# CONSTRUCTION21,

# Hélène Boucher condominium in Sevran

by VERONIQUE VERNA / () 2019-02-13 16:39:32 / France / () 8631 / |= FR

| Renovation | F | Primary energy need :<br>64 kWhep/m².an<br>(Calculation method : )                           |
|------------|---|--|
|            |   | ENERGY CONSUMPTION<br>Economical building Building<br>51 à 90 B<br>91 à 150 C<br>151 à 230 D |
|            |   | 231 à 330 E   331 à 450 F   > 450 G   Energy-intensive building                              |

Building Type : Collective housing < 50m Construction Year : 1973 Delivery year : 2018 Address 1 - street : 10 ALLEE HELENE BOUCHER 93270 SEVRAN, France Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 1 700 m<sup>2</sup> Construction/refurbishment cost : 480 811 € Number of Dwelling : 23 Dwelling Cost/m2 : 282.83 €/m<sup>2</sup>

# General information

Energy renovation of a small joint ownership of 23 lots in Sevran (in Paris suburbs) as part of the "OPAH Quartier Rougemont". The works included the insulation of the roof terrace, the installation of a thermal insulation from the outside, the replacement of all the joinery, the installation of a humidity-sensitive ventilation, the insulation of the low floor and the setting up of the building's safety. The energy saving is 68%.

#### Sustainable development approach of the project owner

Rehabilitation and energy renovation of a 1970 condominium: 23 housing units under the OPAH of the Rougemont district with the operator OZONE.

Insulation from the outside, Insulation of the roof terrace, replacement of all windows, and upgrading common areas. ECIC thermic. EVAM syndic. Budget 480 € 811 ht.

This allowed to divide by almost 3 the energy consumption of the condominium from 178 to 64 kWeh/m<sup>2</sup>/year. It has reached certain levels of BBC renovation requirement (without being labeled) thanks to this performance.

#### Building users opinion

The occupants dropped the interior heating temperature by 3 ° C.

# Stakeholders

#### Contractor

Name : SYNDIC EVAM 17/19 Rue Jean Charcot, 93600 Aulnay-sous-Bois

# **Construction Manager**

Name : VERNA ARCHITECTES Contact : VERONIQUE VERNA Thttps://www.verna-architectes.com/

#### Stakeholders

Function : Thermal consultancy agency ECIC Ecic 2, av. du Régiment Normandie Niémen 91700 Sainte-Geneviève-des-Bois

FANNY PELLETANT

THERMAL DIAGNOSTICS

Function : Assistance to the Contracting Authority

OZONE 34 av. Raspail 94250 Gentilly

Benoit MAAS

☑ ozone-conseils.fr

# Contracting method

Separate batches

# Type of market

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# Energy

# **Energy consumption**

Primary energy need : 64,00 kWhep/m<sup>2</sup>.an Primary energy need for standard building : 178,00 kWhep/m<sup>2</sup>.an Calculation method : CEEB : 0.0002 Breakdown for energy consumption : 22% heating 30% ECS 9% lighting 2% auxiliary pumps 5% auxiliary fans Initial consumption : 178,00 kWhep/m<sup>2</sup>.an

# Real final energy consumption

Final Energy : 57,00 kWhef/m<sup>2</sup>.an

# Envelope performance

Envelope U-Value : 0,62 W.m<sup>-2</sup>.K<sup>-1</sup>

# Systems

#### Heating system :

• Urban network

#### Hot water system :

• Urban network

#### Cooling system :

No cooling system

#### Ventilation system :

• Humidity sensitive Air Handling Unit (Hygro B

#### Renewable systems :

• No renewable energy systems

#### Environment

# Urban environment

Residential environment, Rougemont district in Sevran.

# Products

### Product

JOINERY FLAME PROTECTION

LORILLARD

Product category : Second œuvre / Menuiseries extérieures

Replacement of the windows and guardrail doors with a carpentry with a fixed flame arrestor to respect the C + D  $\,$ 

Clear glazing and increased standards

#### Costs

# Construction and exploitation costs

Cost of studies : 6 403 € Total cost of the building : 628 000 € Subsidies : 521 900 €

#### Carbon

# **GHG** emissions

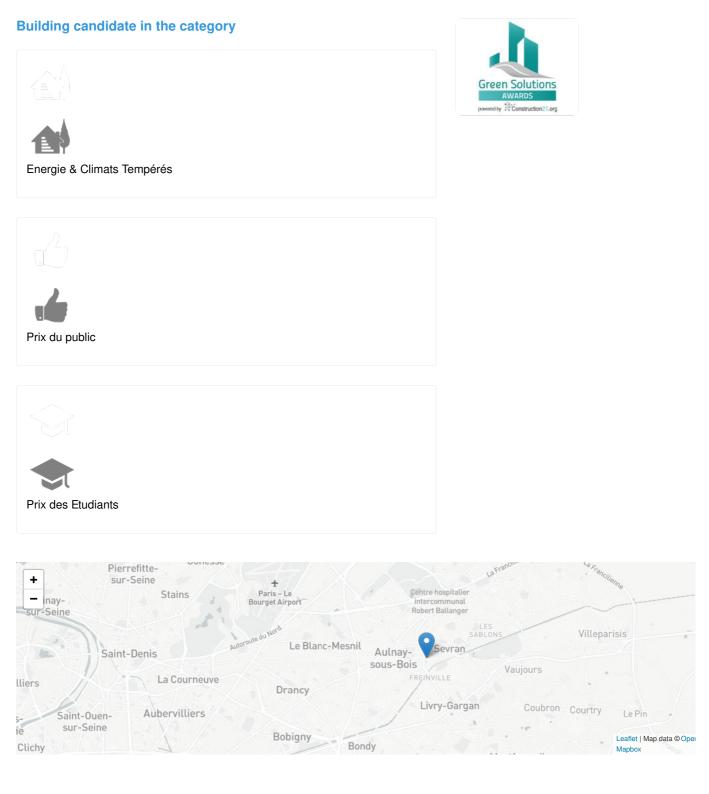
GHG in use : 10,00 KgCO<sub>2</sub>/m<sup>2</sup>/an Methodology used : Existing RT

GHG emissions were 30 KgCO2 / m2



# Reasons for participating in the competition(s)

Energy renovation of a small joint ownership of 23 lots in Sevran as part of the "OPAH Quartier Rougemont". The works included the insulation of the roof terrace, the installation of a thermal insulation from the outside, the replacement of all the joinery, the installation of a humidity-sensitive ventilation, the insulation of the low floor and the setting up of the building's safety. The energy saving is 68%.



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