

Client: Ille S.p.a

Location: L'Aquila

Services Provided: Design and construction project

Engineering services works:

- Electrical and Special systems : 950.000€
- Mechanical systems : 3.100.000 €

Project execution year: 2009

Earthquake proof Residential buildings in L'Aquila

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engineering s.r.l.



Earthquake proof Residential buildings in L'Aquila

The project deals with the planning and building of earthquake-proof sustainable and environmentally friendly buildings, which are to be used as residence homes for approximately 13.000 people in the municipality of L'Aquila in Italy.

Mechanical and building services engineering project approach:

The system guarantees a high standard of residential comfort, high energy efficiency and reduced heat dissipations. The heating system consists partly of an underfloor system in the main areas with the working fluid running at low temperature and of high temperature radiators integrated inside the bathrooms. Additionally it is a requirement to incorporate a centralised methane heating system. The project foresees reduced design and construction time allowing for a quick delivery.

Electrical and building services engineering project approach:

During the construction design phase the focus was on the versatility of the buildings usable not only as family residences but also as student residencies. For this reason the electrical systems were designed with this philosophy in mind.

The electrical system branches from the power meters located underneath the staircase, along with the other machinery and systems necessary for future building services.

It is foreseen the construction of a wardrobe underneath every staircase on each floor, in which will be installed the apartment's power meter and the power meter for the building's common spaces. There will be a designated electrical switchboard supplying power to the elevator and lighting and power in the common spaces.

The components of the electrical services are as follows:

- Lighting
- Power distribution

Special electrical systems:

- Data and communication
- Fire detection services
- Fire alarm system