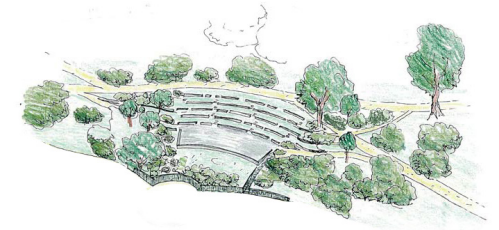


eco-Design OF A PLATForm OF Waste Sorting System IN Romilly-sur-Seine (10) - France "THE GREEN AMPHITHEATER"



The Green Amphitheater

INDUSTRIAL site, HQE® APPROACH: WASTE AND RECYCLING, HQE® SUSTAINABLE APPROACH

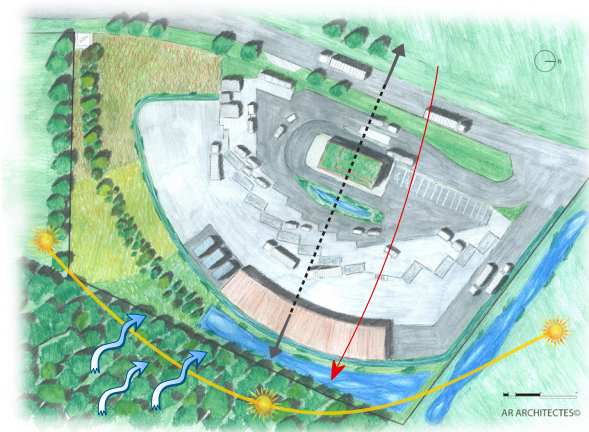
Client Communauté de communes des portes de Romilly-sur-Seine
Location Romilly sur Seine (10), FRANCE
Project Creation of an environmental platform (recycling center)
Mission Design and landscape
CONSULTANT AR ARCHITECTES
 CABINET MERLIN
area Plot : 45 710 m²
 Building : 715.87 m²
cost 2 400 k€
Date Inaugurated on September 24th, 2022



Photo of the environmental recycling waste plant



Photo of the south-west facade in terracotta and aluminium



Bioclimatic mass plan of the "Green Amphitheater"

The objective of the project is to reduce the impact on the environment. The infrastructure, as well as the landscaping and the operating building have been designed taking into consideration the natural slope of the plot, the climate (the course of the sun and the prevailing winds).

Therefore, the operating building (178.57 m²) was designed bioclimatic and was constructed in wooden frame, insulated by wooden fiber and equipped with green roofs.

A sustainable management of rainwater by the use of aquatic ponds and green ditches was also used to create a project with low impact on the environment. Treatment of polluted rain water by the use of plants, restauration of the biodiversity on site has been achieved.

Operating building's energetic performance : **Bbio (79.50 kwh/m²/year) ≤ Bbiomax : 84 kwh/m²/year** (French 2012 Thermal Regulation).





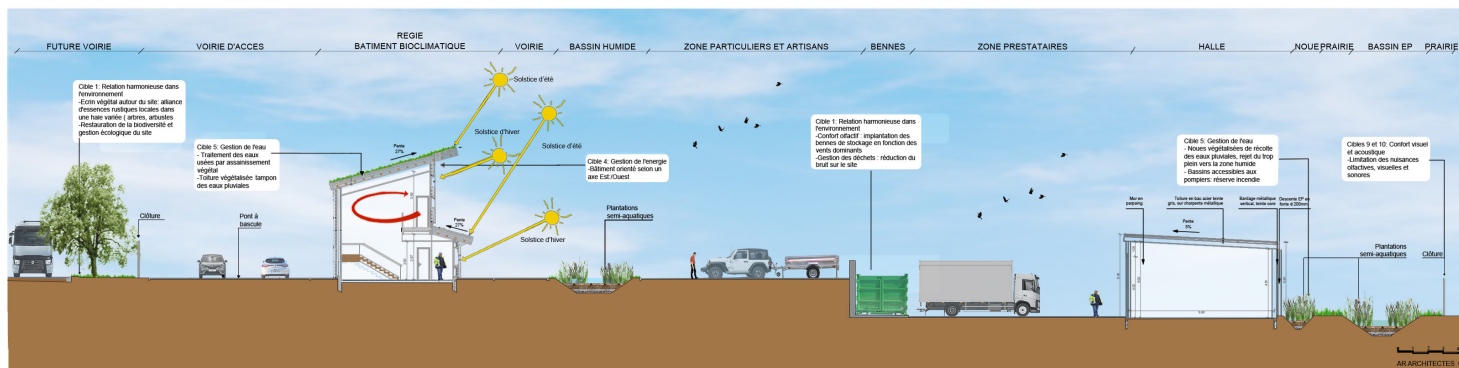
Photo of the North-East facade with aluminium cladding



Photo of the environmental recycling waste plant on the day of the inauguration



Perspectives of the project integrated into its environment



Sustainable HQE® targets

HQE® targets

Target 1: Harmonious relation Between Building and its environment

- Olfactory comfort is ensured by the implantation of the storage dumpsters based of the prevailing winds.
- Establishment of a greenery around the site : Combination of a rustic local plant (trees, green hedges and shrubs).
- This landscape project restores and protect biodiversity

Target 2: Choice of integrated Products and Building materials

- Sustainable materials are used : aluminium cladding, terracotta cladding, metal structure, wooden construction, green roofs, wood wool (insulation), roof insulation.

Target 4: Energy management

- The building is oriented to a south-east / north west axis to establish a bio-climatic strategy taking into consideration rays of the sun.

Target 5: Water management

- Water is managed by green roofs that are designed on the top of the building.
- green planted ditches are designed to collect exceptional storm water.
- All the rainwater are stored inside green planted ponds and they can be used by fire-fighters.
- The rainwater is managed by plants and infiltrated into the soil inside valleys vegetated green planted ditches.

Target 9 et 10: Visual Confort and Biodiversity

- The landscapes area are planted with a rustic plants, red, yellow and blue promoting protection of biodiversity on this industrial site.
- The fence limits visual impact.

