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Office of the President

TO MEMBERS OF THE COMMITTEE ON GROUNDS AND BUILDINGS:

ACTION ITEM

For Meeting of March 23, 2010

ACCEPTANCE OF 2010-20 CAPITAL FINANCIAL PLAN AND PHYSICAL DESIGN FRAMEWORK AND AUTHORIZATION TO PARTICIPATE IN THE PILOT PHASE OF THE REDESIGNED PROCESS FOR CAPITAL IMPROVEMENT PROJECTS, MERCED CAMPUS

EXECUTIVE SUMMARY

Campus: Merced

Proposed Actions: Acceptance of the *UC Merced 2010-20 Capital Financial Plan* and the *Physical Design Framework*.
Authorization to participate in the Pilot Phase of the Redesigned Process for Capital Improvement Projects (Capital Projects Pilot Program).

Previous Actions: **January 2010:** Committee on Grounds and Buildings – Action – Amendment of Standing Order 100.4 and Policy on Approval of Design, Long Range Development Plans, and the Administration of the California Environmental Quality Act

September 2008: Committee on Grounds and Buildings – Action – Temporary Amendment of Applicable Standing Orders and Regental Policy and Approval of Implementing Guidelines for the Pilot Phase of the Redesigned Process for Capital Improvement Projects

March 2008: Committee on Grounds and Buildings – Action – Acceptance of the Report of the Capital Projects Working Group and Approval of Pilot Phase of Process Redesign for Capital Improvement Projects

February 2008: Committee on Grounds and Buildings – Discussion – Progress Report on the Capital Projects Working Group

March 2009: Committee on Grounds and Buildings – Action – Certification of Environmental Impact Report and Approval of 2009 Long Range Development Plan, Merced Campus

Project Summary: The Merced campus requests approval to begin on-campus review and consideration of capital projects within the delegated authority of the Chancellor under the Capital Projects Pilot Program. Consistent with the guidelines for the Capital Projects Pilot Program, the campus is submitting its ten-year *Capital Financial Plan* and *Physical Design Framework* at this meeting. The Long Range Development Plan (LRDP) for the campus was approved by the Regents in March 2009.

RECOMMENDATION

The President recommends that the Committee on Grounds and Buildings recommend that the Regents:

- (1) Accept the *UC Merced 2010-20 Capital Financial Plan* and the *Physical Design Framework*; and
- (2) Authorize the Merced campus to participate in the Pilot Phase of the Redesigned process for Capital Improvement Projects.

BACKGROUND

To be eligible to participate in the Pilot Phase of the Redesigned Process, the campus must obtain acceptance by the Committee on Grounds and Buildings of its 2010-20 Capital Financial Plan (Plan) and Physical Design Framework (Framework). These documents are based on the campus's Strategic Academic Vision and its approved campus Long Range Development Plan (LRDP).

The Merced campus requests acceptance of its *2010-20 Capital Financial Plan* and *Physical Design Framework* and authorization to begin on-campus review and consideration of approval of capital projects within the delegated authority of the Chancellor under the Pilot Phase of the Redesigned Process for capital improvement projects. These two documents together present an integrated academic, physical and capital plan that is financially feasible and critically needed. Acceptance of these documents, in concert with its Strategic Academic Vision and previously approved LRDP delegate authority to approve non-State budgets and designs of all projects with values less than or equal to \$60 million. Through this process, the Regents will exercise portfolio oversight of capital projects; Office of the President will provide due diligence regarding approval processes, and legal, financial, or policy risks; and the campus will have greater responsibility and accountability for the successful delivery of capital projects.

Capital Financial Plan: Context

The Plan reflects key academic and strategic program goals through the delivery of projects that are consistent with the Framework. Key elements of the proposed ten-year Plan are described in this section.

UC Merced's Plan is based on a number of assumptions. The campus' Long Range Enrollment Plan (LREP) assumes a projected total student enrollment of 7,466 FTE by 2015-16. It is anticipated the campus will continue its growth, reaching the published LREP level of approximately 11,000 students by 2020-21.

Additionally, the Plan assumes State funding for general campus programs. The Plan also assumes that one of the outcomes of current UC discussions regarding allocation methodologies for State capital programs is a process that recognizes the unique status of the Merced campus, relative to the more mature UC locations, resulting in an appropriate level of capital funding for a new campus located on green-field land.

