

## Sloped Metal Roof Provides Watertight Protection Howard Elementary | Howard, SD

## EDUCATION

### CHALLENGE

Like many schools across the country, Howard Elementary in rural Howard, South Dakota, was built with a flat roof. The roof had been patched and replaced several times since the building's original construction in the 1950's – each time with another flat roof. The school has historically experienced leaking problems, largely due to ponding water on the flat roof. For the last several years, school administrators had tried to remedy the leaking by making small repairs and patching leaks while waiting for funding to become available for a new roof. But as repair costs rose to an average of over \$30,000 a year, replacement became critical.

Mike Cullen, superintendent for Howard Public Schools, contacted local Garland representative, Matt Ohm, whom he had met about a year ago, to request an analysis of the roof. Ohm inspected the 28,000-square-foot roof, which was comprised of three distinct roof sections, including a 42-year-old built-up roof (BUR), a 15-year-old fully-adhered EPDM roof, and a 12-year-old ballasted EPDM roof. Each roof section had its own unique problems, ranging from peeling and cracking to flashing deterioration to visible holes along the roof edge.

### SOLUTION

Based on his analysis, Ohm recommended the failing systems be retrofitted with Garland's R-Mer® Span standing seam metal roof system. The 24-gauge, 18-inch wide panels provide the structural strength and slope needed to achieve long-term watertight protection.

Ohm explains, "The district wanted a roof that was not only waterproof, but was also relatively maintenance-free. It's rewarding to know that we were able to provide the district with high-performance, watertight solution backed by a 30-year warranty."

A steel framing system was installed over the failing built-up and EPDM roofs to create a 1/2:12-inch slope and eliminate ponding water on the roof. To achieve watertight integrity, 75-foot bare Galvalume®\* panels were installed from the roof eave to ridge. Ohm coordinated the project with Modern Builders of Janesville, Iowa, who took every effort to ensure the system was installed without causing any leaks to the school. Additionally, thermal batt insulation was added between the existing roof and the new metal system to achieve an R-value of 30. "Putting a sloped metal roof on what was once a flat roof provides a tremendous, long-term benefit to the district," Ohm reports.

Cullen was very pleased with the successful completion of the project, his first with Garland. "Matt has done great follow-up. He has established some really good credibility and trust with the district, and we're looking forward to working with him on future projects."

\*Galvalume is a registered trademark of BIEC International Inc.  
R-Mer is a registered trademark of The Garland Company, Inc. and Garland Canada Inc.

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**Matt Ohm**  
Territory Representative  
The Garland Company, Inc.



**Owner:** Howard Elementary  
**Location:** Howard, SD  
**Garland Rep:** Matt Ohm  
**Contractor:** Modern Builders  
**Type of Project:** Metal Retrofit  
**Materials:** R-Mer® Span



### Matt Ohm

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