Curlex® II QuickGRASS®

Bringing Green Roofs to Life with Curlex

INTRODUCTION/BACKGROUND SITE INFORMATION:

Going green is the popular course when building on a construction site, but what about the top of it? Constructing a green building can reduce costs and give back to the environment. One such building is an automobile dealership in Clermont, Florida. The building is the first LEED® Platinum Certified dealership in the state. Installing a green roof on the building contributed to the goal of obtaining the dealership's LEED Platinum Certification.

What is a green roof? A green roof is a roof of a building that is partially or completely covered with vegetation. It is planted into a growing medium over a waterproofing membrane. A green roof provides many benefits such as:

- Reduces heat island effect by absorbing solar radiation
- Acts as a storage space for rainfall, which is later released by plant transpiration and evaporation
- Reduces the amount of stormwater discharge into MS4s and the danger of flooding
- Filters out airborne particles by trapping particulates on the greenery surface and washing them into the growing medium during rainfall
- Absorbs pollutants such as carbon dioxide and releases oxygen into the environment
- Provides additional insulation for lower heating and cooling costs
- Provides habitat for birds
- Provides aesthetically pleasing appearance for building occupants
- May qualify for tax benefits from municipalities

TASK AT HAND:

Installing a green roof can help meet new stormwater rules that are in place for Florida and U.S. EPA turbidity guidelines. The building was designed with the environment in mind and the need to use less energy. The goal of the project was to pass the savings onto the customer.

PROJECT TEAM:

Tecta America, a contractor located in central Florida, was tasked with the installation of the green roof for the dealership. Marty Wanielista, Director of the Water Research Center and Stormwater Management Academy at University of Central Florida, assisted with the green roof installation as a consultant/designer. John Slupecki, Territory Manager with American Excelsior Company, supplied Curlex II QuickGRASS that was used to protect the growth media.

PREPARATION / PLANNING BEFORE PROJECT STARTED:

Tecta America's green roof system is multi-layered with several layers of light weight growing medium, which in turn reduces the building's structural costs. The soil medium was engineered through the University of Central Florida and consisted of two material types: 1) a lower layer for pollution control and 2) an upper layer for vegetation growth. Native wild flowers were selected for this green roof application.

WHAT WAS ACTUALLY DONE?

An irrigation system was installed over the soil media after is was in place. Next, Curlex II QuickGRASS was installed to protect the growth media until the native wild flowers, which were plugged into the layered system, became established. Marty Wanielista said, "Bringing Green Roofs to Life is Helped with Curlex."

PROBLEMS ENCOUNTERED AND WHAT WAS LEARNED:

The experienced crew had no problems with the 4,800 ft² building's green roof installation. Installation required a crew of 4 people and was completed in about 8 hours. In general, a two person crew can install about 300 ft² in an hour.

CONCLUSIONS / SUMMARY:

Using Curlex II QuickGRASS to protect the soil until vegetation became established proved to be a success. The features contributing to the building's LEED Platinum Certified Rating will continue to reduce operating costs for the owner and will extend the many benefits to the surrounding community.

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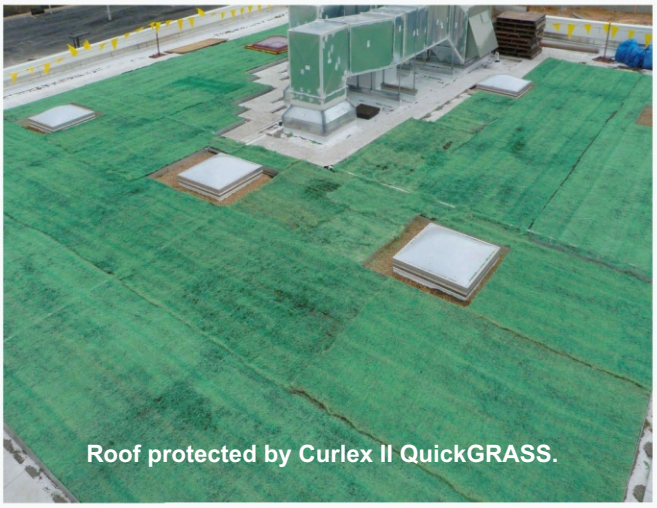
Irrigation system installed over growing medium.

First width of Curlex II QuickGRASS installed.



Roof protected by Curlex II QuickGRASS.

Plants positioned as plugging commenced.

Wild Flower plants plugged through Curlex II QuickGRASS.

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Form#273/092817