

Case study

April 2011



SSM St. Clare Health Center

High satisfaction ranking, energy use 25 percent below projections

• Fenton, Missouri

The SSM Health Care system began in 1872 with five religious sisters who journeyed from Germany to St. Louis. Today the system operates twenty hospitals and two nursing homes in four states. SSM St. Clare Health Center is the first new hospital in St. Louis County in thirty-five years. A hospital like no other, the facility incorporates streamlined work processes, efficient layouts, private patient suites, in-room medication distribution and electronic records.

Challenge

When SSM Health Care announced plans to build SSM St. Clare Health Center to replace its aging St. Joseph Hospital of Kirkwood, it also unveiled a bold vision for the facility. Its goal was to achieve breakthrough results in satisfaction, patient safety, clinical outcomes and operating performance.

A healing environment that inspires confidence

SSM Health Care sought to create the ideal healing environment that would inspire the confidence of patients, as well as provide the best experience for its staff and physicians. Adopting the Institute of Medicine's "Six Aims" for improving the quality of health care, SSM's guiding principles were to build a facility that was patient centered, efficient, safe, effective, timely and equitable. Other key objectives were to increase market share and to adhere to tight budgetary compliance.

Solution

Offering a single source for HVAC equipment, controls and services, Trane helped meet lean construction requirements. The Trane offering included a project manager, who was assigned prior to project start up. It was the project manager's responsibility to plan, direct, oversee and monitor all activities performed by the Trane team, as well as act as the point of contact for the hospital.



The 180-bed SSM St. Clare Health Center has more than 1,200 employees and 925 physicians on staff.

Trane joined with hospital administrators, employees, physicians, patient advocates and architects to create an exceptional healing environment. The team took part in site visits, studied non-health care experiences, employed lean design methodology and reviewed best practices to identify the best solutions to help the hospital achieve its goals.

HVAC designed for energy savings and comfort

Energy efficiency and reduced cost of operation were key considerations for the HVAC equipment. The system was designed to provide the right temperature, humidity and ventilation to keep staff and patients comfortable.

System helps ensure efficient equipment operation

With reliability and safety paramount, a Trane Tracer Summit® building automation system (BAS) with nine building control units and Trane Active Monitoring helps keep an eye on hospital performance. The building operations center boasts a 32" system monitor and custom Trane dashboards to provide an easy-to-interpret display of current conditions and energy use. The system ensures the efficient operation of equipment throughout the hospital, including the chiller plant, eleven operating rooms, thirteen negative pressure isolation rooms, three cardiac cath labs, two cooling towers and 360 fire/smoke dampers.

Service agreements maintain optimal performance

Trane Select and Scheduled Service Agreements manage the planning and scheduling of routine service and maintenance. The agreements, along with periodic inspections, keep the systems running within optimal performance ranges.

Results

SSM St. Clare Health Center has achieved its vision of reinventing the health care experience. In less than three months, the hospital reached capacity. Plant operation costs are 16 percent below the all network average and energy usage 25 percent below projections. There have been zero medication errors with harm since opening and more than 200 additional physicians have joined the medical staff. Recent Press Ganey survey results revealed the following rankings:

- Inpatient "likelihood to recommend:" 94th percentile
- Ambulatory surgery: 96th percentile
- Employee engagement (satisfaction): 94th percentile



A BAS with custom dashboards displays current conditions and energy use to ensure efficiency.

Systems and services

- Tracer Summit® building automation system (BAS)
- Trane Select and Scheduled Service Agreements
- Trane Active Monitoring
- Trane CenTraVac™ centrifugal liquid cooled chillers
- Trane 125 ton water-cooled Series R rotary chiller
- VariTrane™ variable-air-volume terminals
- UniTrane™ fan coils
- Blower coil air handler
- Force-Flo™ cabinet heater
- Direct gas-fired indoor make-up air units
- Trane Intellipak® roof top units



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