Kindergarten "La Ruche " in Perthes, Gâtinais

by jeremy griffon / 2019-05-16 12:17:40 / France / 9108 / FR

Primary energy need :

50 kWhep/m².an

(Calculation method :)

ENERGY CONSUMPTION

Economical building — *Building*

< 50	A	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 : Preschool, kindergarten, nursery
Construction Year : 2018
Delivery year : 2018
Address 1 - street : chemin de la Guinguère 77930 PERTHES EN GâTINAIS, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 815 m²
Construction/refurbishment cost : 1 890 000 €
Number of Children : 120 Children
Cost/m2 : 2319.02 €/m²

General information

URBANISM AND ARCHITECTURE

In the small village of Perthes-en-Gâtinais in the south of the Seine and Marne (77), the plot of the project is a wooded and pedestrian site in the heart of historic village.

The city is accompanied by the PNRGF (Regional Natural Park of Gâtinais Français) for environmental ambitions; The choice of construction Dry Filing is most relevant and more respectful of its environment close and global, the project is then built in wood frame and wood cladding For a record building time (10 months) and a nuisance of construction site (site inhabited by an existing nursery school).

Its linear layout has freed up a maximum of free and vegetal footprint in continuity with the pedestrian mall and kindergarten and primary playgrounds. This new, more visually generous space reinforces the bucolic and intimate nature of the undergrowth into which the new equipment is inserted. Coming "to live" in this park provides the opportunity to continue its inscription in the history of the city and to offer a generous space, and appropriable for all Perthois and their children.

The general volumetry of the project borrows from the historic town center, its archetypal and typical volumetrics; houses in the town of Perthes, consisting of dense low-rise housing that has been built and densified, year after year. She reinterprets their iconic profile to draw an appropriable symbol.

LANDSCAPE

The courtyard is composed of a large mineral space in the extension of the yard. Peripheral areas are covered with chips called BRF, for the comfort of children and improving the living conditions of trees. The schoolyard is thus a real undergrowth with soft ground and hard ground. Some trees are planted to allow a

progressive renewal of afforestation.

Located at the back of the school, the educational garden is composed of elevated garden bins for the youngest and open spaces. A valley of rainwater harvesting also creates a favorable environment for the development of biodiversity.

Video link /

www.vimeo.com/300508228

Sustainable development approach of the project owner

RT 2012 -20%

Architectural description

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The new nursery school is set up on the same level, and in linear, which allows to create, volumetric identities distinct by space, with variable widths and heights by program. Inside, these capable volumes offer a particular and generous spatiality to the premises. teaching. These volumes are very generously glazed on the playgrounds and in the backdrop of the wooded mall.

All indoor spaces, designed with the ladder of early childhood as a major reference, are lulled by natural light, in bright, bright and warm spaces.

The stick siding, which follows the slope line of a 45 ° roof, draws a house like a child could do, simple, iconic, graphic. The symbols of the gables of the classrooms are found inside for the signage and orientation of the children

Photo credit

®TRACKS - PHOTOS ®GUILLAUME AMAT

Stakeholders

Contractor

Name : Ville de Perthes en Gâtinais
Contact : Pascal Magnier pascal.mairiedeperthes@gmail.com
http://www.perthes-en-gatinais.fr/

Construction Manager

Name : Tracks
Contact : agence@tracks-architectes.com
http://tracks-architectes.com/

Stakeholders

Function : Company

Lifteam

sandoz@cbs-cbt.com

http://www.lifteam.eu/
Wood lot builders

Function : Thermal consultancy agency

BET JLR

0473390437

Design office (thermal fluid structure)

Contracting method

Separate batches

Type of market

Table 'c21_luxembourg.rex_market_type' doesn't exist

Energy

Energy consumption

Primary energy need : 50,00 kWhep/m^2.an

Primary energy need for standard building : 50,00 kWhep/m^2.an

Calculation method :

Breakdown for energy consumption : Heating 24 ECS 2 lighting 5 auxiliary 15

Real final energy consumption

Final Energy : 50,00 kWhef/m^2.an

Envelope performance

Renewables & systems

Systems

Heating system :

- Urban network
- Water radiator
- Wood boiler

Hot water system :

- Urban network
- Wood boiler

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation
- Double flow heat exchanger

Renewable systems :

- Wood boiler

Environment

Urban environment

Green space : 2 000,00

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Products

Product

Product category : Gros œuvre / Structure, maçonnerie, façade

-Walls and roof boxes in Douglas BLC with Wood wool insulation
-Prefabricated Douglas-fir Class 3 preform structure
-Acoustic absorbent interior made of wood fiber
-Prefinished larch carpentry
-Prefabricated larch wood cladding
-Ground of courses in BRF (Fragmented Ramalwood)
-Outdoor furniture from trees felled on site

100% biobased materials

Costs

Construction and exploitation costs

Total cost of the building : 1 890 000 €

Subsidies : 1 323 000 €

Health and comfort

Water management

Rainwater is collected in an external storage tank (250l) to allow watering of the pedagogical garden.

