

# eco

## CONSTRUCTIONS

Sustainable architecture  
AR ARCHITECTS

### Energy management



Bio-mimetic industrial construction HQE® in Asnières-sur-Oise - France - 2008

Strategies Design to increase performance for heating and cooling

- Material selection for increasing performance for both light and heat behavior designing (using ecological wood & natural insulation)
- Concrete and solutions for air-flow behavior coupling natural & mechanical systems
- Thermal solar panels
- Green roof

#### FRENCH ENVIRONMENTAL LABEL HQE®

14 targets

- |   |  |
|---|--|
| <p>» Sustainable Exterior</p> <p><b>ECO-CONSTRUCTION</b></p> <p>1. Harmonious relationship between the building and its environment</p> <p>2. Integrated choices for construction products</p> <p>3. Building site with low impact on the environment</p> <p><b>ECO-MANAGEMENT</b></p> <p>4. Energy management</p> <p>5. Water Management</p> <p>6. Waste Management (on const. sites)</p> <p>7. Maintenance management</p> | <p>» Sustainable Interiors</p> <p><b>COMFORT</b></p> <p>8. Hygrothermal comfort</p> <p>9. Acoustic comfort</p> <p>10. Visual comfort</p> <p>11. Olfactive comfort</p> <p><b>HEALTH</b></p> <p>12. Sanitary quality of spaces</p> <p>13. Sanitary quality of air</p> <p>14. Sanitary quality of water</p> |
|---|--|



Eco-construction HQE® of the sewage treatment plant of Buis-la-Riv. - France - 2007

### Air management

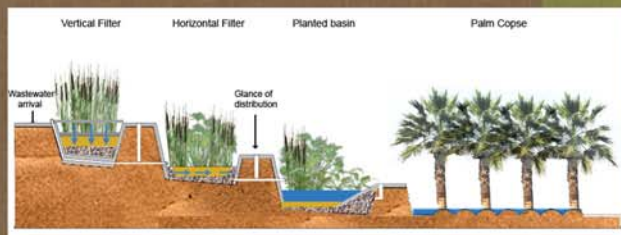


Eco-design HQE® of an industrial building in Bouilly - France - 2007



Green filter design for air purification 7200m<sup>2</sup>/hour is treated to 0.5m<sup>3</sup> of green filter depth  
Zero input of polluted air into the atmosphere - 2008

### Water management



Creating sewage treatment plant through indoor or outdoor biobios, treatment and recycling grey water. Creating filtering wetlands - reuse recycled water - Irrigation recharging water tanks with clean water - restoring biodiversity - 2008

### Biodiversity restoration



Cypripedium Greater Fringed Antelope Sea turtle Callanthe bicolor Phoenix starfish Pteropoda