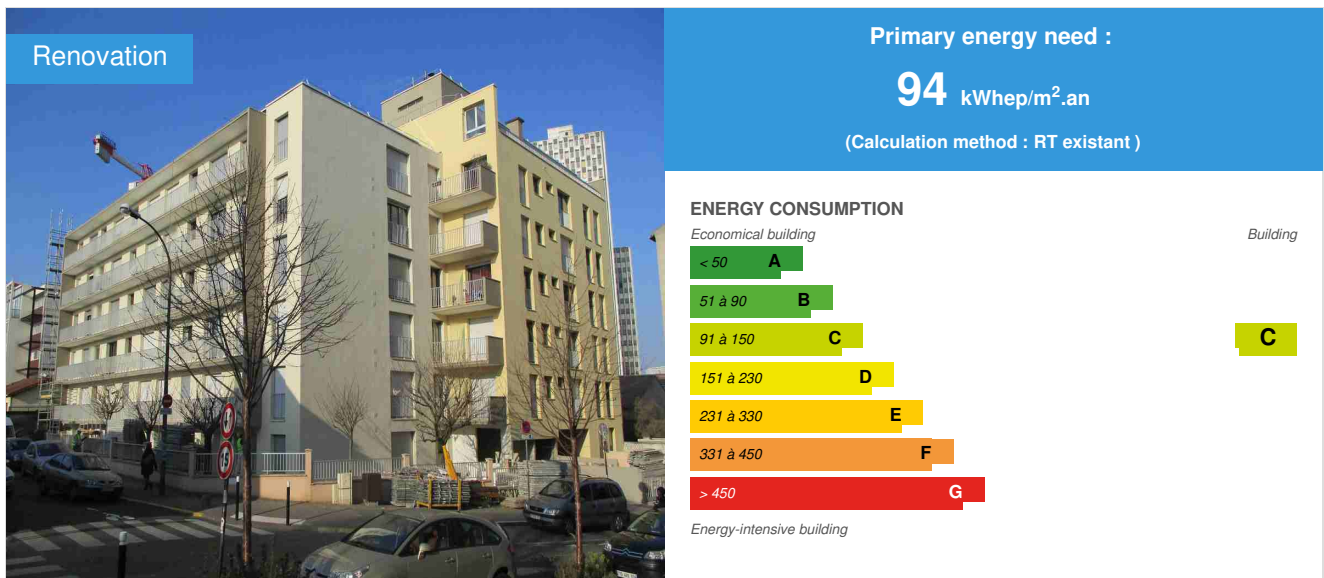


## Lauriau / Gaillard condominium - Montreuil

by Thomas Jorand / 2019-02-11 09:38:47 / France / 5447 / FR



**Building Type** : Collective housing < 50m  
**Construction Year** : 1973  
**Delivery year** : 2016  
**Address 1 - street** : 93100 MONTREUIL, France  
**Climate zone** : [Cfb] Marine Mild Winter, warm summer, no dry season.

**Net Floor Area** : 3 180 m<sup>2</sup> SHON  
**Construction/refurbishment cost** : 850 000 €  
**Cost/m<sup>2</sup>** : 267.3 €/m<sup>2</sup>

Proposed by :



### General information

The condominium is located in downtown Montreuil (Paris suburb) in the heart of an urban renewal project. This is a building built in 1973, the last renovation was in 1987. It includes 53 homes and a carpentry workshop.

The thermal rehabilitation of the two buildings, built with non-insulated concrete framed facades and single-glazed metal frames, is part of a process begun several years ago: insulation of roof-terraces in 2004, renovation of the boiler room in 2010 with the installation of 2 cascading natural gas condensing boilers, lighting of the common areas by LEDs realized in 2012.

A shared Global Audit was conducted during the 2013/2014 heating season, highlighting the opportunity for a global and ambitious energy renovation.

The work program includes:

- **The energy treatment of the building envelope** : Renovation of the facades with thermal insulation from the outside, replacement of joinery, shutters and insulation of the boxes, insulation on the underside of the low floor;
- **Improvement of energy systems** : Implementation of a humidity-sensitive ventilation and installation of automatic balancing valves on the heating network;
- **Compliance and treatment of building pathologies** : Resumption of balcony and joinery guardrails, securing of roof terraces, installation of smoke-

control skylights enslaved, installation of a liquid waterproofing and treatment of the nose of balconies.

All this by following a **green building charter**, in compliance with environmental standards: Access, cleanliness, safety, limitation of nuisances (noise, dust), waste management and sorting.

