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November 3, 2011

## MEMBERS OF THE REGENTS' COMMITTEE ON GROUNDS AND BUILDINGS

Enclosed for your information is the *Annual Report on Major Capital Projects Implementation* for fiscal year 2010-11. This report describes the aggregate status of major capital projects underway at the end of the 2010-11 fiscal year and summarizes management initiatives and market conditions affecting project implementation.

If you have any questions about the report, please do not hesitate to get in touch with Vice President Patrick Lenz. He can be reached at (510) 987-9101.

With best wishes, I am,

Sincerely yours,

Mark G. Yudof President

Enclosure

cc:

All Regents

Chancellors

# University of California

## ANNUAL REPORT ON MAJOR CAPITAL PROJECTS IMPLEMENTATION

Fiscal Year 2010-11

**Budget and Capital Resources University of California, Office of the President** 

October 2011

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#### I. EXECUTIVE SUMMARY

The 2010-11 Annual Report on Major Capital Projects Implementation provides an update on the University's in-progress Capital Improvements Program. The report provides the status of major capital projects (projects over \$750,000); including budget and schedule changes and projects completed in the last fiscal year, as well as overviews of campus capital programs and project achievements, past and forecast construction market conditions, and University initiatives for project delivery improvements.

University-wide, 223 major capital projects totaling \$8.9 billion were active in Fiscal Year 2010-11, representing a 5.3 percent dollar-volume decrease from the \$9.4 billion total for 229 active projects in FY 2009-10. For FY 2010-11, overall budget increases for active project budgets declined to 3.4 percent, compared with 8.2 percent in the previous year; 30.5 percent of active projects had schedule extensions, a decrease as compared to 40.2 percent of active projects last year.

The effects of the State funding freeze of 2008-09 are still apparent in schedule delays for projects that were in design or just starting construction at the time of the freeze. In addition, the eight state-funded projects approved in the 2009 and 2010 State budgets have not been funded, resulting in schedule delays for those projects as well. The University is working closely with the State on developing alternative funding strategies to enable these critically-needed projects to proceed in FY 2011-12.

The economic downturn that began in 2008 continues to affect the construction climate, with campuses enjoying favorable bid results, and most projects bidding within or under budget. However, the major construction cost indices began to regain ground in FY 2010-11, with construction costs edging up. The outlook is for a volatile market with sporadic cost spikes generated by local demand, such as very large projects for corporate campuses and hospital replacements that are expected to bid in 2012-14.

The University seeks to benefit from the competitive market while it lasts by employing strategies to accelerate project bids, without compromising bid document quality by arbitrarily shortening schedules. Such strategies include using Design/Build for the entire project, or early award of Design/Build contracts for selected critical trades, if the project funding schedule allows. The UC San Francisco campus is pioneering "Integrated Project Delivery," which incentivizes cooperation among owner, architect, and contractor, and is a delivery method well-suited to facilitating strategies to address volatile market conditions. The University continues to explore new options for project delivery strategies that address the great diversity and complexity of project types in its capital program, with a goal of delivering projects that optimize value, quality, cost, schedule, and risk management.

#### ANNUAL REPORT ON MAJOR CAPITAL PROJECTS IMPLEMENTATION

Fiscal Year 2010-11

#### II. INTRODUCTION

#### A. Background and Purpose

The University of California (UC) Annual Report on Major Capital Projects Implementation provides broad indicators of project delivery performance for active and newly-completed major capital projects (total project cost exceeding \$750,000). This report documents major capital projects underway at the end of FY 2010-11 with a cumulative portfolio budget of \$8.9 billion. The report also assesses construction market conditions, trends, and UC initiatives to improve processes while managing project cost and risk.

The measures or indicators used to assess the general condition of the UC capital program are:

1) project budget change, and 2) project schedule change. It should be recognized that the
University's ability to implement its capital program is affected by a number of factors, only some of
which are within the control of the University. Those within University control include project
delivery methods, academic program changes, and budgeting and funding strategies. Factors beyond
University control include the construction industry bid climate, local and global market conditions,
building code changes, State and non-State funding requirements, and unforeseen physical and
environmental conditions.

It should also be recognized that some project budget and schedule changes are driven by circumstances that are intentional, necessary, and beneficial to the University's mission—such as incorporating program improvements, multiple project phasing, and leveraging of new funding opportunities.

Because many variables affect project delivery, simple indicators do not fully represent the complexity of factors that influence University capital project implementation. Nevertheless these key indicators of budget and schedule change provide valuable insights into program trends and can highlight where anticipatory or remedial action may be required.

#### **B.** Status of State-Funded Projects

California has not approved a General Obligation (GO) bond since November 2006, and the University has been without funding from a new GO bond since 2008-09. Current financial and economic challenges have compelled the State of California to delay sales of bonds needed to fund capital projects approved by the State Legislature. Approximately \$480 million of previously approved Lease Revenue and General Obligation bonds for the UC system have been stalled, some dating from 2007. The State currently proposes to sell Lease Revenue bonds in November 2011 for three projects at the Berkeley, Los Angeles, and Merced campuses, totaling \$268 million. If this bond sale is successful, UC will still have a backlog of \$212 million in unfunded projects, which includes a California Department of Food and Agriculture project that will be funded through a separate bond.

Because of current economic conditions, the State has accepted long delays in selling bonds; these delays will seriously affect UC's projects, which may no longer be constructible at the amounts approved.

To avoid that outcome, UC proposes to pursue special legislation to provide interim financing from UC's commercial paper program. UC has a higher credit rating than the State's, and can arrange interim financing for these projects at interest rates lower than those for State bonds. A Memorandum of Understanding (MOU) with the State Treasurer's Office (STO), the Department of Finance (DOF), and the State Public Works Board (SPWB) has been proposed wherein the parties agree that the Regents of the University of California will provide interim financing for construction costs and related interest expense in the amount of \$163 million for its approved lease-revenue bond projects.

The University also proposes to pursue legislation to place a new general-obligation bond on the ballot for the November 2012 statewide general election. Because there has been no higher-education facilities bond measure since 2006, many UC capital project proposals are still awaiting inclusion in the State Budget. The proposed measure would provide funding for capital projects over a four-year period, 2012-16, and allow many of the backlogged projects to move forward. The projects to be funded from the proposed four-year bond would address some of the University's highest capital priorities, which include seismic corrections, life-safety, and modernization projects.

#### **UC CAPITAL PROCESS**

## C. Capital Project Delivery in the University Context

The UC Office of the President (UCOP) and the individual campuses have unique roles and responsibilities that mesh to deliver a successful capital development program. At UCOP, Capital Resources Management (CRM) provides coordination and oversight to evaluate and recommend courses of action to the campuses and to UCOP leadership, to ensure policy compliance, and to provide accountability reporting to the Regents and other stakeholders.

The campuses, in turn, have experienced staffs of budget officers, planners, design managers, and construction managers. In its capital program planning, each campus develops a strategic plan of specific projects, prioritized to meet the campus mission, academic, and support needs, and in the context of physical and funding opportunities and constraints.

The public low-bid environment in which the University operates can be challenging in its constraints. UC capital projects are subject to the California Public Contract Code (PCC) to promote a fair, transparent, and competitive bidding environment. Some of the areas governed by the PCC include bidding procedures, payment of prevailing wage on UC projects, and strict restrictions on sole-sourcing of products. The campuses and Capital Resources Management work together to constantly seek improvements in the delivery of quality facilities in the most cost-effective and timely manner consistent with the research university environment and the constraints of public work. Different campuses may use one or another project delivery method more often than others, depending on the particular circumstances of the local construction climate, which can be affected by skilled labor supply and cost, geographic proximity or remoteness to large metropolitan areas, local custom and expertise in the contracting community, etc. Project size, complexity, prominence (in terms of location, design, or use), perceived risk factors, and schedule play their parts in the selection of the appropriate delivery method for a given facility. For example, Design/Build may be considered for projects with tight schedules and well-defined programs and design parameters; CM-

at-Risk takes advantage of early input and commitment by the contractor for complex projects; Multiple Prime Trades contracting allows the campus more hands-on control during construction to mitigate the costs and impacts of changes and delays and has proved, at the Merced campus, to improve bid competition in a market remote from large contractors and labor pools; and traditional design/bid/build is often found suitable for straightforward projects in competitive markets.

In a culmination of a successful effort by UCOP to sponsor legislation to expand campus options for better project delivery, in October 2011 Governor Brown signed legislation extending the Best Value contracting method beyond the successful pilot program at UCSF to all the other campuses for an additional five-year term. Best Value allows the University to award construction contracts based on quality as well as low price, to help ensure project success; this method is especially well-suited to complex projects and specialized facility types.

Campuses coordinate with CRM in the early stages of projects to discuss scope, schedule, budget, justification, and other issues specific to each project. CRM provides guidance to the campus on project schedule and approval milestones, budget and funding feasibility, environmental and physical planning requirements, contracting and other policy requirements, and on any special issues that might rise to the level of Regental concern. When projects are submitted to UCOP for Regental or senior administrative action, CRM provides staff analysis and recommendations, and coordinates the issues related to the action with associated UCOP offices as needed, including the Office of General Counsel, Secretary's Office, Capital Markets Finance, and senior administrators. The types of actions, which may occur separately and/or in different combinations, include budget, design, environmental, physical planning, finance, and real estate. Projects with any state funding additionally and separately require approval of Preliminary Plans by the California State Public Works Board (SPWB), approval of Construction Documents with permission to proceed to bid by California State Department of Finance (DOF), and permission for award of bids by DOF.

Once projects receive necessary approvals and project funding, responsibility for successful completion of a project rests with each campus. Regular project reporting for status of budget and schedule occurs annually for projects without state funding, and quarterly for state-funded projects. Capital Resources Management has established protocols to communicate with each campus monthly to provide early notification to the President and the Regents of significant project challenges and potential changes. In addition, this annual report provides information on the overall performance and status of the University's capital program.

