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Junction City High School

ARCHITECT:
Schaefer, Johnson, Cox, Fry (SJCF)

GENERAL CONTRACTOR:
Hutton Construction

MECHANICAL CONTRACTOR:
The Waldinger Corporation

MECHANICAL ENGINEER:
Basis Consulting Engineers

437,000
SQ FT FACILITY

128
EMPLOYEES

INTEGRATED CONSTRUCTION TEAM NARRATIVE:

For USD 475, creating an efficient, comfortable learning enviroment for all students was the high priority. The design and construction team were dedicated to making a sustainable, energy efficient building possible. For the mechanical system, the design team went 'green' and chose a Water Source Heat Pump system to help create the best solution for the needs of each unique space. As a team we focused on providing quiet, high performing equipment by utilizing large AAON Water Source Air Handling and DOAS units equipped with variable heating, cooling, and dehumidification technology, in order to create the perfect learning environment.

PROJECT UNIQUENESS AND/OR INNOVATIVE APPLICATION:

This project put Junction City High School 3rd in the nation on size, and the largest school in the state of Kansas measuring at a quarter-mile in length! Being a school of considerable size, requires the largest Water Source Heat Pump system in Kansas! The system measures over 1,400 tons consisting of over 300 air conditioning units. Water Source Heat Pump systems are known for their efficiency and longevity, but adding AAON variable capacity technologies creates the perfect learning environment while further reducing utility costs, maintenance (thus reducing the time and resoures required by USD 475 staff), and extending the system's life expectancy. AAON units are built with technologies and manufacturing processes that make them a great investment for schools who need to allocate funds in a variety of places. Designed with rigid, double-wall, foam insulated, panel cabinet construction, they have industry leading sound levels that keep classrooms quiet while the system is running.

PROJECT SAFETY:

Safety was of the utmost importance. USD 475 and the project team on-site followed all safety precautions. There were no injuries or accidents on this project.

PERFORMANCE METRICS INCLUDING MEETING MILESTONE SCHEDULES AND BUDGETS:

The project team worked together to provide a quiet, energy efficient solution that provides maximum in-classroom comfort for students and staff. The proposed solutions fit the owner's budget, and will provide long-term financial savings due to system efficiency, low maintenance, and long-life expectancy. The team worked together to find the best, most cost-effective solution for the district. The value and durability of the equipment are an investment that will keep the building comfortable, providing an ideal environment for learning. The project was completed on-time, according to schedule, and the owner and project team's specifications.