

Project Profile

Henry® Green Roof System helps Federal Office Building go even greener

50 United Nations Plaza – San Francisco, California



Products used

Henry 790-11 Hot Rubberized Asphalt System components:

Primer - Henry 910-01 Asphalt Primer

Waterproofing membrane – Henry 790-11

Reinforcement fabric – Henry Polyester Fabric Reinforcement Sheet

Separation layer – modifiedPLUS® G100s/s

The Situation

Built in 1936 and LEED-certified in 2013 after a renovation, San Francisco's 50 United Nations Plaza Federal Office Building is a stately neoclassical-style structure and a cornerstone of the city's Civic Center. When it was time to re-roof this historic landmark, the government wanted to add a green roof with solar panels to help offset the building's energy consumption.

Pairing solar panels and vegetated roofing is mutually beneficial, as such dual-installations compound the benefits of each system. But for this project, the design would have to withstand seismic activity while providing leak-proof, low-maintenance performance, as the building houses many historic artifacts plus highly secure, functioning Federal offices.

The Solution

First, structural engineers confirmed that the building could handle a green roof with photovoltaic panels and components. Next, a Henry 790-11 Hot Rubberized Asphalt Waterproofing System was installed, followed by vegetation-free zones of gravel – these would serve as low-maintenance drain fields and keep plants and soil away from mechanical equipment and historical parapets. Additionally, perennial flowering plants and vines were installed based on their ability to thrive in rooftop environments. To keep the photovoltaic panels cooler and thereby producing more electricity, they were placed directly over the vegetation, which in turn helps the plants thrive and limit weed growth.

The Results

50 United Nations Plaza Federal Office Building now has a low-maintenance, durable and beautiful roof garden that protects the building's architecture, building envelope and occupants. And because it's a hybrid solar/green roof, it's insulating the building, reducing the urban heat island effect, and further offsetting building energy use by generating electricity on-site.

Ask us today about other Henry® solutions that help manage the flow of water, air, vapor and energy.

Building Envelope Systems®
Roofing | Air Barrier | Waterproofing