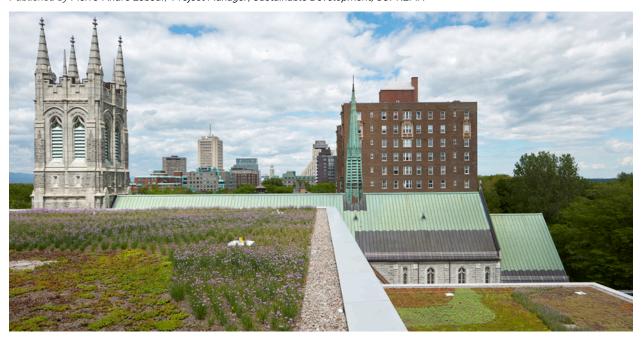


# **Green Roofs: A Solution That Benefits Everyone**

Published by Pierre-André Lebeuf, Project Manager, Sustainable Development, SOPREMA



\*The Benefits sections are a summary of the research conducted by Pierre-André Lebeuf, M. Env. (2018): Cerner les impacts de la végétalisation du bâtiment comme solution durable pour les organisations (Identifying the Impact of Green Buildings as a Sustainable Solution for Organizations)

SOPRANATURE® vegetated systems offer a wide variety of social, economic and environmental benefits to communities. In addition to replacing mineral surfaces with permeable and living surfaces within the building, they compensate for the loss of ecosystem services caused by urban development.

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#### **Benefits for Communities**

# Mitigate the Effects of Urban Heat Islands

Due to the evapotranspiration of the plants and the shading they provide, vegetated roofs promote natural control of the outside temperature.

## Increase Urban Biodiversity

SOPRANATURE systems create conditions promoting the development of microhabitats to support life. They can offset the loss of natural heritage and increase connectivity between ecosystems in the area.

# Support a Local Diet

Depending on the type of development, SOPRANATURE systems can accommodate urban agriculture, meaning access to fresh, locally produced healthy foods.

#### Support Education and Culture

Vegetation enhances the attractiveness of school and cultural environments by creating a climate conducive to concentration, creativity and learning. It also makes it possible to combine theoretical with practical notions.

#### Reduce Air Pollution

Vegetated roofs help improving the quality of outdoor air by removing certain contaminants such as dust particles, acting as carbon sinks and oxygenating living environments.

#### Improve Stormwater Management

SOPRANATURE systems have a capacity of absorption, retention and filtration of water. They improve stormwater management while helping to reduce the risks associated with overflows and floods.

#### Mitigate Noise Pollution

SOPRANATURE systems improve acoustic comfort thanks to their soundproofing capability. They also help mitigate the negative perceptions associated with environmental noise.









#### Prevent Public Health Risks

Being able to integrate urban greening strategies, vegetative solutions contribute to preventing the risks related to certain physical and/or mental diseases. They can also improve lifestyle and increase the well-being of individuals.

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#### Benefits for the Owner

SOPRANATURE vegetated systems represent a wide variety of socioeconomic opportunities for the building owner. In addition to being synonymous with added value, they offer several benefits that can help improve the building's performance and meet the needs of occupants.

#### Improve the Thermal Efficiency of the Building

SOPRANATURE systems are among the best solutions in the improvement of energy efficiency which can thus generate savings in the operational costs of the building.

#### Optimize the Use of Available Space

Vegetated solutions optimize the use of space by displaying a wide range of possibilities. The addition of more functional space on the roof can take the form of a terrace and even a garden.

#### Improve the Aesthetics of the Building

SOPRANATURE systems improve the quality of the living environment by highlighting nature as an architectural component of the building. It helps beautify the living environment and enhance the real estate heritage.

#### Increase the Attraction Capacity

Vegetated solutions can boost the appeal of a building for customers, occupants or employees by promoting a sense of pride and making them see how the owner meets their needs and values.









