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FOR
FACILITIES PLANNING AND CONSTRUCTION COMMITTEE

Committee Meeting: 2/17/2011

Board Meeting: 2/18/2011
Austin, Texas

1. U. T. Austin: High Performance Computing Facility Expansion - Amendment of the FY 2011-2016 Capital Improvement Program to include project (Preliminary Board approval)

RECOMMENDATION

The Chancellor concurs with the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Powers that the U. T. System Board of Regents amend the FY 2011-2016 Capital Improvement Program (CIP) to include the High Performance Computing Facility Expansion project at The University of Texas at Austin as follows:

Project No.: 102-627

Project Delivery Method: Construction Manager-at-Risk

Substantial Completion Date: 9/30/2012

Total Project Cost:

Source	Proposed
Unexpended Plant Funds	$55,000,000
Available University Fund	$ 1,000,000
	$56,000,000

Investment Metrics:

- Leverage existing systems to compete for National Science Foundation grant with potential of $54,000,000 over next four years with potential for renewal.
- Maintain computing capacity at the highest levels to remain competitive in one of the University's highest strategic priorities.
- Continue to recruit the best faculty and graduate students.
- Increase national and international exposure by retaining the Top 10 ranking in supercomputing systems.

BACKGROUND INFORMATION

In 2010, The University of Texas at Austin and HMG & Associates, Inc. prepared a statement of Owner's Project Requirements for expanding the computer machine room for U. T. Austin's Texas Advanced Computing Center (TACC) with the goal of maintaining a competitive data center infrastructure for housing world-class computing systems. A thorough investigation by the consultants, combined with the center's in-depth strategic research planning, has resulted in a compelling plan to meet the programmatic needs and growth goals of the center while enhancing the Center's mission to advance science and society through the application of advanced computing technologies.

The High Performance Computing Facility Expansion will allow the TACC to submit a proposal for a National Science Foundation (NSF) grant. The University of Texas at Austin is well positioned to submit a very competitive proposal. This grant has the potential to bring $54,000,000 over the next four years, with $30,000,000 for the computing system plus an additional $24,000,000 for operations and activities, and the possibility of renewal for an additional $54,000,000 over an additional four years. This would give the University the ability to leverage its high-end data center to receive significant amounts of additional grant funding.

The proposed expansion of the TACC data center will provide approximately 8,000 gross square feet of high-density data center space and an additional six megawatts of power. The proposed facility will host high-end research-focused computing systems for the TACC and is proposed to be built as an expansion to the existing Research Office Complex (ROC) building on the J. J. Pickle Research Campus. The project cost covers the necessary building and utility improvements for the very specialized facility needs of the TACC high-end data center including a power substation, electrical distribution system, and chiller. This proposed project will also provide substantially more power capacity at the J. J. Pickle Research Campus to support the future growth of the University's research endeavors there.

Computing is a rapidly changing field, with high-end systems becoming ever larger. To maintain leadership, the University must periodically increase data center infrastructure capabilities. Power and cooling are even more important than space, and data center infrastructure is now dominated by power costs, for both construction and operation. For progress, as well as competitive advantage, periodic increase of data center infrastructure is required. Having previously won a $59 million award from NSF to deploy and support the Ranger computer, the TACC now supports well over $100 million per year of research at U. T. Austin, and this number is expected to reach $200 million per year with the new Lonestar project. The new data center is essential to compete for, and deploy, the next system beyond Ranger and Lonestar. U. T. Austin must have the approved commitment for the data center for the NSF proposal deadline of March 7, 2011.

This proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP. Approval of design development plans and authorization of expenditure of funding will be presented for approval to the Board at a later date.

2. U. T. Austin: U. T. Academy of Music - Amendment of the FY 2011-2016 Capital Improvement Program to include project (Preliminary Board approval)

RECOMMENDATION

The Chancellor concurs with the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Powers that the U. T. System Board of Regents amend the FY 2011-2016 Capital Improvement Program (CIP) to include the U. T. Academy of Music project at The University of Texas at Austin as follows:

Project No.: 102-624

Project Delivery Method: Design/Build

Substantial Completion Date: August 2013

Total Project Cost:

Source	Proposed
Gifts	$20,000,000

Investment Metrics:

By 2015

- The combined total enrollment of all current programs is approximately 330 students. It is projected that within the next five years, more than 2,000 children and adults will be enrolled.
- Current enrollment provided approximately $120,000 in financial aid to graduate students who teach. Revenue from the proposed Academy is expected to increase financial aid for graduate students to more than $900,000, and pedagogical benefits to graduate students would increase proportionally.

BACKGROUND INFORMATION

The U. T. Academy of Music (Academy) will provide approximately 60,000 gross square feet of classroom, rehearsal, and performance facilities along with administrative and support space. The building will include a 300-seat concert hall that, when not in use by the Academy, would be available as a performance space for the Sarah and Ernest Butler School of Music. This facility will be located on property east of Interstate Highway 35 and will house all noncredit instruction as well as provide pedagogical training for graduate music students. The Academy will generate significant job opportunities for instructors for graduate students and provide quality noncredit musical instruction to children and adults in Greater Austin, a service to the community U. T. Austin is uniquely qualified to fill.

With Board approval, programming will commence once all gift funds are acquired. The proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP. Approval of design development plans and authorization of the expenditure of funding will be presented to the Board for approval at a later date.

