

CASE STUDY

Owner:

Georgia Southwestern
State University

Contact:

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Phone:

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Schedule:

2005

Budget:

\$950,000
construction



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Georgia Southwestern State University Roney Building HVAC System Renovation Americus, Georgia

Making buildings work. **Better.**



This project included complete replacement of the HVAC system serving the Roney Science Classroom building, to correct indoor air quality problems and replace aging equipment. The Roney Building is a 1960's vintage building with existing HVAC systems.

The project included the following:

- * New make-up air unit;
- * New fan coil units;
- * New direct digital controls, including demand ventilation control for each fan coil unit;
- * New four pipe hot water and chilled water distribution system to replace the existing three pipe distribution system;
- * New chiller and boiler to serve the Roney Building and the adjacent Science Building;
- * New main electrical panel;
- * New lighting and ceilings in portions of the building;
- * Asbestos abatement.

EMC did extensive field investigation to determine as-built installation of existing equipment. Outside air requirements and building loads were calculated for both the Roney Building and Science Building, to determine required boiler and chiller capacity. The project was broken into two phases to accommodate funding limitations. The first phase replaced the make-up air unit, boiler, chiller and main electrical panel. The second phase replaced the hot water and chilled water distribution system, fan coil units, lighting and ceilings. Phase one also included piping modifications to temporarily tie into existing piping systems to keep the building in operation until phase two work is complete.

Engineering Excellence Since 1976!

Company Overview

Making buildings work. **Better.**



EMC is dedicated to creating sustainable facilities by optimizing performance through energy modeling and analysis, building automation systems application, advanced mechanical and electrical design, construction management, and building commissioning to achieve lower energy costs, improved comfort, and increased productivity.

Experience

Since 1976, EMC has been a leader in delivering high performance building solutions. As a multidiscipline firm, we have strong credentials in mechanical, electrical, and control systems retrofit and modernization and energy engineering and commissioning.

Where do EMC's experts work?

You'll find us in schools, colleges, hospitals, government facilities, healthcare, and all types of private sector structures from supermarkets to office towers. In fact, EMC's engineers and technicians go wherever new facilities are under construction or existing structures or systems are operating at less than peak performance.



Whether you need a retrofit or a modernization or a new high performance building, you can rely on EMC to bring engineering excellence to your project.

Imagine reducing operating costs, improving comfort, increasing productivity, and getting your building's problems fixed quickly. EMC's services are the key!

Services

BUILDING COMMISSIONING/RETRO-COMMISSIONING

The commissioning process for new buildings and major renovations, provides facility owners with assurance the facility is functioning to meet their project requirements. Commissioning is the only process that assures a quality outcome. Whether you manage a new or existing facility, it's really difficult to know unless an independent commissioning expert has evaluated your systems. EMC's retro-commissioning services provide low cost, high return operating improvements that reduce operating costs. Think of it as a building "tune-up".

SUSTAINABLE DESIGN

More organizations are considering Green building systems and renovations. But to go Green--affordably--you need integrated sustainable design. EMC provides energy simulation modeling, daylighting, and high performance systems concepts to meet LEED requirements. We're ready to advise and coordinate and show you how to make the wise choices that deliver real environmental and economic benefit.

ENERGY ENGINEERING

Energy and how it's used affects quality-of-life and the global environment. Our core business is creating energy systems that optimize energy use. Our energy-engineering services ensure that you meet today's needs while planning for tomorrow's growth. This includes audits, assessments and implementation of energy improvement projects.

FACILITY DESIGN

Integrated systems design is crucial to facility renovation and modernization, particularly in high performance facilities. EMC understands how to take cutting edge mechanical, electrical, and building automation system technology and integrate it into real world solutions. And we can do it while your facilities stay in operation.

DESIGN/BUILD

Identifying your facility's energy issues is just half the battle. You then need a retrofit strategy that maintains the building environment and minimizes system downtime through every phases of construction. EMC is skilled at engineer-led, design/build projects, including efforts funded through Energy Savings Performance Contracting.

TRAINING

Today's building systems are complex. But EMC believes any operations and maintenance team is up to the challenge--if properly trained. We offer an extensive program of live and videotaped training classes and seminars--on-site and hands-on.

OFFICE LOCATIONS

Denver, CO * Atlanta, GA * Salt Lake City, UT * Irvine, CA * Raleigh, NC * West Palm Beach, FL

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