The campus understands that the assumptions regarding State funding reflected in this capital program have been developed during a period of unprecedented economic volatility. The 2008-09 Budget Act authorized funding for a very limited number of projects and the Special Session 2009-10 Budget Act did not include any State funding for University capital projects. As a result, the Merced campus has, in some instances, had to redirect campus resources for critical projects that had been planned for State funding, while deferring starts on other projects. If State funding in 2010-11 and beyond is not forthcoming at the levels assumed by the Plan, then it is particularly critical for the Merced campus that alternative funding be identified to support high-priority capital needs.

Capital Financial Plan: Summary

With an estimated total value of \$1.129 billion the Plan is proposed to be funded with a combination of State sources totaling \$641 million (57 percent) and non-State resources totaling \$488 million (43 percent). Non-State resources include \$435 million (38 percent of total program) of external financing, \$19 million (2 percent of total program) of anticipated gift and grant funds, and \$34 million (3 percent of total program) of campus funds or other university resources.

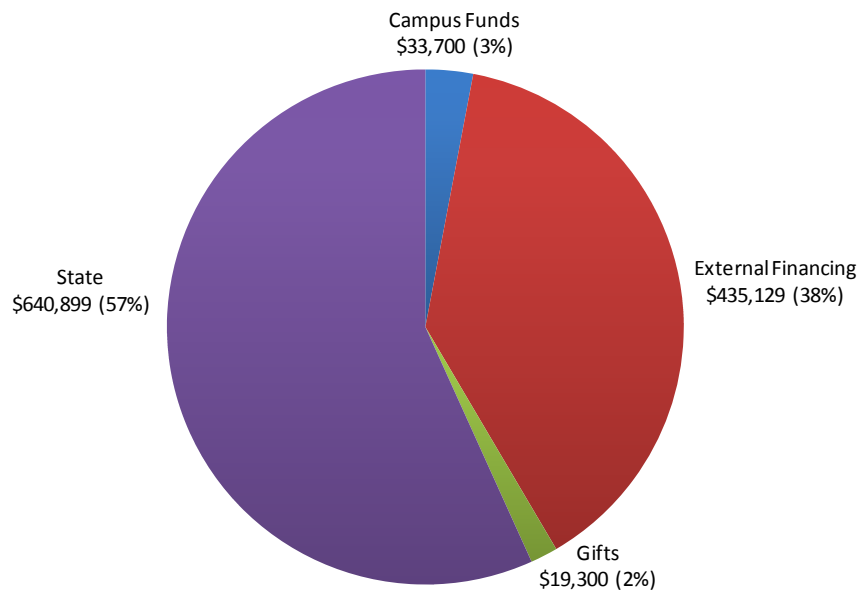


Figure 1: Capital Improvement Program Summary by Fund Source

As would be expected for a new campus, one which has only just graduated its first full class, the bulk of the Plan's funding relies on State funds and external financing. Campus discretionary funds are included in the program as necessary to support appropriate projects. Federal stimulus funds and other federal funds will be sought on a case by case basis in response to program development and targets of opportunity.

By function, \$520 million of the proposed ten-year plan is expected to be spent on instruction and research facilities, \$132 million for housing facilities, \$104 million for student-fee-funded facilities, \$145 million for infrastructure projects, \$10 million for parking projects, and \$219 million on other projects (such as dedicated research and administrative facilities).