#### Foster the Well-being of the Occupants

SOPRANATURE systems increase the thermal and acoustic comfort of the occupants. In addition to having positive effects on health and well-being, they increase people's contact with nature, which contributes to their happiness, productivity and openness to collaboration.

#### Extend the Life of the Roof Membrane

By acting as an additional protective layer, the vegetated surface extends the service life of the roof's waterproofing system.

## Strengthen Social Solidarity

Some developments with vegetated solutions can become attractive meeting and recreation venues for individuals to foster socialization and strengthen a sense of belonging to a group or community.

#### Reinforce the Approach to Sustainable Development

SOPRANATURE systems are excellent ways to respect values, deliver on commitments and support a long-term vision of sustainable development.

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# Systems Options

Whether modular or built on-site, SOPRANATURE systems offer great green roof design flexibility tailored to your needs. Our systems have been designed to meet the normative requirements and environmental challenges of the Canadian climate.

## MODULAR SYSTEM

SOPRANATURE modular systems create a versatile vegetated roof solution. The trays form an all-in-one prevegetated system. They save time and manpower by being easy to install.









# **EXTENSIVE SYSTEM**

SOPRANATURE extensive systems are light green roofs of less than 150 mm of SOPRAFLOR substrate. Vegetation types typically include sedums, grasses and other perennials requiring low maintenance.



## SEMI-INTENSIVE SYSTEM

SOPRANATURE semi-intensive systems are mid-light green roofs with 150 mm and 300 mm SOPRAFLOR substrates. Vegetation types typically include sedums, grasses, perennials, shrubs and even some plants for urban agriculture.



## INTENSIVE SYSTEM

SOPRANATURE intensive systems correspond to heavy green roofs with more than 300 mm of SOPRAFLOR substrate. Vegetation types can include a wide variety of perennials, shrubs and trees that require frequent maintenance and heavy structural capacity.









# The SOPREMA Experience

For more than 100 years, SOPREMA has put its expertise and its sense of innovation at the service of builders. Every year, thousands of construction professionals from across North America and around the world choose SOPREMA for its complete product offering, its concern for quality, and above all, for its superior service. Constantly listening to construction industry professionals, SOPREMA is recognized as a pioneer for its new product design initiatives that fulfill the needs of its client and ease their workload. In 1995, SOPREMA launched its new SOPRANATURE roofing system, which transforms roofs of all kinds into green and amenity spaces while maintaining their waterproofing features. Innovation at SOPREMA also involves active participation in the development of new industry standards, collaboration on numerous research projects affiliated with universities, and major contributions to the sharing of knowledge to improve the construction industry.

## **Technical Support and Training**

In North America alone, SOPREMA has technical representatives in every major market, equipped to provide details and specifications, assist in designing plans, and advise properly and recommend the best solutions for all projects. In addition, with the installation of SOPRANATURE systems, customers will benefit from SOPREMA's network of certified contractors who employ qualified installers that have completed a comprehensive training on the installation and maintenance of SOPREMA vegetated roof systems. Technical experts may also be mandated to carry out inspection visits to ensure the execution of the work, from start to finish, in accordance with the requirements of the plans and specifications.

#### Warranties

Unique on the market, the Mammouth SOPRANATURE Warranty provides peace of mind to owners who invest in a vegetated roof system. This warranty is available for roofs that are covered by SOPREMA's Mammouth Platinum Warranty. The Mammouth Platinum Warranty covers the materials and labor of the waterproofing assembly, while the Mammouth SOPRANATURE warranty covers replacing the SOPRANATURE vegetated system components provided by SOPREMA. Under this warranty, if corrective action is required due to water infiltration covered by the Mammouth Platinum Warranty, SOPREMA will provide the owner with the materials and labor to remove and reinstall the SOPRANATURE vegetated system.









## LEED® V4 and WELL V2

According to the terms and conditions of the various programs and categories involved, a vegetated roof can contribute to obtaining credits towards Leadership in Energy and Environmental Design (LEED®) and WELL certification.











