


# Requalification of the Broussais hospital promenade

by [Rafael Simoes](#) / © 2022-05-18 00:00:00 / France / 1067 / FR



Renovation

**Primary energy need :**

0 kWhep/m<sup>2</sup>.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** : Other building  
**Construction Year** : 2010  
**Delivery year** : 2019  
**Address 1 - street** : Rue Didot 75014 PARIS, France  
**Climate zone** : [Cfb] Marine Mild Winter, warm summer, no dry season.

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**Net Floor Area** : 17 200 m<sup>2</sup> SHON  
**Construction/refurbishment cost** : 25 000 000 €  
**Cost/m<sup>2</sup>** : 1453.49 €/m<sup>2</sup>

## General information

Inaugurated in 2019 on the site of the former Broussais hospital, the Jane and Paulette Nardal promenade is above all a team effort. For nine years, local residents, schoolchildren, high school students, associations and architects have worked together and shared their ideas and know-how around round tables, workshops and interventions in schools. Together, they gave life to **a place accessible to all, which echoes the history and imagination of the neighborhood, as well as the biodiversity that surrounds it.**

This promenade is punctuated by lounges which are outdoor spaces with equipment adapted according to use. From the start of the project, **a consultation process is set up in partnership with local residents, the neighborhood council and local associations.** They are the ones who designed and enriched the four lounges by expressing their ideas and expectations. Everyone brought what they wanted to find there. Some have even participated in the design of the furniture for the various lounges.

- In the children's lounge, a giant bat shelters swings, slides and climbing walls for children from 0 to 12 years old.
- The discovery lounge is the ideal place to organize meetings or a picnic between neighbors around the large table.
- In the games room, younger and older players will embark on a tour of the world and Greater Paris, the time of one or more games.
- Finally, the most athletic will find in the sports lounge multiple pieces of equipment for an outdoor bodybuilding session.

A path of basalt slabs, designed with groups of visually impaired people, leads to the various lounges and serves as a guide for visitors.

**4 themes structure the project, they aim to reduce the environmental footprint and improve the living environment for all :**

1. Intensify biodiversity:

- 17,200 m2 of promenade
- 564 m2 of vegetable garden
- 8,097 m2 of permeable mineral surface to preserve the local green fabric and enhance the existing ecological corridor

## 2. A recovery process

- 240,000 cobblestones reused
- 230 linear meters of dry stone works completed
- 2000 m2 of backfill made of recycled materials to respond to the ecological transition and demonstrate the technical and aesthetic potential of recycled materials

## 3. Equipment co-produced with residents

- a playground for children
- an interactive discovery space
- a play area of the world for young people and adults
- a gym and a dance floor
- a shared garden designed with residents to raise awareness of the site's biodiversity and enhance the specificity of the site and the neighborhood

## 4. A laboratory for the inclusive city

- 600 linear meters of guidance
- 2 tactile signage devices
- to open up a space for everyone in the neighborhood with qualitative and innovative solutions

## See more details about this project

<http://ateliernous.fr/downloads/NOUS-NARDAL.pdf>

## Photo credit

atelier NOUS, setec tpi

## Stakeholders

### Contractor

**Name :** Ville de Paris - Direction de la Voirie et des Déplacements

### Construction Manager

**Name :** setec tpi - Atelier NOUS

### Stakeholders

**Function :** Company

Dépôt des matériaux de la ville de Paris

stone supplier

**Function :** Company

Lycée Hector Guimard

Manufacture of the "marble game"

**Function :** Company

Centralpose / Segex / Razel

Laying of paving stones, laying of marbles, construction of dry stone work

**Function :** Company

Fédération Française des Professionnels de la Pierre Sèche

Business training

Association «L'oeil et la main - La pierre sèche en mouvement»

Business training

**Function :** Contractor

Function : Construction Manager

Atelier NOUS (ex OÏKOS architectes urbanistes)

Concetta Sangrigoli

Function : Construction Manager

setec tpi

Hélène Gavrilá

## 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

### Risks

Hazards to which the building is exposed :

- Flooding/Runoff
- Urban heat island

Risks measures put in place :

The choice of materials and the amplification of living things (vegetation, water) make it possible to attenuate the effects of heat islands. In 40% of the redeveloped public spaces, rainwater will be treated by infiltration. With an innovative sanitation system combining the traditional (pipes) and the alternative (swales and infiltration wells), the surfaces of the rainwater catchment areas that can be infiltrated are around 1 ha.

### Urban environment

The programming of the Nardal promenade, co-designed with the inhabitants, includes four lounges designed to introduce the site's biodiversity to an intergenerational public.

### Sharing public space

Driven by the dynamic that has woven it, the Nardal Promenade has made it possible to replace an open-air car park, overlooking a tunnel of the Petite Ceinture, with a green space **offering fauna and flora an ecological corridor and local residents a place full of different activities.**

Inaugurated in 2019 on the site of the former Broussais hospital in Paris, the Jane and Paulette Nardal promenade is above all a collaborative effort. **For nine years, residents, schoolchildren, high school students, associations and designers have worked together and shared their ideas and know-how**

**around round tables, workshops and interventions in schools.** Together, they gave life to a place accessible to all in the heart of a popular district bordering the Maréchaux, which echoes the history and the imagination of the site rich in unsuspected biodiversity. **A laboratory to collectively design sustainable approaches and innovative devices for the city of tomorrow.**

## Products

### Product

Dépôt des matériaux de la ville de Paris

eric.crespin[a]paris.fr

<https://opalis.eu/fr/fournisseurs/plateforme-de-reemploi-des-matériaux-de-voirie-de-la-ville-de-paris>

Product category : Autres / Autres



## Costs

### Construction and exploitation costs

Total cost of the building : 25 000 000 €

## Circular Economy

### Reuse : same function or different function

Batches concerned by reuse :

- Landscaping

For each batch : Reused Materials / Products / Equipments :

A re-use approach for the exterior landscaping :

- 240,000 reused paving stones (2000m<sup>2</sup>)
- 230 linear metres of dry-stone work completed

to respond to the ecological transition and demonstrate the technical and aesthetic potential of recycled materials.