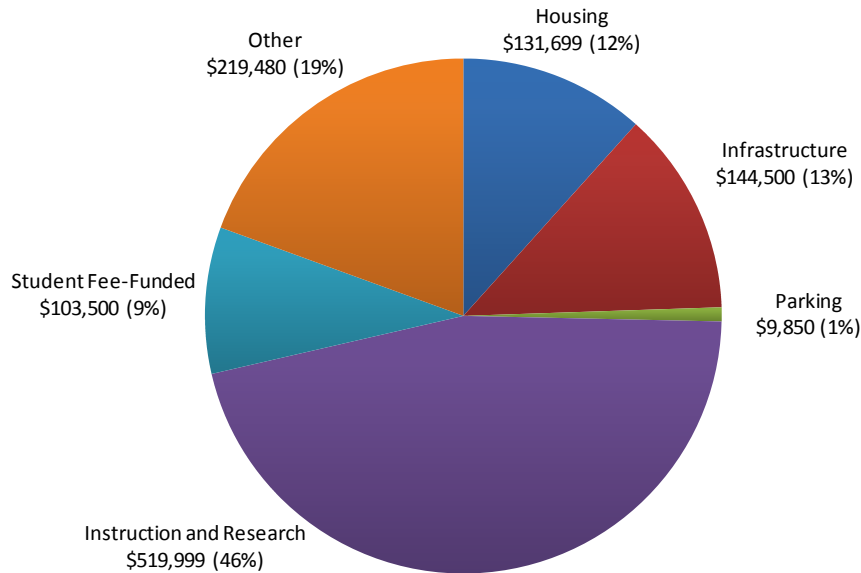


Figure 2: Capital Improvement Program Summary by Function

By improvement category, \$953 million is expected to be spent on new building construction, \$31 million on building renovations, and \$145 million on infrastructure development and renewal projects.

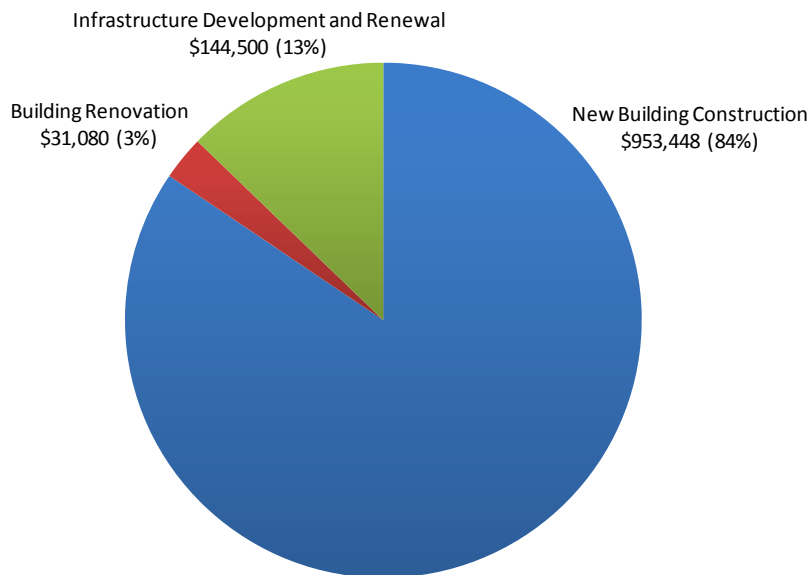


Figure 3: Capital Improvement Program Summary by Improvement Category

The capital improvement program reflects an estimated need for \$435 million of external financing: \$165 million for academic (or educational and general) facilities, \$132 million for

housing facilities, \$95 million for student-fee-funded facilities, \$10 million for parking projects, \$33 million for infrastructure projects.

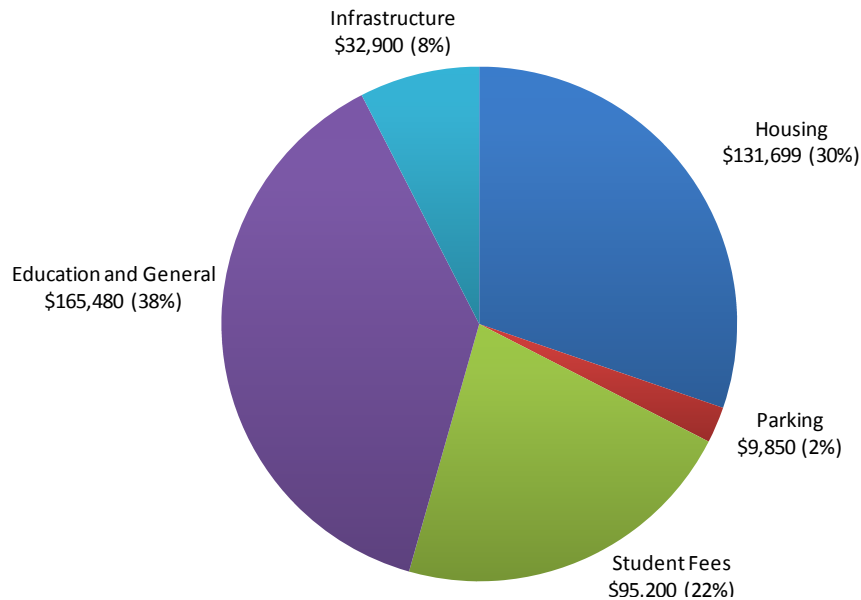


Figure 4: Capital Financial Plan Summary, External Financing by Program

The feasibility of external financing was based on existing University business models for auxiliaries (self-supporting programs and facilities, such as housing and parking), education and general debt (for core instruction, research, and support space), and plant operations (such as the energy savings program). The external financing models are in the process of being reformulated, and the expectation is that once the model has been adopted system-wide that the campus will utilize the template for external financing feasibility going forward.

