Project Report   VanDusen Botanical Garden, Vancouver

The green roof of the new visitor centre at the opening ceremony in October 2011.
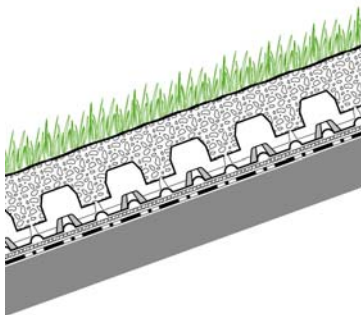
Conception

In 2011, the approximately 22–hectares large VanDusen Botanical Garden, existing since the 1970s, was provided with a new representative visitor centre in the size of approximately 1,800 m². The peculiarity of the design is the roof shape, imitating the leaves of an orchid flower. The flower stem is represented by the central atrium. The idea for this roof shape was developed by the famous landscape architect Cornelia Hahn Oberlander, known for the perfect integration of her landscaping into the overall architectural concept. Due to the varying inclinations and curvatures of the roof surface three different systems were applied: on the flat areas a build-up based on Floradrain® FD 40-E, on the pitched roof areas a build-up with Floraset® FS 75 and on the steep roof areas a build-up with Georaster®.

The architect's model shows the shape of orchid leaves;
The visitor centre has already been awarded the LEED Platinum Status for environmentally friendly and sustainable constructions.

System Build-up

Plant layer with perennials, native grasses and bulbs

System Substrate, ca. 150–200 mm

Floraset® FS 75

Protection Mat BSM 64

Roof construction with
root resistant waterproofing

This photograph from October 2011 shows the lawn that already had developed well.

Development

The roof of the visitor centre shortly after the installation of the Floraset® FS 75 elements.

The Floradrain® elements adjacent to the pitched roof area where Georaster® was applied.

Shortly before completion of the roof surfaces.

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Life on Roofs