#### III. CAMPUS CAPITAL PROGRAM SUMMARIES FOR FY 2010-11

Twelve University of California facilities are represented in this Major Capital Projects Implementation report: the ten campuses, UC Davis Medical Center, and the Division of Agriculture and Natural Resources. In this section of the report, each facility has prepared a summary of its capital program for FY 2010-11, including major projects in design and in construction, its goals for the past year, and highlighting particular successes.





# **Citrus Clonal Protection Facility**



As a demonstration of the unique partnership between the University of California and the Citrus Research Board (CRB), in 1998 the CRB donated a 52,000 square foot screen house to the Lindcove Research and Extension Center (LREC) in Exeter, California. The screen house shields the Citrus Clonal Protection Program (CCPP) foundation trees and from these trees disease-free budwood is released to the California nurserymen, who then produce citrus trees for the industry. The screen is designed to protect citrus budwood from insect pests and diseases they may carry.

The Asian citrus psyllid arrived in southern California in 2008. This psyllid can carry a bacterium that causes huanglongbing (HLB), or citrus greening disease. This disease is devastating for citrus trees because HLB can kill trees in as little as five years and there is currently no cure for the disease. Because of the threat of this pest and disease, the UC and CRB developed a license agreement for the construction of an additional 30,000 square feet of screen house space so that hundreds more foundation trees could be placed under the protection of screen. This special arrangement and cooperation allowed the screen house to be constructed less than two years after the arrival of Asian citrus psyllid.



## **Projects in Construction**

Citrus Clonal Protection Facility—Project has been completed and a new greenhouse is in planning stages.

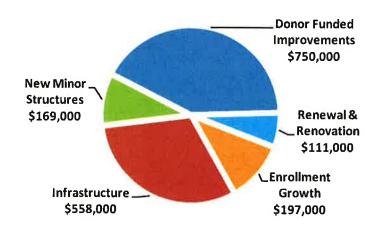
**Infrastructure**—New water treatment plant with microfiltration system has been installed at Desert REC. New irrigation pump and control systems were completed at West Side REC.

**New storage structures** are in construction at Intermountain REC and UCCE at Kern County.



Desert REC Water Microfiltration

# **Projects By Classification**



## **Capital Goals:**

The capital program for ANR addresses two main concerns: the need for new construction to remain academically relevant and address shortages of research space, and renewal and deferred maintenance needs of existing facilities.

New field and analytical chemistry laboratories are necessary to support new research programs. New research methodologies require systems and equipment that are not currently available. In addition, the demand for space to support existing research and education programs exceeds the available facilities.



## **Clark Kerr Campus Renewal**

The Clark Kerr Campus project provided significant renewal and renovation of the buildings and utility systems at this historic residential campus, originally built in 1867 as the California Schools for the Deaf and Blind and listed on the National Register of Historic Places. The project included interior renovations, improved disabled access, upgraded utilities and renewed landscape across the 25-acre, multiple-building site.

Interiors for six residential buildings and a conference center were completely renovated while efficient new water, power and heating and communications sys-

tems were put in place that support the entire campus; in addition landscape improvements were made that included accessible pathways and additional safety lighting. All work was accomplished while maintaining the historic character of the buildings and site.

## **Projects in Construction**

#### California Memorial Stadium Seismic Corrections and West Program Improvements

A \$321M project to retrofit and renovate the historic stadium. Construction began in December 2010 and is expected to be completed for the 2012 football season. For more about the project, please visit www.stadium.berkeley.edu

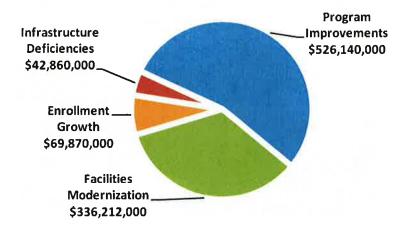
### **Helios Energy Research Facility**

A new 113,000 GSF teaching and lab facility dedicated to finding solutions to global climate change, located adjacent to the central campus in downtown Berkeley. Project cost is \$133.2M. Construction began in June 2010 and is scheduled to be complete in November 2013. For more information please see <a href="http://www.cp.berkeley.edu/CP/Projects/Helios/Details.html">http://www.cp.berkeley.edu/CP/Projects/Helios/Details.html</a>

#### Li Ka Shing Center for Biomedical and Health Sciences

A new 200,000 GSF state-of-the-art facility designed to facilitate interactive, multidisciplinary research will house programs focusing on five themes: stem cell biology, infectious disease, cancer biology, neuroscience, and computational biology. Construction began in early 2008 and is scheduled to be complete in December 2011.

# **Projects by Classification**



# **Capital Goals**

Berkeley continues to make major investments in its capital assets to meet the campus' academic and strategic objectives. While some of the demand for more space can be met through renovation of existing buildings, new buildings are also required, particularly for programs that demand high performance infrastructure and other advanced features.

Berkeley's capital program is arranged around five major themes: life safety, intellectual community, campus growth and new initiatives, renewal & maintenance, and sustainable campus.

#### **Student Community Center**

The Lower Sproul Student Community Center is envisioned as a revitalized, active and secure 24-hour center for student life and services. The transformation will be accomplished by both new construction and selective renovation. More detail about the proposed changes is online at http://lowersproul.berkeley.edu/



The new BAM/PFA building will integrate a repurposed building, the former UC Berkeley printing plant, with a dramatic new structure. This project, with an estimated cost of \$90M, will be located on the west side of the campus in Berkeley's arts district. For more on the proposed project please visit http://press.bampfa.berkeley.edu/building/



#### Haas School of Business addition

Provides a new building addition with classrooms, faculty offices, and conference rooms; an "active courtyard" that facilitates campus-wide interaction and learning; and a new Center for Executive Education to strengthen ties to the business community.

	2009-	2009-10		2010-11	
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M	
# Projects in Progress	4	6	4	6	
# Projects Completed	2		1	2	
# Projects Started		1		1	

## **Awards and Recognition**

Sutardja Dai Hall Best R & D project, SF Business Times (2010)

**LeConte Hall Commissioning** UC/CSU/CCC Best Practice Award (2010)

**UC Berkeley** 2011 Green Honor Role Princeton Review (2010)

#### Lower Sproul Plaza Concept Plan

Honor Award for Urban Design The California Council of the American Institute of Architects (2010)



C.V. Starr East
Asian Library
Honor Award for
Architecture The
California Council of
the American
Institute of Architects
(2010)

#### Sather Gate Restoration

Preservation Design Award, California Preservation Foundation (2010)

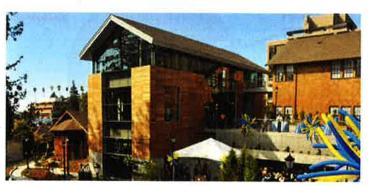
Governor's Historic Preservation Award (2010)

#### Sather Tower Waterproofing Repair

Excellence in Structural Engineering Awards - Award of Merit, Historic Preservation, Structural Engineers Association of Northern California (2011)

Governor's Historic Preservation Award (2010)

**Blum Center** California Preservation Foundation Preservation Design Awards – Rehabilitation (2011)





## Brewery, Winery, and Food Pilot Facilities

Occupied in July 2010 and receiving LEED Platinum certification, this 32,000 GSF facility supports great advancements in teaching and research with state-of-the-art facilities for wine, beer, milk, and food science. The project was fully funded by private donations. The building itself is highly sustainable, with a CO<sub>2</sub> capture system, night-time cooling, daylighting and operable skylights, photovoltaic panels and a large-scale rainwater capture system for reuse in building processes.



## **Projects in Construction**

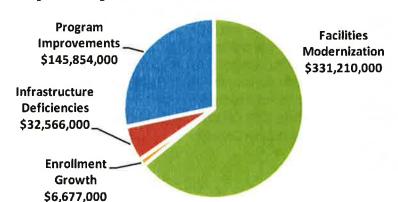
### **Veterinary Medicine 3B**

The Vet Med 3B project will provide space for 53 student-faculty research teams on the campus core to join peers in the Health Sciences District. With 118,676 GSF, the 4-story building will contain laboratories, offices, a small-animal vivarium, a Biosafety Level 3 suite, and centralized services for the research needs of Anatomy, Physiology and Cell Biology; Veterinary Molecular Biosciences; and Pathology, Microbiology and Immunology. The project is on schedule with occupancy anticipated in December 2012.

#### **Student Services Center**

Nearing completion is the Student Services Center, which addresses two primary program goals: to provide expanded and improved space for student life centers and to encourage interactions and learning opportunities for all students. The Center houses a media lab, computer classrooms, and extended-hours reading lounge, student support centers, and a coffee shop.

# **Projects By Classification**



# Capital Goals

Many of the capital improvements for FY 2010-11 focused on facilities for student housing and amenities, and for modernized spaces for veterinary medicine. Other projects included space for program growth, upgrades for infrastructure, and improvements to reduce energy consumption and meet sustainability goals.

## **Tercero Student Housing Phase 3**

The Tercero 3 project encompasses 7 buildings for a total of 1,200 beds in a combination of single and double rooms to serve first-year students. The project replaces 800 beds currently housed in twelve 3-story buildings that will be demolished due to seismic deficiencies.

The project is targeting LEED<sup>™</sup> Gold. Construction is expected to start in early 2012 with occupancy by Fall 2014.



### **Energy Efficiency Projects**

Several innovative energy efficiency projects include the Smart Lighting Initiative to reduce campus lighting energy by up to 60%; an anaerobic bio-digester, based on campus research technology, to turn waste into usable energy; and a ten-megawatt solar energy array.

	2009-	2009-10		2010-11	
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M	
# Projects in Progress	7	1	A 5	1	
# Projects Completed	3		5		
# Projects Started	3		2	2	

## Capital Planning Profile: West Village

West Village, the largest Zero Net Energy development of its kind in the U.S., is an innovative public-private partnership between the campus and a private developer. Net Zero is achieved by advanced energy efficiency features and on-site renewable power.





