

# Longhorn Stadium, Texas

Client: University of Texas  
Contractor: Rago  
Location: Texas, USA  
Products: Alshor Plus

## Case Study

Alshor Plus makes a successful College Football debut in America with its use in the construction of a new stand as part of a multi-million dollar development for the University of Texas. Now watched by over 98,000 supporters, thanks to the development of a new stand using RMD Kwikform's Alshor Plus lightweight shoring system, the Texas Longhorns football team can now enjoy support from one of the largest crowds in college football.

The project itself involved the infilling of one end of the stadium known as the 'North End Zone' with a new stand that increased the seating capacity of the whole ground for the 2009 season from 75,000 to 98,638. With the current attendance record at 98,053 as of May 2009, the success of the new stand has already enhanced the spectator and players experience.

For RMD Kwikform's Business Development Director Roger Smith, the use of Alshor Plus for the project in itself broke the sports traditional mould, as he explains: "Traditionally in the American market stadia developments of this nature tend to use steel shoring and timber based formwork systems. The use of Alshor Plus was therefore a complete change for the industry, replacing heavy steel and timber with lightweight aluminium, almost like putting a tailback behind the offensive line!"

For contractor Rago meeting the short deadline of 6 months to complete the lower deck of the stand before the first game of the season required the use of a proven system that could be erected and dismantled quickly and efficiently.

Roger: "When you bring a new product and therefore new working methods to a nation as vast as the USA, it is important to make sure you provide the support needed to enable a smooth transition from traditional techniques to a system approach.

"Although Alshor Plus is itself a successful global product, that has been used on some of the most impressive projects in the world, like the Dubai Airport and the worlds largest Hospital in Qatar, its use for the Texas Longhorns stand development was really made possible thanks to its successful application in the construction of a water tank in Albuquerque.

The construction of the structure itself involved the formation of a 10 level stand with a precast concrete slab used to form

the seating area, ultimately supported by a number of concrete columns and 6ft thick in situ concrete beams. The role of Alshor Plus was to shore up the Aluminium primary and secondary beams supporting the plywood face for the in situ beams.

Because of the tiered nature of the structure a range of Alshor Plus legs sizes were used with the adjustable jack and in-built quick release mechanism also used to obtain the exact levels required for the design. With frames used to stabilise the legs, which have a capacity to withstand loads of up to 120kN the tallest Alshor Plus tower reached up to 22 metres.

Roger: "The beauty of this project was its modular style build and symmetry as a number of Alshor Plus towers could be assembled at the same time and then just moved into place. What we also discovered is that the traditional method of constructing shoring in America tends to be based around constructing towers in the horizontal on the ground and then lifting into them up into place using cranes. Having tested this approach with the Albuquerque water tank we were able to give this additional option to the erection team enhancing the safety aspect of using Alshor Plus still further."

