Butterfly

by Manon LECONTE / 2021-06-14 00:00:00 / France / 2731 / FR

Primary energy need :
kWhep/m².an
(Calculation method : Other)

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 : 1971
Delivery year : 2021
Address 1 - street : 10 rue Blanqui 93400 SAINT OUEN, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 600 m²
Construction/refurbishment cost : 270 000 €
Cost/m2 : 450 €/m²

General information

Papillon is an interior design and circular economy project that gives birth to the facade of a monument, the **Chenille** of the Center Georges Pompidou. The project made it possible to reuse 178 curved glasses and 35 tonnes of discarded steel.

As part of its renovation, the domed windows of the Beaubourg chenille have been removed. At the same time, the order from the new buyer, the Altavia group, was to set up a central and meeting space at its head office in Saint Ouen, allowing its 500 employees to meet and rest. We've aligned the calendars to breathe new life into these iconic windows.

Sustainable development approach of the project owner

Altavia is a group of 35 companies around the world specializing in communication. Altavia, whose head office, an industrial building in Saint-Ouen, is currently being renovated, wanted to place the circular economy at the heart of its interior design project.

The site is unique since it has two vertical buildings connected by a central hall of 2,300 m2. This central hall must be arranged in such a way as to "generate meetings". The client was keen on a local development, to represent the rising values of the company.

Architectural description

Project

A "ribbon of glass", obtained by superimposing the elements, undulates in the space of the hall to design it like a garden: a space of strolling and meeting offering all the levels of intimacy. The construction principle makes it possible to generate open spaces limited to curved partitions, but also small independent, circular or ovoid islands that can house closed meetings.

PRS structure

The new structure is made from reconstituted welded sections (PRS). These are steel sheets cut and assembled to obtain made-to-measure steel profiles. These sheets were scrapped for their slight manufacturing defect: scratches, sagging etc. Rather than feeding the metal retransformation lines, we cut them to measure to perfectly match the curvature of the glasses. The bolted assembly system allows easy assembly, anticipates disassembly and alleviates transport constraints.

Decommissioned steel

The steel which constitutes the structure of the project is supplied by one of our suppliers from the Déchethèque (our library of industrial waste). Specializing in downgraded steel, it offers "off-circuit" references that are nevertheless reliable and usable. This resource allows us to position the project a little further in its environmental commitment and to demonstrate in concrete terms the new practices and opportunities offered by reuse in construction.

See more details about this project

https://www.facebook.com/watch/?v=2884020558541300
https://www.instagram.com/p/CJB3LMCKGep/
https://www.instagram.com/p/CI0TPxGKRKl/

Photo credit

Maximum

Stakeholders

Contractor

Name : ALTAVIA
Contact : Charlotte Auxenfans
https://www.altavia-group.com/fr/

Construction Manager

Name : MAXIMUM
Contact : manon[a]maximum.paris
http://www.maximum.paris

Stakeholders

Function : Others

OPPIC

http://www.oppic.fr/
Former owner of glasses

Function : Environmental consultancy

ELIOTH

https://elioth.com/
BE facilitator

Function :

Lucien Giraud

Contracting method

Lump-sum turnkey

Energy

Energy

Energy consumption

Calculation method : Other

Renewables & systems

Systems

Heating system :

- No heating system

Hot water system :

- No domestic hot water system

Cooling system :

- No cooling system

Ventilation system :

- Double flow

Renewable systems :

- No renewable energy systems

Environment

Urban environment

500 employees work on the site every day. The place is also open to the public during events and / or exhibitions. The site has a strategic position, easy to access and close to intramural Paris.

Products

Product

Reuse of Beaubourg glass and structure in welded reconstituted profile (PRS) from decommissioned steel sheets

Maximum architecture

manon[a]maximum.paris

http://www.maximumarchitecture.fr

Product category :

Costs

Circular Economy

Reuse : same function or different function

Batches concerned by reuse :

- Indoor joineries
- Partitions

For each batch : Reused Materials / Products / Equipments :

Reuse of 178 curved glasses from the Center Georges Pompidou chenille.

Structure in reconstituted profile welded from declassified steel.

Reused materials rate :

100%! (excluding painting and hardware)

178 glasses in total of two sizes: 154 x 157 cm, and 154 x 233 cm or 358 ml

100% of metal profiles, or 35 tonnes of steel!

Field of use and material origin :

The caterpillar and the butterfly

Our proposal is based on the singularity of the glasses that make up the caterpillar (curves) by circumventing the difficulties generated by this same parameter. Tilting the glasses allows you to free yourself from the type of tunnel specific to Beaubourg, and to deploy them freely. The new, more flexible assembly is no longer intended to “protect” but to create spaces that communicate with each other.

A second life possible

Sheltered from any form of bad weather (wind, snow, precipitation), the glazing will be reused in a framework particularly suited to its age. The space, entirely air-conditioned, makes it possible to ignore the problems of sealing and insulation which often make it difficult to reuse. This technical simplification creates the optimal conditions for a realistic reuse of these iconic glasses.

Environmental assessment

Impacts avoided : water, waste, CO2 :

On this project, the reuse of materials made it possible to avoid:

- The emission of 71.1 tonnes of CO2
- The use of 16,008 m3 of water
- The production of 77 tonnes of waste

Economic assessment

Cost of reuse in percentage of the operation : 100 %

Contest

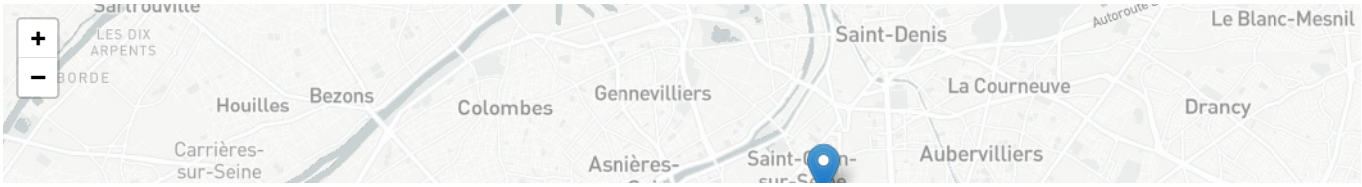
Reasons for participating in the competition(s)

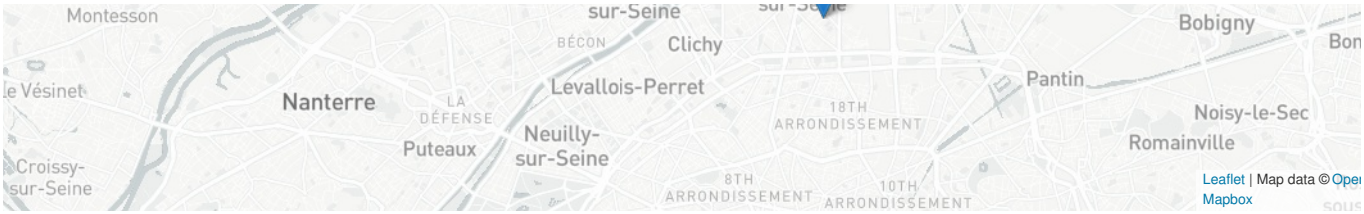
Papillon est un projet d'aménagement intérieur et d'économie circulaire qui redonne naissance à la façade d'un monument, la **Chenille** du Centre Georges Pompidou. Il a permis la réutilisation de 178 verres courbes et 23 tonnes de métal mis en rebuts.

Building candidate in the category

Prix du public

GREEN SOLUTIONS AWARDS
POWERED BY CONSTRUCTION21





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