LIVING WALL BIOFILTER

Edmonton Federal Building

Edmonton, Alberta
The Living Wall Biofilter at the Edmonton Federal Building is the focal point of the large glass public atrium - the newly added grand entranceway into the rejuvenated, historic building.
Much more than an aesthetic feature, this living wall biofilter is a working element of the building’s mechanical system.

The biofilter draws air through the wall of plants to the growth medium where biological agents consume pollutants.

The clean air is returned to the building to improve indoor air quality and building performance.
The living wall and combined water feature provide a calm and serene moment in the busy public space.

The vibrant layered and organic pattern of the plants makes the wall a work of art, and provides a foil for the otherwise angular and clean-lined space.
This multi-level, multi-sided living wall biofilter is the largest known indoor biofilter, covering 2,400 square feet.
A recent study predicts that in the Edmonton region, a biofilter can save $398 - $726 per 100 litres of fresh air generated (by the biofilter).

In addition to providing clean air at a fraction of the cost of a traditional HVAC system, the living wall biofilter at Edmonton Federal contributes to the humidity levels of the atrium space. As such the living wall system is adding innovation points to the LEED Gold certification goal.