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ECO-CONSTRUCTION OF THE FRENCH EMBASSY

AND AMBASSADOR'S RESIDENCE IN DOHA (QATAR)

THE GREEN VALLEY

The French embassy in Doha responds to a desire of the Ministry of Foreign Affairs in France to realize an exemplary diplomatic campus with a strong French expertise in matter of sustainability. The major idea is to protect buildings from high temperatures, offering at the same time a pleasant design integrated in its environment. Northern Facades are opened on a garden localized in the heart of the site, designed like a green valley bringing freshness and protection. The green valley goes from East to West and is planted by palm groves and filtering ponds created for cleaning sewage water coming out of the buildings.

KEY DATA

- Client: Ministry of Foreign Affairs in France
- Location: Doha (Qatar)
- Project: Construction of the french diplomatic campus
- Mission consultant: Matta Contracting Qatar, SUD Architectes, AR Architectes, Auberger-Favre, RBS, Europtima
- Area: 5,282 m² (10 000 m² land)
- COS: 10,000,000 €
- Date: Wining competition in january 2016, on going project

INNOVATIONS

The building design is bioclimatic with a passive design (sun and refreshing winds have been taken into consideration).

▶ **Constructive choices:** sustainability, adaptability and easy maintenance of the materials of construction; design of an earth insolation wall on the South and wooden fiber insolation on the northern facades.

▶ **Energy management:**

- renewable energies are used for cooling (heating pump);
- thermodynamic for water heaters;
- low energy consumption internal and exterior artificial lighting.

▶ **Water management:**

- sewage water treated by filtering ponds: purification of sewage water in ponds that are planted with adapted plants (papyrus), water is then stored into a buried tank, water is recycled for sanitary use and for irrigation;
- exceptional rain water will drop onto green roofs: water will be evaporated then driven into infiltration wells localized close to each building;
- infrastructure materials are porous: rain water can easily be infiltrated into the earth.

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STAKEHOLDERS

▶ The project was financed by the state of Qatar and the Ministry of Foreign Affairs in France and won by the Following design and build team:

- Matta Contracting company: local company
- SUD Architectes: chief designer
- AR Architectes: landscaping designer and environmental consultant
- Auberger-Favre: MEP consultant engineer
- RBS : Structure engineer
- Europtima: project and financial manager

IMPLEMENTATION

▶ The construction of the French diplomatic campus has for final goal to obtain the double green certification delivered by Cerway in France: HQE© Building and HQE© Fitting out assisted by the engineering consulting consultant SETEC.

▶ The construction site will be certified as a green construction site according to both French (SOGED, green Construction site) and local specifications.

RESULTS

/// French diplomatic campus in Doha has an objective to obtain the certification HQE® delivered by CERWAY and will be an exemplary project to follow for future diplomatic constructions in the world.

/// Bioclimatic buildings will offer a qualitative environment for future users with a limited impact on the surroundings and the local environment. As a green valley, this design will bring shade and freshness, like an oasis in the heart of the desert: presence of intelligent buildings designed in an extreme warm weather, adapted vegetation and planted ponds that recycles water, a rare resource that have to be restored and protected.

/// This project will show that it is possible to design with the climate by offering a way of creating shade, water and life into a warm desert environment. This project could be an ambassador of a vernacular architecture and out fitting that leads to fight against heat islands in dense and urban areas in the city.

FINANCIAL DIMENSION OF THE PROJECT

/// Financing was made by the state of Qatar and the Ministry of Foreign Affairs in France.

➜ **Budget : 10 000 000 € HT**