MIXED DEVELOPMENT VIA LARGA

LEED Highlights – Multipurpose Unit Via Larga, Bologna

General aspects

The buildings constructed and included in unit R 3.28 - Via Larga, are an office tower, a hotel, a multifunctional complex (fitness area, shops, bars, restaurants and services), and a private square covered by a large "sail".

The master plan was developed to create a new urban centre, whose distinctive feature would be its innovative, contemporary, international design, with both office and service businesses.

The project originates from the desire and attempt to combine and harmonise diverse requirements with a new ethical sensibility by adopting cutting-edge technology and making energy saving and the use of renewable energy a strategic objective for such an important complex as this.

The integration of all the design elements (high-performance envelope, use of environmentally friendly materials, systems, structures) has achieved excellent results (class A) in terms of energy consumption, as well as a high level of comfort of use and architectural quality that provide additional support to the real estate value of the construction.

The choice of the materials used meets positivity/tolerability criteria with respect to their sustainability criteria.

The distinguishing characteristic of the complex is the use of integrated renewable energy in all its buildings.

Sustainability

The goal of the whole project was sustainability, achieved by integrating and optimising all the fields and skills involved in the process. The architectural design project coordinates and integrates plant design, structural design, fire prevention, and home automation, with the ultimate goal of creating a building complex that is a benchmark in Italy and in line with European standards of excellence. *LEED* certification (Gold level) reflects recognition of this and highlights positive aspects such as:

- Sustainable sites: the reuse of a previously urbanised area, land reclamation, the presence of nearby connections and transport (bus, train, cycle path, etc.), the reduction of light pollution, and maximum use of green spaces in the area.

- Water efficiency: the tower and the other buildings save more than 50% water compared to similar buildings with traditional technology. In particular the hotel has a dual network for collecting rainwater that can be reused for flushing toilets, besides the latest generation of water-saving taps.

- Energy efficiency: all the buildings are extremely efficient as regards consumption; this is thanks to the in-depth study of mechanical (heat pump) and electrical systems. Using them intelligently leads to significant energy savings and consequent economic advantages. In addition, the hotel's façades are designed to achieve efficient shading from the sun (through the use of silk screens on the glass panes) and excellent thermal-acoustic insulation without any additional external devices. On the roof the building has a complete system to generate solar energy, both thermal and photovoltaic.

- Materials: a high percentage of recycled products and materials from the local region were used for construction: preference was given to materials produced within a limited range so as to limit air pollution caused by transport.

- Indoor environmental quality: air quality, natural light, thermal comfort and system control were specific points for the building design.

- Separated waste management: a recycling centre is planned for the entire unit, where waste can be sorted in accordance with the local waste management company (HERA).

Its LEED certification is the result of an ensemble collaboration between designers/construction managers, the construction company and specialist consultants. Needless to say, involving the building management too in the process requires the tenants of the various businesses to be fully aware of how it is to be used. Using the buildings properly, from the air conditioning to the water and the correct disposal of waste, follows on naturally from the efforts that have been made, making the sustainability of the construction work tangible.

HOTEL FOCUS

More precisely, as far as the hotel is concerned, it is a building with 8 floors above ground and one below ground, for hotel + offices mixed use; the two uses are developed in a "sky-to-ground" way, in other words they are part of the same building but have full autonomy, being separate from each other in terms of both operations and systems.
The project has a strong focus on the value of environmental sustainability; besides being in energy class A, it has also obtained *LEED* Gold certification.

“Green” technical features:

- The re-use of an already urbanised area, by means of comprehensive land reclamation.
- The provision of public transport services already operating in the surrounding urban setting; implementation of external urbanisation via the addition of a cycle path and underground railway.
- A high-performance façade system with triple glazing and integrated solar shading (silk-screens); they provide very high thermal insulation and prevent overheating in the summer. At the same time they provide good lighting and optimum indoor comfort.

- The use of photovoltaic and solar thermal panels, integrated into the roof to generate electricity and domestic hot water.
- The use of heat pump air conditioning systems and integrated domestic hot water production (linked to solar thermal panels).
- The use of drinking water for irrigation and sanitary purposes for maximum efficiency; the use of water-saving toilets and taps with a dual rainwater collection network.
- The use of recycled materials for a large percentage of the construction (structures and finishes).
- The use of locally sourced building materials.
- The use of reflective outdoor paving to avoid overheating in the summer and the “heat island” effect.
- The optimisation of lighting to save energy and protect from light pollution.
- Separated waste collection in all areas.
- The use of FSC wood when present, to safeguard forests in the material procurement phase.

HOTEL PROJECT DETAILS:

LOCATION:
BOLOGNA, Via Larga

CLIENT:
UNIPOLSAI ASSICURAZIONI

GENERAL COORDINATION:
OPEN PROJECT S.r.l. (Bologna)

ARCHITECTURAL PROJECT:
OPEN PROJECT S.r.l. (Bologna)

STRUCTURAL PROJECT:
STUDIO TECNICO MAJOWIECKI (Casalecchio di Reno - BO)

SYSTEMS PROJECT:
BETA PROGETTI (Florence)

CONSTRUCTION MANAGEMENT:
OPEN PROJECT S.r.l. (Bologna)

CONSTRUCTION COMPANY:
NUOVA AGORA' – CMB Società Cooperativa Muratori e Braccianti di Carpi

LEED certification system:
LEED 2009 Italy New Construction and Major Renovations