The development includes The Ramble (2, 3, and 4 bedroom apartments in ten courtyards), and the Viridian (1 and 2 bedroom apartments overlooking the Village Square). Initial occupancy for both is Fall 2011. There are 343 single-family homes planned for purchase in 2012, a recently completed 15,000 GSF recreation facility, and 42,500 GSF of retail space surrounding the Village Square. Under construction and slated to open in early 2012 is the Sacramento City College Davis Center of the Los Rios Community College.



## **Parking Structure 3**

Parking Structure 3 is a new seven-level parking structure with a capacity for 1,200 cars. The structure is immediately adjacent to the main Hospital entrance to facilitate easy drop-off and pickup of patients, families and visitors. The project is being constructed using a design/build contract with bridging documents. A photovoltaic array on the top level is expected to provide approximately 70% of the electrical power needs of the structure. Approved project budget is \$46,515,000. Current project budget estimate at completion is approximately \$31,000,000. The project is currently 70% complete and is scheduled for completion and occupancy in January 2012.



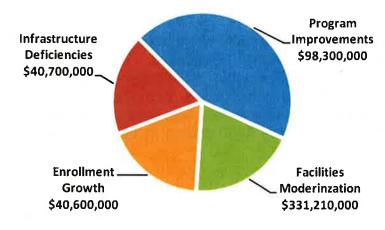
## **Projects in Construction**

**Parking Structure 3 (pictured above):** Seven level parking structure for 1,200 cars, to serve the Main Hospital for staff, patients and visitors. Modified Design Build delivery method. Budget \$46,515,000, expected budget at completion \$31,000,000, scheduled for completion January 2012.

**Cancer Center Expansion:** Three story 55,431 GSF clinic building connected to the existing Cancer Center with a bridge. New adult and pediatric infusion and clinic space. Approved budget \$35,400,000, Scheduled for completion April 2012.

**Davis Tower Phase 5:** Build-out of shelled floor of the Main Hospital as a 24-bed Pediatric Intensive Care Unit. Approved budget \$31,399,000, expected budget at completion \$21,300,000. Scheduled for completion/occupancy in November 2011.

# **Projects By Classification**



# Capital Goals:

The 2010-11 capital program for the UC Davis Medical Center, Sacramento Campus focused on six key areas: (1) seismic compliance; (2) enhancing the capacity, functionality and patient-visitor comfort in both inpatient and outpatient facilities; (3) improving access to patient and visitor parking; (4) providing additional teaching space to support enrollment and research program growth; (5) leveraging new technology to support education, research and clinical care; (6) expanding infrastructure capacity to accommodate planned growth.



Graduate Studies Building (pictured left): Three story 55,210 GSF office building will house Betty Irene Moore School of Nursing and other academic functions. Modified Design/Build. Approved budget \$40,592,000. Schedule: Construction completion August 2013.

**Operating Room Remodel:** Renovation of the second floor operating room suite, including new waiting rooms and recovery for adults and pediatrics. Approved budget \$5,665,000. Schedule: Construction completion in January 2014.

Physical Medicine and Rehabilitation Remodel: Renovation of two floors of the East Wing of the hospital for inpatient PM&R. New private patient bedrooms, therapy and staff space. Approved budget \$17,915,000. Schedule: Construction completion in January 2014.

	2009-	10	2010-:	11
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	next plate 6 lb le con	fr-builde la fu	Shared 8	
# Projects Completed	1			1
# Projects Started			WEATHER WILLIAM	

# Capital Planning Profile

The Davis Medical Center, Sacramento Campus received approval in November 2010 for its 2010 Long Range Development Plan, LRDP EIR, and Physical Design Framework. The Sacramento Campus was approved for inclusion in the pilot program for delegated project approvals; and they use a variety of delivery strategies for project design and construction, including conventional design/bid/build, multiple prime contracting, CM-at-risk, and design/build. Currently the Sacramento Campus has projects with a combined value of approximately \$400 million in various stages of planning, design or construction.



# **Contemporary Arts Building**

With a budget of \$42,523,000, the nearly 65,000 GSF Contemporary Arts Building and associated Production Studio addition provides the Claire Trevor School of the Arts with added traditional studios, laboratories, and other instructional spaces necessary to accommodate existing and projected Arts programs and enrollments. These traditional spaces are augmented by state-of-the-art facilities (such as a motion capture studio and sound production suite) that will allow the exploration of new and experimental forms of media. The Visual Arts are served particularly well by the building's large exhibition gallery and an entire floor of Graduate Student studios.

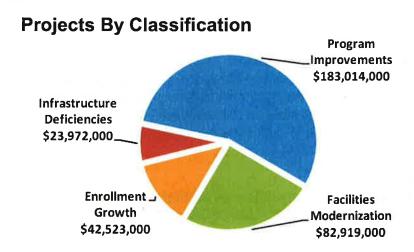


## **Projects in Construction**

**New University Hospital Shell Space Completion / Site Improvements** — A combined \$163,017,000 project that completed the build-out of 70,000 square feet of shell space and completes the new entrance to the hospital. The shell space project was completed August of 2010. The site and entry portion of the project is scheduled to be completed by January 2012.

**Verano Place Unit 4 Replacement** — This \$41,832,000 project replaces 400 beds of graduate housing that had reached the end of their useful life with 200 units (400 beds) and an Infant/Toddler Center accommodating 36 children. Due for completion in August of 2012.

**Gavin Herbert Eye Institute** — This \$31,000,000 project will provide the campus with an out-patient care facility focused on eye care. The Institute is envisioned to be a landmark building and intended to be the hub of the future clinic master plan for the UCI School of Medicine. Due for completion in August of 2012, the facility is 100% gift funded.



# **Capital Goals:**

The focus of the campus' capital program in the past year addressed its most critical needs to support current enrollments and associated faculty levels. New and renovated facilities along with an expansion of infrastructure is needed to support further instruction and research program development, improve efficiency and energy conservation, and provide a high quality learning and living environment for all students.

#### **Business Unit**

This \$48M, 78,000 GSF, partially gift-funded facility will be located adjacent to the current School of Business building. The new facility will effectively and elegantly unify the School around its core instructional and research areas as well as present a sophisticated business image to faculty, staff, students, and the broader business community.



### Health Sciences Instruction and Research Building

This planned \$52M, 73,000 GSF facility will address inadequate current space assignments and will provide space for several recently formed programs in UC Irvine's College of Health Sciences including the Program in Nursing, the Program in Public Health, and the Department of Pharmaceutical Sciences.

## **Primary Electrical Improvements Step 4**

This future \$15M infrastructure project will correct existing electrical-system deficiencies and address infrastructure needs resulting from the growth of the campus over the last two decades. It will also reconfigure the University Substation, replace the remaining oil switches and lead-jacketed cable.

	2009-	2009-10		2010-11	
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M	
# Projects in Progress		mana3 and sal	bedsinner 7 ft tagen	000,510,6	
# Projects Completed	3	2	1	1	
# Projects Started	3		3		

# Capital Project Successes



# Clinical Laboratory Replacement Building

- ♦ Excellence in Environmental Use of Concrete American Concrete Institute, Southern California Chapter
- Gold Rating U.S. Green Building Council Leadership in Energy & Environmental Design (LEED)



# **Humanities Gateway**

- ♦ Gold Medal The Building of America Awards
- ♦ Award of Merit, Best Public/Private Special Use category Gold Nugget Awards
- Merit Award Public Sector Building Over \$15 Million, Design Build Regional Award, Design-Build Build Institute of America (DBIA) Western Pacific Chapter
- Award Winner Public Sector \$25-50 Million, National Design-Build Award, Design-Build Institute of America (DBIA)



## **Medical Education Building**

Best Overall Sustainable Design – Energy Efficiency Partnership Program Best
 Practice Awards (presented at the 2010 UC/CSU/CCC Sustainability Conference)





## Hilgard Graduate Student Housing Completed for September 2010 Occupancy

This project demolished existing houses and constructed 83 new studio units (60,162 GSF) with 53 below-grade parking spaces. The project was initially approved in November 2007 at a total project cost of \$24,558,000. Positive bids resulted in a net budget decrease of \$8,123,000 (33% savings). The revised project total of \$16,435,000 was administratively approved in February 2011.



720 Hilgard Avenue

## **Projects in Construction**

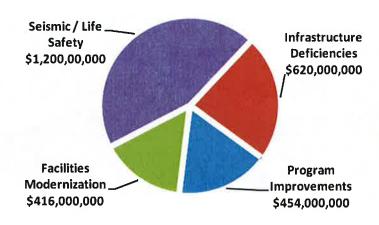
**Pauley Pavilion Renovation and Expansion:** This \$185M project involves a 57,000 GSF expansion and renovation of the 180,000 GSF Pauley Pavilion constructed in 1965. Construction is on track to complete in October 2012.

**Northwest Campus Student Housing Infill:** This project provides 1,500 beds of undergraduate student housing and a commons facility in 500,000 GSF of new construction. Favorable bids allowed a total project cost reduction of 40%, to \$225M. Construction commenced in June 2009, and is on schedule for completion in May 2013.

**Santa Monica Medical Center:** This \$573M multi-phased project constructed a new 172-bed replacement hospital (322,000 GSF) and significantly renovated the existing 94-bed Merle Norman Pavilion (115,000 GSF). Beneficial occupancy of patient care areas was achieved in May 2011. Demolition of the West Tower and construction of a public garden are anticipated to be completed in April 2013.

**Weyburn Terrace Graduate Student Housing:** This project provides 504 studio apartments for single graduate students in 375,000 GSF of new construction. Favorable bids allowed a total project cost reduction of 18%, to \$99.5M. Construction commenced in April 2010, with completion scheduled for June 2012.

# **Projects by Classification**



# **Capital Goals**

The focus of the \$2 billion capital program at UCLA during 2010-11 was seismic/life safety. The campus received beneficial occupancy of the Orthopedic, North and Central Wings at the Santa Monica Hospital, demolished a portion of the seismically deficient NPI low-rise wing in the CHS, and completed seismic upgrades to the Faculty Weyburn Apartments and CHS Parking E facility that houses new clinical research facilities.

