

Texas A&M - Texarkana University HVAC Upgrade



Texas A&M - Texarkana improved student housing with a university HVAC system that provides consistent temperatures, reduces energy costs, and elevates long term efficiency.

Quick Facts

Location: Texarkana, Texas

Industry: Colleges & Universities

Products: Trane® / Mitsubishi Electric Variable Refrigerant Flow (VRF) system | Trane Tracer® SC+ building automation system (BAS)

Topics: Financial Savings | Indoor Environmental Quality | Energy Efficiency

Results

- Consistent temperatures in every dorm room
- Reduced maintenance and operational expenses
- Smart energy efficiency that supports long term sustainability goals
- Reliable performance that eliminates emergency HVAC failures



Highlights

- Trane® / Mitsubishi Electric Variable Refrigerant Flow (VRF) system created a stable and comfortable living and learning environment by providing consistent temperatures in all dorm rooms and common areas.
- Integration of Trane Tracer® SC+ building automation system (BAS) allowed for streamlined BACnet integration with the university's existing enterprise controls.
- A well-coordinated, design-build approach allowed Trane to complete the installation on time with minimal disruptions to dormitory operations.

Challenge

Uniquely positioned to serve Texas, Arkansas, Oklahoma, and Louisiana, Texas A&M University - Texarkana (A&M - Texarkana) attracts students from across the region who are eager to pursue academic excellence, leadership opportunities, and a strong sense of community. Despite this commitment to student success, a persistent challenge threatened the campus experience. The VRF system in one of the Texas A&M - Texarkana dorms had been failing, leading to inconsistent temperatures. Some rooms became too warm, while others remained cold, and a few were over-conditioned, causing high humidity and mildew. The university had invested in repairs, yet the issues persisted. "We were stuck in a cycle of patching problems instead of finding a sustainable solution that elevated the student experience," said Charles Brandt, Facilities Director, SSC Services for Education (SSC). "Our priority is for students to feel comfortable and supported in their home away from home." The university needed a long-term solution that would provide a stable and comfortable environment for students.

Solution

This was not the first time SSC and A&M - Texarkana had turned to Trane. The university has relied on Trane for more than a decade to support their 12 Campuses and seven Health Science Centers, encompassing over 200 buildings and 130,000 students across the TAMU system. To address the dormitory issue, Trane collaborated with SSC, which serves as the university's owner's representative and manages their facilities. As the project lead, SSC coordinated logistics, ensuring a smooth process from start to finish, and assisting Trane with the dormitory's heating and cooling capacity and aligning the project with the university's sustainability and operational goals.

Upgrading Comfort and Efficiency

A&M - Texarkana ultimately selected a Trane® / Mitsubishi Electric Variable Refrigerant Flow (VRF) system, an all-electric heat pump and heat recovery system, for its superior life cycle cost and energy efficiency. This system provides simultaneous heating and cooling, ensuring consistent temperatures in every dorm room while reducing energy waste.

The installation included 17 CITY MULTI® outdoor units, 12 branch controllers, and 150 VRF indoor units, delivering a high-efficiency solution that aligns with the university's sustainability goals by lowering carbon emissions and reducing reliance on fossil fuels. To further enhance efficiency, the university integrated Trane Tracer® SC+, a building automation system, that streamlined BACnet integration with existing enterprise controls. This was essential for individual unit integration.

Ensuring a Smooth Process with Minimal Disruptions

Together, Trane and SSC carefully coordinated construction, shutting down one wing at a time to minimize the impact on students living in Texas A&M - Texarkana housing. Trane's holistic design-build approach included overseeing engineering, design, manufacturing, installation, commissioning, warranty, and lifetime service support. To ensure seamless implementation:

- Trane worked with a Diamond Contractor, certified to install Trane/Mitsubishi Electric CITY MULTI® equipment after completing specialized training. This certification ensures proper installation and is required to activate the system's warranty.
- Trane's Ductless Technical Specialist Team supervised the installation and system startup, ensuring every component functioned as designed.
- A&M - Texarkana leveraged OMNIA Partners COOP to expedite the design and procurement processes, allowing the university to secure high-quality services, coordinate to a tight time frame for installation, and meet state procurement guidelines.

By leveraging Trane's strong industry relationships and OMNIA's streamlined procurement process, the university avoided delays and kept the project on schedule and within budget.



Our priority is for students to feel comfortable and supported in their home away from home.

Charles Brandt
Facilities Director, SSC Services for Education (SSC)

Results

The new Trane® / Mitsubishi Electric VRF system transformed Texas A&M - Texarkana housing into a space designed for student success. The system provides consistent temperatures in every dorm room while lowering maintenance costs and reducing operational expenses. Its smart energy efficiency supports long-term sustainability goals, and its reliable performance eliminates emergency HVAC failures. The system also allows occupants a 4-degree range of control, balancing individual preferences with smart energy use for optimal comfort. "This project reinforced our commitment to student success. When students feel comfortable in their living spaces, they can focus on their studies, their friendships, and their futures," said Charles Brandt, Facilities Director, SSC.



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