

Taipei C1D1 Twin Towers

Taipei, ROC (Taiwan)

The Taipei Twin Towers is a supertall skyscraper development located adjacent to Taipei Main Railway Station. Its two towers will be joined by a semi-outdoor podium, garden terraces, shopping and cultural space, 533,000 square meters in total. The 77-story, 379-meter-tall twin towers will be the second tallest in Taipei. The towers' design provides elliptical and tapering geometry which is highly aerodynamic. This is of particular importance in a city vulnerable to typhoons and earthquakes.

The structural system includes composite CFT shear walls (speedcore), outriggers in the transverse direction and eccentrically braced frames (EBF) in the longitudinal direction. Both directions are coupled with perimeter composite moment frames. Both tuned mass dampers (TMD) and tuned sloshing dampers (TSD) were studied and TSD were selected to reduce wind accelerations and improve comfortability.

As a railway overbuild development, significant challenges like re-evaluating existing pile foundations and rerouting superstructure load paths, were tackled to minimize the retrofit of existing structure and allow the busy subway station below to continue operation during construction.

Han Ding served as a project engineer during his tenure at SOM.