In addition, seismic retrofit work commenced on Hershey Hall and Strathmore Bridge, and working drawings commenced on the CHS South Tower Seismic Renovation and Engineering 1A Demolition projects.

**CHS South Tower Seismic Renovation:** This \$220M project seismically renovates the 443,000 GSF CHS South Tower to accommodate a majority of the health sciences programs currently occupying seismically deficient space. Preliminary plans were approved by the SPWB in March 2011. Phased construction is anticipated to commence in November 2011, with completion scheduled for May 2014.

**Landfair and Glenrock Apartments Redevelopment:** This \$57.5M project replaces aged apartment buildings to construct 100 furnished apartment units (355 beds) and related parking near campus for upper-level undergraduate and transfer students in 194,000 GSF of new construction. Construction is scheduled to commence in July 2012, with completion anticipated in August 2014.

**Semel IPCN Renovation:** This \$15M project provides 43,000 GSF of clinical research space for high-throughput phenotyping studies. Construction is scheduled to commence in April 2012, with completion in July 2013.

**Boelter Hall Lab Renovation:** This \$12M project provides 25,000 GSF of collaborative laboratories for sustainable water, energy, and technology research. Phased construction commenced in January 2011, with completion anticipated in June 2013.

	2009-	10	2010-1	1
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	Com Indiana 7 (Unit Lane)	5	bon Rones arthur deed	1 5 V
# Projects Completed	3	1	2	
# Projects Started	Transport 2		nick it shid to the	de Indian

# **Capital Planning Profile**

#### Awards:

Wasserman Building - LA Business Council 2011 "Community Impact Award"
Pauley Pavilion - LA Business Council 2011 "Under Construction Civic Award"
Police Station Replacement Building - LA Business Council 2010 "Green Building Award"

<u>LEED™ Certifications:</u>

Police Station Replacement Building - LEED™ Silver Hilgard Graduate Student Housing - LEED™ Silver



Pauley Pavilion Renovation and Expansion



Northwest Campus Student Housing - Sproul South



# The Summits: Cathedral and Tenaya Halls

In 2010, the award-winning Summits project welcomed freshmen into double, triple, and quad rooms in two four-story buildings on a prominent site near the campus entrance. The buildings frame a number of dynamic outdoor community spaces and include facilities for conferences, study and tutorial rooms, lounges, a dance room and a market. The buildings embody a larger residential strategy that will offer active ground floor uses, clusters of services, pedestrian friendly circulation routes, and a network of courtyards within UC Merced's emerging orthogonal grid. The project was recognized by the AIA Sierra Valley Chapter with the 2011 Award for Design Excellence and by the 2011 Pacific Coast Builders Conference for distinction in Student Housing.



## **Construction Successes**

**Social Sciences and Management Building:** This three story, cast-in-place, 101,900 square-foot building broke ground in 2008 and was completed in the Fall 2011. Designed to achieve LEED Gold, the building meets UC Merced's system-leading environmental standards, and includes water-efficient landscaping and recycled materials. The building was constructed to allow natural light for art studios and easy access for visitors and students.

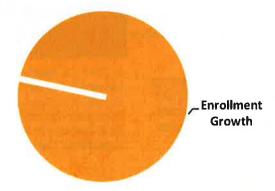


Social Sciences and Management Building

Stem Cell Instrumentation Foundry: The Stem Cell Instrumentation Foundry (SCIF) provides stem cell researchers at UC Merced and throughout California, access to advanced instruments, techniques and collaborators for single cell analysis. The SCIF project developed a 5,420 ASF facility that includes clean rooms for micro/nano fabrication, facilities for human and mouse stem cell culture, quantitative cell imaging, and workstations.

The Summits Marketplace: The Marketplace Project added a convenience store feature to the ground floor of the Summits residential project. The Marketplace provides a new option for food service and related items. It opened in Summer 2011.

## **Projects by Classification**



## Capital Goals:

As a young campus, the focus of UC Merced's capital program in 2010-11 has been to meet the strong demand for student housing, the critical need for academic and research space, and to address significant infrastructure needs.



Science and Engineering 2

# Planning and Design Highlights

Science and Engineering 2: This 102,000 SF facility will provide research and instructional labs and core facilities. Architectural and design features include significant outdoor spaces, including: a pedestrian plaza; a solar-panel-shaded promontory perched above the Fairfield Canal that can serve as an event venue; and a porch adjacent to the engineering labs for outdoor learning opportunities. The target for this building is LEED Platinum.

Housing 4: This LEED Gold-targets project will provide housing for up to 500 students on a narrow site north of The Summits: Cathedral and Tenaya Halls. Its orientation and seating will provide unobstructed views of Lake Yosemite and the Sierra Nevada to its residents.

**Recreation Center North:** Recreation Center North will add approximately 19,000 GSF of activity space, and offices space for the UC Merced Recreation and Athletics Department. The projected completion date for this Design-Build project is 2012 and the certification target for the building is LEED Platinum.

	2009-	10	2010-11	
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	2	1	8	2 00
# Projects Completed	1		3	1
# Projects Started		1	6	



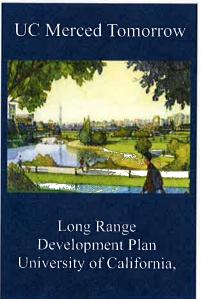
Housing 3 Complex

# Planning Achievements and Recognition

Since its inception, UC Merced has received recognition for its successes in sustainable development. As of 2011, all campus buildings have received or will receive LEED certification, with the great majority achieving Gold. This year, planning and design has also begun on the campus' first LEED Platinum targeted buildings.

In 2010-2011, UC Merced's Long Range Development Plan was recognized by American Institute of Architects, California Council with a Merit Award for Urban Design as well as the Society of College and University Planning with an Honor Award for Excellence in Planning for an Established Campus. The plan was cited as a "model for sustainable design excellence."

Other projects receiving awards in 2010-11 include: Science and Engineering Building, Merit Award, American Institute of Architects, San Francisco Chapter; Sierra Terraces, Energy Saving Dormitories from ASHRAE; and a campus-wide award from the International Green Industry Hall of Fame for excellence in sustainable practices.



In 2011, UC Merced's Long Range Development Plan received the Society of College and University Planning's National Honor Award for Excellence in Planning for an Established Campus



## School of Medicine Research Building

Originally approved as the Health Sciences Surge Building, this project was occupied in March 2011. This 58,000 GSF building provides modern research lab space for 15 SOM faculty research teams, laboratory support facilities, faculty offices and graduate student research space. The project is partially funded by a federal grant from the Health Resources and Services Administration (HRSA). The building features one of the first applications of "chilled beam" cooling technology in a lab research building in the United States. The campus is pursuing LEED Gold certification for the project.



## **Projects in Construction**

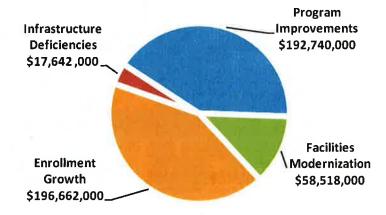
#### **School of Medicine Education Building**

Originally approved as the Health Sciences Teaching Center, this project adaptively reuses a 1974 academic building of 41,938 GSF to accommodate contemporary medical education program needs. Project scope includes a simulation lab, gross anatomy lab, mock exam rooms, seismic strengthening, and energy efficient building systems. Occupancy is anticipated in July 2012.

#### Glen Mor 2

This new 340,346 GSF complex on a 21-acre site provides 810 beds, dining facilities, structured parking for 597 spaces, restoration of an existing campus arroyo, and site development amenities within UCR's student housing precinct. This project is targeting LEED Gold certification with anticipated occupancy in July 2013.

# **Projects By Classification**



# **Capital Goals:**

The capital program in 2010-11 focused on mission-critical projects responding to enrollment-driven demand for student services, improved delivery of the instructional program, modernization of the research environment, and enhancement of obsolescent facilities or infrastructure to address life safety or improve energy efficiency.

Student Recreation Center Expansion.

This project renovates 10,765 GSF within the existing Student Recreation Center, and provides 66,420 GSF of new facilities. The original building was completed in 1994, and designed to accommodate a student body of 11,000. The expansion project addresses recreation demands for UCR's 21,000 students by providing additional workout areas, and indoor jogging track, wellness program space, a new multi-activity gym, and a recreational pool. The project is funded through a student fee referendum approved in 2010. The project is targeting LEED Silver certification and occupancy in Winter 2014.



	2009-	10	2010-	11
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	2		7	1
# Projects Completed		1	5	
# Projects Started	3	1	4	

# Capital Planning Profile: Commons Mall and Bookstore Renovation

UCR has completed pre-design studies for the Commons Mall and Bookstore Renovation project. This project will re-purpose the lower level of the Bookstore to accommodate the Campus Career Center and Student Card Office. In addition, the project will provide a new Bookstore elevator for improved accessibility, as well as open space land-scape and hardscape improvements.





## **Telemedicine & PRIME- HEq Education Facility**

UC San Diego's recently completed Telemedicine Prime- HEq building is 98,000 GSF and will accommodate a new program in medical education to support new telemedicine initiatives to improve health care access to medically underserved populations and other "at risk" populations. The project includes a 9,000-square-foot Clinical Skills and Simulation Center with simulated Hospital Room, ICU, Emergency Room and Operating Room settings. A 6,800-square-foot Medical and Surgical Procedures Teaching Laboratory has 22 stations where students will be instructed in the latest techniques of surgical, robotic, endoscopic and other special



techniques. The goals of the program are to: address health disparities among medically underserved ethnic and socio-economic groups; develop, transmit, and apply new knowledge regarding healthcare disparities and methods for addressing those inequities; and promote a multidisciplinary community/ university partnership to reduce/eliminate health disparities. Total project cost was \$65,026,000. LEED<sup>TM</sup> Silver certification is anticipated.

