SOUTHEASTERN CORRECTIONAL INSTITUTION

LANCASTER, OH | ORC156 | GUARANTEED ENERGY SAVINGS PROJECT

Brewer-Garrett

SIZE
494,932 sq. ft.

COST
$2,437,140

GUARANTEED ENERGY SAVINGS
$3,410,273

DURATION
12 Months

PERFORMANCE PERIOD
10 Years

SIMPLE PAYBACK
7.15 Years

INMATE COUNT
1,500

SECURITY
Minimum/Medium

SCOPE

- Steam distribution system optimization
- Interior & exterior LED lighting upgrades
- DDC controls upgrade
- HVAC upgrades
- Vending machine controls
- Steam trap repairs & replacements
- Gas-fired kitchen kettles installation
- Steam leaks & expansion joint repairs

Southeastern Correctional Complex is located in Lancaster, Ohio and rests on nearly 1,400 acres. It is a minimum/medium security facility that is comprised of two units; Lancaster Unit and Hocking Unit. This project was a turnkey, self-funding project that resulted in reductions in energy consumption and corresponding greenhouse gas emissions, while improving performance and reliability. This design-build energy conservation program reduced future capital investments, reduced operational expenses, and allowed staff to work more effectively. It has helped the facility to achieve optimal infrastructural efficiency.

Occupied Construction
IN MEDIUM SECURITY AREAS

ZERO
SAFETY OR SECURITY INCIDENTS

Brewer-Garrett (**BG**) optimized piping insulation of the facility throughout the tunnel. Much of the original insulation had been removed for repairs or had been damaged by leaking pipes. The exposed service pipes were not only a waste of energy, but also a safety hazard as the surface temperatures could range from 110˚F–300˚F. BG installed energy-saving thermal insulation on the exposed piping as well as plastic coverings to protect from dripping water.

BG performed a lighting retrofit, where new LED lighting components were introduced and installed with integrated drivers on 3,199 linear fixtures. These elements have a longer life span and have reduced the number of kilowatt hours consumed by the lighting system. This allowed for a reduction on the dollars spent to purchase florescent, HID, or incandescent lights.

BG repaired and replaced the steam traps both within the tunnel and on individual radiators. This adjustment allowed for a steam distribution optimization that was both holistic and sustainable. The new fixtures eliminated steam leakage that not only reduced natural gas usage, but also boiler chemicals that were used to treat the make-up water.

