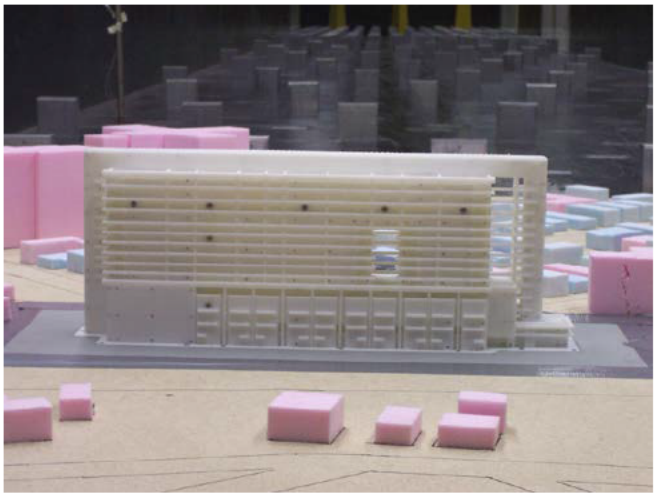
Miami River Condominium, Miami, FL, USA

Wind Engineering Study

Illustration of Condominium



Wind Tunnel Model

Owner	*Engineers*	*Architect*
Shear Construction & Development Inc.	De Los Reyes Engineers Inc.	Fullerton Diaz Architects
Height	*Year Tested*	*Model Scale*
16 storeys 177.4 ft tall and 470.5 ft in length	2005	1:300

The Project

Miami River Condo is a residential building consisting of a long tower located on NW South River Drive, Miami. It is a 192-unit condominium and includes a private marina, pool and fitness center. The site is located to the west of the city centre and approximately 1.5 miles from the shoreline. The building has a roof top terrace and sections of the tower are connected by open walkways in between.

The Wind Tunnel Studies

The primary objective of this investigation was to provide cladding and structural loads.

The model was instrumented with over 460 pressure measurement locations. Overall structural loads were determined using the pressure integration technique.

The proximity model extended 1200 feet from the site and included all buildings in the surroundings.

The structural engineers provided two sets of structural properties, dividing the building due to its overall length and the inclusion of an expansion joint.

The Boundary Layer Wind Tunnel Laboratory

Western

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