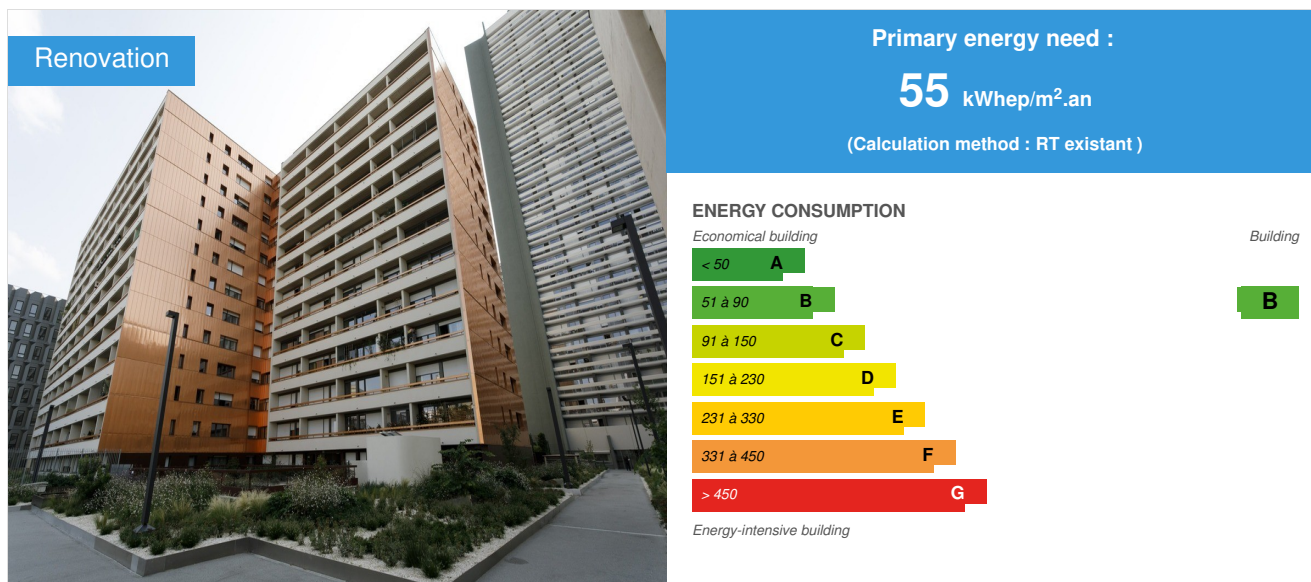


Rehabilitation of 435 housing units, Chevaleret street and square Dunois

by [lionel mure](#) / 2021-03-26 15:35:40 / France / 8018 / FR



Building Type : Collective housing > 50m
Construction Year : 1974
Delivery year : 2020
Address 1 - street : 183 rue du chevaleret 75013 PARIS, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 30 528 m² SHON RT
Construction/refurbishment cost : 18 295 000 €
Cost/m² : 599.29 €/m²

Certifications :



effinergie⁺⁺

Proposed by :



General information

Thermal renovation and bringing into conformity, in an occupied environment, of a residence consisting of a high-rise building in R + 29 with 203 apartments and two buildings in R + 14 with 232 apartments located respectively at 14, square dunois and at 183- 185, Chevaleret street in Paris, 13th arrondissement.

The ambition of the program, thanks to financial support from the City of Paris, was to meet the objectives of the Climate Plan by significantly improving the energy performance of buildings (work aimed at energy savings and reducing the production of greenhouse gases) as well as improving the comfort of housing and the living environment of tenants. The work included the installation of efficient exterior joinery, exterior insulation and roof terraces; the renovation of the networks (EF DHW supply, waterfalls, electricity and the ventilation system), the safety or complete repair of the electrical installations of the apartments, the repair of the wet rooms according to the inventory, the replacement of the landing doors, the renovation halls, and common circulation, the redevelopment of outdoor spaces. The work also related in part to equipment relating to fire safety.

Sustainable development approach of the project owner

The main objectives were to improve the energy performance of housing and to include the project in the Climate Plan of the City of Paris by the insulation of roofs, facades, balcony surfaces, replacement of joinery and renovation work. ventilation. In addition to these aspects of energy rehabilitation, the objective was to improve the comfort of the accommodation: installation of blackouts, replacement of landing doors, fire safety (in particular of the Mykérinos IGH tower), compliance of electrical installations, works in damp rooms.

