

# Sport Centre Jules Ladoumegue

## Moveable Sun Shading Device

Location: Paris, France

Architects: Dietmar Feichtinger Architects

Client: City of Paris

Completion Time: 2014

Floor Area : 10,516 m<sup>2</sup> (gym 6,260 m<sup>2</sup>, tennis 4,256 m<sup>2</sup>)

Cost : € 26.7 M





Dietmar Feichtinger established Dietmar Feichtinger Architects in Paris in 1993. With about thirty employees between Paris and Vienna the team operates mainly in Europe. DFA has built a strong reputation for its inventive structures and its investigative approach to design. Its work links both architecture and engineering whilst exploring the dynamics between these two disciplines. In a constant strive DFA is looking for integrating environmental and sustainable development, in an elegant and sensitive architecture, respectful of nature and humans. Dietmar Feichtinger Architects is internationally-honoured with architecture awards and publications for excellence in design and their built projects.

**Type:** Ecological Skin

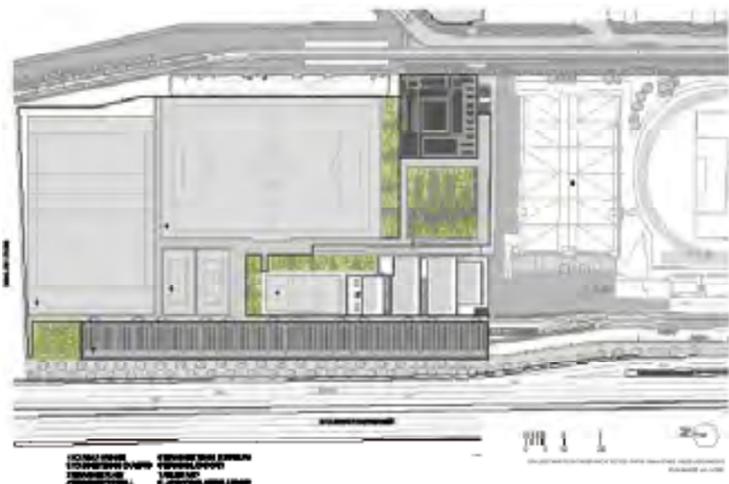
**Material:**  
Cellular Polycarbonate Panel  
+ Pleated Inox Panelling

**Skin Analysis:**

The tennis building is made of double skin façades with cellular polycarbonate panels. The east façade is protected from direct solar radiation by horizontal wooden sun shading devices, while the others are equipped with vertical lamellas that integrate moveable sun shading device. The rotation of these lamellas increases or reduces the solar gain and the intensity of light.

Special attention is paid to the finishing of the external facades and expresses the diversity of functions and the exemplarity of the building in terms of climate engineering. Fix and adjustable lamellas control the passive solar energy gain. When closed, they function as sun protection in summer; when open, they allow natural heating in spring, autumn and winter. These lamellas guarantee furthermore the regulation of the natural light and function as filter creating an intimate interior atmosphere. The variation in the lamella's inclination creates an effect of animation and lightness on the building.

