

Roof Replacement Helps District Generate Additional Energy Savings

Greene County Public Schools | Stanardsville, VA

CHALLENGE

When administrators at Greene County Public Schools in Virginia were looking for ways to save money, they partnered with an energy performance contracting company. The contract administered by Ameresco, Inc.[®], an independent energy solutions company, allows the district to use money they are guaranteed to save each month in utility costs to pay for improvements. But even with upgrades to the lighting, windows, and HVAC systems, the return on investment was compromised due to the inefficiency of the failing EPDM roof.

“...quality solution that will last for 30 years.”

Greg Myracle
Territory Manager
The Garland Company, Inc.

The roof was leaking in multiple areas and the metal deck had been damaged due to long-term exposure to moisture. The district wanted to replace the roof, but lack of funding had forced them to put off necessary repairs until it had now become critical. “This year, it became a situation where the roof was going to have to be replaced regardless of funding because of the issues that were materializing with the roof deck,” explains Kim Powell, business and facilities director at the district.

SOLUTION

Although roof replacement is not typically included in energy performance contracts, Powell worked with Garrett Raper, project development engineer at Ameresco, to have it added to the contract based on the roof condition and the energy savings that would be generated by replacing it. “We were able to take extra savings that will be generated from other energy conservation measures to put toward the cost of replacing the roof,” Powell reports.

Greg Myracle, local representative of The Garland Company, Inc., an Ohio-based high-performance roof system manufacturer, had been working with the district for nearly a year. Together with Powell and Jim Camp, Ameresco senior project manager, Myracle developed a sustainable roof replacement system that will provide superior performance and contribute to the district’s energy savings. Myracle recommended a two-ply modified bitumen roof system with a flood and gravel surface and Black-Knight[®]/Black-Stallion[®] coal tar-based coating to create superior protection against ponding water. In an effort to contribute to the energy savings, four inches of polyisocyanurate insulation was installed to achieve an R-Value of 24. “The combination of the two-ply modified bitumen roof system and gravel surfacing with a coal tar coating will provide the district with a quality solution that will last for 30 years,” Myracle explains.

The replacement of the 30,000 square-foot section of roof will allow the district to maximize the benefits of their performance upgrades to generate additional energy savings. Powell concludes, “Working through the partnership with Ameresco and Garland to replace the roof was the solution we needed. With energy performance contracting, the cost of the upgrades will be offset by the money we save each month in utility costs, which is a win-win situation for the school district.”

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Greg Myracle

(804) 334-8773
gmyracle@garlandind.com

EDUCATION



Project: Green County Public Schools

Location: Stanardsville, VA

Garland Rep: Greg Myracle

Type of Project: Modified/Coating

Materials: Black-Knight[®]/
Black-Stallion[®]