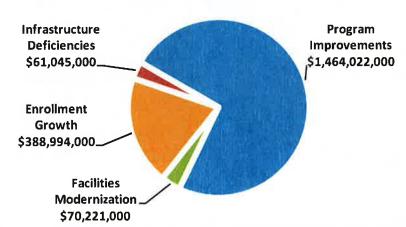
#### **Recent Construction Projects**

Health Sciences Biomedical Research Facility 2 This project is a step forward in the advancement of the University's School of Medicine biomedical research program. It will provide 196,000 GSF of research and support space to advance biomedical interdisciplinary programs such as Medical Genomics, Pediatrics, Neurosciences, Reproductive Medicine and Surgery. It will be a USGBC LEED<sup>™</sup> certified building in targeting a Gold rating or better. This new facility will bring more research funding to campus and provide space for a growing trend towards interdisciplinary health science research and education programs. Total project cost was \$179,580,000.

**Sulpizio Family Cardiovascular Center** This recently completed 128,000 GSF project provides space for the Cardiovascular program and expands the Emergency Department at Thornton Hospital. It contains 21 Emergency Department treatment rooms, four heart surgery rooms (including one hybrid operating room), four cath labs, 12 intensive care unit rooms, and 42 acuity-adaptable patient rooms. The project was completed 12 weeks ahead of schedule, and several million dollars below budget despite encountering several significant obstacles. The high-performing team concept utilized to deliver the project has been presented and well-received in several national conferences. Not only was this project completed while the hospital was still operational, it also achieved a USGBC LEED<sup>TM</sup> Gold rating. Total project cost was \$227,296,000.

**Revelle College Apartments** This recently completed project was one of five housing projects on campus largely achieving the Long Range Development Plan goal of housing 50% of all students. It will provide 157,000 GSF of space to accommodate 510 new beds. This is also a LEED<sup>TM</sup> registered project for USGBC with a goal of Platinum rating. Set in UCSD's first college on campus, it provides apartments adjacent to historic housing and considered both design stewardship for the school as well as the need for modern facilities. Total project cost was \$69,461,000.

#### **Projects By Classification**



#### **Capital Planning Goals**

Medical Center and Housing projects were key drivers for the capital program. New medical center facilities are underway for expanded patient care and clinical research activities in certain specialty areas, to better serve patients and facilitate the translation of laboratory discoveries into improved diagnosis and treatment.

Additional on-campus housing was another important goal since it is an integral feature of UCSD's transportation demand management strategy and represents a major component of the campus' Sustainability Program.

In addition, the focus has been to provide sustainable, energy-efficient facilities, renewal of aging buildings and infrastructure, and the provision of essential utilities to advance the academic program.

**Jacobs Medical Center** This project will provide 510,000 GSF in ten floors for a new hospital bed tower as an expansion of the hospital facilities at UC San Diego Health System's La Jolla Campus. The new tower includes capacity for 245 inpatient beds for general medical center and, intermediate medical, intensive care and obstetric and neonatal care units. Total project cost is \$696,300,000.

Clinical and Translational Research Institute This 330,000 GSF institute will create a multidisciplinary environment that brings together laboratory scientists and clinical investigators in order to foster translation of fundamental biological discoveries into new treatments and to enhance understanding of human disease. Total project cost is \$269,000,000.



**SIO Research Support Facilities** The project will provide approximately 24,500 GSF of space in two to three buildings to support Scripps Institution of Oceanography sea-going research programs. In addition, the access road into Seaweed Canyon and utilities infrastructure will be improved. Total project cost is \$6,348,000.

Renewable Energy Fuel Cell Facility This project will construct a renewable energy Fuel Cell Facility adjacent to Easy Campus Utility Plant and capable of generating 2.8 megawatts of electrical power. It is consistent with the campus goal of becoming a state-of-the-art carbon-neutral campus that embraces facility design and maximizes 'green' operations. Construction and implementation of this facility will help the campus meet its alternative energy and environmental sustainability objectives. Total project cost is \$887,000.

	2009-10		2010-11	
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	3 Williams	2 1 - 11-1	4	2
# Projects Completed	1		1	
# Projects Started	da has thursen 2		ne with the 2 million to	

# Project Delivery Profile | Health Sciences Biomedical Research Facility 2

Health Sciences Biomedical Research Facility 2 is utilizing the CM at Risk project delivery method. In this method, the campus hires a general contractor that both advises the university during the design phase and takes financial responsibility for construction of the project. The university found that this method allows integration among construction trades, helps streamline the construction process, and reduces costly change orders. This delivery method also involves all subcontractors when the university requires submittals to be completed before any major construction can commence. This team-building strategy along with a full pre-construction Building Information modeling (BIM) allows major trades not only to foresee conflicts before the beginning of construction, but also to foster a better working relationship throughout the project. The project is currently slated to score a US Green Building Council LEED Gold rating or higher. Thus far it has proved a promising model for the future in terms of delivering complex projects using the CM at Risk contracting method.







# The Ray & Dagmar Dolby Regeneration Medicine Building

71,100 GSF / 45,400 ASF, \$123M budget. The Dolby Building contains research labs and support within an environment for interdisciplinary research in cell differentiation and tissue regeneration. The building foments intellectual collaboration and promotes synergies for a broad-spectrum research program. The Dolby Building is integral to stem cell biology at UCSF, one of the largest, most comprehensive programs of its kind in the US. Substantial completion Sept. 2010; Notice of Completion

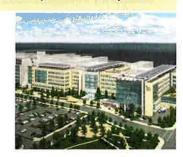
Bruce Dame



Bruce Damonte/Courtesy of Rafael Viñoly Architects

## **Current and Recent Projects in Construction**

**UCSF Medical Center and UCSF Benioff Children's Hospital at Mission Bay** 289 beds / 878,000 GSF, \$1.52 billion budget. This state-of-the-art medical center will serve children, women and cancer patients with advanced, family-centered care in a healing environment. Designed to enhance clinical services, improve staff/ faculty productivity, and foster scientific collaboration/innovation in a sustainable environment. Collaborative Integrated Project Delivery and virtual construction in 3D Building Information Modeling (BIM) used to reduce cost/risk. Structural steel will complete in Oct. 2011; construction in late 2014; and occupancy in early 2015.



**UCSF Medical Center at Mission Bay** 

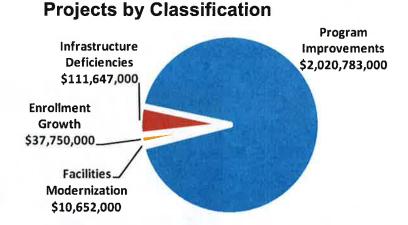
#### Smith Cardiovascular Research Center Building (Mission Bay)

236,000 GSF /148,500 ASF, \$254M budget. Primarily research, Smith Building contains first UCSF Mission Bay outpatient clinic, which will provide translational medicine to patients. Facilitated by Lean Construction and Integrated Project Delivery (BIM, Last Planner, off-site fabrication of components, etc.), the project delivered under budget and 2.5 months ahead of schedule; budget augmented Aug. 2010 to accommodate T.U.S. project.

**Telemedicine & Program in Medical Education for the Urban Underserved (PRIME-US) Edu. Facilities** \$35M approved budget. The project will deliver new facilities in support of increased enrollments; facilities and infrastructure systems to be distributed across multiple locations, interconnecting specialists and educators with distant clinicians, students, patients, delivering exceptional care to the underserved while enhancing clinical caregiver education.

#### School of Dentistry Craniofacial & Mesenchymal Biology Program Lab Renovation (Parnassus)

11,000 ASF, \$7.4M budget. Renovation of HSE Building, Ste. 15: Open lab plan, facilitating researcher interaction. Energy efficiency and sustainability principles were employed here to the fullest extent possible.



### Capital Goals

UCSF's Campus capital program in 2010-11 addressed growth and deferred maintenance issues. The goals of UCSF Medical Center were renewal and growth in equal parts. In order to grow, the Medical Center must first address the need for renewal. The campus anticipates following the systemwide trend toward renewal and modernization in the coming years.

# Projects in Planning and Design UC Hall & Clinical Sciences Building Reuse Study (Parnassus)

Scope and cost analysis for conversion of UC Hall on Parnassus to alternate use including seismic remediation of building shell, the repair and historic preservation of building façades, preliminary layouts of alternate-use schemes, and renewal of existing building utility connections that serve other areas of campus.

Photograph (ca. 1949) shows newly-constructed Clinical Sciences Building on left and UC Hall (then the University of California Hospital) on right.



# UCSF Medical Center at Mission Bay Phase 1 Parking Structure

Planned for 624 spaces, early completion is scheduled for occupancy in August 2012 to provide contractor parking during construction of the Medical Center at Mission Bay. Ultimately, the parking structure will serve patients, visitors, and employees when the Medical Center is occupied in 2015.



Medical Center Phase 1 Parking Structure – September 2010 Rendering – View from Medical Center

	2009-	10	2010-	11
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	6	2 48 1111	0 d 6 d 8 d 9	2
# Projects Completed	2		2	1
# Projects Started			The second secon	

# **Capital Planning Profile**

Driven by the need to build and renovate complex research and medical facilities, UCSF is in the vanguard of improving project delivery methods. Our new Medical Center at Mission Bay, the Ray & Dagmar Dolby Regeneration Medicine Building, and the Smith Cardiovascular Research Building each benefitted from various forms of Integrated Project Delivery, Lean Construction, and Building Information Modeling (BIM) to improve quality while saving cost and time compared to traditional construction processes. UCSF applies lessons learned from these projects to mid-sized projects such as the Anatomy Lab renovation; we work with Office of General Counsel to further develop these new project delivery models.

#### **Campus Awards**

Smith: Int'l Interior Design Assn. No. CA Chapter 2011. Dolby: AIA NYC Chapter, 2011; AIA-SF, 2010; Design Build Institute Western Region, 2010.

#### **Media Featuring UCSF Campus Projects**

The New Yorker, September 19, 2011. San Francisco Chronicle, February 5 & 9, 2011. The Wall Street Journal, Thursday, July 2, 2010. Engineering News Record, January 12; June 30; February 25 and 20, 2010.

