



## Rapid City Regional Hospital

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Our engineers have worked with Rapid City Regional Hospital for over ten years. During that time, they were involved in the mechanical and electrical design of the 40,000 SF Cancer Care Institute, 70,000 SF Patient Tower renovation, Power Plant expansion, 150,000 SF expansion/renovation, Dialysis Unit, Same Day Surgery Center, PICU/NICU expansion/remodel, and OB expansion/remodel.

In February 2003 Skyline Engineering was selected as mechanical and electrical engineering consultants to implement the 6-year, \$125 million master facility plan at Rapid City Regional Hospital. Some of our more recent experience with the hospital is listed below.

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### Project Data

#### Location

Rapid City, South Dakota

#### Building Type

Regional Medical Center

#### Building Area

585,000 square feet

**Radiology Reading Room Remodel** Electrical and Mechanical design services for the remodel of existing radiology reading rooms to accommodate new PACS (Picture Archiving and Communication System) viewing stations. Ambient and task lighting were designed to provide for a greater level of lighting control and reduce the distraction of glare and reflection. (2003)

**Outpatient Dialysis Unit Renovation** Electrical and Mechanical design services for the expansion and remodel of an existing dialysis unit. Provisions were made for two additional Reverse Osmosis Booster pumps under this project. (2003)

**Radiology Area Air Conditioning** Mechanical design for the addition of supplemental cooling systems within the CT Scanner Suite and revisions to existing air distribution systems. Patient and operator comfort was greatly enhanced while incurring minimal disruption to facility operation. (2002)

**Ambulance Garage Ventilation** Mechanical and Electrical design to upgrade an existing ambulance garage ventilation system. The design included the use of carbon monoxide and nitrogen dioxide sensing to trigger emergency ventilation systems, and space pressurization to avoid airflow from the garage to the adjacent emergency department. (2003)

**Power Factor Correction** Electrical design services included evaluation of loads and existing power factors. Recommendations were given to correct the Power Factor of the Electrical Switchgear at the Emergency Department Substation, the Cancer Care Institute Substation, the BH Rehabilitation Hospital and the Family Practice Residency Program. (2003)