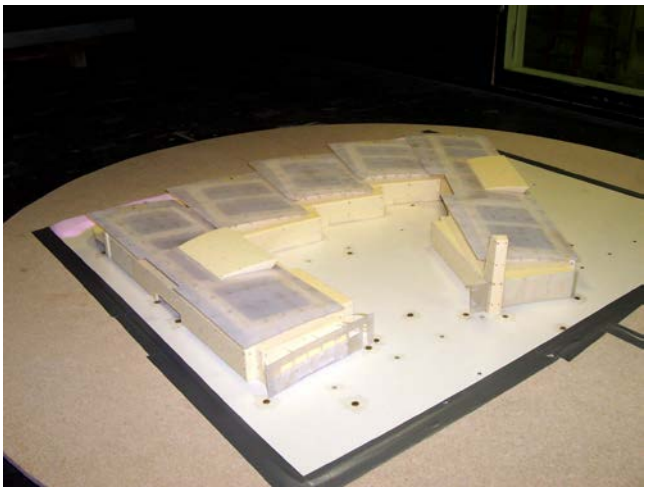
Suzhou International Expo Centre, Suzhou, PRC

Wind Engineering Study

Architects Rendering



1:400 Scale Model

Client	*Structural Engineer*	*Architect*
Skidmore, Owings and Merrill, LLP	Skidmore, Owings & Merrill, LLP	Skidmore, Owings & Merrill, LLP
Project Area	*Year Tested*	*Model Scale*
180,000 sq. metres	2003	1:400

The Project

The Suzhou International Expo Centre is located in Suzhou, PRC. The project consists of an extensive low rise complex spanning approximately 400 metres in the north-south direction and 500 metres in the east-west direction. The orientation of the five inter-connected buildings are such that they give the appearance of a fan unfolding across the site.

Features of the structure include glass clad walls and five curved glass roofs supported by a large steel tubular truss system. The structure is surrounded by public parks and plaza areas lined with pools and gardens. When completed, this facility will play host to a full range of convention and exhibition activity.

The Wind Tunnel Studies

The wind tunnel studies will provide information on wind induced cladding pressures, structural loads and deflections of the roof system and pedestrian level wind speeds in the park and plaza areas around the project site.

The structural loads and deflections for the roof structure were determined by integrating the simultaneously measured pressures on the roof and representative sets of influence coefficients for each of the truss systems.

The Boundary Layer Wind Tunnel Laboratory

Western

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FSTB/ 291 /September 2004 / AMW
Last Printed: April 18, 2008