#### **Medical Center Awards**

**ACC 7th Floor C. Frank Transplant Center:** Finalist, 2010 Health Care Design Magazine Awards.

Long Hospital 13th Fl Acute Care Nursing Unit Remodel: Finalist, 2010 Health Care Design Magazine Awards.

UCSF MedSci Building/Moffitt Hospital Seismic Separation: Nat'l Council of Structural Engineers Associations.

Telemedicine / Simulation Room, UCSF Parnassus Campus

Photo by Mikki Piper







#### Infrastructure Renewal Phase IA

This was the first phase of a multi-year infrastructure renewal project which addresses critical deficiencies in the campus' aging utility infrastructure, much of which has been in service for 50 years. The Phase IA infrastructure work included the highest priority segments of the storm drain, sanitary sewer, potable water, and natural gas utility systems. The project aligns with the Vision 2025 plan as it





provides for infrastructure capacity for future campus growth over the next 50 years. The project included the new Library Mall, pictured here, which incorporates permeable sidewalk pavers and landscaping designed to filter silt and pollution from surface runoff water. The Mall paving system extended across campus to the University Center. Work was completed in August 2011.

## **Projects in Construction**

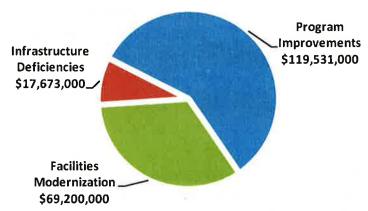
## **Arts Building Seismic Correction and Renewal**

The Arts building was constructed in 1959. The primary occupants are the departments of Art and History of Architecture. The infrastructure in most of the building has not been upgraded or replaced since its original construction. The project combines seismic safety corrections with work to modernize the building's infrastructure, and addresses fire, life safety and ADA deficiencies. By removing some original columns and adding windows in exterior walls, loft spaces were created for second level studios with views to the lagoon and ocean. Glass infill between existing walls and new structural walls created two new jewel box spaces for art exhibition. Construction is about 50% complete.

## **Ortega Dining Commons Seismic Corrections**

Ortega Dining Commons is a 26,969 GSF single-story structure designed in 1957 with a dining hall, kitchen, offices and storage. The building was largely in its original state, with the exception of a partial structural retrofit in 1987. Seismic corrections were completed recently and the facility will soon be back in operation serving meals to students.

# **Projects By Classification**



# **Capital Goals**

Active projects in FY 2010-11 were focused primarily on seismic hazard abatement with the goal of eliminating the remaining inventory of structurally deficient buildings; infrastructure renewal to accommodate long-term growth of the campus; building renewal responding to program demands; renewal of student housing; and construction of faculty housing.

## **Davidson Library Addition and Renovation**







This project encompasses the construction of a three-story concrete building of approximately 61,000 GSF housing special collections, study areas, and a reading room. The adjacent two-story 90,000 GSF library wing will be completely renovated including all new building systems as part of a seismic retrofit. A dramatic new two-level entry space will greet visitors, and the façade between the new entrance and the addition will change dramatically as they are joined by a new architectural landscape. The project will correct life safety deficiencies throughout the 314,110 GSF existing library complex including installing a new fire alarm system, fire sprinklers, and both emergency and primary power systems. Construction will start in 2012.

## **Bioengineering Building**



This 92,000 GSF building will consist of three floors of laboratories to accommodate growth in bioengineering research and graduate education. It also provides the campus with a state-of-the-art vivarium to meet expanding needs of research programs in biological science, psychology, chemistry, and bioengineering. The architecture is expressive of the many energy-conserving features incorporated into the design, and has a regional reference with the use of local sandstone. Construction will start in 2012.

	2009-	10	2010-	11
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	di pini iniparindi	2	4	2
# Projects Completed	1		1	
# Projects Started	2		2	

# **Capital Planning Profile**

The ten-year Capital Financial Plan for UCSB places significant emphasis on building additional student and faculty housing, as well as continuing investment in campus infrastructure to support future growth and building systems renewal to improve the condition of existing facilities.



## **Biomedical Sciences Building**

Slated for completion in Fall 2012, UCSC's state-of-the-art biomedical sciences building will foster cutting-edge interdisciplinary research in bioinformatics, genomics, and stem cell technology - the latest tools being deployed in the wars against cancer, AIDS, Parkinson's disease, and other degenerative conditions. This specialized facility will support scientists from the Departments of Molecular and Cellular Biology, Chemistry and Biochemistry, Microbiology and Environmental Toxicology, and Biomolecular Engineering who are concentrating in health and medical issues. UCSC's Interdisciplinary Institute for the Biology of Stem Cells will occupy the fourth floor.



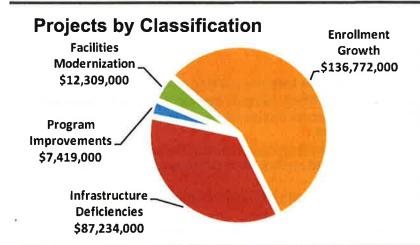
#### **Recent Construction Projects**

**McHenry Library:** With the completion of the McHenry Library expansion and renovation, UCSC has a stunning, light-filled facility with a high-tech infrastructure that will meet the needs of students and researchers in the 21<sup>st</sup> century. Ten years in the planning, the new seismically retrofitted library is a fitting home for UCSC's growing collection of print and electronic materials, as well as an inspiring setting for teaching and research. Now the largest building on campus, McHenry Library houses the departments of Mathematics and Education and teaching labs for the Library, Information Technology Services, and the History of Art and Visual Culture Department. 274,000 GSF, \$100,125,000.

**Porter College Student Housing:** This project renovated and expanded a 1970 four-story residence hall adding two additional stories, to increase bed capacity by 76 percent without increasing the building footprint. The renovation also improved energy efficiency, brought the building into ADA compliance, and addressed life safety issues. Construction was completed in less than 15 months and the building will receive LEED<sup>TM</sup> Silver or Gold certification from the USGBC. 81,000 GSF, \$49,007,000.

**Cowell Student Health Center:** Funded by student fees, this project renovated the existing building, added a new wing, and made seismic corrections. The result is a LEED<sup>™</sup> Gold certified building that dramatically improves the campus' ability to address the healthcare needs of its students. The Cowell Student Health Center, which accommodates 35,000 patient visits per year, marked its 40<sup>th</sup> anniversary in 2010. 35,000 GSF, \$24,406,000.

**Engineering Thin Films and Materials Laboratories:** This first renovation to the former Texas Instruments manufacturing facility at 2300 Delaware Avenue provides a new suite of laboratory space for cutting-edge research in compound semiconductor nano-structured materials and new materials using ultra-low temperatures. These new labs create great potential for other significant technological advances in materials research. 16,000 GSF, \$3,567,000.



# **Capital Goals**

The focus of the campus' capital program in the past year addressed only the most critical needs in support of current enrollments and associated faculty levels. New and renovated facilities with expanded infrastructure are needed to support instruction and research program development, improve efficiency and energy conservation, and provide a high-quality learning experience for all students.

Coastal Biology Building: Surging enrollments in biological sciences will benefit from this project, which will consolidate the Ecology and Evolutionary Biology Department on the 100-acre Marine Science Campus (MSC). The building will provide seawater-equipped research and teaching laboratory spaces, as well as faculty and research offices, greenhouses, and associated infrastructure. This facility will greatly relieve chronic overcrowding on the main campus and provide long-overdue facilities at the MSC for one of UCSC's most highly regarded and fastest-growing programs.



**Cogeneration Plant Replacement:** This project will replace the 25-year-old cogeneration system with a system that will improve backup power reliability and nearly double electrical capacity while maintaining current greenhouse gas and carbon emission levels. Construction is scheduled to begin in September 2012.

**Improvements to Instructional Facilities:** To address a persistent shortage of large classroom space on campus, UCSC has proposed building its first high-capacity classroom auditorium. The project will encompass one 600-seat classroom and one 400-seat classroom, as well as seminar rooms. The project will also address physical security and network capability shortcomings in existing classrooms and instructional computing labs across campus.

**Social Sciences Facility:** This project will provide space for two academic departments within the Social Sciences Division, divisional offices, spaces for Organized Research Units, and flexible offices for other programs. In addition, the project frees up much-needed space to provide expansion for highly desired programs such as Gaming and Robotics within the Baskin School of Engineering. A related project would provide essential roadway and utility services extensions and pathway improvements.

**Solar Photovoltaics Pilot Project:** This energy-efficient project will contribute to campus goals of increasing renewable energy sources and reducing greenhouse gas emissions by installing solar panels on the roof of the McHenry Library. The panels will be installed, owned, and operated by a third party vendor, who will enter into a power purchase agreement with the campus.

**Telecommunications Infrastructure Improvements:** This five-year, three-phase project will replace an outdated telecommunications environment that has already exceeded its life expectancy with the robust IT infrastructure the campus needs.

	2009-	10	2010-	11
	\$10M - \$60M	>\$60M	\$10M - \$60M	>\$60M
# Projects in Progress	3	2	1	1
# Projects Completed			3	1
# Projects Started			2	

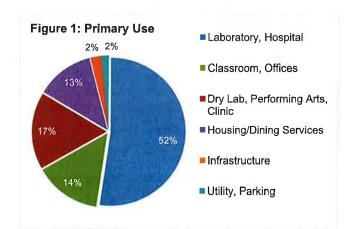
# **Achievements**

- A grant of \$7,192,000 from the California Institute of Regenerative Medicine (CIRM), provided support for UCSC's interdisciplinary Institute for the Biology of Stem Cells, which occupies the fourth floor of the Biomedical Sciences Building. A grant of \$4,116,000 from the National Institute of Health allowed the campus to add critical facility improvements and equipment to the vivarium.
- The Porter College Housing project met the enormous demand for beds to accommodate the 38% increase in 2010-11 transfer students. This unique environment enhanced student life experiences for incoming freshmen.
- UCSC was ranked as one of "10 Best Public Colleges, in the Western US" and "America's Greenest Colleges

#### IV. STATUS OF THE FY 2010-11 CAPITAL PROGRAM

#### A. Active Projects

All projects that were active (with approved budgets and in design and/or construction as of June 30, 2011) are included in this report. Thus, the data represent a snapshot of a cumulative process representing several years of ongoing efforts, and not confined to the events of FY 2010-11.



