



The roof makes reference to the grassy patches on ground level and the surrounding park.

Project Data

Area: ca. 650 m²

Construction Year: 2018

Architect/Planner:
RDH Architects

Landscape Architect:
NAK Design Strategies

System Build-up:
"Steep Pitched Green Roof" with
Georaster®

Coordinates:
43°45'27.8"N 79°45'40.9"W

Conception

Springdale Public Library and the adjacent Komagata Maru Park are located in Brampton, a suburb of Toronto.

The triangular single-storey library building and the surrounding green space including terraced gardens, a water playground and an also triangular pavilion were awarded several design prizes. A number of sustainable strategies were used to obtain a LEED Gold certification. These include a greywater system, a geothermal heating and

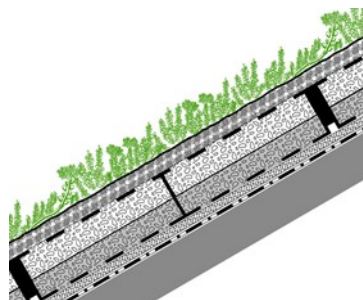
cooling, solar responsive windows looking like book pages, electric car charging stations, and last but not least a green roof intensifying the thermal insulation.

The green mound forms a domed roof over the inside library reading room. It is clearly visible from a distance and fuses the architecture with the landscape. In particular when seen from ground level, the organic roof shape blends perfectly with the inclined topography of the ravine.



The triangular building with its green roof dome is impressive from aerial view...

System Build-up



- Vegetation Mats
- System Substrate
- Georaster®
- Protection Mat WSM 150
- Roof construction with root resistant waterproofing



... but, seen from ground level, blends nearly completely with the landscape.

Development



The Georaster elements allow for a stable steep pitched green roof.



Shear-Fix LF 300 and corresponding TRP Profiles were used as shear barriers.



The windows were built in a solar responsive way to reduce glare and heat.