## Lotte Center Hanoi

Hanoi, Vietnam

Owner

Lotte Coralis Vietnam Co. Ltd.

Client/Architect of Record

Doul International, LTD. Architects & Consultants

Design Architect

Callison LLC

Completion Date

2013

**Construction Cost** 

\$400 million

Total Area

253,395 m<sup>2</sup>



At 270 meters, the Lotte Center Hanoi will be the tallest building in Vietnam upon completion. Thornton Tomasetti was retained by the owner to provide structural peer review and value engineering consulting services for the 253,395-gross-square-meter, mixed-use tower. The 65-story tower accommodates office, residential and hotel spaces above grade, and parking and mechanical spaces on five below grade levels.

A challenging aspect of this project was to find the optimal structural solutions for a floor framing system and a lateral load resisting system. Thornton Tomasetti conducted a comprehensive study to determine a structural system that will improve the project's constructability, provide construction cost savings and meet the client's project requirements.

Through close collaboration with all team members, including the architect and wind tunnel testing consultant, the design team selected flat-slab perimeter spandrel beams and a concrete wall with exterior columns linked by four pairs of tall steel outriggers at the mechanical floors. In addition, two perimeter belt walls were eliminated to achieve significant construction cost savings.



