Revitalization of the Bourg Center

by Emmanuel d'Environat Centre

New Construction

Primary energy need:
81 kWhep/m².an
(Calculation method: RT 2012)

ENERGY CONSUMPTION

Economical building

Primary energy need:

- Building Type: Other building
- Construction Year: 2020
- Delivery year: 2021
- Address 1 - street: 250 Rue Marcel Donette 45700 PANNES, France
- Climate zone: [Cfb] Marine Mild Winter, warm summer, no dry season.

- Net Floor Area: 1 785 m²
- Construction/refurbishment cost: 5 716 373 €
- Cost/m²: 3202.45 €/m²

Proposed by:

General information

The operation concerns the design of a new heart of the City, in connection with the existing Town Hall, within a site in full requalification (subdivisions in the course of realization, project of modification of the road network, rehabilitation of the old train station). This operation offers the city of Pannes both shops and services as well as spaces for care, work and relaxation. Local companies have been favored (95% of the work) and the buildings constructed are energy efficient.

The organization of buildings and flows takes into account the needs and uses of residents and users. The treatment of outdoor spaces plans to develop quality green spaces, punctuated by forecourts.

A building made from local biosourced materials

Within this urban renewal project, the central building of the Center Bourge is built according to the following construction methods:

- Wooden frame walls with insulation distributed in straw;
- Insulating joist-slab floors;
- Wooden floor structure;
- Traditional framework;
- Insulation in blown cellulose wadding.

The straw comes from crops in the town of Pannes. It was stored by the city on its territory to then be installed in the wooden frame walls by the UTB carpenter in Villemandeur (<8 km from the construction site). The prefabricated elements were then assembled on site.

### Photo credit
Vincent Bourgoin

### Stakeholders

#### Contractor
- **Name**: Commune de Pannes  
- **Contact**: 02 38 87 76 76  
- [https://www.mairie-pannes.fr/](https://www.mairie-pannes.fr/)

#### Construction Manager
- **Name**: Atelier B2A  
- **Contact**: b2a[at]atelierb2a.fr  
- [https://www.atelierb2a.fr/](https://www.atelierb2a.fr/)

#### Stakeholders
- **Function**: Thermal consultancy agency  
  ECR - ECI  
  contact[at]ecr-eci.fr

- **Function**: Company  
  UTB BE Charpente  
  [https://www.utb.fr/](https://www.utb.fr/)

- **Function**: Company  
  Bidet Isolation

- **Function**: Company  
  Etablissement Riguet

- **Function**: Company  
  Revil maçonnerie

- **Function**: Designer  
  Vincent Bourgoin Architecte

### Energy

#### Energy consumption
- **Primary energy need**: 81,00 kWhep/m².an  
- **Primary energy need for standard building**: 81,00 kWhep/m².an  
- **Calculation method**: RT 2012

### Renewables & systems
Systems

Heating system :
- Heat pump

Hot water system :
- Individual electric boiler

Cooling system :
- No cooling system

Ventilation system :
- Humidity sensitive Air Handling Unit (Hygro B)

Renewable systems :
- No renewable energy systems

Products

Product

Timber frame walls, straw filling

UTB

UTB has specialized for several years in the manufacture and installation of timber frame walls. Indeed, wood has become a very good alternative to concrete, it has many thermal, environmental and aesthetic advantages. Thus, buildings made of wooden frames guarantee natural and efficient insulation for its users. At the request of the City of Pannes, which wanted to favor local materials, the walls are insulated with local straw.

Costs

Construction and exploitation costs

Total cost of the building : 5 716 373 €

Additional information on costs :
Cost excluding VRD and land

Contest

Reasons for participating in the competition(s)

Cette construction s’insère dans un programme de requalification du centre-bourg afin de le rendre plus attractif. Le bâtiment en lui-même a mis en œuvre un nombre important de matériaux biosourcés et locaux des murs en ossature bois avec une isolation répartie en paille.

Building candidate in the category

Prix du public