# 29 Flatbush Avenue, Brooklyn, New York, USA

## Wind Engineering Study

Building Image from Auto CAD

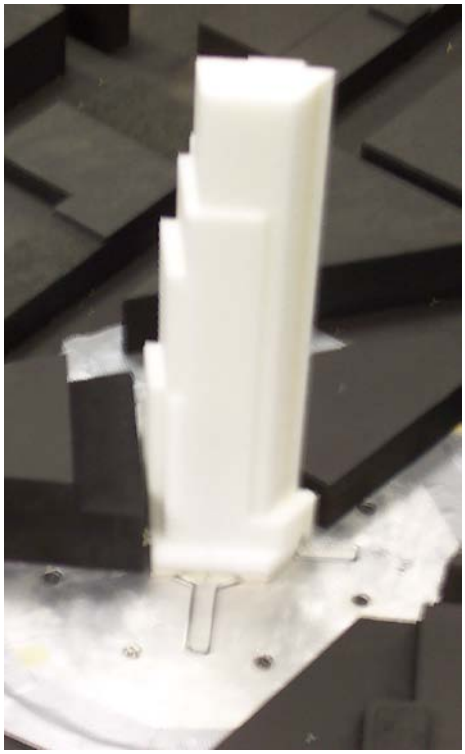

Photo of Balance Model in Wind Tunnel

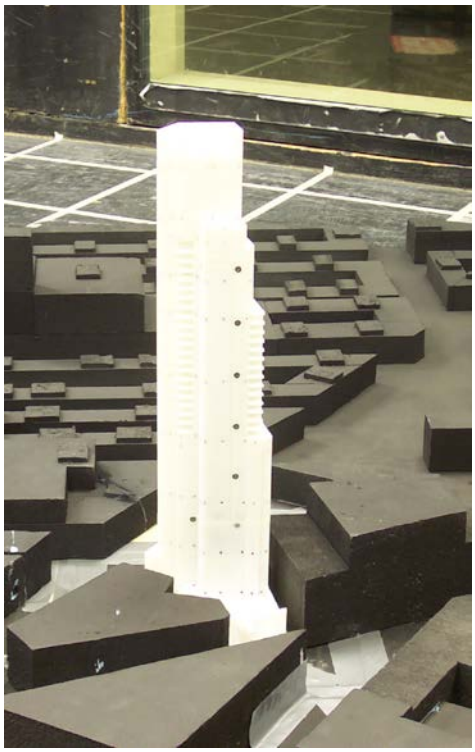

Photo of Pressure Model in Wind Tunnel

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|---|---|---|
| *Client*<br>Five M Development | *Structural Engineer*<br>WSP Cantor Seinuk Group | *Architect*<br>Ismael Leyva Architects, P.C. |
| *Height*<br>589 feet | *Year Tested*<br>2005 | *Model Scale*<br>1:400 |

### The Project

The project consists of a 50-storey tower and a common 3-storey podium. The site is located in Brooklyn and is bounded in a triangular shaped area by Flatbush Avenue, Fulton Street, and Navy Street.

### The Wind Tunnel Studies

The wind engineering studies for 29 Flatbush Avenue included a study of the wind-induced structural loads and responses and local cladding pressure loads.

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

A study of wind-induced cladding pressures was carried out for 454 measurement locations distributed over the two towers and podium.

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


**The Boundary Layer Wind Tunnel Laboratory**

Western

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