

# Sierra Toledana 60

## Consolidation - Refurbishment

Sierra Toledana 60 is a building with a total surface of 825 m<sup>2</sup> composed of two alternate bodies with different levels connected by a central staircase. Its structure is formed by porches and unidirectional floors out of concrete joists.

It was built in 1955 on top of a 5m layer of debris. Thus, both its bodies caved in in different directions and cracks of 15cm were detected on the top levels in between the two bodies.

The solution adopted was to create cells out of micropiles 20 m. deep with concrete pile caps which support the new structure composed of steel columns and beams, which are enclosed by plaster-board both at the ceiling and the walls. Thus the weight of the slabs is retransmitted and the previous foundation and columns are discharged.

Once the structure was consolidated and stabilized and a new foundation capable of transmitting the loads to firm ground was created, the solution adopted for the exterior was to install a ventilated facade in order to improve the energy efficiency of the building.

