

eco-Design OF THE SEWAGE treatment PLantIn Valenciennes - France

INDUSTRIAL site, HQE® APPROACH : Water, treatment and PHYtoePuration

Client	SIAV - Syndicat Intercommunal d'Assainissement de Valenciennes Valenciennes
Location	Valenciennes
Project	Water treatment plant with zero pollution and positive energy
mission	Design concept and follow up mission, architecture HQE® and landscaping
Design and BUILD area	AR ARCHITECTES, DEALZUA, DEGREMONT, BG, AMODIAG, VERDI, AIRELE
BUDget	5 600m ² , plot 80 000m ²
CaPacitY	40 000 000 €
Date	150 000 inhabitants



View on the plantations



Perspective view of the project in the environment.

The site of the future waste water treatment plant is located in city of Valenciennes, in a zone of 23 hectares, in the North of the city. The objective was to create a waste water treatment plant in an urban and natural environment in the entrance of the city of Valenciennes.





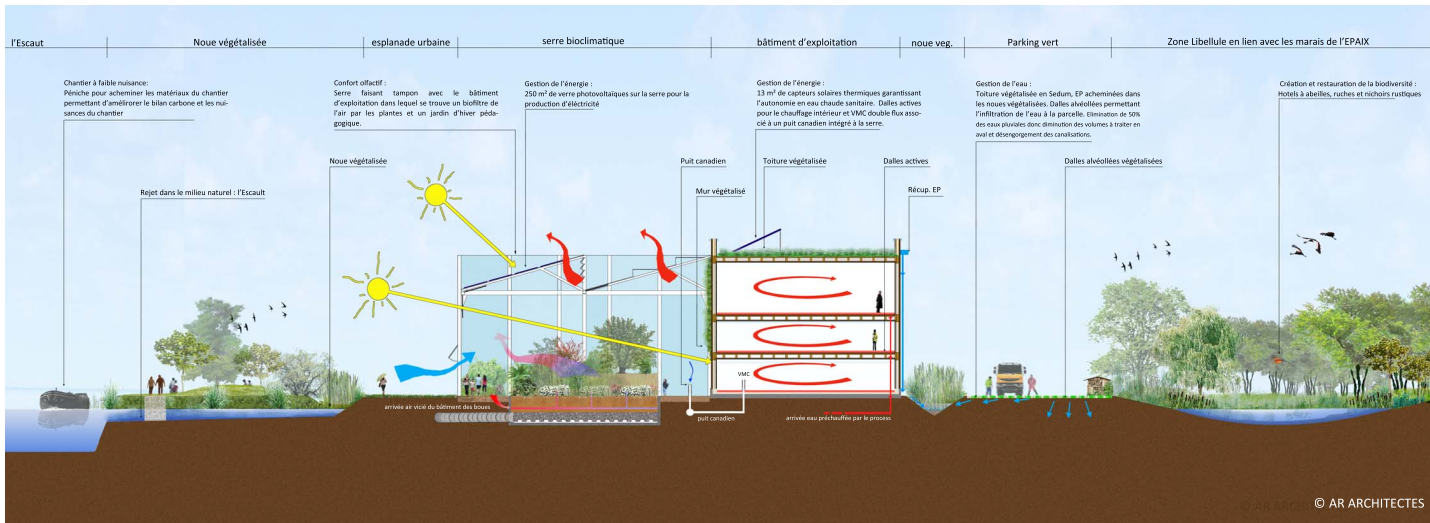
Architectural perspective from main road



Project in its environment



Architectural perspective



Section HQE®

HQE® targets

Target 1 : Harmonious relation Between Building and Environment.

- Good integration in the landscape and the plot of land thanks to a screen raised in the right of the wet zones. The mirror effect of the metallic cladding of the urban facade strengthens the low impact of the construction towards the neighborhood.
- Every construction have been optimized from civil works to operating building. A large glass house was designed close to the operating building. Its participats in heating the building during cold seasons.

Target 2 : integrated CHOICES OF PRODUCTS, SYSTEMS AND PROCEDURE OF CONSTRUCTION

- Laminated wood and natural wood cladding
- Skeleton and metallic cladding
- Low wall in gabions
- Green walls

Target 4 : energy management

- Operating building Minergie A LABEL
- Technical buildings Minergie P LABEL
- Thermal Solar cells : 13m²
- Photovoltaic solar cells : 250m²

Target 5 : water management

- Rain water is collected on green roof tops (2 000 m²).
- Rainwater on roads is collected into ditches then driven to the constructed wetland.

Target 9 : acoustic COMFORT

- Insulation in bio-sourced materials: absorbent cotton of cellulose, wooden wool and cork.

