KNIFE RIVER

AN MDU RESOURCES COMPANY

School buildings reflect a community's investment in education. Buildings made with precast/prestressed concrete look great, last for decades, require minimal maintenance, and save money.

Precast/prestressed concrete is a highly adaptive and easily erected material that responds well to site needs. In addition, facilities built with precast/prestressed concrete can be erected faster than those built with other materials.

Precast/prestressed concrete, produced in controlled factory conditions and erected under stringent quality controls, ensures that a school building is durable and corrosion-resistant.

Recognizing the economy and adaptability of precast/prestressed concrete structures, increasing numbers of architects, engineers and school districts are choosing our product as the material of choice when building educational facilities. In addition, taxpayers tend to support projects constructed with economical and quickly built precast/prestressed concrete.

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Educational Facilities

Knife River Prestress is owned by Knife River Corporation, one of the Top 10 Aggregate Producers in America and one of only three companies in that distinction that remains U.S.-owned and operated.

Knife River Corporation purchased Morse Bros. Prestress, along with the rest of Morse Bros., Inc., in the late 1990's. This acquisition was a natural business transition following tremendous successes on the part of both companies. Combined, Knife River Prestress can offer the enhanced services of Knife River Corporation while continuing to provide customers with local, personalized solutions for their construction materials needs.

Today, our parent company, Knife River Corporation, allows us to tap into the collective expertise of more than 60 companies nationwide, operating in 17 states in the central, western and southern United States, and in Alaska and Hawaii. Knife River Precast's primary facility is locate in Harrisburg, Oregon.

We are an award-winning leader in the industry, offering a wide variety of precast/prestressed concrete components for long and short-span highway and rail bridges. We also provide precast architectural and structural products for parking structures, commercial buildings, warehouses, manufacturing plants, multi-unit housing, educational facilities, offices, high-tech and athletic facilities. Over the years we have built a local and national reputation as one of Oregon's leading providers of quality aggregate-based products.

Our professional, experienced staff can evaluate your specific project and provide suggestions and recommendations for the most attractive, durable and cost-effective products possible.

We are proud of our history and the values of quality and customer service our founders wove into the fabric of our culture. Be assured that these fundamental values live on and are a part of every product we produce.

Feel free to drop by and take a look for yourself, the door is always open.
For more information please visit our web site at **www.kniferiverprestress.com**

Schools today are complex institutions that serve students and the entire community. They incorporate classrooms, auditoriums, workshops, gymnasiums, pools, and technical/media rooms.

Schools depend on their physical buildings to feel secure, remain durable and be conducive to learning. Fluctuations in student population, changes in educational needs, and technological innovations all require flexibility for quick, affordable modifications. Precast/prestressed concrete systems combine flexibility and durability with aesthetic variety and the inherent properties of precast concrete make it a very sustainable choice for a building product.

In addition to durability and aesthetics, precast/prestressed wall systems offer environmental benefits ranging from erection speed and reduced job site disruption to energy savings and use of recycled materials. The ability to build with relatively long spans of concrete at reduced structural depth and weight also allows for enhanced flexibility when reconfiguring classrooms or building gyms and pools. This translates into significant savings by decreasing height requirements and reducing heating and cooling costs. Precast/prestressed concrete offers additional advantages over other building materials, including extremely low maintenance, high moisture resistance and low noise transmission.

Educational facilities designed with precast insulated wall systems offer the best overall product possible. The improved insulating properties of insulated wall panels lead to more energy efficient buildings with lower operating costs. Improving the R-value of a wall system can help achieve nearly 40% of the core credits required for basic LEED certification. Using a total precast system, owners experience unprecedented cost savings, superior product quality, and longer life-cycles.

School districts appreciate the surprisingly low initial costs and the impressive life-cycle benefits of precast/prestressed concrete. Its low thermal conductivity saves energy; its outstanding fire resistance saves lives and reduces insurance premiums; and its phenomenal strength and durability make it highly resistant to damage.

Educational Facilities

Benefits Of Using Precast/Prestress Concrete

There are many building and structural systems on the market today. None offer the cost–saving advantages of precast/prestressed concrete components.

Versatility, Quality, Economy

The versatility of a precast concrete system is unmatched. The components of an entire facility can be precast to precise specifications. Plant manufacturing results in substantial economies through repetitive manufacturing and stringent quality control.

Speed of Construction

Precast and prestressed concrete components are manufactured at the plant and away from site preparation and foundation work, which reduces project congestion and disturbance. Products are shipped to the site as needed and can be erected directly from the delivery truck, greatly reducing time, labor and weather delays.

Attractive Appearance

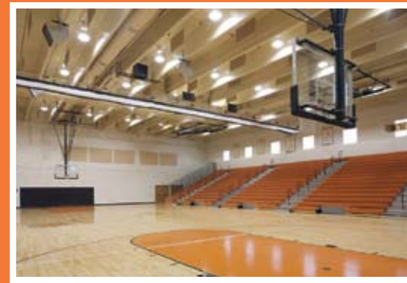
The pattern, texture, and color variations of architectural precast and prestressed concrete are practically unlimited. The simple, clean shapes of these components project an image of strength and beauty combined.

Fire Resistance

Precast and prestressed concrete's unique fire resistance protects both life and property while reducing insurance rates.

Low Noise Transmission + Energy Conservation

Precast and prestressed concrete components are dense materials that provide both excellent sound attenuation and energy savings. Precast construction allows minimal air infiltration – the thermal mass delays internal temperature changes and reduces peak heating and cooling loads; Sculptured shapes facilitate shading for window areas. In addition, insulation can be cast–in during manufacturing, which increases the U–factor.



Durability

Precast and prestressed concrete is exceptionally resistant to impact, corrosion, weathering, abrasion and vandalism, making it virtually maintenance free.

Cost Effectiveness

Fabrication occurs year-round, regardless of weather and events at the construction site. Work can begin as soon as designs are completed. In a precast/prestressed concrete building, floor-to-floor height is appreciably less, thus reducing the building height and volume and reducing heating and cooling costs. In bridges, superstructures can be kept more shallow to better provide maximum clearance and minimum approach grades.

Longer Economic Life

Precast and prestressed concrete structures give added years of service with a minimum of repairs and maintenance.

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