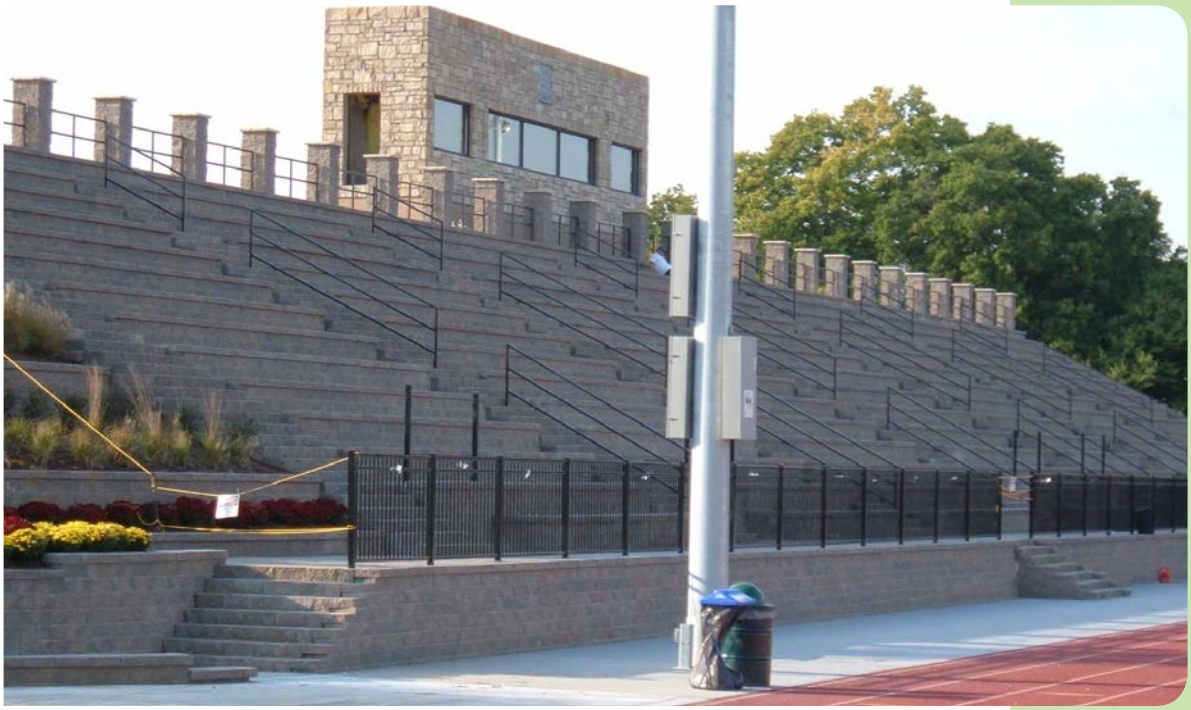
Kansas School District Achieves Huge Money and Time Savings Using VERSA-LOK to Build Stadium Bleachers

The Lawrence, KS, school district saved tens of thousands of dollars and months of construction time by using VERSA-LOK Retaining Wall Systems rather than aluminum bleachers to build stadium bleachers at its two high schools.

Landplan Engineering of Lawrence began investigating traditional bleacher systems after it was chosen to develop designs for separate stadiums at the two schools. Then, Capitol Concrete Products, a Lawrence manufacturer, came to their office to give a presentation on using VERSA-LOK for the retaining walls in the project.



Aluminum bleachers could not be completed for more than a year, and by that time, the schools' football season would be over. So planners began looking at using VERSA-LOK for the bleachers as well as the retaining walls. The school district preferred enclosed bleacher seats rather than an open design. Cost estimates showed that enclosed aluminum bleachers would run about $400 per seat, while bleachers built with VERSA-LOK would average about $300 per seat. Additionally, VERSA-LOK bleachers would be quieter than aluminum bleachers, which helped alleviate noise concerns of neighbors of the stadiums. VERSA-LOK bleachers also would be warmer than aluminum bleachers due to their ability to absorb heat during the daytime and radiate it at night.

Three of the four bleacher sites allowed for the construction of partially terraced berms to support the structures from behind. On the fourth, a near-vertical wall was built for support. The terraced bleachers were built on dirt hills covered with 2 feet of clean drainage rock. As the bleacher rows were added, more dirt was placed and compacted on the hill. Geogrid runs under each seat row.

Bleacher walls were built up before pavers were installed on the seat rows to avoid damage to the pavers during wall construction. Standard VERSA-LOK cap units were used for seating. The center of the bleachers is the high point so water drains in either direction.

Because the non-terraced bleachers dropped 16 feet off the top of the back wall, railings were secured to a 3-foot-square reinforced concrete beam that runs across the top of the back wall the length of the structure. A 50-foot conveyor was used to deliver drainage gravel over the top of the 16-foot wall. Landplan Engineering hopes to build more stadium facilities with VERSA-LOK as a result of this highly successful project.

Location:
Lawrence, KS

Owner:
Lawrence School District

Designer:
Landplan Engineering, Lawrence, KS

Contractor:

BC Hardscapes LLC, Claycomo, MO;

VF Anderson Builders LLC, St. Louis, MO

Manufacturer:
Capitol Concrete Products, Lawrence, KS

Solution:
Standard, Smoky Hills Tan

Square feet:
65051sq. ft..

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