

Project Profile

Henry® Green Roof System enables University of Miami to install vegetated roofs along hurricane superhighway

University of Miami — Coral Gables, Florida



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

GRO Sloped Green Roof Stabilization System components:

Drainage/capillary mat – GRO Cap Mat

Slope stabilization (<15% slope) – GRO GeoSlope System

Slope stabilization (>15% slope) – GRO Stabil System Type N – Mesh & Cleats

Engineered soil – GRO Custom Soil Media

Wind erosion protection – GRO Synteen SF20 Wind Erosion Blanket

Vegetation – GRO Custom Plant Seed Mix

The Situation

The University of Miami wanted to demonstrate its commitment to environmental sustainability by installing green roofs onto its new Lakeside Village student housing complex. The 25 roof decks were designed to hold 10 inches of growth media and contain a pronounced roof slope of either 4/12 or 3/12. Miami-Dade County typically rejected green roof projects without a minimum of 24 inches of growth media due to wind uplift within a hurricane zone. Also, standard drainboards and root barriers would not have sufficient slip resistance in the proposed sloped design scenario.

The Solution

The design and installation team selected a Henry® Green Roof System to meet the project's challenges. Henry, along with its approved system supplier Green Roof Outfitters (GRO), proposed a combination of Henry 790-11 Hot Rubberized Asphalt Roofing Membrane with a GRO Capillary Action Mat. This system provided enough surface area and contact to resist sliding, while also preventing root intrusion and facilitating the lateral flow of stormwater toward the internal drains. Cronin Engineering, Inc., the firm working with Miami-Dade to evaluate all components when combined, agreed that the Henry and GRO solutions were approved for steep slopes within High Velocity Hurricane Zones.

The Results

Generally, Miami-Dade County only gives Notice of Acceptance on green roofs with a minimum of 24 inches of growth media, out of concern of the wind carrying it away during a hurricane. This significantly limited the use of green roofs in Miami. The innovative, flexible design of the Henry Green Roof System changed the county's thinking, allowing these 25 roofs to hold only 10 inches of growth media and still receive a Notice of Acceptance.

“Bringing ecologically sustainable green space to an interconnected living environment is an architect’s dream. But making the green roofing concept work in a hurricane zone had its distinct challenges. For me, the flexible design approach Henry takes to vegetated roofing helped make the greening of the Lakeside Village complex possible. Most everything I needed for the project was handled by Henry – truly my one-stop partner.”

Ana Faria-Delfino

— Project Manager, Arquitectonica

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