



Typology
Mixed use

Site
rue Delandine
69002 Lyon, France

Competition/Award
1st prize

Client
Nexity

Cooperation
Société

Landscape design
Baumschlager Eberle Architekten

Interior design
Baumschlager Eberle Architekten

Site area
451 m²

Building surface area
451 m²

Gross floor area
5,011 m²

Floor area
4,627 m²

Start of planning phase
2022

Start of construction
2024

Completion
2026

B1 C1 Confluence Lyon
Lyon, France



Insights

Bioclimatic construction methods based on the 2226 principle mean that interior temperature and air quality can be regulated without air conditioning all year round using the heating system as a back-up only.



A first for France: an apartment block built on the 2226 principle. The brief was for a two-phase, mixed residential development with school provision on the River Rhône in Lyon's Confluence district. Environmental quality and resource and energy efficiency were all high on the agenda. Phase I comprises **five apartment blocks** with ground-floor infrastructure **and a school building** and provides a **range of typologies** on a leasehold basis. The new development is characterised in **design terms** by the well-defined frontage on the banks of the Rhone and the intimate, extensively landscaped courtyards within the complex itself. Its residential towers, visible from afar, offer a striking landmark. The **decision to build one of the residential blocks on the 2226 principle** has attracted great public attention. Its prototype, the 2226 Haus in Lustenau, Austria, ensures optimum comfort without heating, ventilation or cooling and is seen as an exemplar of resource-efficient architecture. The 2226 building is particularly innovative in that it **adapts and develops the 2226 principle to both the specific demands of homebuilding and French building regulations.**

Environmental quality and comfortable living. With **60cm-thick hollow-block** external walls and triple-glazed windows to less than 28% of the facade, the 2226 building has excellent insulation and thermal storage characteristics. Thanks to automatic ventilation flaps, which can also be controlled individually, **the 2226 ventilation system provides natural aeration** and prevents the building from cooling. Radiators – mandatory in France – serve as a backup system but should be needed for no more than a few hours a year. **Comprehensive simulations** for the five apartment blocks show that **the 2226 building with an energy consumption of 2 kWh/m² p.a. easily outperforms the rest, notably** in terms of **ventilation and heating values.** The **school** is a **timber construction with no air conditioning** but with natural ventilation; its flexible layout allows future conversion to office space, for example. **Choice of materials** also plays a key role in **environmental quality**; fair-faced concrete is paired with bio- and geo-based materials such as solid timber and lime render, some locally sourced. **Richly planted courtyards** bring freshness and biodiversity into the mix.