

Maury County Public Schools

CASE STUDY



Challenge

As a result of deferred maintenance, limited technical support, a stretched budget, and aging infrastructure, Maury County Public Schools was experiencing poor indoor air quality, comfort issues and increasing service and maintenance costs. The district's HVAC equipment, from a multitude of different vendors, was in poor condition, with some of it functioning properly and some not. With limited controls in place, its buildings were running 24/7, physical upgrades were needed to improve the building envelope, and the district was experiencing high energy costs. As the area population continued to grow, the district knew they could not defer building maintenance any longer and sought assistance in upgrading the aging infrastructure and managing energy use.

Solution

Maury County Public Schools turned to Trane for assistance. Trane listened to the district's challenges and suggested performance guarantee contracting from the Trane® Building Advantage™ portfolio of services, a self-funding energy program with guaranteed savings to help the customer directly address their needs. The district saw value in working directly with the HVAC equipment manufacturer and gaining control of their buildings with the purpose of energy savings. They were also pleased that they could implement the upgrades without having to ask taxpayers for additional funding.

Assessing needs, prioritizing ECMs

Trane completed audits of the district's buildings and equipment, and proposed upgrades that included a plethora of energy conservation measure (ECMs), such as installation of new low flow plumbing fixtures, replacement and upgrades of HVAC equipment, addition of optimization controls on vending machines, fluorescent lighting updates to T8 and T5 light fixtures, and various weatherization measures to improve the building envelope.

Leveraging pricing, reducing supplier selection risk

Using cooperative procurement, Maury County Public Schools was able to leverage pricing to mitigate costs, and ensure the public that the district was operating in compliance with all procurement laws and regulations. With cooperative procurement, contracts are competitively bid, evaluated, and awarded to vendors that have been carefully selected based on quality, proven performance, customer satisfaction and pricing. By choosing Trane, a preapproved network vendor, the district streamlined the procurement process, enabling a faster, easier resolution to its upgrade. Cooperative procurement also reduced its supplier selection risk, ensuring they would get the quality suppliers they sought for the project.

Maury County Public Schools Columbia, Tennessee

PROJECT HIGHLIGHTS

Performance guarantee contracting upgrades improve air quality, comfort and the classroom learning environment; enable system control and energy management; projected to provide more than \$400,000 in annual energy cost savings.

Located in the middle of Tennessee with twenty-two school buildings serving over 12,000 K-12 students, Maury County Public Schools is one of the larger school districts in Tennessee.

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Gaining building control, reducing energy costs

Maury County Public Schools staff uses Trane® Tracer™ SC building automation systems (BAS) at twelve of their schools to control building systems and reduce energy costs. With Tracer SC, facility managers have the flexibility and convenience of being able to access systems remotely via their mobile devices, such as a tablet or smartphone to establish scheduling, change set points, and manage energy use.

Increasing system knowledge

Maury County Public Schools and Trane have monthly meetings to review energy management improvements, discuss issues, and answer maintenance team questions. To improve staff knowledge, Trane provides training on HVAC equipment and the Tracer SC BAS. "In the past, our technicians operated without much training," said Breeden. "The classes, and being able to work alongside Trane, have been a huge plus."

"We have controls in 70 percent of the schools and hope to eventually have them in 100 percent. The building automation system is intuitive and easy to use. With online access our techs can more easily monitor systems and troubleshoot issues, which saves time."

- **Stan Breeden**, Assistant Superintendent of Operations, Maury County Public Schools

Results

Using a Trane performance guarantee contract, Maury County Public Schools implemented energy saving improvements throughout the district without seeking additional funds from the county's taxpayers. The equipment and controls upgrades have had an immediate impact on improving air quality, comfort and the classroom environment, with the new technologies helping the district gain control of their buildings, curb operational expenses and reduce energy costs. During the construction period, the school district saw \$365,824 in utility savings. The district is expected to save an average of more than \$400,000 annually in energy costs.

"It goes way beyond replacing equipment," said Breeden. "Trane helps us evaluate the operation of our equipment and manage our facilities. We've achieved significant savings and now have additional capital to use for other improvements. The results are exceeding expectations and the Board has a high level of confidence in what we are doing with Trane."

"Trane is a trusted partner, helping us address the issues in our facilities, that need to be addressed," said Chris Marczak, Superintendent of Schools, Maury County Public Schools. "Their assistance has been absolutely amazing; they are a true partner to help us help more kids learn!"



About Maury County Public Schools

A Trane-sponsored Light Switch Sticker Contest was held for students to encourage occupants to "turn off the lights" when leaving a room. The winning designs are being used on light switches throughout the district.



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CASE-SLX462-EN
04/20/2020