Additional funding and program details can be found in the attached Plan.

The Plan also includes an update on the status of campus sustainability efforts. Because the Plan will be updated annually, and because sustainability efforts are evolving, the Plan is the document which will include these updates.

Mitigation

In March 2009, the University of California Board of Regents adopted UC Merced's LRDP and certified the accompanying Environmental Impact Statement (EIS) and Environmental Impact Report (EIR). In May 2009, the US Army Corps of Engineers (ACE) granted UC Merced and the University Community Land Company, LLC (UCLC) a Clean Water Act Section 404 permit for the campus and adjacent University Community North development. The EIS/EIR and the ACE's permit contain conditions and/or mitigation measures that require both near- and long-term capital expenditures and services payments.

The estimated costs associated with the requirements of the federal Section 404 permit and the mitigation measures adopted in the 2009 LRDP EIR are set forth in Part II of Table 1 found in the Plan. Nearly all of these costs are a direct result of the site selection for the Merced campus on a “green-field” without existing urban infrastructure. In order to develop the Merced campus as envisioned in the 2009 LRDP, as well as in the original 2002 LRDP, significant off-site infrastructure is needed. While most of this infrastructure will be constructed by either the City or County of Merced, it will require financial contributions from the University because the improvements are necessitated, in part, by development of the campus and the associated growth in the campus population.

The supplemental information presented in Part II of Table 1 of the Plan is not part of the data included within the traditional capital improvement project request totaling \$1.129 billion, nor are the mitigation projects listed in Part II of Table 1 considered as part of the data set for Tables 2 through 8. In particular, the source of the funds required for “Federal Environmental Mitigation” required by the Section 404 permit, as set forth in Part II.A, have not been identified. The timeframe over which these funds are required is set by the accepted permit conditions and is not affected by the pace of the development. As the campus develops, other mitigation measures (notably in transportation) are required and may be found in Part II.B.

Physical Design Framework

The Framework describes a vision for creating a campus physical environment consistent with the LRDP and that supports the teaching research and service mission of the Merced campus. The LRDP, approved by the Regents in March 2009, sets forth the overall land use plan for development of the 815 acre campus through full development. The environmental effects of development under the 2009 LRDP were evaluated in the LRDP Environmental Impact Report (EIR).

The Framework establishes the planning and design criteria the campus will use to develop and evaluate proposed projects. Based upon the core planning principles defined in the LRDP, it sets the regional context of the campus, articulates the design vision, establishes district and neighborhood building types, provides both general and specific design guidelines, and delineates the structure and sequence of the design review and approval process. The Framework will be employed by administrators, campus planners, architects and others to guide the integration of these goals into all projects as the campus grows.

The Framework describes the approach for development of buildings, infrastructure and landscape on the campus within the context of the land use objectives contained in the LRDP. It describes the physical design standards, which will fulfill the campus’ architectural vision of a vibrant, urban atmosphere set within, and connected to, a natural, rural setting. The standards and building typologies highlighted in the Framework will provide the foundation for a campus identity that reflects the best town-building traditions of the San Joaquin Valley and incorporates the latest innovations in sustainable community planning, architectural and landscape design.

The LRDP provides an overarching framework for land use, circulation, infrastructure and campus services planning. The Framework addresses these same topics at the district and project level, providing specific direction for site, infrastructure, circulation, and open space planning, and architectural, engineering and landscape design. The Framework is supported by LRDP land use planning principles, as well as district and neighborhood urban design guidelines and landscape standards presently under development by the campus.

The Framework does not change the land use plan or alter the projected square footage estimated to meet the demands of the projected campus population and institutional objectives of the campus as analyzed in the LRDP EIR. Acceptance of the Framework does not relieve the campus from complying with the California Environmental Quality Act (CEQA) for individual projects. Participation in the pilot program changes only the decision-making level (i.e., from Regents to Chancellor) for selective project approvals.

