# **THG Corporation** Motion & Control Integration

## **Sorensen Systems Teams Up With Steel Fab** For San Antonio River Walk Project

The City of San Antonio invested *\$279 million during the past three* years into improvements to its famous tourist attraction – The San Antonio River Walk.

Sorensen Systems Corporation and Steel Fab Inc., of Massachusetts teamed up to design, fabricate and install two sets of miter gates for the lock chambers used to raise or lower boats where the river level changes, and a crest gate to provide stable, maintainable flood control. The improvements were part of an expansion that extended 1.3 miles along the river.

### **PLC Driven Control**

Steel Fab was responsible for the manufacture and installation supervision of the gates and Sorensen Systems was responsible for the Hydraulic Power Units to drive the gates and the PLC driven control system to operate the gates. The two companies have worked together on similar projects in the past, including the 96 foot crest gate on the Wachusett River in Clinton, MA. The reservoir is a primary source of drinking water for Boston.

During installation and start-up, Sorensen Systems and Steel Fab Inc.,

each had technicians on site working jointly to ensure a smooth transition from construction to functional tourist transportation. The responsibilities included the verification of proper gate sealing, smooth gate movement, correct operational sequence in addition to verifying gate opening and closing speeds and proper water transfer rates.

## Lock System Design

Due to the severe difference in water elevation, a lock system was required in the design. The control system allows the tour boats to enter and leave the dam system and is responsible for raising and lowering water levels smoothly and safely. The remote operator system built by Sorensen Systems provides the tour boat operators with a graphical view of the operational sequence of the gates via a touch screen located in the operator's booth.

The historic San Antonio River has long served as the heart of the city, and each year the world-renowned River Walk draws millions of visitors. Originally built in 1938, the new expansion is part of a process to increase recreational and economic development while reclaiming the river's natural meanders and appearance.



A control system was required for the setting and monitoring of water levels and new locks for the famous San Antonio River Walk excursion boat tourist attraction. This involved design, construction and start-up of three power units and two remote operator panels for controlling the lock system.



Sorensen Systems and Steel Fab worked together to design, build and install two sets of miter gates and a crest gate at the San Antonio River Walk.



The historic River Walk was originally built in 1938 and as part of a major \$279 million improvement project in San Antonio, the tourist river boat canal was extended 1.3 miles.



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