

## Intesa-San Paolo Building

Turin, Italy / 2012

Structural type

Characteristics Owner Client Constructor Scope Architect cores and structure below grade made of reinforced concrete. Transfer structure, beams and internal columns made of steel, pre-tensed prefabricated concrete slabs and composite exterior columns. 160.0m high-rise tower block Banca Intesa San Paolo Rizzani de Eccher & Implenia R&D y Implenia detailed design and construction support Renzo Piano



The building for the new central offices of the Intesa - SanPaolo Bank is located in Turin, Italy.

It is a 167.0m high tower block above grade which will house offices and operative areas of the Bank. Also foreseen to be included in the project are; service and leisure areas, a congress center, and a bioclimatic garden and restaurant on the upper floors.

From a structural point of view the Tower is conceived in reinforced concrete in the below grade area and cores and the remaining structure to be executed in steel.

The tower foundation is a 4.30m deep block of reinforced concrete poured in one lift, for which self-compacting concretes and heat hydration control were employed.

A special mention must be made to the so-called 'Megacolumns'. These, as the name well indicates, are six enormous columns, external to the skeleton of the

building and aligned on the east-west façades, which are in charge, along with the core, of transferring all the vertical loads to the foundations. The columns are clad in steel and are reinforced with an internal steel brace filled with concrete, so offering extreme stiffness.

To allow the ground floor to be totally free of obstacles, the internal columns of the structure begin from a transfer structure, which is located at around 40.0m above grade, and from which the lower floors, dedicated to exhibitions and the auditorium, literally hang.

The main wind bearing elements are, the east and west façades formed by the Megacolumns and a system of cables and horizontal tubes which make up a triangular form, the façade on axis 10 formed by a triangulated system of steel profiles and cables which offer great stiffness and the central reinforced concrete core which is 20.0m x 9.0m on plan.





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