Newly Constructed High School Sets District Standard for Sustainability

James M. Bennett High School | Salisbury, Maryland

EDUCATION

CHALLENGE

The James M. Bennett High School in Salisbury, Maryland, – built in the early 1960s – had not been updated in more than 30 years and was nearly 300 students over capacity. School administrators explored several options to accommodate the growing population, including the possibility of renovating the current facility. A comprehensive study of the high school was conducted, and it was determined that it would be difficult and cost prohibitive to try to modify the existing structure. Therefore, a decision was made to build a new high school. Brian Foret, director of facilities for the Wicomico County School District, envisioned the new school as setting the district standard for sustainability not only in terms of efficiency but also in terms of performance. Foret, an architect, has the industry knowledge and experience to understand the critical role of a properly designed roof in the overall performance of a building. "Roofs are one of our major fiscal assets. After the district went through a period of significant deterioration repairs, we set out on a mission to eliminate the 'bucket brigade' and to reinvest in roofs and the overall building envelope," Foret reports.

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> **Brian Foret**
> Director of Facilities
> Wicomico County School District

SOLUTION

Becker Morgan Group, Inc., an architectural firm in Salisbury, Maryland, was retained to develop the construction documents for the new school. During the initial stages of design, Foret helped convey the district's vision of a sustainable and contemporary 21st Century school to the architectural firm. He also emphasized the district's desire for a design that incorporates sloped metal roofs. "With most of our new construction, we try to encourage geometries readily adaptable to the use of metal and try to incorporate slope as much as we can to keep water off the roof and ensure the building remains watertight," Foret explains.

To achieve the district's objectives, the firm's Principal Architect, Brad A. Hastings, AIA, LEED AP and Project Manager, Sandy Carpenter, LEED AP, combined brick facades, a substantial amount of glass, and incorporated various roof slopes and angles to create the unique, modern look the district was hoping to achieve. Based on the performance characteristics and aesthetic value of metal, it was determined that metal panels would be installed on a large portion of the roof. The project's performance objectives and unique design requirements prompted Todd Holtzner, a local Garland representative, to recommend the installation of R-Mer® Span structural xstanding seam roof system, which leads the industry in watertight protection. The 24-gauge steel, 16-inch wide Cadet Gray panels provide numerous benefits, including the durability and watertight integrity needed for a long-term, high-performance solution. Additionally, R-Mer Span offers the functional diversity needed for unusual or complex roofing projects.

The panels, ranging in length from 80 feet to 190 feet, were rolled formed on site to create continuous panels that guarantee watertight protection. As an added benefit, R-Mer Span panels feature a symmetrical design that allows for easy installation and provided flexibility during the multiple phases of the new construction process. R-Mer Span panels are engineered to provide more than 30 years of watertight protection and are 100 percent recyclable at the end of their life cycle, helping to reduce the amount of construction debris and waste that ends up in our country's landfills and contributing to a cleaner, healthier environment.

In addition to the metal system, Garland's StressPly® EUV Mineral modified bitumen roof system coated with ENERGY STAR® qualified Pyramic® coating was installed on the low slope areas of the building.

The facility also features geothermal HVAC systems, daylight harvesting, high-performance glazing, digital lighting controls, low VOC materials, and storm water irrigation – features that have helped establish James M. Bennett High School as the district's standard for sustainability.

Project:	James M. Bennett High School
Location:	Salisbury, MD
Garland Rep:	Todd Holtzner
Architect:	Becker Morgan Group, Inc.
Materials Used:	Pyramic® R-Mer® Span StressPly® EUV Mineral

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