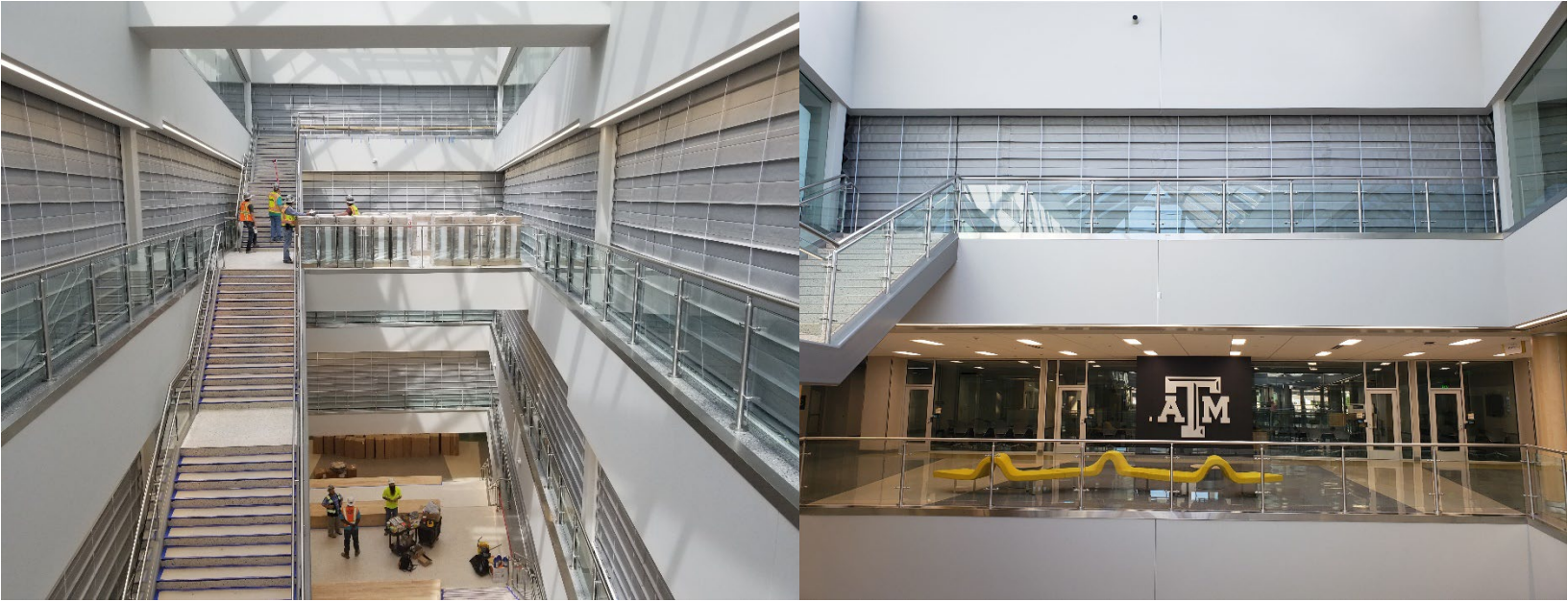


Zachry Engineering Education Complex

Texas A&M University



PROJECT TYPE
Higher Education

MANUFACTURER
Smoke Guard

PRODUCT
M4000 Perimeter Curtains

ARCHITECT
Treanor Architects
with Harrison Kornberg Architects
and Ayers Saint Gross

MECHANICAL ENGINEER
Shah Smith & Associates, Inc.

GENERAL CONTRACTOR
Vaughn Construction

OWNER
The Texas A&M University System

LOCATION
College Station, Texas

PHOTOGRAPHY
Griesenbeck

COMPLETION
2018

OBJECTIVE

To give one of the largest active learning spaces in the United States an open concept design while protecting building occupants in the event of a life-threatening emergency.

BACKGROUND

Texas A&M University's College of Engineering was in desperate need of facility upgrades for its 2,500 undergraduate students. The all-new 525,000 SF Zachry Engineering Complex – modernizing the Zachry Engineering Center built in 1972 – would offer 24/7 access to classrooms, state-of-the-art labs and design centers, a roof-top green space, multipurpose event spaces, and centralized learning stairs. The design called for a large atrium but the challenge of smoke control threatened to derail the project budget and ultimately the inclusion of open space design altogether.

SOLUTION

After extensive consultations with Treanor Architects and Vaughn Construction, the Griesenbeck team specified, detailed, furnished and installed Smoke Guard's M4000 perimeter fire curtains system. Using Smoke Guard's M4000 fire-rated perimeter curtains enabled Treanor Architects to optimize their design strategy. By incorporating these fire rated curtains, the design team could downsize the smoke exhaust system, focusing on serving the reservoir area created once floors 2-5 curtains are deployed. This CFM downsizing initiative resulted in significant cost savings in mechanical equipment allowing for smaller exhaust fans, fewer and smaller ducts, smaller exhaust louvers, and reduced makeup air requirements. This approach allowed Treanor Architects to maintain an open design aesthetic while also meeting crucial life safety and regulatory requirements. These fire-rated fabric curtain systems are activated when fire or smoke alarms are triggered. Some of the curtains are more than 200 feet long, and all are equipped with "super sensors" technology which detects vibration and will pause to prevent impacting people or property when operating, along with an added 2 stage staggered deployment feature.

RESULT

The showstopping atrium is now a reality and the project a tremendous cost savings (compared to alternative solutions). TAMU also had another accolade because of this Smoke Guard solution - at the time of installation, this perimeter fire curtain project was the longest fire curtain project in the United States.

For design assistance or information on your next project visit <https://www.griesenbeck.com/> or call 713.781.3287.

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