

# **BOARD OF REGENTS**

## **EASTERN MICHIGAN UNIVERSITY**

SECTION: 23

DATE:

January 19, 2007

### **RECOMMENDATION**

#### **MARK JEFFERSON SCIENCE COMPLEX PROJECT – AUTHORIZATION TO PROCEED**

#### **ACTION REQUESTED**

It is recommended that the Board of Regents authorize the administration to proceed with the renovation of the existing Mark Jefferson building and new construction to create the Mark Jefferson Science Complex.

#### **STAFF SUMMARY**

The renovation and modernization of the Mark Jefferson Science Complex has been identified in the University's Five-Year Capital Outlay Plan since 1998. The investment is in renovating the current Mark Jefferson building, as well as, constructing 151,000 square feet of new space to meet the needs demonstrated through the programming effort.

#### **FISCAL IMPLICATIONS**

The projected cost for the entire renovation and addition is \$100 million. The project will be primarily funded through the sale of bonds. The University is prepared, and has the financial capacity, to execute such borrowing.

#### **ADMINISTRATIVE RECOMMENDATION**

The proposed Board action has been reviewed and is recommended for Board approval.

\_\_\_\_\_  
University Executive Officer

\_\_\_\_\_  
Date

# EASTERN MICHIGAN UNIVERSITY

## Milestones of the Mark Jefferson Science Complex Project

April 1993	Representatives from biology, chemistry, and ORD meet to discuss plans for upgrading a few labs in Mark Jefferson. The representatives reveal space and infrastructure limitations and suggest the need for a new science building.
May 1993	Representatives begin a relationship with Project Kaleidoscope (PKAL). PKAL is an informal national alliance of individuals, institutions, and organizations committed to strengthening undergraduate science, mathematics, engineering, and technology education.
March 1996	A three person team from Kaleidoscope (PKAL) spends 2 days on site reviewing the facilities and programs with the science faculty.
Spring 1996	Kaleidoscope (PKAL) study finds that science programs at Eastern Michigan University are not meeting today's science students needs due to significantly less space than at competitor institutions.
May 1996- May 1998	College of Arts and Sciences forms a Science Facilities Planning Board (SFPB) with faculty representatives from the departments of biology, chemistry, geography and geology, physics and astronomy, psychology, mathematics, computer Science, associated health professions, the college of technology, and administration representatives to inventory curricula, program, and research operations of EMU science departments and devise a plan for locating science programs in Strong, Mark Jefferson, and a new science building.
May 1998	The architectural team of Quinn Evans/Architects and Einhorn Yaffee Prescott, Architects and Engineers has a kick-off meeting to lead a process to assist the University in developing institutional and academic goals for a new science complex concept and develop a program statement and summary.
August 1998	The architectural team meets with faculty and administration and presents four viable solutions for the location of the new science facility.
Fall 1998	The (SFPB) team prepares the Capital Outlay Manual Requirements for a science complex to be submitted to the State of Michigan.
December 1998	A final program study for the Science Complex Expansion and upgrade is completed by Quinn Evans/Architects and Einhorn Yaffee Prescott, Architects and Engineers.
November 2002	The Mark Jefferson Science building is one of two priority projects approved by the Eastern Michigan University Board of Regents as part of a fiscal year 2004 capital outlay budget request sent to the state of Michigan.

## **Milestones of the Mark Jefferson Science Complex Project**

October 2003	The State of Michigan does not approve funding for the Mark Jefferson Science Complex Project.
January 2005	The Board of Regents considers regenerating efforts for funding the Mark Jefferson Science Complex Project.
February 2005	A request for proposal to update the existing Mark Jefferson Science Complex program statement is released.
March 2005	Presentations are conducted by the two low qualified bidders as part of the review process to determine the appropriate architect for development of the program statement.
April 2005	A kick-off meeting is held with the selected architectural team, DSA Architects and the Smith Group, to develop a program statement for the Mark Jefferson Science Complex project.
June 2005	Departments meet in workshops to review prior program requirements and submit revisions.
September 2005	Upon further review, the decision was made to reinstate the college of technology as part of the Mark Jefferson Science Complex project. They begin their programming sessions.
October 2005	The project team, formerly know as (SFPB), begin reviewing the preliminary scope and phasing alternatives to submit to the Project Executive Committee.
January 2006	The Project Executive Committee commences review of the Mark Jefferson Science Complex project preliminary program and design to authorize the development of the program statements.
March 2006	DSA Architects and the Smith Group present the building concept blocking and stacking diagrams, design schemes, and cost information to the project team.
May 2006	The project team meets to review and discuss the final content of the program statement for submission Project Executive Committee.
July 2006	DSA Architects and the Smith Group issue the program statement to Project Executive Committee.
August 2006	The Project Executive Committee reviews and finalizes the program statement for presentation to the Board of Regents.