This co-ownership has been **awarded the call for projects ADEME** Île-de-France region "sustainable condominium". In this context the co-ownership wanted to commit to a responsible project:

- Comparative study of **biosourced solutions** for the insulation of façades and low floors
- Analysis of the **recyclability** of the materials used
- **Carbon analysis** of the renovation project (and its variants) on the perimeter of the works and the operation of the buildings on the principle of life cycle analysis

Consult the map of renovated condominiums on the Paris metropolis  
<https://paris.coachcopro.com/pages/carte-des-coproprietes-renovees>

## Sustainable development approach of the project owner

The buildings achieve a level of energy performance "Building Low Consumption" (Cep <104 kWh / m<sup>2</sup>.year) with a complete treatment of the building envelope completed by the improvement of the air quality of the building (implementation work of humidity-controlled mechanical ventilation). The condominium is committed to a responsible approach by studying **biosourced alternatives** for thermal insulation work in front (wood wool) and floor (cork panels). The entire project was also the subject of a **life cycle analysis** adapted to the rehabilitation process taking into account the overall carbon footprint of the various construction solutions. The co-ownership also wanted the implementation of a **green building charter** to limit the impact of the renovation project on the environment during the construction site. Accompanied by different service providers, the co-ownership has put in place **an important dynamic of consultation** during all the duration of the project:

- Shared global audit: poster campaign, questionnaires, call for participation group "works", information meetings (technical, grants and subsidies, final project), housing visits, work meetings, dissemination of a summary.
- Conception Mastery of work: courier joinery with possibility of individual meeting, visits housing, meetings working group, communication panels architectural project, meeting financing, diffusion of a technical summary, permanences financing, presentation final offers, realization of financing plans individualized.
- Execution of the works: application of the green building charter containing a communication / works part in a busy environment (grievance book, identification of the person involved, planning, etc.)

## Architectural description

The condominium consists of two adjoining residential buildings, forming an angle between the street Clotilde Gaillard and Gaston Lauriau in Montreuil. The immediate environment of the co-ownership is very heterogeneous. In front of building B is a 5-storey office building with contemporary architectural treatment (curtain wall, stone cladding). In front of the building A are small individual houses in masonry running with plaster and roof tile red terracotta. The facade treatment project aims to upgrade the building in its environment while maintaining its identity. The initial architectural choices went to a uniform white coating on all facades with a delimitation of volumes by a discrete salmon coating (arrows balconies, acroteria). The project aims to enhance the diversity of facades and volumes of the condominium. The identity of buildings A and B is marked by a different color choice on both buildings while maintaining common touches reminiscent of the uniqueness of the residence.

## See more details about this project

<https://mve.coachcopro.com/fiche-de-site/0a360603-b920-487f-b683-1d13ad24f56a>

## Stakeholders

### Contractor

**Name** : Syndicat des copropriétaires représenté par le syndic Cabinet Louis Porcheret  
**Contact** : Benoit Antenat - b.antenat (at) porcheret.fr

### Construction Manager

**Name** : PAZIAUD  
**Contact** : Mathieu CARLIER - contact (at) paziaud.fr  
<https://nepsen.fr/agences/paziaud-sa/>

## Stakeholders

**Function** : Assistance to the Contracting Authority  
ENERGIE PULSE  
Fatima-Zohra MEKREBI - mekrebi (at) energie-pulse.fr  
<http://www.energie-pulse.fr/>

Financial engineering

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Function : Company

Bouygues Bâtiment Ile-de-France - Habitat Réhabilité - ex-BATIRENOV

Caroline CATELAIN - c.catelain (at) bouygues-construction.com

<http://www.bouygues-batiment-ile-de-france.com/habitat-residentiel>

Work execution

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Function : Company

Air-Climat

Jorge VIEIRA - contact (at) air-climat.fr

<http://www.air-climat.com/>

Execution of the work Heating and Ventilation

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Function : Environmental consultancy

ARC (Association des Responsables de Copropriété)

observatoire (at) arc-copro.fr

<https://arc-copro.fr/>

accompanist

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Function : Environmental consultancy

ALEC-MVE (Agence Locale de l'Énergie et du Climat - Maîtrisez Votre Énergie)

copro@agence-mve.org

<http://www.agence-mve.org/>

accompanist

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## Type of market

Realization

## Energy

### Energy consumption

Primary energy need : 94,00 kWhep/m<sup>2</sup>.an

Primary energy need for standard building : 130,00 kWhep/m<sup>2</sup>.an

Calculation method : RT existant

Initial consumption : 200,00 kWhep/m<sup>2</sup>.an

### More information

The actual energy savings are estimated at 50%. Heating bills after the completion of the works are being analyzed.

