

Bernadotte Residence

by Rémi Doucet / 2022-07-01 00:00:00 / France / 1192 / FR



Primary energy need :

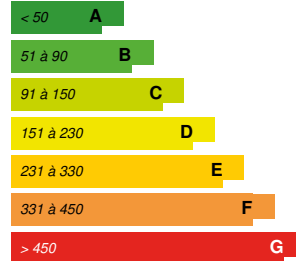
133 kWhep/m².an

(Calculation method : RT existant)

ENERGY CONSUMPTION

Economical building

Building



Energy-intensive building

Building Type : Collective housing < 50m

Construction Year : 1972

Delivery year : 2020

Address 1 - street : 33 bvd Folke Bernadotte / 79 route de Sartrouville 78230 LE PECQ, France

Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 6 262 m²

Construction/refurbishment cost : 1 471 000 €

Cost/m2 : 234.91 €/m²

Proposed by :



DOUCETARCHITECTES

General information

This project consists of implementing the thermal renovation of this 1970s residence, which has an 8-storey bar (building A) and two 6-storey plots (buildings B1 and B2).

This ambitious operation relating to buildings A and B1 includes the renovation of all the facades with thermal insulation from the outside, the replacement of the exterior joinery (private and smoke extraction skylights), the insulation of the roof terraces, the low floors on the car parks and roller shutter boxes, the installation of a VMC hygro B, the installation of thermostatic valves on the radiators, the cooling of the halls and their accessibility to PMR by external landscaped ramps.

The presence of asbestos in the exterior joinery joints and in the mosaic glue had an influence on the implementation of the ITE and on the replacement of certain windows.

GA vote on works: June 2018

Start of work: April 2019

See more details about this project

<https://www.doucetarchitectes.fr/residence-bernardotte-le-pecq/>

Photo credit

Doucet architects

Stakeholders

Contractor

Name : SdC Bernadotte

Construction Manager

Name : DOUCET architectes

Contact : Rémi Doucet

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

Stakeholders

Function : Thermal consultancy agency

Switch

Function : Other consultancy agency

Energie Pulse

Financial support

Function : Company

Coulon

Restoration, ITE

Function : Company

Thop

Ventilation, heating

Function : Company

Andreutti

Sealing

Function : Contractor representative

IFF gestion

joint property

Function : Company

Lorillard

Exterior wood furnishings

Function : Company

Isambert

electricity

Function : Company

Sodacen

Asbestos removal

Function : Construction Manager

Vincent Mollica

SPS Coordinator

Function : Construction Manager

Alpha Controle

Technical controller

Function : Company

Ace Paysage

countryside

Contracting method

Separate batches

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 133,00 kWh/m².an

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

Calculation method : RT existant

Breakdown for energy consumption : heating: 80.7 kWh/m² (61%), DHW: 30.3 kWh/m² (23%), lighting: 9.1 kWh/m² (7%), Aux. ventilation: 12.6 kWh/m² (9%)

Initial consumption : 218,70 kWh/m².an

Real final energy consumption

Final Energy : 138,70 kWh/m².an

Envelope performance

Envelope U-Value : 1,30 W.m⁻².K⁻¹

More information

Final energy consumption before works: 234.8 kWh/m².year (bat A) / energy gain 39% / label C Building B consumption: primary energy before works 328.5 kWh/m², after works 185 kWh/m² / distribution of consumption: heating 93.1 kWh/m² (50%), DHW 74.2 kWh/m² (40%), lighting 5.7 kWh/m² (3%), Aux. ventilation 11.3 kWh/m² (6%) / energy gain 44% / final energy before works 412 kWh/m².year, after works 228 kWh/m².year

Renewables & systems

Systems

Heating system :

- Gas boiler
- Water radiator

Hot water system :

- Gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Humidity sensitive Air Handling Unit (Hygro B)

Renewable systems :

- No renewable energy systems

Environment

Urban environment

The condominium is located in the Canada district of Pecq, on the right bank of the Seine, at the northern limit of the town. The plot is served by two roads: Boulevard Folke Bernadotte and Route de Sartrouville. Building A is located along and parallel to the Seine on which it has a direct vis-à-vis.

Costs

Construction and exploitation costs

Cost of studies : 78 463 €

Total cost of the building : 1 471 253 €

Subsidies : 357 041 €

Additional information on costs :

HT aid:

- ANAH engineering €5,460,
- ANAH + Better Living bonus €340,737,
- ANAH accessibility €10,844

HV studies:

- Architect (studies + site monitoring) €69,163,
- Thermal BE (studies only) €3,900,
- Financial engineer €5,400

Other MOE (HT):

- SPS €7,840,
- BCT €6,000,
- DO €19,273,
- Trustee €13,370

Asbestos DAAT (excl. VAT) €2,850

HV works:

- Restoration €499,050,
- Exterior joinery €229,850,
- Asbestos removal €26,950,
- Sealing €134,860,
- Electricity €8,555,
- Breakdown €56,252,
- Heating €30,899

Carbon

GHG emissions

GHG in use : 30,00 KgCO₂/m²/an

Methodology used :

DPE

GHG before use : 50,00 KgCO₂ /m²

, ie xx in use years : 1.67

Contest



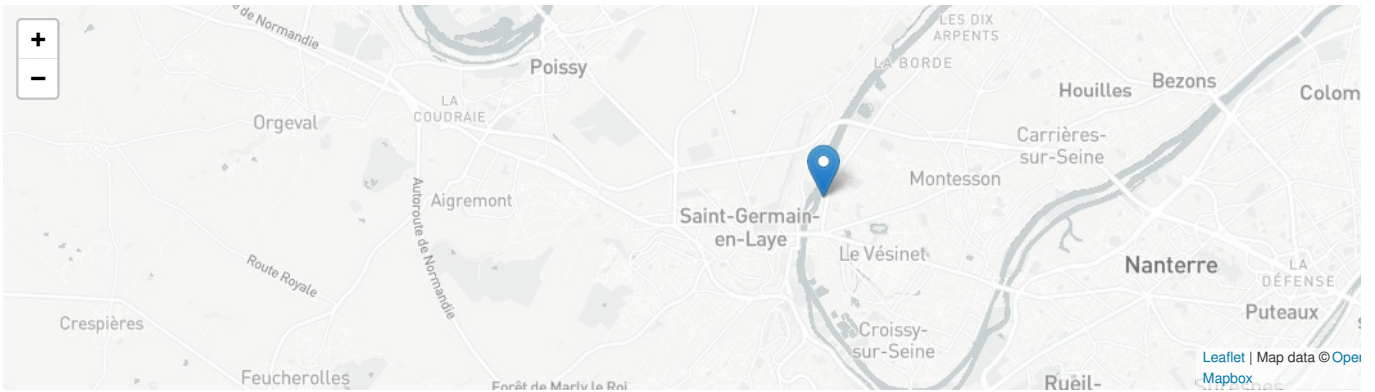
Reasons for participating in the competition(s)

Cette opération a été exemplaire sur le niveau des performances visées (39 % de gain énergétique sur le bâtiment A et 44% sur le bâtiment B) et atteintes au pourcent près après comparaison entre prévisions et factures, avec une approche globale sur les parois opaques et vitrées, sur la ventilation et le chauffage et sur la mise en conformité des accès. Le défi a été de préserver et valoriser l'esthétique remarquable et le vocabulaire architectural des façades à un coût maîtrisé.

Building candidate in the category



Prix du public



Date Export : 20230403154456