

AEM Architects Inc.

A new way to build schools: Precast, high performance wall panels

There is a new approach to public school construction in Pennsylvania. Thermally efficient, insulated sandwich wall panels were recently utilized on two new elementary school projects in Berks County: Tilden Elementary Center, Hamburg Area SD; and Willow Creek Elementary Center, Fleetwood Area SD.

These panels, manufactured by High Concrete Group LLC, offer many benefits to all types of new construction, including faster and more efficient construction, exceptional mold and damage resistance, superior fire ratings, lower maintenance, longer lifecycle costs and easier expansion opportunities. But the greatest benefit is thermal efficiency. The 10-inch thick, load-bearing precast exterior walls consist of three inches of continuous insulation sandwiched between a 4-inch interior wythe and a 3-inch exterior wythe. The system delivers consistent R-19 performance. The sandwich-style construction panels essen-

tially eliminate thermal bridging, thus creating an efficient envelope and a more consistent interior climate.

The project team lauded the fast enclosure time enabled by precast. The walls were fabricated offsite (without prevailing wage rates) while the foundations and steel were erected. Panels were placed individually at a rate of six to eight panels per day. This quick installation expedited enclosure of the structure, allowing interior construction and finishing to be completed in a dry temperate environment, which was more conducive to quality work. Conduits were cast directly into the walls, thus streamlining the work of mechanical, electrical and plumbing trades.

The exterior panel design features thin brick embedded as the veneer with exposed colored concrete accents. A wide variety of designs and finishes are possible, including matching or complementing an existing structure. Both school districts were very pleased with the aesthetic achieved at their facility.

For more information, please contact **Philip M. Leinbach AIA**, vice president, AEM Architects Inc., 3700 Perkiomen Ave., Reading, PA 19606, at (610) 779-3220 or pmleinbach@aem-arch.com, or visit www.aem-arch.com.



Willow Creek Elementary Center in Fleetwood Area SD has precast, insulated wall panels.