3. U. T. Brownsville: Biomedical Research Facility II - Amendment of the FY 2011-2016 Capital Improvement Program to include project (Preliminary Board approval)

RECOMMENDATION

The Chancellor concurs with the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President García that the U. T. System Board of Regents amend the FY 2011-2016 Capital Improvement Program (CIP) to include the Biomedical Research Facility II project at The University of Texas at Brownsville as follows:

Project No.: 902-618

Project Delivery Method: Construction Manager at Risk

Substantial Completion Date: April 2013

Total Project Cost:

Source	Proposed
Grants	$ 3,993,085
Higher Education Assistance Funds (HEAF)	$ 760,591
	$ 4,753,676

Investment Metrics:

By 2013

- Increase research by expanding infrastructure laboratories from 16 to 22, including 8,452 gross square feet (GSF)
- Increase external funding by $1.5 million on research expenditures
- Increase retention by providing approximately 12 part-time positions for students
- Increase productivity in research by recruitment of two professors

BACKGROUND INFORMATION

The Biomedical Research Facility II will provide approximately 8,452 gross square feet for six research laboratories, private investigator research offices, support spaces, and mechanical, electrical, and plumbing support system. The project will connect via a covered walkway to the Biomedical Research and Health Professions Building. The National Institutes of Health (NIH) grant dictates allowable project costs. Higher Education Assistance Funds (HEAF) will cover costs in excess of or ineligible for NIH grant funding.

This proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP. Approval of design development plans and authorization of expenditure of funding will be presented for approval to the Board at a later date.

4. U. T. Permian Basin: Falcon's Nest Addition, Buildings 7-12 - Amendment of the FY 2011-2016 Capital Improvement Program to include project; approval of design development; appropriation of funds and authorization of expenditure; approval of evaluation of alternative energy economic feasibility; and resolution regarding parity debt (Final Board approval)

RECOMMENDATION

The Chancellor concurs with the Executive Vice Chancellor for Academic Affairs, the Executive Vice Chancellor for Business Affairs, and President Watts that the U. T. System Board of Regents approve the recommendations for the Falcon's Nest Addition, Buildings 7-12 project at The University of Texas of the Permian Basin as set forth below.

Project No.: 501-345

Project Delivery Method: Competitive Sealed Proposals

Substantial Completion Date: 6/1/2012

Total Project Cost:

Source	Proposed
Revenue Financing System Bond Proceeds	$6,000,000

Investment Metrics:

By 2012

- Student recruitment increased by 50 out-of-area students by Fall opening
- Obtain 100% occupancy, 96 students
- Increase by 25% meal plan utilization of new Student Multipurpose Center

a. approve design development plans;

b. appropriate funds and authorize expenditure of $6,000,000 from Revenue Financing System Bond Proceeds;

c. approve the evaluation of alternative energy economic feasibility; and

d. resolve in accordance with Section 5 of the Amended and Restated Master Resolution Establishing The University of Texas System Revenue Financing System that

- parity debt shall be issued to pay the project's cost, including any costs prior to the issuance of such parity debt;

- sufficient funds will be available to meet the financial obligations of the U. T. System, including sufficient Pledged Revenues as defined in the Master Resolution to satisfy the Annual Debt Service Requirements of the Financing System, and to meet all financial obligations of the U. T. System Board of Regents relating to the Financing System; and

- U. T. Permian Basin, which is a "Member" as such term is used in the Master Resolution, possesses the financial capacity to satisfy its direct obligation as defined in the Master Resolution relating to the issuance by the U. T. System Board of Regents of tax-exempt parity debt in the aggregate amount of $6,000,000.

BACKGROUND INFORMATION

Debt Service

The $6,000,000 in Revenue Financing System debt will be repaid from housing revenues. Annual debt service on the $6,000,000 Revenue Financing System debt is expected to be approximately $413,000. The institution's debt service coverage is expected to be at least 1.0 times and average 1.3 times over FY 2011-2016.

Project Description

The proposed apartment-style Falcon's Nest Addition will be a continuation of existing on-campus housing. The six buildings totaling approximately 30,000 gross square feet (GSF) will house 96 students in two-story apartment buildings containing a total of 24 units. Each unit will consist of four bedrooms, two bathrooms, and a central living area. Students will take their meals in the recently completed Student Multipurpose Center.

Current housing facilities provide 560 beds and are operating at 90% occupancy. The waiting list for Fall 2010 was approximately 10-20 students. This new addition will provide students a full university life experience through a campus residential setting.

This proposed project has been approved by U. T. System staff and meets the criteria for inclusion in the CIP.

Basis of Design

The proposed housing project's life expectancy includes the following elements:

- Enclosure: 25-35 years
- Building Systems: 25-35 years
- Interior Construction: 15-25 years

The exterior and interior appearance and finish are consistent with similar private-sector apartment facilities, existing campus housing, and with the existing Campus Master Plan.

Texas Government Code Section 2166.403 requires the governing body of a State agency to verify in an open meeting the economic feasibility of incorporating alternative energy devices into a new State building or an addition to an existing building. Therefore, the Project Architect prepared a renewable energy evaluation for this project in accordance with the Energy Conservation Design Standards for New State Buildings. This evaluation determined that alternative energy devices such as solar, wind, biomass, or photovoltaic energy are not economically feasible for the project.