



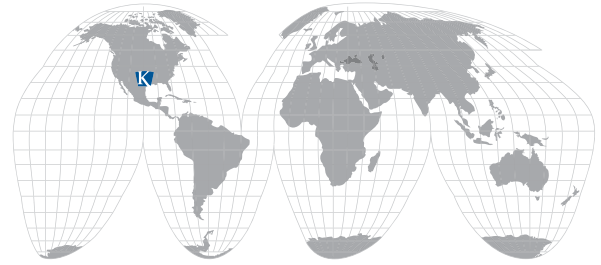
Texas School for the Deaf Austin, Texas

Unique Design & Cramped Conditions Make Texas Wall a Worthy Challenge

The cast-in-place concrete retaining wall that supported the Congress Avenue side of the Texas School for the Deaf property was steadily sliding to the bottom of the hill and a Keystone wall offered a perfect solution for the problem.

“The Austin area is known for its abundance of natural limestone,” said Aaron McMillan of licensed Keystone manufacturer, Jewell Concrete Products. *“We were able to offer project planners a limestone look with straight-faced Keystone Compac Units, which were less expensive and stronger than the actual stone. Many people who see the wall assume it is limestone.”*

According to Carl L. Gromatzky, AIA, a principal partner with project architect Barnes, Gromatzky, Kozarek Architects, the Keystone wall made it possible to move the existing slope back from the street far enough to create a wide pedestrian walkway. *“There were a lot of challenges in making space for excavation cuts as wide as 15 feet vertically,”* said Gromatzky. *“There were significant live oak trees that we took great care to preserve. The flexibility of the Keystone product during the installation phase of the wall were vital to this portion of the plan.”* Another challenge



Project:	Texas School for the Deaf
Location:	Austin, Texas
Keystone Product:	Keystone Compac Unit
Licensed Manufacturer:	Oldcastle/Jewell Concrete Products Waco, Texas
Total Wall Area:	10,000 square feet
Contractor/Installer:	A&A Construction Alfredo Anguiano
Civil Engineer:	Raymond Chan and Assoc. Austin, Texas
Structural Engineer:	Frank Lam & Associates Austin, Texas
Architect:	Barnes, Gromatzky, Kozarek Architects-Carl L. Gromatzky Austin, Texas



CASE STUDY



CASE STUDY



Previous Wall

the project faced involved negotiating the area bedrock. Natural limestone deposits, common to the Austin area, represented a barrier to the planned positioning of trees along the course of the wall. When the new sidewalk was lowered to street level after the installation of the Keystone wall, unanticipated drainage problems did not allow for any large-scale planting. The problem was eventually solved after cores were drilled through the limestone, allowing tree roots to drain adequately.

“There were a lot of reasons why the Keystone wall worked well for the site,” said Alfredo Anguiano, the former project manager for wall contractor A&A Construction. *“Because of the wall’s contours and the desire to preserve the oak trees on the property, there were some unique details like adding an additional course of grid to satisfy back cut limitations. The Keystone product allowed for this flexibility.”* Another unique design detail that required special execution was the more than 20 right angled planters placed along the bottom of the serpentine wall. *“Because of Keystone’s pin connection system, it was necessary to make a series of saw cuts near the top of the wall in order to follow the tight contours of the wall plan. But, everything fit well and it looks great.”*

Gromatzky and his firm have been involved with improving the Texas School for the Deaf campus for almost two decades. The Keystone retaining wall was one of the many projects in the \$85 million venture that included 127,000 square feet of renovations and 440,000 square feet of new construction. According to Gromatzky, a pedestrian focus that helped guide the overall project was a central design consideration for the 900-foot-long Keystone wall. *“We used a serpentine wall design to create space for tree planters and to visually break down the length and mass of this long wall structure,”* he said. *“I think the result is a very successful use of Keystone.”*

The Texas School for the Deaf is located near the Texas State Capitol along busy Congress Avenue. The excavation and creation of a staging area for the wall construction was very difficult because it forced lane closures and the use of flagmen to move equipment and supplies to and from the area. During this stage, clear communication between the construction crew and Aaron McMillan of Jewell Concrete Products, was vital. *“They needed to have everything necessary for that day’s work,”* said McMillan. *“But, at the same time, we didn’t want to overwhelm their site with product. We did our best to help with the tight site situation.”*

Established in 1856, the Texas School for the Deaf has 450 students. The campus covers 67 acres on the edge of downtown Austin.

For more information on Keystone Compac units or other Keystone products and services, please visit us on the web at www.keystonewalls.com or call (800) 747-8971.

