Bitexcoland Tower, Ho Chi Minh City, Vietnam

Wind Engineering Study

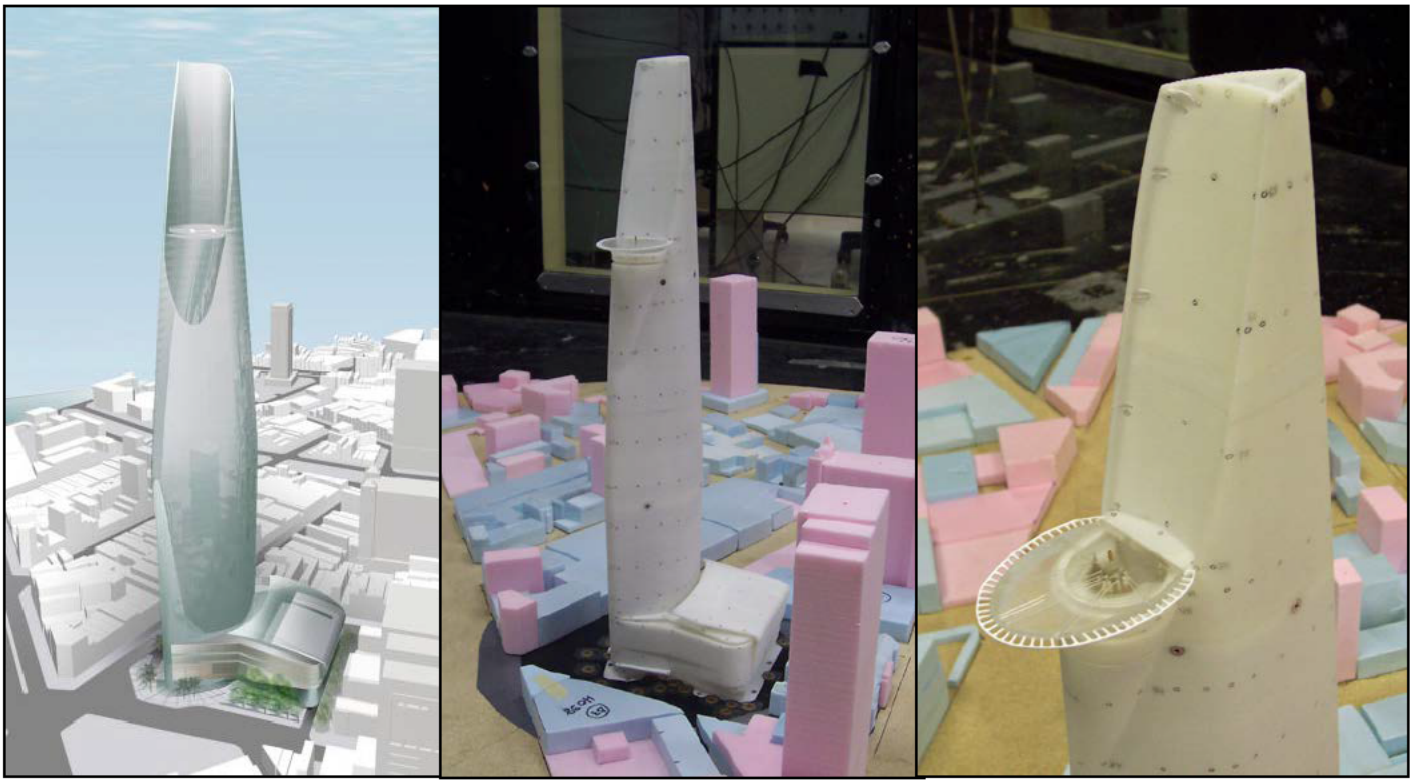

Image Credit: Leslie E. Robertson Associates R.L.L.P.

Client Leslie E. Robertson Associates	*Structural Engineer* Leslie E. Robertson Associates	*Architect* Carlos Zapata Studios
Height 292 metres	*Year Tested* 2007	*Model Scale* 1:400

The Project

The Bitexcoland Financial Tower is a 68-storey building reaching a height of about 260 metres. The tower is connected to a podium that measures approximately 40 metres in height. The tower is diamond shape in plan with maximum widths of approximately 60 metres by 37 metres.

There is a helipad which cantilevers out from the building façade to the southeast at the 50th floor level. As part of our studies for this project, measurements of the horizontal and vertical mean wind speed and direction just above the landing zone of the helipad were carried out. This information will be used to predict the conditions potentially facing helicopter pilots attempting to land their aircraft on the helipad.

The Wind Tunnel Studies

The study of the overall structural loads and responses for the Bitexcoland Tower was carried out using the integration of the local pressures.

A study of wind-induced cladding pressures was also carried out for 491 measurement locations distributed over the tower and podium. Pedestrian level wind speeds were investigated for a total of 25 locations.

Wind speeds in the horizontal and vertical planes were measured at the helipad landing location to evaluate the expected wind conditions for landing helicopter aircraft.

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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