# **EASTERN MICHIGAN UNIVERSITY**

## **MARK JEFFERSON SCIENCE COMPLEX PROJECT SUMMARY**

**January 19, 2007**

The renovation and modernization of the Mark Jefferson Science Complex Project has been identified in the University's Five-Year Capital Outlay Plan since 1998. Currently, the Mark Jefferson building houses the primary facilities for the College of Arts and Sciences (CAS). Built in 1969, the five story, 180,802 square-foot building has deficiencies that include aging mechanical and electrical system conditions. The building also lacks the technology and specialized academic spaces that are essential for today's student academic experience.

The programming process projected the academic scientific need through 2014, and identified an additional significant space requirement for the CAS departments. This requires the university to renovate the current Mark Jefferson Science building and to construct 151,000 square feet of new space. A portion of this newly constructed space will be dedicated for future growth and departmental expansion and remain unfinished until future need. The additional science square footage would physically connect the existing Mark Jefferson and Strong science buildings. The new complex facility will provide multi-disciplinary research and teaching laboratories for all science disciplines. The Mark Jefferson Science Complex will serve as a landmark for the University.

The project will consist of two phases. Phase 1 will include a new addition to the Mark Jefferson building. This will provide biology, chemistry, and psychology departments with new science laboratories and research space. Renovations to the current building would be Phase 2. The scope of the renovation and modernization of Mark Jefferson will focus on infrastructure needs including; mechanical system, electrical systems/building transmission loop, structural improvements to the building exterior, and roof replacement. In addition, interior improvements will address classroom modernization needs, faculty office updates, increase scientific instrumentation, and improve the student commons areas.

### **Purpose**

Today, Eastern Michigan University's science facilities lack the specialized spaces, building systems, and laboratory features necessary for modern science education and research. Currently, both additional space and renovation of existing space is needed for: general instruction, instructional laboratories, scientific equipment, and building systems. Improvements to the science complex will promote science and ensure the success of students with learning space that are research-rich, with interdisciplinary learning environments. Mark Jefferson was programmed and designed when science education, experiential learning, and the nature of student/faculty research was significantly less sophisticated, and clearly less reliant on technology.

## **Need**

Renovation of the Mark Jefferson building continues to be a critical need of the University. The infrastructure of Mark Jefferson, which includes exterior masonry wall and roof systems, etc, is in serious need of repair and upgrades. Mechanical systems in scientific settings are one of the most vital, diverse, and complex of any building system. Expensive and labor intensive preventative and predictive maintenance programs are needed to keep these delicate systems in equilibrium and provide a safe quality learning environment. Failures in any one of the multiple sub-systems create reactive deficiencies in other sub-systems. They seriously detract from the quality of the learning environment, cause indoor air quality issues, and lead to premature deterioration of the facility. An additional consequence is acceleration of operating costs well above the norm.

Many of the existing mechanical system components have outlived or are nearing the end of their useful life are operating inefficiently and are compromising the quality of the learning environment. Through extraordinary efforts, these systems are being kept in service at a high cost. Internal electric distribution systems are also deficient, with outdated and inefficient components. This building can no longer accommodate the needs of the University in the contexts of instructional space, research space, health and safety, and general programmatic need. Thus, the current facilities impair the University's ability in the scientific disciplines to provide an exceptional learning environment and facilitate faculty and student research.

## **Cost**

The total project cost is estimated in 2008 economics at \$100 million. This estimate encompasses \$26.7 million for the renovation of 180,802 square foot building and \$73.3 million for the 151,000 square foot new construction. These costs are expected to increase as economic conditions change over time.

## **Funding**

Proposed funding for this \$100 million project will be provided primarily through the sale of bonds. The University is prepared, and has the financial capacity, to execute such borrowing. The majority of the repayment of these bonds will be funded from the 4% tuition and fee increase approved by the Board of Regents for this purpose in the fall of 2005.

## **Conclusion**

In 1996, the University developed a project team consisting of facility representatives from the departments of biology, chemistry, geography and geology, physics and astronomy, psychology, mathematics, computer science, associated health professions, and the college of technology, along with administrative representatives. The project team assessed the condition of the existing science buildings to determine its overall state

of use and repair and made recommendations for upgrading these existing facilities. In 1998, the University hired an architectural firm, Quinn Evans/Architects and Einhorn Yaffee Prescott, Architects and Engineers to assist in developing institutional and academic goals for a new science complex concept. In 2005, the University retained the architectural firm, DSA Architects and the Smith Group to develop a program statement for the Mark Jefferson Science Complex project. This was presented and approved by the Board of Regents in September of 2006. The scope of this renewal project will rehabilitate Mark Jefferson's infrastructure deficiencies. Furthermore, this renovation will renew a mix of laboratory and classroom spaces to support general education/basic studies curriculum, undergraduate and graduate programming, and faculty/student research. With these improvements, the University will be able to expand its curriculum to meet the needs of today's scientific educators, and to be competitive among universities of comparable size and instructional mission.

We solicit your support to create a facility of distinction that will enrich the University campus and the surrounding community, respect the environment and enhance the lives of those it serves through this Mark Jefferson Science Complex project.