


Renovation of the café-restaurant “la Croix des Gardes”

by Gwennaél Liger / 2022-11-28 00:00:00 / France / 751 / FR

Extension + refurbishment



Primary energy need :

164

kWh_{ep}/m².an

(Calculation method : RT 2012)

ENERGY CONSUMPTION

Economical building Building

< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

Energy-intensive building

Building Type : Restaurant
Construction Year :
Delivery year : 2021
Address 1 - street : 12 allée Schneider 37600 CHANCEAUX PRÈS LOCHES, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 146 m² Autre type de surface nette
Construction/refurbishment cost : 350 498 €
Cost/m2 : 2400.67 €/m²

Proposed by :



General information

Between heritage and energy renovation, the project aims to bring the electricity, sanitary facilities and access to the building to the standards for people with reduced mobility. Work on the roof, insulation, carpentry but also on the electric heating have also been undertaken. In addition, a wooden extension was built at the rear of the building.

Restoration of this site provided an opportunity to employ a large number of local businesses, while promoting both an ecological and circular approach. The rapeseed straw on which the lime/rapeseed coatings are based is provided by local producers in conjunction with the community of communes who wish to promote local production of agro-materials.

Environmental approach:

- Insulation of walls using biosourced materials;
- Vertical walls of the room plunge into a wooden frame accompanied by wood wool insulation;
- Insulation of wood wool ceilings in two crossed layers;
- The roof has been redone, except for the lean-to on the street side;

- The wooden joinery is new.

A few additional details:

- The electricity and sanitary facilities have been refurbished and meet ERP standards;
- Remediation work.

Constructive methods

Frame:

- Traditional historical

Vertical walls:

- Vertical walls of the room plunge into a wooden frame accompanied by wood wool insulation.
- Freestone and rubble stone walls, coated with lime on the outside, and insulated on the inside with a 10 cm thick rapeseed lime coating accompanied by a similar coating finish.
- For water features, traditional insulation thermal resistance $R \geq 4 \text{ m}^2 \cdot \text{K/W}$.

Low floor:

- stone and concrete

Roof:

- Insulation of wood and mineral wool creepers in the parts exposed to fire.

If you had to do it again?

Problem of compatibility between the fireproof character of the plasterboards, if wood wool insulation is incorporated, the coating loses its fireproof character, for lack of laboratory validation

See more details about this project

<https://www.envirobatcentre.com/fiche-projet/cafe-restaurant-la-croix-des-gardes>

Photo credit

Jean Louis Dumortier

Stakeholders

Contractor

Name : Mairie de Chanceaux Près Loches

Contact : Jean-Louis Dumortier

Construction Manager

Name : SOLIHA 37

<https://soliha.fr/>

Stakeholders

Function : Company

BV2I

Sylvain AMIARD - 02.47.59.44.53

<https://bv2i.com/>

Function : Other consultancy agency

CDC Conseil

Sébastien RICHAUD - contac[a]cdcconseil.fr - 02.47.46.32.42

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Function : Company

Desperches

Christophe PICHOT - eurl.desperches[a]orange.fr - 02.47.94.83.97

Function : Company

Lespagnols

Sébastien LESPAGNOL - lescaseb[a]menuiserielespagnol.fr

Function : Company

Labbé maçonnerie et taille de pierre

Aurélien LABBE - labbe.maconnerie37[a]orange.fr - 02.47.92.88.57

Energy

Energy consumption

Primary energy need : 164,00 kWh_{ep}/m².an

Calculation method : RT 2012

Breakdown for energy consumption :

CEP:

Before works: 301 kWh_{ep}/m²(SRT).year

After works: 164 kWh_{ep}/m²(SRT).year

CEP heating:

Before works: 268 kWh_{ep}/m²(SRT).year

After works: 147 kWh_{ep}/m²(SRT).year

Initial consumption : 301,00 kWh_{ep}/m².an

Renewables & systems

Systems

Heating system :

- Heat pump

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :

- Single flow

Renewable systems :

- Heat pump

Environment

Urban environment

The commune of Chanceaux near Loches is located on the edge of the forest and borders the town center of Loches. It is a very popular place for lovers of fine literature, stronghold of the Saint Bris family, Gonzague Saint Bris had a former hunting meeting there, known and recognized by a large number of contemporary authors. This restaurant is located at the foot of this house, it has been listed for more than a hundred years and many old postcards attest to it.

Products

Product

Lime/rapeseed plaster

Association Isochamp

Product category :

As a result of the town hall's desire to promote local products for this site, a lime/rapeseed coating is used to insulate the building. Rapeseed is indeed grown in the region, unlike hemp normally used for biosourced coatings, and offers the same thermal, hygrothermal, acoustic and mechanical performance.

The design and manufacture of local rapeseed aggregates are the result of partnership research work, carried out by the ISOCHAMP association and the GDA Loches Montrésor, with strong support from the Community of Communes. ISOCHAMP is a collective of farmers working to promote insulators made from rapeseed and sunflower. The association has notably worked with the universities of Orléans and Tours to document the properties of these products. A project with PAREXLANKO was then undertaken to develop the sector.

Several sites in the region have used rapeseed or sunflower straw for building insulation.

Costs

Construction and exploitation costs

Total cost of the building : 350 498 €

Contest

Reasons for participating in the competition(s)

A heritage renovation to save this emblematic building, while allowing it to almost halve its primary energy consumption. A heat pump heats the building. The project owner wanted to use as many local and natural materials as possible on this site. Beyond the use of wood wool as insulation, a lime-rapeseed coating was applied to the walls, the result of research work on the development of this local raw material.

Building candidate in the category



Prix du public