The primary building types included in the FY 2010-11 active projects portfolio are shown as percentages of total program dollar value in Figure 1 at left. The system-wide distribution reflects the impact of enrollment growth, health sciences expansion, research development, capital renewal, provision of more on-campus housing, and the statutory deadlines of Senate Bill 1953<sup>1</sup> for medical facility construction.

The cumulative budget of the portfolio of 223 active projects was \$8.9 billion, a 5.3 percent

dollar-volume decrease from the previous year's total of \$9.4 billion for 229 projects.

Table 1 below provides the aggregate status of major capital project activity at the end of fiscal year 2010-11, as compared to the previous fiscal year end. All values that refer to either budget or schedule changes represent the cumulative changes from project budget approval until that fiscal year-end, and do not include data prior to official budget approval.

Table 1: Summary Data of all Active Major Capital Projects at Fiscal Years Ending 2009-10 and 2010-11

	2009-10	2010-11
Total number of active projects	229	223
Total amount of original budgets	\$8,618,701,000	\$8,577,300,000
Cumulative approved budget changes	\$ 705,286,000	\$ 288,342,000
Total year-end budget (excludes inflation*)	\$9,323,987,000	\$8,865,642,000
Percent change from original budget	8.2%	3.4%
Total year-end budget (includes inflation*)	\$9,418,114,000	\$8,917,503,000
Projects with budget changes	37	35
Projects with schedule changes (over 90 days)	92	68_

<sup>\*&</sup>quot;Inflation" refers to State inflation adjustments in the budget.

In FY 2010-11, 100 projects were completed and 94 new projects were added. With the addition of new projects, cumulative augmentations to previously approved projects, and reversions of funding or reductions in budgets due to bid savings, the total value of active projects decreased by \$458 million (excluding adjustments for inflation). Figure 2 displays trends for the year-end budget totals and for the number of active projects for each fiscal year from FY 2001-02 through FY 2010-11.

<sup>&</sup>lt;sup>1</sup> Senate Bill 1953 requires seismic evaluations and compliance plans that will attain specified performance categories for structural and non-structural elements at all acute care hospitals within a specified timeframe.

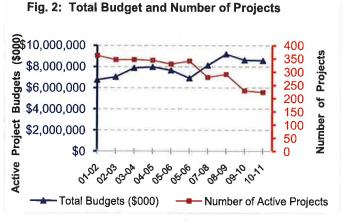
While the total number of active projects remained almost identical in FY 2009-10 and FY 2010-11, the decrease in dollar value was primarily due to four large reversions or reductions in budgets due to bid savings, totaling \$356.4 million, and the completion of two large hospital projects, totaling \$651.8 million.

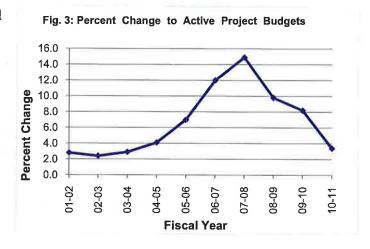
#### 1. Budget Augmentations

Project budgets often are augmented to cover additional scope, unforeseen conditions, or other unexpected events

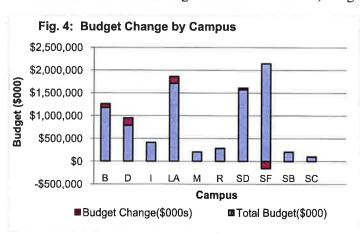
during design and construction. These augmentations are displayed in Figure 3 reflecting the trend in the percent change in inflation-adjusted project budgets (net changes divided by total amount of original budgets) for the last ten years.

Cumulative net budget augmentations for active projects, as a percentage of original budgets, decreased from 8.2 percent the previous year to 3.4 percent in FY 2010-11. Four older augmentations prior to FY 2010-11 are masking the significant bid savings realized in 2010-11. When these are excluded, there is no net augmentation, but rather a 3 percent savings in total project budgets. This sharp decrease is primarily due to the current economic climate that has continued to make for very favorable bidding conditions at most of the campuses.



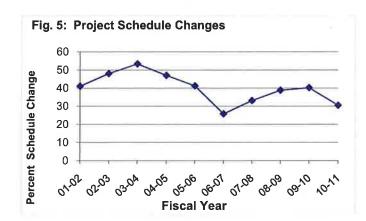


Unforeseen site conditions, market conditions, errors and omissions in construction documents, design and construction delays, and extended costs due to the state funding freeze are factors that contributed to the need for augmentations. However, budget augmentations for some projects were



due to scope increases determined to be beneficial to the project and made feasible through the availability of additional funding.

#### 2. Schedule Changes



A project is considered "over schedule" if completion is delayed more than 90 days after the initially scheduled completion date. Figure 5 displays trends for the percentage of projects with schedule changes from FY 2001-02 through FY 2010-11. The percentage of projects with schedule changes decreased from 40.2 percent in 2009-10 to 30.5 percent this past year.

The suspension of State funding affected projects on every general campus and

resulted in schedule delays with potential budget impacts. Many projects stopped during this time have not yet completed and thus continue to be included in the tabulation of schedule changes. In addition, some projects such as the Student Athletic High Performance Center and the Computational Research and Theory Facility at the Berkeley campus, and the Biomedical Sciences Facility at Santa Cruz, experienced delays due to protests and ensuing litigation. Delays in agency reviews for hospital projects also impacted schedules.

Campuses have varying experience with maintaining project schedules as shown in Figure 6.

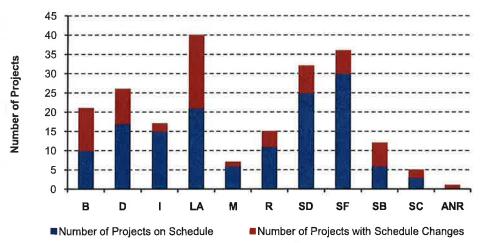


Figure 6: Number of Projects with Schedule Changes

#### **B.** Completed Projects

The statistics for all active projects as of the last day of the fiscal year (June 30) are reported in Table 1 above. However, it is also of interest to examine the projects completed during the fiscal year (i.e., projects that are not included in the analysis of active projects, above) in order to discern periodspecific or cohort-specific project trends related to the percentage of change to original budgets, and the average number of days over the original schedule.

There were 100 projects with budgets totaling \$1.7 billion completed in FY 2010-11. (Completed projects are those for which Notices of Completion were filed or a Notice of Substantial Completion was received with no major outstanding financial or contract issues.)

Table 2: Summary Data of Completed Major Capital Projects

	2008-09	2010-11
Total number of projects completed	128	100
Total amount of original budgets of projects completed	\$1,291,275,600	\$1,488,430,000
Approved changes (excludes inflation/reversion*)	\$ 126,758,000	\$ 272,665,000
Total year-end budgets (excludes inflation/reversion*)	\$1,418,034,000	\$1,762,922,000
Percent net change from original budget	9.8%	18.3%
Total year-end budget (includes inflation/reversion*)	\$1,567,763,000	\$1,772,772,000
Number of completed projects within original schedule	50	49
Number of completed projects over original schedule**	78	51
Average number of days over original schedule***	396	154

<sup>\* &</sup>quot;Inflation/reversion" refers to State inflation or reversion adjustments to project budgets

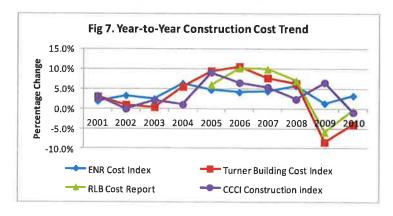
The percent change in original budgets for projects completed in FY 2010-11 increased from 9.8 percent the previous year to 18.3 percent. This dramatic increase reflects the tremendous volatility during 2005-2007 that adversely affected two very large hospital projects and a third large project that had an aggregate total of more than \$250 million in cost increases. If this \$250 million is excluded, the change for FY 10-11 would be 1.5%, a reduction from the previous year.

Also, as noted earlier, project changes can represent a benefit for the project, such as new funding opportunities, shifts in funding strategies, program updates that require redesign, and coordination with other projects.

# V. CONSTRUCTION MARKET CONDITIONS FY 2010-11 AND FORECAST FOR FY 2011-12

In FY 2010-11, the California construction market has not yet recovered from the downward spiral that began in 2007-08. The cost of some construction materials showed gains by mid-2011;

however, contractor premiums remained depressed and unemployment in the construction trades in California remained in the double digits, about twice as high as other sectors of the California economy. The major construction cost indices began to rise again in FY 2010-11. As can be seen in Figure 7, the three national indices (ENR, Turner and RLB) indicate gains in construction cost trends over the previous year. The CCCI



<sup>\*\*&</sup>quot;Over schedule" if over more than 90 days

<sup>\*\*\*</sup>Average number of days exceeding the original schedule for the entire portfolio (8 smaller projects with long term delays greater than 2 years were excluded.)

(California Construction Cost Index) shows continued decline in costs reflecting California's continued depressed economy. Similar to the last couple of years, intense competition between contractors who vied for fewer and fewer jobs resulted in bids that often included zero margins.

Major events such as the earthquake/tsunami in Japan are expected to contribute to price gains for global commodities, such as steel. "Restrained demand and increasing material cost have been the major influencers on construction," notes Karl Almstead, who puts together the Turner Building Cost index. "The level of construction activity is a factor limiting the influence of labor cost increases on the overall cost of construction."

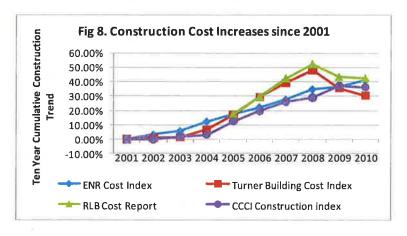
As Ken Simonson, chief economist for the Associated General Contractors of America, stated, "Construction employment continues to be stuck in a pattern where there are just as many hot spots as there are slow spots." Nationally, the biggest losses in construction employment were in the Los Angeles metropolitan area, affecting the southern UC campuses, while there appears to be more competition in northern California.