Architectural description

The aim is not to modify the architectural aspect of the tower. A pigment study was carried out to find the initial color of the tower.

The copper cladding on the gables of the "low" buildings creates a strong signal on the Chevaleret street.

Building users opinion

Consulted in 2015, tenants who spoke voted 90% in favor of its launch.

Photo credit

Praise-Siemp

Stakeholders

Contractor

Name : Elogie-Siemp

Contact : Olivier TURLIN

<http://www.elogie-siemp.paris>

Construction Manager

Name : EQUATEUR

Contact : M. BENARD

<http://www.equateur-architecture.fr/EQUATEUR.pdf>

Stakeholders

Function : Construction Manager

ALTEREA

M. OUTMEZGUINE

<https://www.alterea.fr/>
ingenierie

Function : Environmental consultancy

SOLIHA

<https://www.soliha.fr/>

Elogie-Siemp also called on the Soliha association, an associative company of social utility and solidarity action, to carry out diagnoses and support tenants.

Function : Construction company

GTM Bâtiment

Jérôme TURCK

<https://www.gtm-batiment.fr/>

Type of market

Realization

Energy

Energy consumption

Primary energy need : 55,00 kWhep/m².an

Primary energy need for standard building : 195,00 kWhep/m².an

Calculation method : RT existant

Breakdown for energy consumption : The consumption of Ep announced is that of the Mykérimos tower.

Initial consumption : 145,00 kWhep/m².an

Envelope performance

Envelope U-Value : 1,35 W.m⁻².K⁻¹

More information :

On the tower, the fins could not be over-insulated to preserve the architecture of the building. The envelope was improved by the replacement of the milled facades, the insulation on the underside of the balconies and the insulation on the roof. Insulation from the outside for buildings K and L, on the 4 facades and green roofs. Flocking on the underside of all low floors.

Building Compactness Coefficient : 0,70

Indicator : EN 13829 - n50 » (en 1/h-1)

More information

The real consumption for a full year has not yet been established, the end of the work having taken place in 2020. The initial consumption is evaluated on the basis of the thermal calculation so as not to overestimate the expected energy savings (consumption observed before rehabilitation of around 400kWhep / m²).

Renewables & systems

Systems

Heating system :

- Urban network

Hot water system :

- Urban network

Cooling system :

- No cooling system

Ventilation system :

- compensated Air Handling Unit

Renewable systems :

- No renewable energy systems

Environment

Urban environment

Built-up area : 99,00 %

Green space : 2 910,00

The buildings are part of a larger whole, a joint ownership unit linking Chevaleret street and Dunois street.

The operation made it possible to requalify the feet of buildings around the three buildings belonging to Elogie-Siemp, with 245m² of greening on the ground, 895m² of vegetated roofs and 1,770m² of greening on the slab serving as roof for the parking levels.

The choice of plants and the installation of birdhouses (swallows, sparrows, redstarts, wagtails, chickadees, black swifts, depending on the site exposure) provide support for biodiversity in this very dense neighborhood .

Costs

Construction and exploitation costs

Total cost of the building : 22 854 000 €

Subsidies : 6 183 000 €

Health and comfort

Comfort

Health & comfort :

Shutters have been installed on the IGH tower for the bedrooms and living rooms (and for the kitchens facing south only), which ensures better summer comfort.

Also, the roof of buildings K and L was insulated with the installation of a greening which allows a better comfort of summer for the dwellings on the top floor.

Acoustic comfort :

Noise exposure class: BR1.

Carbon

GHG emissions

GHG in use : 15,00 KgCO₂/m²/an

GHG before use : 81,00 KgCO₂ /m²

Building lifetime : 50,00 année(s)

, ie xx in use years : 5.4

Contest

Reasons for participating in the competition(s)

The rehabilitation has reduced energy needs by more than 60%, by working mainly on the building envelope (heating being managed as part of the general condominium).

Vegetate the feet and roofs of buildings (chevaleret) as well as the slab that covers the car parks.

Building candidate in the category



Energie & Climats Tempérés

