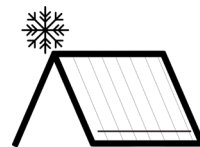




Case Study — Cumberland Trace Elementary School

ColorGard®



At-A-Glance

Project Name

Cumberland Trace Elementary School

Location

Bowling Green, KY

Architect

Sherman, Carter & Barnhart

General Contractor

Alliance Corporation

Roofing Contractor

Carlson Roofing & Sheet Metal, Inc.

Roof Profile

DMI TL2512 22ga Metallic Copper

Industry

Education

The Situation

Safety was the priority for this school district in search of a penetration-free, aesthetically pleasing snow retention solution for its new copper metallic-finish standing seam metal roof that would both match the roof and last the life of the roof.

The Result

With S-5's diligent load-testing and web-based calculator tool, the ColorGard system enables reliable mitigation of potential rooftop avalanches and dramatically reduces the risk of sudden and unexpected release of snow slides, which could pose a serious threat to students, teachers, administrators and property below.

Project Stats

- Metal Wall Panels: 5,000 sf Kingspan 2" thick, 42" stucco embossed metal wall panels
- Roof Measured: 13,000 sf of standing seam and 51,900 sf of Carlisle adhered 80 mil TPO
- Roof Pitch: 3:12
- S-5! Products Supplied:
 - ✓ **ColorGard®** (952 lineal feet)
 - ✓ **S-5-T clamps** (475)
 - ✓ **VersaClip™** (475)
 - ✓ **SnowClip™ III** (950)



The Project

Built on 23 acres, the new Cumberland Trace Elementary School in Bowling Green, Kentucky, upholds the Warren County Public Schools district's long-standing tradition of energy conservation and will soon be a net-zero building featuring 50kW of solar PV. The state's fourth largest school district currently has two net-zero and three net-zero-ready schools in operation.

With safety as the top priority, storm-safe materials are used throughout the facility along with several design elements to enhance safety, including a copper metallic standing seam metal roof with S-5! **ColorGard®** snow retention finished in the same color to precisely match the roof.

The roof system is a combination of Carlisle adhered 80 mil TPO and DMI TL2512 22ga Metallic Copper. Both roofs have three layers of 2-inch polyisocyanurate insulation for an R value of 34.2. The wall system includes approximately 5,000-square-feet of Kingspan 2-inch thick, 42-inch stucco embossed metal wall panels.

The Challenge

Bringing all the different building components together and the detailing required for locating the various assemblies is always a challenge. It was critical for all components to be compatible with this standing seam roof so everything would lock together in place. Additionally, getting materials delivered on time to meet the construction schedule was quite difficult.

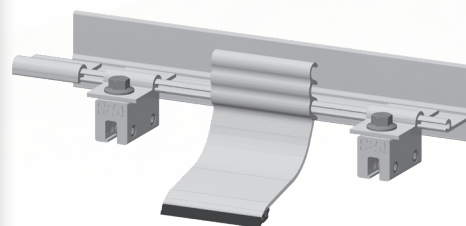
The Warren School District Board of Education was concerned about potential snow slides from the slick metal roof and wanted a solution that would protect its roof as well as its students, teachers and administrators.

Long-Term Outlook

The school board was able to achieve the quality look it wanted with a snow retention system that maintains the roof integrity, mitigates potential rooftop avalanches and complements the look of the roof, with a clean appearance and perfect color and finish-matching, all designed to last the life of the roof and warranted to do so.

How Did S-5! Products Help?

- Provided an aesthetic solution
- Provided safety measures to students, teachers and administrators entering and leaving the school
- Eliminated the risk of a voided roof manufacturer warranty—no holes/no damage
- Reduced the amount of product and cost required due to S-5! engineered system capacity



ColorGard® by S-5!

The Solution

Roofing contractor, Stephen Golab of Carlon Roofing & Sheet Metal, Inc., has worked on a number of school roofing projects in the area and has the expertise to know how best to bring all of the building elements together. He has also been using S-5! snow retention products for more than 10 years. Steve recommended the complete S-5! ColorGard system, including **S-5-T Clamps**, **VersaClips™** and **SnowClips™** to the school board.

With a quick turnaround time, Steve was able to deliver a snow retention solution that provided the aesthetics the board was seeking since the ColorGard system offered perfect color and finish-matching designed to last the life of the roof. And, it offered the fully tested and engineered safety they needed to protect students, teachers and administrators from potential snow slides.

“We have been using S-5! products for more than 10 years. We choose S-5! because it is simple and easy to install—and engineered for the job. It doesn’t matter what the manufactured roof color is, we can always get an exact match with ColorGard because it is taken from the same flat sheets that are used on the trim. It is always readily available within a quick turnaround time, and we know we can always depend on a viable snow retention system with S-5!”

— Stephen Golab, Vice President, Carlon Roofing & Sheet Metal, Inc.



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