## Renewables & systems

### Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Condensing gas boiler

Cooling system :

- No cooling system

Ventilation system :

- humidity sensitive Air Handling Unit (hygro A)

#### Renewable systems :

- No renewable energy systems

## Environment

### Urban environment

The condominium is located in Montreuil, a few kilometers east of the City of Paris. It is located in a dense urban fabric, close to downtown Montreuil, 300 meters from the Metro station "Mairie de Montreuil" and the Hôtel de Ville. The environment is marked by recent renewal projects city center such as the Grand Angle shopping center, the T9 office tower and the newly renovated City of Hope housing complex. The Beaumonts Park, a 22-hectare green space, is located at the end of Gaston Lauriau Street, 400 m southeast of the condo.

## Products

### Product

Automatic balancing valve ASV-PV

DANFOSS

Guillaume COATMEUR - g.coatmeur@danfoss.com

<http://www.danfoss.fr/>

Product category : Second œuvre / Plomberie, sanitaire

Adjustment of the differential pressure in the heating columns, allowing a real balancing of the flow of the heating system

Well accepted technical equipment



## Costs

### Construction and exploitation costs

Subsidies : 343 200 €

## Health and comfort

### Water management

The green building charter imposed on companies included a component on the optimization of water consumption and their treatment during construction.

### Indoor Air quality

The quality of the indoor air has been improved by the implementation of humidity-sensitive mechanical ventilation.

## Carbon

### GHG emissions

GHG in use : 19,00 KgCO<sub>2</sub>/m<sup>2</sup>/an

Methodology used :

RT-Existent

## Life Cycle Analysis

### Eco-design material :

A global study was conducted in the design phase on:

- Comparative analysis of bio-sourced insulation solutions
- The carbon footprint of the project on the perimeter rehabilitation / exploitation site
- The recyclability of the proposed solutions

## Contest

### Reasons for participating in the competition(s)

The Lauriau / Gaillard co-ownership is engaged in an ambitious architectural and energy renovation project ensuring a thermal improvement of the building envelope (insulation of the facades, collective replacement of the joinery, insulation of the floor on the basement) accompanied by a renovation of energy systems, in particular ventilation of dwellings.

The co-ownership was supported by various service providers (local energy agency MVE, ARC, prime contractor PAZIAUD, support for financing ENERGY PULSE) for the definition of a project to meet the needs of the local authorities. maintenance of its heritage while significantly improving energy consumption. This support (initial assessment, global architectural and energy audit, customized design of the project, consultation of the companies) allowed after two years of study a unanimous vote of the works during an extraordinary general assembly.

Thanks to the incentives of the public authorities within the framework of the call for project "sustainable co-ownership", the project has deepened various environmental aspects of a renovation: feasibility study for the use of biosourced materials in thermal insulation of collective buildings of housing, life cycle analysis (global carbon impact) of the proposed variants of materials.

### Building candidate in the category



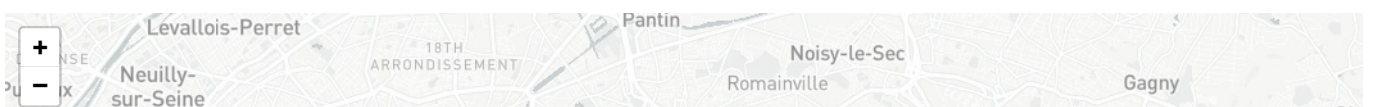
Energie & Climats Tempérés

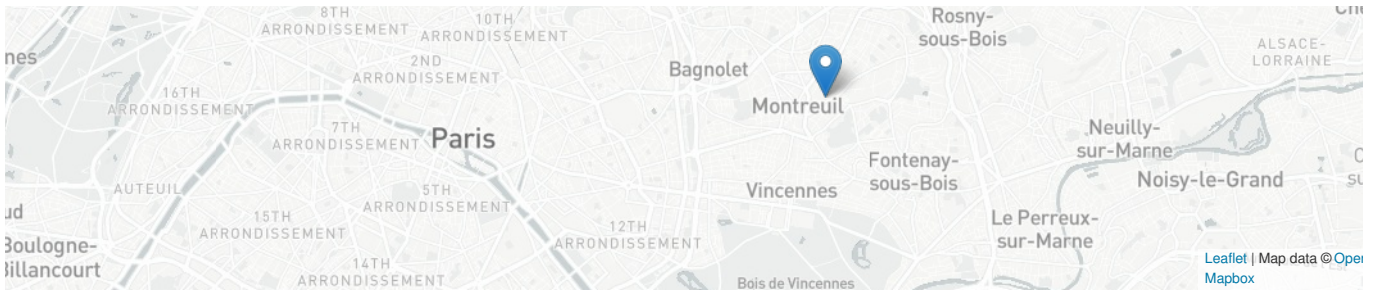


Prix du public



Prix des Etudiants





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