

Signature Tower

Jakarta, Indonesia

Owner

PT Grahamas Adisentosa

Architect

Smallwood, Reynolds, Stewart, Stewart
& Associates, Inc.

MEP Engineer

Beca Engineering

Completion Date

2020

Total Area

360,000 m²

Total Heights

638 m

Number of Stories

113



Thornton Tomasetti is providing structural engineering services for a 113-story, 638-meter mixed-use tower, located on lots six and seven of the Sudirman Central Business District (SCBD) in Jakarta, Indonesia. The 360,000-square-meter project has an observatory at the top level, 25 levels of hotel space, 70 levels of office space, and a 10-story retail podium with a conference center, ballroom and restaurants, and six levels of basement parking.

The building is located within one of the most active seismic zones in the world. Classified as Seismic Design Category D, Signature Tower presents great challenges to engineers because of high seismic reactions and extremely soft soil conditions. The primary lateral system includes a composite core wall, composite super columns, steel outrigger trusses and steel belt trusses. The exterior mega frame includes nine steel belt trusses, six steel floor trusses and composite super columns. Performance-based design was used to evaluate the building performance under different levels of seismic hazard in order to achieve an efficient and safe structure.