

Strata won the 2009 Tekla UK Model Award, in addition to receiving a certificate of merit at the 2010 Structural Steel Design Awards.



## STRATA SE1 LONDON

Strata is London's tallest residential tower and home to more than 1,000 residents. The building was one of the world's first to incorporate wind turbines within its structure and Bourne Steel supplied the tower's steel wind turbine enclosure.

The roof essentially cuts the building at an angle, resulting in a geometric shape which made the steelwork a challenge to construct. This coupled with the sloping roof level, formed by an angled elliptical concave surface; a vertical concave surface and two vertical convex off-set surfaces - with three circular openings for the wind turbines, makes this a truly unique structure.

The complex geometry of the roof meant the steel frame had to be 17m high, with four curves and six elliptical shaped curves made out of circular hollow steel sections. The curved members are joined with 66 members forming the surface to fix cladding. The structure also has 400 secondary steel brackets, which were welded to tight tolerances. The elliptical openings for the wind turbines were formed from a total of 30 curved hollow sections, all of which were set out in Bourne's fabrication shop using electronic survey data to ensure accurate positioning.

Market Sector: Residential  
Engineer: WSP  
Main Contractor: Brookfield Multiplex  
Architect: BFLS

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