Sustainability

UC Merced is a leader in sustainable planning and environmental design. As it grows, the campus is committed to developing knowledge and teaching skills, which will advance social, economic and ecological sustainability and educate the world's thought leaders in sustainability. At its inception, UC Merced made the commitment that all newly constructed buildings meet a minimum of Leadership in Energy and Environmental Design (LEED) Silver certification. LEED has become one of the key industry standards by which environmental performance is measured. To date, six campus buildings have received LEED Gold certification, with five more anticipating the same, and one project has received a Silver certification. In short, over 80 percent of the campus' first dozen buildings will have significantly exceeded their environmental design goals.

UC Merced has set itself apart from other programs and institutions, by setting design and performance targets that go beyond current regulations and evaluation systems, seeking to innovate and integrate both passive and active building and campus-wide systems into a whole that is greater than the sum of its parts. The evidence for the long-term benefits of this approach is demonstrated in UC Merced's exceeding most goals it has set by a significant margin.

The campus has set very ambitious energy targets, which exceed the 2002 system-wide performance benchmarks by 50 percent. These energy efficient buildings are supplemented by:

- A national award winning Central Utilities Plant that includes a two million gallon Thermal Energy Storage tank providing low-cost chilled water to most campus buildings for air conditioning;
- A campus-wide Energy Management System that allows monitoring and fine tuning of campus environmental control needs; and

- Renewable energy produced by a one megawatt photovoltaic solar array that opened in fall 2009. The array provides 20 percent of the campus' annual electricity consumption.

The campus has also set ambitious targets for reduced water consumption, and the use of non-potable water for irrigation and other appropriate uses. Currently, buildings consume 40 percent less water than typical construction, and the campus is implementing a strategy to employ non-potable water to meet 50 percent of its present needs. Long-term, the campus seeks to achieve water neutrality, within its semi-arid environmental context.

In addition to establishing a land use, circulation and open space framework that supports sustainable community and infrastructure development, the LRDP sets a goal of achieving LEED Gold certification as a minimum for all permanent buildings on campus. It further establishes goals and policies that mandate the use of broad-based, innovative sustainable techniques in facility and infrastructure design and construction. It includes integration with the research initiatives and innovations that are part of the overall campus research program, particularly in the area of solar power and building energy management systems. Finally, the LRDP establishes goals and policies for operational systems to support the ongoing practice of sustainability in campus life. The LRDP also establishes sustainability goals for the campus:

- To consume zero net energy. UC Merced's goal is to reach zero net energy through efficiency and renewable energy production.
- To produce zero landfill waste. UC Merced's goal is to divert from landfill all campus waste by reducing excess consumption and recycling to the maximum extent feasible.
- To produce zero net carbon emissions. UC Merced's goal is to prevent as much carbon emissions as it produces.

The Framework extends this commitment to plan, design, build and operate the campus at ever-increasing levels of sustainability through the definition of district or neighborhood-level goals and objectives for infrastructure, open space and streetscape design, and project-specific architectural, engineering, and site design criteria for all projects. While individual district or neighborhood plans, currently under development, will provide more specific urban and open space design criteria, the Framework articulates how certain campus level objectives are to be met by individual project and site designs.

Infrastructure

Utilities and infrastructure improvements phased over the next ten years are vital to the ability of UC Merced to meet its academic objectives. While building efficiencies enable the campus to use less energy than typical university buildings, as a green field campus being developed on open range land, expansion of the UC Merced campus beyond its current capacity requires significant investment in infrastructure and site development to extend basic services, such as utilities, roads and campus communications systems, and prepare future sites for development, while managing storm water and other environmental factors at a campus-wide scale. A key

objective of the Plan is to strategically extend utilities to accommodate state and non-state funded buildings in Bellevue Gateway and Central Campus West.

Phasing of campus development in the LRDP pays close attention to minimizing early infrastructure costs of site development by focusing most development west of the Fairfield Canal, and tying easterly development to existing power and communications links to the photovoltaic solar array. Interim facilities that would develop east of the Fairfield Canal may be developed “off-the grid” for the provision of water, sanitary and other basic urban services. This approach will allow the campus to test innovative or experimental systems that can inform future campus development.

(Attachments: **Financial** **Physical Design** **LRDP**)