


Offices of the Conseil Général of the Vosges in Epinal (88)

by Marie-Laure Aubriot / 2014-06-23 12:28:44 / France / 4333 / FR

New Construction



Primary energy need :

56 kWhep/m².an

(Calculation method : RT 2005)

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 : Office building < 28m
Construction Year : 2010
Delivery year : 2010
Address 1 - street : 14 rue de la Préfecture 88000 EPINAL, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 1 675 m² SHON
Construction/refurbishment cost : 3 930 000 €
Cost/m2 : 2346.27 €/m²

Proposed by :



General information

- Environmental Management System
- PREBAT 2008 prize winner
- Nominated for the LQE (Environmental Quality in Lorraine) prize in 2009

The Conseil Général of the Vosges department wished to create a building with exemplary environmental performance. The energy-savings have therefore oriented the project. Users comfort and convenience issues were also a crucial concern during this building operation. This office building was designed to minimize heat losses and the goal is to achieve a heating consumption below 15 kWh/sqm/year.

Sustainable development approach of the project owner

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Hygrothermal comfort

- High inertia
- Airtightness and thermal bridges treatment
- Canadian well and deep geothermal
- Heating pins on vents
- Heating and refreshing floor

Visual comfort

- Automatic lighting and presence detectors
- Fixed sun-breaker

Low environmental impact building site:

- "Low impact building site" charter
- Re-use of materials by crushing on site
- Site-school
- Information to local residents
- Site visits for users

Architectural description

This operation houses the HR department as well as services related to the life of the COnseil Général. It is made of two buildings connected by a gallery. The building on the street has four floors above ground floor, the building on the garden has two floors above ground floor.

East / West Orientation

See more details about this project

<http://www.lqe.fr/home/upload/fiches/FicheCG88.pdf>

Stakeholders

Stakeholders

Function : Contractor

Conseil Général des Vosges

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

Function : Designer

Lucien Colin et Dominique Henriet

Function : Other consultancy agency

BECSI EIC

Function : Structures calculist

ADAM

<http://www.adam-vosges.fr/Pages/accueil.php>

Function : Other consultancy agency

BRINDEL-BETH Architecte

<http://www.sla-architecture.fr>

Function : Others

Socotec

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

Function : Company

Xardel

<http://www.xardeldemolition54.fr/>

Function : Company

Eiffage Construction

<http://www.eiffage.com/>

Function : Company

Charpente Houot

<http://www.charpente-houot.com/>

Function : Company

Imhoff

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

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 56,00 kWhep/m².an

Primary energy need for standard building : 100,00 kWhep/m².an

Calculation method : RT 2005

Envelope performance

More information :

Material

- Façade: Concrete on the street and wood on the garden.
- Floors and walls: stone, linoleum, solvent-free paints.

Insulation:

- Roof: 30 cm of mineral wool.
- Walls: 40 cm of mineral wool from the outside.
- Low-floor: EPS

Glazing: Double glazing (unspecified performance).

Renewables & systems

Systems

Heating system :

- Condensing gas boiler
- Low temperature floor heating

Hot water system :

- No domestic hot water system

Cooling system :

- Reversible heat pump
- Floor cooling
- Canadian well

Ventilation system :

- Double flow heat exchanger
- Canadian well

Renewable systems :

- Other, specify

Other information on HVAC :

Care and maintenance:

- Preventive maintenance (heating and ventilation) facilitated by BMS
- Use of a management software / computer-aided maintenance is under consideration

Smart Building

BMS :

Heating and ventilation are controlled by a BMS that tracks the internal weather conditions

Environment

Urban environment

Land plot area : 1 675,00 m²

- Located downtown, in an area included in the Risk Prevention plan of the city (PPRI) and inside the Buildings of France perimeter (historical monuments)
- Close to public transportation
- Integration of wood in urban environment

Costs

Construction and exploitation costs

Cost of studies : 385 000 €

Total cost of the building : 3 930 000 €

Subsidies : 104 000 €

Health and comfort

Water management

- Green roofs with storage box
- Rainwater harvesting for watering
- Permeability of circulation spaces

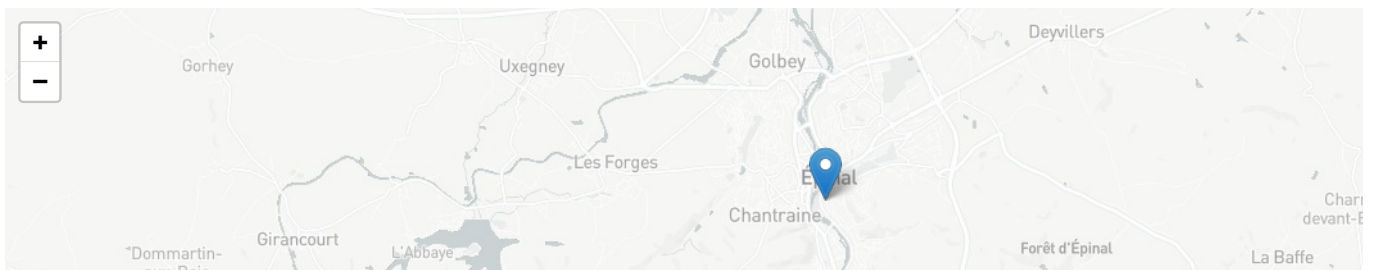
Indoor Air quality

- Double flow CMV
- Natural ventilation flap in offices
- Fresh air intake from the garden

Carbon

Life Cycle Analysis

Eco-design material : Wood; mineral wool; stone





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