Field of use and material origin :

The creation of 5100m<sup>2</sup> of mineral soil - ecological and inclusive

As part of the development of the mineral soil of the promenade, the project team collaborated with the depot of the City of Paris to recover the materials necessary for its construction and reduce the carbon footprint of the site.

**The implementation of more than 240,000 reused paving stones made it possible to concretize this approach and to create a unique and educational development.**

### Promoting traditional know-how through the construction of 230ml of dry stone structures

The City of Paris depot unveiled some surprising objects to the project team: hundreds of tons of curbs and slabs of a thousand waiting to be relocated. The heterogeneity of these "falls" of stone from Parisian construction sites often represents an obstacle in the process of reuse in road construction sites, which requires substantial quantities of uniform materials. **Thanks to the help of professionals from the Fédération Française de la Pierre Sèche, the project team recovered 132 tonnes of materials to create the foundations that materialize the limits of the lounges on the Nardal promenade.**

This type of implementation has made it possible to enhance the very varied textures of the stones and to transform constraints into potential. Each element finds its role in the construction of the low walls: the small modules in red sandstone and gray granite for the filling, the elongated elements in yellow granite for the headers and the larger slabs to define the angles. The approach has made it possible to promote qualitative and sustainable traditional know-how.

This first collaboration between the architects, the Federation and the services of the City opened the doors to new experiences and showed the ecological and aesthetic value of the implementation in dry stone. From the Nardal promenade site, the City of Paris depot has been able to optimize the storage of materials thanks to the numerous requests for stone recovery.

### Environmental assessment

Impacts avoided : water, waste, CO<sub>2</sub> :

Impacts avoided (calculation made using the calculation tool provided by the reuse booster)

- 240,000 paving stones reused (2000m<sup>2</sup>):

CO2 avoided = 9588 kg, Water consumption avoided = 20 kg, Waste avoided = 121472 kg

- 230 linear metres of dry stone work carried out:

CO2 avoided = 2310 kg, Water consumption avoided = 5 kg, Waste avoided = 29266 kg

The re-use operation saved the equivalent of 9,585 kilometres travelled by a small car, or 108 Paris-Nice journeys, 174 rectangular bathtubs full of water and 301 years of household waste for a French person.

## Social economy

### Social economy and professional integration :

A path of basalt slabs which serves the various lounges and serves as a guide for visitors has been developed with associations of visually impaired people.

Thanks to meetings and shared workshops, residents, associations, schoolchildren, high school students and architects worked hand in hand from the start of the project. Initially, meetings allowed everyone to learn about the challenges of the project and to express their expectations and ideas. Workshops have also been set up to raise awareness among different audiences about the flora and fauna surrounding the promenade. A website and a wall of expression came to extend the various meetings and workshops, allowing everyone to express themselves throughout the project.

## The participatory budget and the design of the various furniture

The furniture in the various lounges comes directly from the participatory workshops. The pupils of the Pierre Larousse school were particularly involved: from their drawings and imaginations were born the bat in the playground and the insect hotel in the shape of a hedgehog. The pupils of the Hector Guimard high school have meanwhile put their hands directly to work. They participated in the construction of the game of marbles and colored its blue and green wefts thanks to a meticulous laying of mosaics. Residents, associations and schoolchildren also led the campaign together to include the project in the participatory budget: the drawings of students from the Pierre Larousse school were put forward during the creation of posters and the neighborhood associations raised awareness among the inhabitants of the project through meetings and exhibitions. The children of the Pierre Larousse school were valuable partners throughout the project. They are the ones who gave life to the gigantic bat in the children's lounge. They first took part in awareness workshops on the fauna and flora of the promenade. These workshops led to the choice of the shape of the platform: a pipistrelle. Guided by the architects and their plastic arts teacher, they then designed and modeled the games they wanted to find on the promenade.

## Contest

### Reasons for participating in the competition(s)

**Circularity:** The promenade was built stone by stone with durable materials, which guarantee residents quality facilities. Many materials, resulting from reuse, have found a second life here. The cobblestones and stones from the Paris City Hall depot were reused for the floor and the dry stone walls that delimit all the lounges. The embankments under the promenade were made with a material based on recycled glass, and the insect hotel was designed from trees that had already been pruned. In addition, existing trees as well as a pergola and its wisteria have been preserved.

**Reproducibility:** The process developed is now the basis for the approach to the project for atelier NOUS and setec. There are no brakes really preventing reproducibility. The achievements of the Nardal promenade have inspired several groups of project managers and contracting authorities who have since requested the deposit of materials from the Paris City Hall to recover the available stones.

**Innovation:** The combination of material solutions (reuse of stones, recycling of glass), preservation and development of biodiversity (permeable surface, preservation of existing plants) and social (active participation of future users) was innovative. This combination has enabled the co-construction of a park with low environmental impact and high social impact.





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