to investigate the overall airflow characteristics and locate regions of flow separation, re-attachment and vortex formation.

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