

Case Study: Academic success drives school's expansion and proven performance guides its roof selection



Description: This 89,000-square-foot energy-efficient, durable and sustainable structure marked the completion of a new three-building complex for St. Patrick Parish. The state-of-the-art K-8 elementary school has the capacity for 810 students and is a testament to creative thinking and technology. Each of its 27 classrooms is equipped with eight computer/data outlets and a high-definition TV, enabling students' access to the Internet, video instruction and cable programs. "It is superior in student services and security," noted Monsignor Linster, pastor of St. Patrick. "And, it provides well-organized and patrolled traffic patterns and one main school entrance, compared to the five access points of our old downtown school."

Challenges: A six-week construction delay pushed the roofing schedule into winter, but with JM's extensive product line, we were able to move quickly to a cold-weather, heat-welded system," said roofing contractor Scott Crowther, Sr. "Extensive preplanning with the JM sales representative before the job was bid was also critical to the project's success," according to architect, Jay Fox. "We reviewed roof slopes, insulation thicknesses, R-values, tapered insulation requirements, and he pointed us to their Specialty Roofing Products' group in Lewiston, Maine, for the custom expansion joint transitions."

"I sent sketches and dimensions of the metal copings and expansion joints needed to Chris Brown, accessories technical specialist, and the specialty products team handled it all," added Crowther. "We didn't have to field-form a thing and the roof was complete by mid-December."

Solution: The R-31 roof structure includes a hybrid system of multiple plies of asphalt-coated fiber glass felt and the heat-welded, energy-saving modified bitumen system, providing an SRI of 30. The structure slopes ¼" to 8'x8' roof sumps. "It's the perfect roof," says Fox. "Every drop of water that falls on it goes right to the drain."

"I had plenty of trepidation in the beginning since I had no experience in building projects," commented Monsignor Linster. "Our architect, Jay Fox, led us every step of the way – from imagination... to completion." Fox added, "Initially, our customer was concerned about having a flat roof, but with JM's history of success, we're all confident that we have a sustainable, long-lasting, high-performance building and roof, and at a price point that helped bring the constructed cost of the project in at an unheard of \$121 per square foot."

Location:

St. Charles, Illinois

Building Representative:

St. Patrick Catholic School
Monsignor Joseph B. Linster V.F.
Pastor, St. Patrick Parish

Architect:

Fox & Fox Architects
Jay Fox, III, LEED® AP

Roofing Contractor:

Crowther Roofing & Sheet Metal, Inc.
Scott Crowther, Sr., President
JM Peak Advantage® Summit Club® Contractor

Roofing System Solution:
3FID-HW (ALT)
20-Year Peak Advantage® Guarantee

- ENRGY 3® Roof Insulation
- ¾" Fesco® Roof Board
- GlasPly® Premier (2 plies)
- DynaWeld™ Cap FR Cap Sheet
- DynaFlex® Modified Bitumen Flashing Sheet
- Expand-O-Flash® Expansion Joint Cover
- Custom Presto Lock™ Coping System

LEED® is a registered trademark of the U.S. Green Building Council.