

OptiNet[®] at Michigan State University

IN CONSTRUCTION:

Brody Hall, Lansing, MI

Brody Hall, on the campus of Michigan State University, is a two-story building consisting of approximately 138,000 square feet that serves the needs of approximately 2,600 residents. The space includes dining, kitchen/preparation, dry storage, refrigerator and freezer space, dish handling, waste and recycling areas. More than 181,000 square feet of multi-purpose classroom space, computer instruction and academic office space is located in the building, which also includes business offices for the complex.

Need:

Brody Hall needed a better CO² monitoring system for two reasons: First, to help control their economizers on air handling systems and to be more energy efficient; Second, to help with their ability to handle food odors in a much more energy efficient way.

Results:

The construction on Brody Hall is taking place in two phases. The first phase, which involves the second floor, is still in construction and scheduled for completion on Monday September 6, 2010. The second phase involving first floor is scheduled for completion in May 2011.



IN CONSTRUCTION:

Plant and Soil Sciences Building, Lansing, MI

When Michigan State University's new plant science facility opens for business in 2012, it will be more than just a building connecting two existing buildings. It will serve as a bridge between two scientific disciplines whose mission is to help produce more and better quality food. Ground was broken for the new \$43 million facility April 16, 2010. It will eventually serve as home to a diverse group of researchers and students. "It will connect two existing buildings – the Plant Biology Laboratories and the Plant and Soil Sciences Building – and will help strengthen the plant science core on campus," said Douglas Buhler, associate dean for research in the College of Agriculture and Natural Resources. "The nearly 80,000-gross-square-foot facility will primarily focus on creating laboratory research and research support space. It also will include a new auditorium and office space.



Need:

Much of plant work requires specific control of the environment. This was a good choice for OptiNet which monitors temperature, Total Volatile Organic Compounds (TVOCs), humidity and particulates.

Results:

The Plant and Soil Sciences building is in construction with the building planned to open in 2012.

IN DEVELOPMENT:

School of Nursing Addition to the Life Sciences Building, Lansing, MI

Expected to cost \$16 million, the Nursing Addition will be designed to address the future of nursing education and practice with advanced technological solutions, while maintaining the focus of the College of Nursing on care. Internet, satellite and superior multimedia enhancements will bring worldwide accessibility to the academic and continuing education programs of the College of Nursing. In the new Nursing Addition, the students' education will be enriched with opportunities to collaborate with expert faculty and healthcare professionals on furthering the translation of nursing research into practice.

Need:

In response to the national nursing shortage and in anticipation of support for a nursing addition, the university created a Doctor of Philosophy in Nursing Program and strategically increased total enrollments in the College of Nursing more than 110 percent. MSU needed to expand their physical capacity to accommodate their enrollment growth. As a result, a more energy efficient and a better demand controlled ventilation system was necessary for this new addition.



Results:

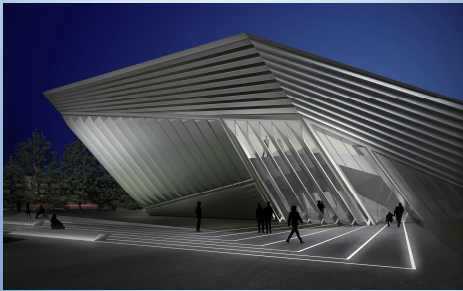
The addition is currently in design.

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IN DEVELOPMENT:

Eli & Edythe Broad Art Museum, Lansing, MI

The Eli and Edythe Broad Art Museum is a world class museum with a major focus on modern and contemporary art. Its goal is to attract major exhibitions and collections and serve as a showcase to enrich the educational experience and aesthetic enjoyment of art. The building will enable the museum to increase its visibility, showcase more of a permanent collection, organize and exhibit larger and more significant exhibitions, become more integral to university life and the greater community and increase in stature—bringing international attention to the museum, MSU, the region and State of Michigan.



Need:

This state of the art museum requires precisely controlled environments for the proper display, storage and preservation of priceless exhibits, sensitive documents, and artifacts. OptiNet was the natural choice as control of temperature and relative humidity is critical in the preservation of archival collections.

Results:

The museum is currently under construction.

COMPLETED:

Food Science & Human Nutrition Building, Lansing, MI

The Department of Food Science and Human Nutrition at Michigan State University ranks as one of the largest in the country, and offers a multidisciplinary field that applies disciplines such as chemistry, microbiology, engineering and nutrition to develop new food products and design new processes to improve the safety and quality of foods.

Need:

The University recognized that they could benefit from the use of the OptiNet technology.

Results:

The University realized that they couldn't manage what they didn't measure. Ingenuity IEQ installed an OptiNet Monitoring System in the Food Science and Human Nutrition building, the first system of its kind to be used at MSU. The systems Ingenuity IEQ designed operate in response to real-time air quality demands within the laboratories by constantly monitoring airflow requirements based on occupancy, heat loads and air quality. Michigan State University can proudly say that the laboratories in the Food Science and Human Nutrition buildings are today more energy efficient. The estimated Return on Investment for the OptiNet system is less than three years.



IN DEVELOPMENT:

Biochemistry Building, Lansing, MI

The Department of Biochemistry, which is approximately 142,000 square feet, serves more than 250 undergraduate majors and about 100 graduate students and postdoctoral research associates, and 35 faculty members. Three areas of biochemical and molecular biological research are emphasized (the structure and design of proteins, biochemistry of the cell nucleus, and plant biochemistry).



Need:

Currently, the building's laboratories utilize a Phoenix Lab airflow control system. The University recognized that the OptiNet technology would be a great benefit and further fulfill the need to safely reduce energy.

Results:

Summer 2011 is the expected completion date.