

Owner: Magoffin County Schools

Contact: Chris Meadows, Superintendent

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Architect: Alt 32

Building Area: 30,430 SF

Construction Estimate: \$ Unknown Construction Cost: \$ 10,909,778 Cons MEP Cost: \$ 4,005,500 MEP Change Orders: \$ 87.00

Final Contract Amount: \$ 10,935,792

MEP Contractor: Elliott Contracting, Pikeville, KY

Project Status: Completed 1/24/2024

Project Description: New CTE addition to existing high school consisting of welding, wood shop, nursing, and pre-engineering programs.

CONSULTING ENGINEERING | PLANNING

Magoffin County CTE, Salyersville, KY



Mechanical:

Complete standalone HVAC system consisting of four pipe blower coils and a dedicated makeup air unit. New high efficiency boilers and chiller consisted of the main heating plant. The use of low temperature supply air allowed for better dehumidification of large spaces and kept ductwork and piping smaller.

Special Systems include wood dust collection system with direct hookup to various woodworking machines as well as floor sweeps. System included a spark detection and fire suppression system to limit deflagration.

A welding exhaust system was designed for welding shop using HEPA filtration that allows air to be returned to the space without relying on outside makeup air saving thousands of dollars in energy cost.

Electrical:

Existing high school electrical service was evaluated and found to have sufficient capacity for the new addition. This saved thousands of dollars right off during schematic design not having to provide for a costly new service.

Addition was served by a new voice annunciated fire alarm system and tied into the existing school's system for simultaneous alarming and evacuation.

Power systems included overhead electrical busways to serve the many pieces of shop equipment and welding systems. Emergency shutdown switches were located at each door to shops and labs to turn off all power during emergencies and a good practice to kill all equipment for after hours and weekends.