Indoor Air quality

Study underway by the company Velux, reference project and pilot for air quality analysis

Comfort

Health & comfort :

Implantation - By its major orientation to the east direct light in the classrooms are optimal (only in the morning) and have in addition to the large glazed elements in roofs oriented South and domotized (closing of blinds and openings of the glazed parts) allow users to choose their need for complementary natural light. the whole forming a living environment generously open to the outside without overheating possible. A **child-scale building** - All interior spaces have been designed with the children's ladder as a major referent, furniture, access, lightening height. the volumes of life proposes heights under ridge which can go according to the programs up to 6 meters. **Visual Comfort** - With its wooded frame the views from inside the building is of great quality is made by large openings in wood joinery for sitting children. The **heating** (whose needs are very low in view of the airtightness and the important insulation) is done by low temperature radiant panels

Acoustic comfort :

Indoor Acoustics - All project ceilings are sound absorbing panels. each interior volume of the program being two-sided, the absorbing surface proposed is twice as high as a "flat" ceiling, this material composed mainly of agglomerated wood fiber has also been chosen for their very high performance (alphaW = 1)

Exterior Acoustics - Since the project site is already very qualitative from a sound point of view (only pedestrian and at a great distance from the roads), the outdoor areas in addition to their geometry deconstruct the sound, also have an absorbent acoustic behind openwork cladding to reduce nuisances during recess

Carbon

GHG emissions

Contest

Reasons for participating in the competition(s)

The new nursery school is set up on the ground floor, and in linear form, which makes it possible to create distinct volumetric identities by space, with varying widths and heights per program. On the inner side, these capable volumes offer a special and generous spatiality to the teaching premises. These volumes are very generously glazed on the playgrounds and in the backdrop of the wooded mall.

All interior spaces, designed with the ladder of early childhood as a major reference, are lulled by natural light, in bright, bright and warm spaces. The stick siding, which follows the slope line of a 45 ° roof, draws a house like a child could do, simple, iconic, graphic. The symbols of the gables of the classrooms are found inside for the signage and orientation of the children

-Bio-sourced materials

-Walls and roof boxes with Wood wool insulation

-Prefabricated Douglas-fir Class 3 preform structure

-Acoustic absorbent interior made of wood fiber

-Prefinished larch carpentry

-Prefabricated larch wood cladding

-Ground of courses in BRF (Fragmented Ramalwood)

-Outdoor furniture from trees felled on site

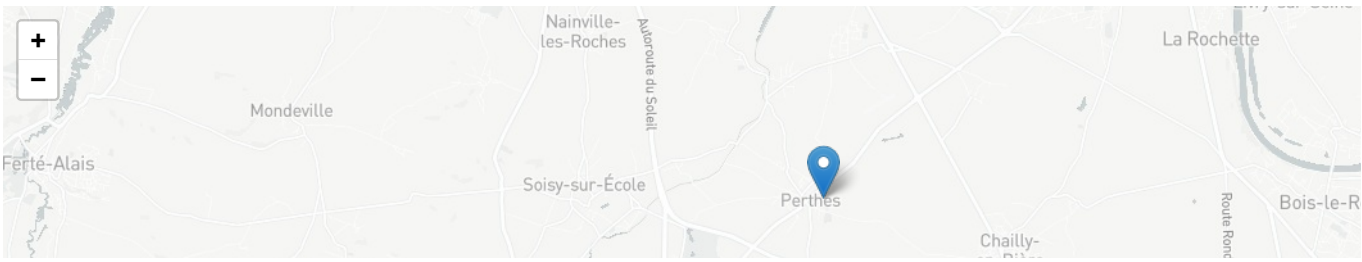
-Wood boiler and district heating network for all the city's facilities (Town Hall, Primary School, Technical Services, Multipurpose Rooms)

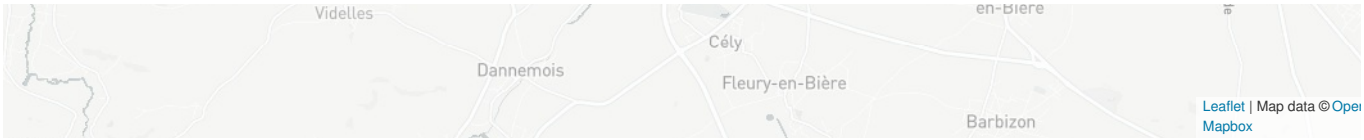
Building candidate in the category

Santé & Confort

Prix du public

Prix des Etudiants





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