

Green Roof (Falls Church, VA) Yorktowne Square Condominiums Completed in 2003

The 4,200 square foot green roof on the Yorktowne Square Condominiums (Building #2911) is an extensive roof planted with three varieties of sedum plugs. Sedums are hardy succulents that can thrive for six to eight weeks without additional water. Emory Knoll Farms in Maryland provided the sedums.

The original flat roof of the green roof building was built in 1968, and covers 14 units at the condominium. Yorktowne Square Homeowners Association's green roof met the specific weight requirements of the building and county code. The installation of the sedums was the final phase of construction.



Photo by Frank Johnston – The Washington Post, 8/28/04 article

The 8,400 sedums planted on the roof in the photo above were 3 months old, and will grow to be approximately 2' high x 2' wide blanketing the roof with a display of green, pink, yellow, and white.

Construction - A base sheet of tar was nailed down followed by a 2-ply membrane. The bottom layer of this membrane is the water retention system and the top is a copper foil that deters plant roots from passing through. Next there is a layer of filter cloth plus 2 inches of soil composed of minimal organic material and designed to hold more water. The new green roof comes with a 20-year warranty from contractor, Michael Perry of Building Logics (Virginia Beach) and like most other green roofs on the market is expected to last approximately 40 years.

Monitoring – Cisterns will be used to monitor the quality and quantity of runoff captured from the new green roof and an adjacent conventional roof, also new. Each roof has eight drains, which feed downspouts that empty on the lawns. One drain from each roof will be tapped and run into a cistern.

Other Stormwater Management Practices – The green roof provide a surface that consumes on average 70% of stormwater and is part of a larger Yorktowne Square Stormwater Management Plan that includes landscaped areas, and constructed rain gardens. Yorktowne Square's policy is to plant native plants. No nitrogen, phosphorus, or fertilizers are used anywhere on their 15.3 acres – a detail that is included in the landscape contract. Two demonstration rain gardens reduce pollution and storm water runoff. Vegetated areas with rock walls reduce erosion.

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ACCESSIBILITY: Limited. Due to the location of the green roof atop a private residential condominium, accessibility is limited and arrangements to view the green roof must be scheduled in advance. Observers must currently climb a stepladder through a hatch to the four-story roof. The green roof is not viewable from ground level.

DIRECTIONS: I-495 to 50 West (toward Fairfax). Exit at Gallows Road / Merrifield. Turn right on Gallows Road. At the 2nd light, turn right on Gatehouse Road. At the end when Gatehouse Road dead-ends at Yorktowne Square, proceed straight onto Charing Cross Road and into Yorktown Square.



This project was supported with funding from the EPA's Chesapeake Bay Program through the Virginia Department of Conservation and Recreation via grant agreement number BAY-2002-08-SR.

