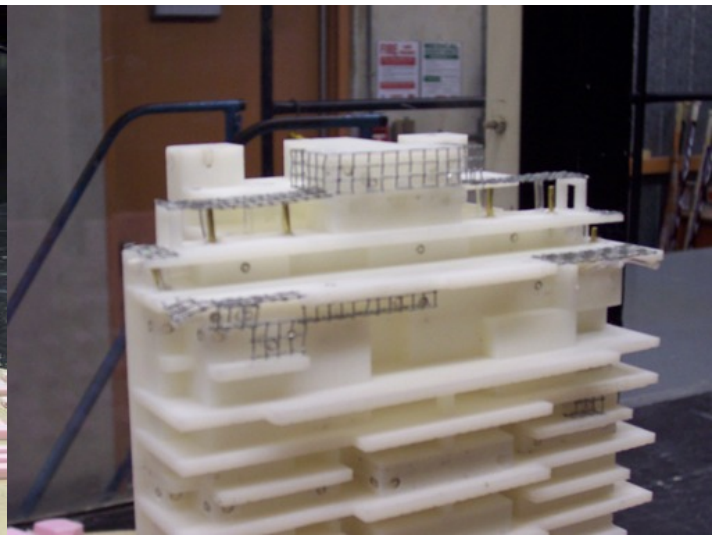
Oberoi Skyz, Worli, Mumbai, India

Wind Engineering Study



Client	*Structural Engineer*	*Contractor*
I-Ven Realty Ltd.	Leslie E. Robertson Associates	Oberoi Construction Pvt. Ltd.
Height	*Year Tested*	*Model Scale*
North & South Towers – 233 meters	2007	1:400

The Project

The development in Mumbai consists of two twin residential towers spaced 40 meters apart and connected by a common podium. The residential units over the majority of the height of each tower are duplexes (consisting of two floors). Each tower measures approximately 232m in height and with plan dimensions of approximately 56m by 31m. The podium rises about 35m above ground and has plan dimensions of approximately 150m by 44m.

The screen walls which are located in many locations on each of the north and south towers were included on the pressure model for selected locations. The pergola features on the roof of each tower were included as well.

The Wind Tunnel Studies

The wind engineering studies 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 each of the towers using the force balance technique.

A study of wind-induced cladding pressures was carried out for 354 measurement locations distributed over the two towers and podium.

A pedestrian-level study was performed at 29 locations including the ground level around the site and on the roof of the podium.

The Boundary Layer Wind Tunnel Laboratory

Western

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