



Johnson County Conservation Board HQ

Case Study

A SMART BUILDING SOLUTION FOR INCREASED ENERGY EFFICIENCY

Managing and maintaining over 1,437 acres of land including several native prairies, small community parks and river access areas, the Johnson County Conservation Board provides a variety of services in natural resources, recreation and conservation.

Challenge

This 12,000+ sq ft and LEED Gold certified facility is located in the county's flagship park, F.W. Kent Park. A main need of this facility was to have a solution in place to monitor energy usage and calculate the cost per kWh.

The Mechanical Engineer of the project only allowed a select group of control contractors to bid on the project, based upon the products they represented and their abilities to meet the needs of their customers. Control System Specialists, LC, a Solution Integrator® with American Auto-Matrix since 1988, was tasked with making it all possible.

With offices in Iowa, Illinois, Nebraska and Colorado, and employing a staff with over 80 years of combined experience, CSS provides installation, service and repair for commercial and light industrial HVAC and the systems that control them.

Solution : AspectFT®

After reviewing the requirements of the board, Control Systems Specialists, LC determined that AspectFT paired with American Auto-Matrix BACnet® controllers would be the perfect solution to meet the needs of the board; providing required trend data and control for various pumps and ventilators.

The facility consists of three buildings and relies on a geothermal heat pump system with a combination of energy recovery ventilators, radiant ceiling panels, as well as various water-to-air and water-to-water heat pumps to provide the backbone for the HVAC system.

An AspectFT-Matrix was installed as the front-end solution for the facility, serving the graphics, alarms and trend data to the

facility manager as well as providing centralized access to the system and its controllers via BACnet MS/TP. Energy recovery ventilators in the main building and maintenance facility are controlled by NB-GPC1s with IOX1 module, while the water-to-air heat pumps are controlled via NB-GPC2s.

Results

Once completed, the project consisted of more than 350 points and 65 American Auto-Matrix controllers & interface devices. The AspectFT-Matrix along with the installed BACnet controllers provided the resources the Johnson County Conservation Board needed to reduce energy consumption, control the HVAC system, and provide access to vital building data, so continued savings can be achieved.

Even though the new facility is larger than its predecessor, the board feels that not only are they enjoying increased occupant comfort, but are saving money on their energy costs compared to the previously implemented system.

Specifications

- + 12,000 sq. ft
- 353 Points
- 1 AspectFT-Matrix
- 2 NB-ASC
- 5 NB-GPC1
- 13 NB-GPC2
- 1 NB-GPC3
- 32 SBC-STAT3
- 9 SSB-IOX1-1
- 2 NB-SD



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