

SSM St. Clare Health Center

Fenton, Missouri: St. Louis County

General Information

Full Height:	90 feet
Number of Stories:	6
Size:	427,000 gross square feet
Cost:	\$223.5 million
Date of Construction:	Sept. 2006 – March 2009
Project Delivery Method:	Integrated “Lean” Project Delivery

Project Team

Owner:	SSM Health Care, St. Louis
Owner’s Program Manager:	Hammes Company
Architect of Record:	HGA Architects and Engineers
Associate Architect:	Mackey Mitchel Associates
Structural Engineers:	HGA Architects and Engineers
MEP Engineers:	KJWW Engineering
Construction Manager:	Alberici Construction
Elevator Consultants:	Lerch, Bates & Associates Inc.

Architecture

- 158 emergency supported inpatient beds
- Diagnostic and surgical services
- Dietary facilities and pharmaceutical dispensaries
- Floor plans developed using Lean process principles classically used in manufacturing facilities.

Structural Systems

- Framing
 - Steel framing, composite deck and lightweight concrete
 - Composite wide flange members
- Foundations
 - Slab on grade
 - Drilled concrete piers connected by grade beams
- Lateral System
 - special moment frames (SMF)
 - special concentrically braced frames (SCBF)
 - special reinforced concrete shear walls (SRCSW)
 - ordinary concentrically braced frames (OCBF)

Mechanical Systems

- Fan coil units in each patient room fed by central boiler and chiller system
- VAV dedicated outside air for ventilation.

Lighting and Electrical Systems

- Back up generators designed to power the entire hospital for >90 minutes
- Ultrasonic ceiling sensors and infrared wall switch sensors for energy savings.

Construction

- Special noise control procedures implemented to minimize disturbance to local residential neighborhoods.



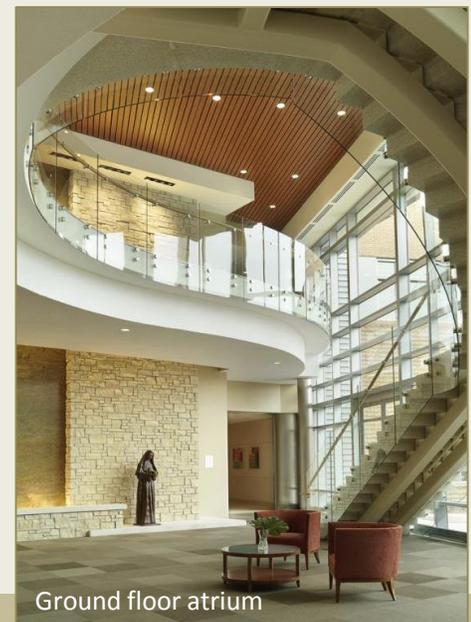
Rendering of full hospital complex



Bed tower façade



Typical patient room



Ground floor atrium

Christopher Brandmeier | Structural Option

<https://www.engr.psu.edu/ae/thesis/portfolios/2015/aqb5205/index.html>

Photos compliments of HGA Architects and Engineers