

# Project Report

SNFCC, Athens 



The roof of the opera is covered with a ca. 10,000 m<sup>2</sup> large solar plant. © SNFCC / Yiorgis Yerolymbos

## Conception

In early 2017, the new cultural centre SNFCC accommodating among others an opera, a library and a car park, was opened about 4.5 km from Athens city centre. The combination of economic benefits and nature was a main goal for the architect Renzo Piano. The spacious roof terrace is covered by a 10,000 m<sup>2</sup> solar roof, "the flying carpet", as the architect calls it.

More than 25,000 m<sup>2</sup> of intensive greening were realised on the three main roofs

of the complex. Versatile planting is covering the space between the walkways and the terraces of the resulting Mediterranean parkland. Species of regional flora were used in particular, such as boxwood, oregano, lavender and rosemary, as well as various other shrubs, herbs and grasses.

Above the car park there are numerous olive trees, which find perfect conditions for development in an up to 1.2 m deep substrate layer.



The versatile plant selection is based on the natural regional vegetation.



Fall protection is ensured both with guardrails and with rails including a mobile attachment point.

## Project Data

Green roof area: ca. 25,000 m<sup>2</sup>

Construction Year: 2014-2016

Builder: Stavros Niarchos Foundation

Architect/Design: Renzo Piano Building Workshop, Genoa, Paris, New York

Landscape architects:  
Deborah Nevins, New York, and  
Heli Pangalou, Athens

System Build-ups with  
- Floradrain® FD 40-E,  
- Stabilodrain® SD 30 and  
- Protectodrain® PD 250

Coordinates:  
37°56'25.32"N 23°41'31.72"E

## Development



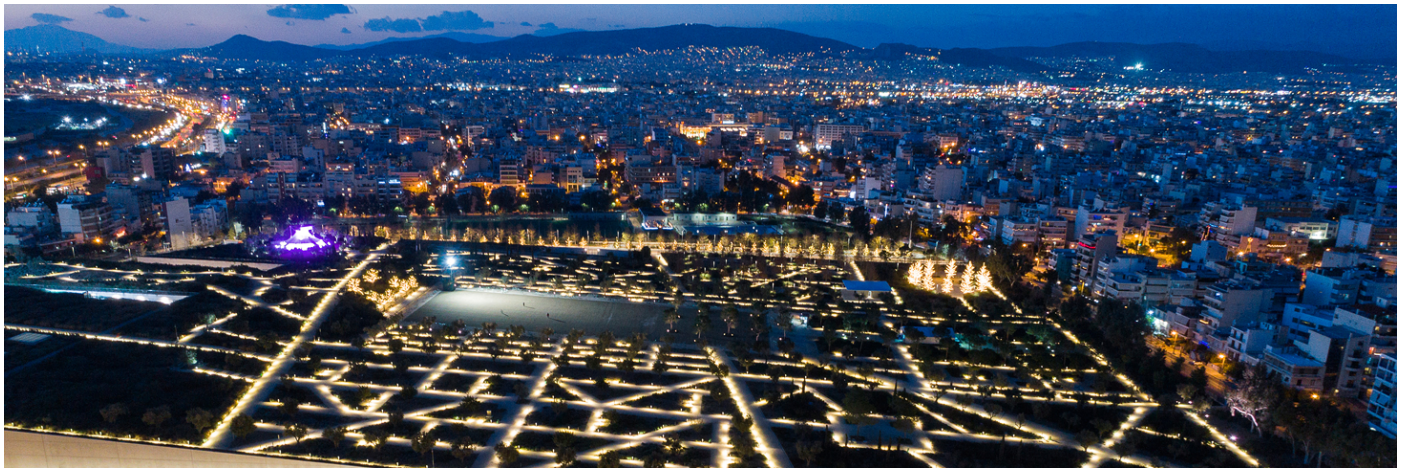
The Protection Mat ISM 50 was laid over the multi-layer waterproofing.



The Floradrain® FD 40-E elements below the vegetated areas allow for a quick runoff of exceeding water.

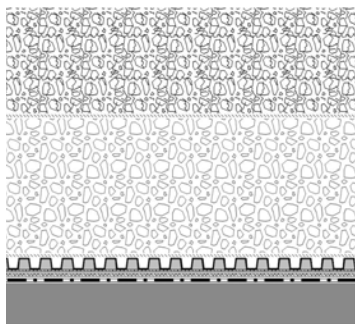


Glass foam gravel was used in some areas in order to achieve a higher total build-up.



© SNFCC / Yiorgis Yerolymbos

## System Build-ups

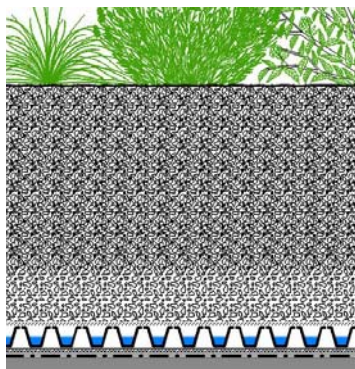


### Car Park, Walkways

- Mixture of sand and clay as a natural surface coating
- Filter Sheet TG
- Foam glass gravel (as light weight filling material)
- Filter Sheet TG
- Protectodrain® PD 250
- Protection Mat ISM 50
- Roof construction with root resistant waterproofing



Protectodrain® PD 250 was applied as a base for the walkways over the car park. © HPA

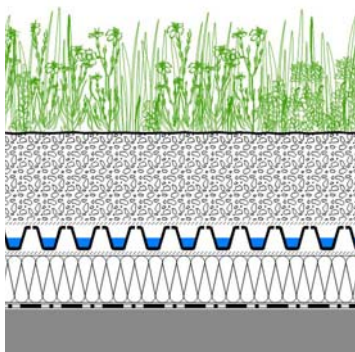


### Car Park, Planting

- Plant layer
- System Substrate „Roof Garden“, ca. 400 mm
- Zincolit® Plus (as mineral sub-substrate) up to 800 mm
- Filter Sheet TG
- Floradrain® FD 40-E
- Protection Mat ISM 50
- Roof construction with root resistant waterproofing



In addition to the well-designed areas, also natural meadows were created above the library. © HPA



### Opera

- Plant layer
- System Substrate „Heather with Lavender“
- Filter Sheet SF
- Floradrain® FD 40-E
- Separation Membrane TGV 21
- XPS Thermal Insulation
- Roof construction with root resistant waterproofing



Changing seasons create diversified visual impressions. (here: autumn, above: summer). © HPA



A look between the opera and the library over the car park shows the diversified design. © HPA