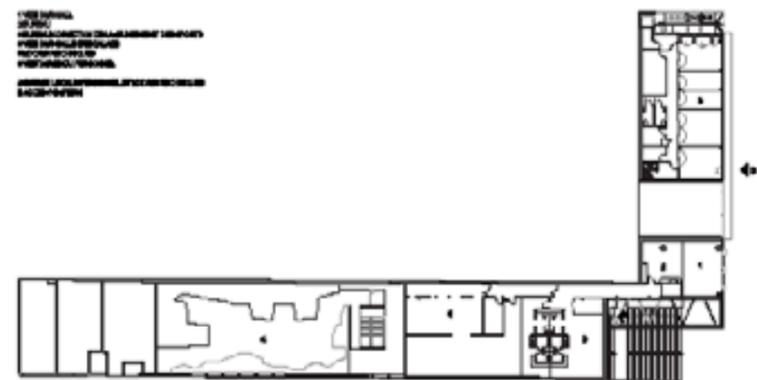
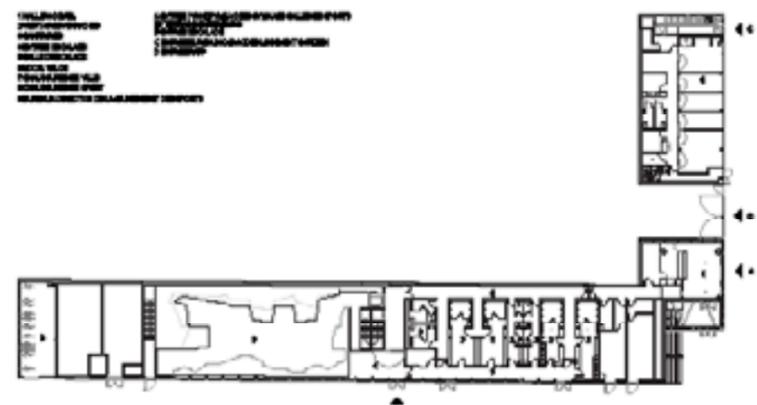
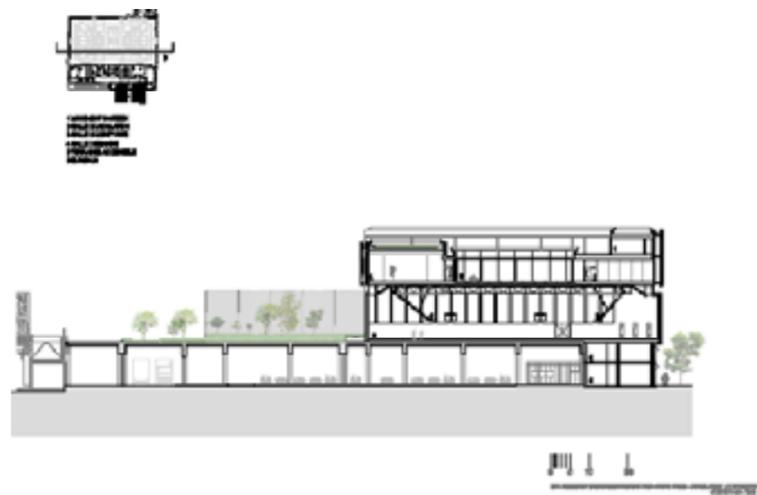
Opaque sections draw the horizontal structure of the building. The opaque walls of the gym and the squash fields differentiate due to their polished and pleated inox panelling; this material makes the façades look brighter and reflects the lights of the city.



## Project Brief

The partial reconstruction of the stadium Jules Ladoumègue has been realized in intricate connection with the new site of the RATP\* maintenance center (\*public transport service for the Ile-de-France). The construction of the maintenance center and the creation of new space for sport activities express the integration of big equipment in dense urban structure and emphasize its multi functionality. A new building situated Route des Petits Ponts in the East completes the offer with new rooms dedicated to sport activities on four floors. Facing the new tramway station and connected to the existent Pagode building by an interior pathway, it distinguishes itself by its luminosity, its transparencies and reflections. It indicates the new main entrance of the site.





The stadium becomes representative of the new urban continuity between Paris and its outskirts. The notions of space, urban integration, and functionality but also those of light, transparency and comfort of use deeply contributed to the design. The main issue is to build in harmony with the environment while promoting a form of sensuality linked to lightness and transparency.

The covered tennis squares are implanted in the East, right alongside the peripheral boulevard. The building helps to reduce clearly the noise, air and wind pollution. This acoustic barrier is completed on the Northern side with sound barriers along the soccer field. Their transparency assures the view on the canal Ourcq and the diamantine shape grants an interesting play of lights as soon as night falls.

The façade facing the peripheral boulevard alternates red and colourless translucent vertical panels reminding of the keys of a piano – a hint to the City of Music located just on the other side of the boulevard. Regular sheds integrate openings orientated towards north, allowing natural ventilation and homogenous natural lighting. The south oriented part is equipped with photovoltaic panels.

The sport fields for soccer and rugby are situated on the rooftop of the maintenance center, at the same level with the Paris ring road boarding the site on the West.

A building with six covered tennis courts creates a 200m long visual and acoustic barrier along the "periphérique".