

LAKIN USD 215, KANSAS

Phase 2

Project Value:

\$2,468,059

Annual Energy Savings:

\$35,702

Annual Maintenance Savings:

\$42,000

IMPROVEMENT DETAILS

Grade School Improvements:

- Comprehensive HVAC redesign and implementation of centralized hydronic system
- Electrical upgrades
- New drop ceiling and all new lighting fixtures building-wide

Middle School Improvements:

- Rebalanced air systems and new control system
- Full lighting retrofit

Other Details:

- Replaced HVAC system and building controls at the High School Gymnasium
- Utilized local southwest Kansas mechanical and electrical contractors for installation
- Local Lakin bank provided short-term financing for the project

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GOALS AND CHALLENGES

As part of the facilities master plan developed with Willdan, the highest priority for USD 215 was a major redesign and overhaul of the HVAC system at the Grade School. The facility had significant comfort issues for years due to ineffective past projects, undersized equipment, failing piping infrastructure, and other concerns and was in dire need of a solution focused on improving comfort and system longevity. Additionally, comfort issues were also present in the Middle School and High School Gymnasium, which were identified as other high priority buildings as part of the master plan for comfort and energy improvements.

The High School Gymnasium also had a new HVAC system designed and installed to alleviate major comfort issues stemming from a poorly executed design project by another contractor. The Middle School, built in 1998, needed less significant work completed as most of its infrastructure was in good condition, but as part of its construct project fifteen years earlier, the building was never balanced and correctly commissioned. Willdan's team put together a plan to correct these issues to get the building functioning the way it was originally intended.

Willdan's approach to developing and beginning the implementation of the district-wide facilities master plan to systematically address priorities for USD 215 has been very effective with Phase II. The team's ability to develop cost-effective, long-term solutions to fix the buildings for year to come and help the district reach a position of proactively planning and addressing its facilities has been a positive shift for the district's facility and financial planning processes.

SOLUTIONS AND OUTCOME

Willdan worked closely with the district to determine the right long-term solution for the new Grade School HVAC system. A centralized hydronic system was determined to be the best system to serve the entire building. Additional work was conducted along with the HVAC project to modernize the building including all new ceilings, lighting fixtures, and electrical equipment.