These downward pressures on overall construction costs were clearly beneficial to owners who had liquidity. There are additional effects stemming from the duration of this downturn. Many contractors have gone out of business, while some of those remaining are operating on very thin margins – "consequences which may include more construction related businesses closing and more projects 'going bad'."<sup>4</sup>

The severe competition for projects has resulted in a sharp increase in bid protests. In the years

2005-2008, bid protests averaged six per year. During this fiscal year thirteen bid protests and six subcontractor substitution requests were elevated to the hearing stage, as compared to sixteen and seven hearings, respectively, the previous year. These actions have resulted in delays in awarding contracts.

**Forecast:** While the downturn has enabled many projects to bid under budget, it should be noted



that the downturn mainly slowed construction escalation, allowing projects to bid below budgets that had included escalation. Overall, Figure 8 shows that while there have been decreases in the last few years, since 2001 construction prices have increased an average of 35% according to the main industry indices.

The Architecture Billings Index (ABI), a leading economic indicator that reflects the nine-to twelvemonth lag between architecture billings and construction spending, evidenced a continued decline in the demand for design services through the end of FY 2010-11, yet has shown a small uptick in the beginning of FY 2011-12. The increase in the August 2011 architecture billing index was the largest

<sup>&</sup>lt;sup>2</sup> Turner Construction Cost Index, September 27, 2011.

<sup>&</sup>lt;sup>3</sup> AGC of America Press Release, September 26, 2011.

<sup>&</sup>lt;sup>4</sup> RLB Rider Levett Bucknall, Quarterly Construction Cost Report, Third Quarter 2011

monthly increase for the index in four years, and forecasts an increase in construction spending next spring.<sup>5</sup>

The economic recovery for the industry is expected to be both slow and unpredictable. The University continues to seek to capitalize on the weak construction market and low-cost capital financing options, by bidding projects in the near future. However, there are risks inherent in both the continued downturn and the recovery. Downturn risks include contractor default, change orders, claims activity and poor quality resulting from low bids at prices winning bidders cannot deliver at. Recovery risks include difficulty in estimating projects now in planning that will be constructed a few years from now; price spikes in specific commodities; and competition from other major projects (such as the enormous Apple<sup>TM</sup> headquarters in Cupertino) affecting both bidding and procurement of materials such as concrete and steel.

Construction inflationary factors for 2012 -2014 are difficult to predict as they depend upon the speed of the economic recovery nationally and globally. As the Davis Langdon 4<sup>th</sup> Quarter 2009 Construction Industry Market Report notes — "Planning for uncertainty is more important than planning to a specific escalation target. This involves developing strategies for accommodating both lower and higher than expected rates of escalation." The Report goes on to recommend inclusion of alternates, monitoring of market conditions, and owner-managed contingencies through all phases of a project. Davis Langdon reiterated these cautions during a seminar conducted at UCOP on September 23, 2011.

University projects that are currently in the preliminary planning stage when budgets are established and that will be bid in late 2011-2012 should include some method of managing potentially volatile cost escalation. There are a variety of means, but early award of contracts will provide the greatest measure of confidence. This can include project design/build or design/build and early award of specific trades, when project financing enables these options. Integrated Project Delivery allows for partnering amongst contractor, subcontractors, architects and engineers, and can facilitate accurate assessment of cost fluctuations and provide a coordinated means to address volatile conditions should they arise.

#### VI. UNIVERSITY INITIATIVES RELATED TO PROJECT DELIVERY

In FY 2010-11, the University continued to develop initiatives related to process improvement, cost control, and risk management. The following are ongoing initiatives:

#### A. The Capital Program Leadership Forum and Process Improvements

At the March 2010 meeting, the Regents endorsed five initiatives and recommendations set forth in the 2005 report entitled *Transforming Capital Asset Utilization: Opportunities for Reducing Project Costs and Achieving More Program for the University's Capital Dollar*. These recommendations addressed:

- Accountability;
- Early analysis of alternatives;
- Shorter, simpler processes in the planning phases using business case analyses and clearly defining decision-making authority;

<sup>&</sup>lt;sup>5</sup> American Institute of Architects, September 27, 2011.

- Robust and flexible construction contracting methods; and
- Development of system-wide metrics, benchmarks, standards and data.

In addition, the Regents expressed a desire to receive earlier notification of potential material changes to the budgets, scopes, and schedules of capital projects.

The Capital Program Leadership Forum ("Forum") was formed to provide a vehicle for advising on implementation strategies and initiatives. The Forum, chaired by Vice President for Budget and Capital Resources Lenz, comprises individuals from each campus appointed by each Chancellor to speak on his or her behalf for the campus capital program. The Forum is a venue for forging new approaches consistent with Regents' recommendations and proactive consideration of issues, constraints, and opportunities. Through the efforts of working groups within the Forum, significant progress has been made on all five recommendations.

Business Case Analysis: an analytical methodology has been developed and implemented for all projects in excess of \$10 million. The Business Case Analysis (BCA) was developed by CRM staff, in coordination with the working group, to assist campuses in preparing BCAs to evaluate proposed new projects. The template allows campuses to individualize the BCA to be project-specific and address the decisions inherent in their specific project. It includes a qualitative analysis as well as a financial/quantitative analysis.

Early notification to Regents: criteria for issues of high interest have been designated, and a systematic process for communicating issues to the Office of the President and to the Regents has been implemented. Criteria include such factors as high complexity, high community interest, and issues related to increasing schedules and budgets. CRM planners hold monthly conversations with each campus solely to review the status of all identified high-interest projects. These conversations provide a venue to discuss project issues and collaborate on mitigating and resolving these issues.

Streamlined planning timeframes and clearly-defined decision-making authority: the Regents have accepted Physical Design Frameworks (PDF) for all ten campuses; the Consolidated State and Non-State Capital Financial Plan (CFP) provides annual updates of the campus' ten-year capital plans. Projects up to \$60 million that are in the CFP and consistent with the campus PDF are eligible for Chancellorial approval in the Delegated Process. Streamlining the capital approval process included development of guidelines and templates for campus portfolios, amendments of Standing Orders and Regents' policy to allow for increased campus authority, and creation of a checklist of requirements for delegated projects. In March 2011, The Regents extended the pilot phase of the Delegated Process to 2014, and refinements to the process are ongoing. As of September 2011, 50 projects have received initial approvals under the Delegated Process.

Robust and flexible contracting: Capital Resources Management worked with UC representatives in Sacramento to extend the use of the Best Value delivery method to all 10 campuses following the successful pilot program at UCSF. SB 835 was signed into law by Governor Brown in October, 2011. The Best Value delivery method allows a campus to select contractors based on a point system for demonstrated good management and qualified project-assigned personnel as well as on competitive bid prices. The contractor who bids the lowest ratio of project cost to quality points for their experience and their project team wins the contract.

Metrics, benchmarks, standards and data: as of July 2011, campuses now report project "close-out" data, which will inform accountability reporting; refined metrics and benchmarks to gauge overall effectiveness of the capital program are under development; and design of a comprehensive data management system to maximize effectiveness and efficiencies in capital program planning is underway.

**Training:** In late 2010, the University re-established a collaborative training program in design and construction. The Capital Programs Institute (CPI) presented seven unique programs (half-day and full-day), attended by a total of 554 UC staff in the 2101-11 fiscal year. The sessions included: Project Management in the UC Environment; Stormwater Regulation Updates; the California Green Building Code and Green Buildings on UC Campuses; The New ADA Requirements for California and UC; Contract Administrators' Workshop; UC Construction and the Law; and Using Job Order Contracting Effectively on UC Campuses. Sessions are targeted variously toward campus planners, architects, contract administrators, construction managers, fire marshals and real estate personnel.

#### B. The Statewide Energy Partnership Program

The Statewide Energy Partnership Program (SEP) includes over 900 energy efficiency projects at the campuses and medical centers. Over three years this program is expected to reduce annual system-wide energy costs by \$36 million and deliver reductions of eleven percent of total electricity usage and eight percent of natural gas usage system-wide. It is also projected to yield a nine percent reduction in the University's purchased utilities "carbon footprint."

Under the SEP the University has completed or is implementing 58 major capital projects with a total contract value of \$146 million. These revenue bond-financed energy efficiency projects are separate from any major capital outlay projects proposed for State funding by the University in FY 2011-12. Projects must have a reasonable return on investment, defined as the ratio of debt service to cost savings not exceeding 85 percent. (Many of the projects outperform this standard.) Projects include major space conditioning retrofits, climate control enhancements, and installing cutting edge laboratory ventilation systems.

In March 2009, the Regents authorized \$247 million for SEP funding, of which approximately \$61 million will be provided through utility grants over three years. In September 2010, the Regents augmented the program by an additional \$15 million (with attendant project annual energy cost savings of \$2 million). As of that date, campuses had submitted applications for 303 projects with a portfolio cost of \$141 million. Approximately \$31 million of this amount will be offset by utility incentive grants. The program is likely to be extended in the foreseeable future and the University is currently taking inventory of additional energy-related capital projects to drive down energy use and operating expenses.

#### C. Public-Private Partnerships

To date sixty-five significant and eight smaller Public-Private Partnerships (PPPs) using a variety of transaction structures have been developed or are in planning at UC. Four key PPP transaction structures (and the uses to which they are most applicable) include:

- Ground Lease (auxiliary uses-i.e., revenue producing from third party tenants/users);
- Donor Development (Donor preference to control project delivery; typically programmatic use; on or off UC land);
- Ground Lease-Leasebacks (programmatic use, UC is the user); and
- Developer Build-to-Suit for purchase by UC on completion (also known as Turnkey projects—typically programmatic use--best off UC land).

PPP ventures are not considered within the standard capital project approval process, because the University does not fund the design and construction; typically, PPP projects are handled and

approved as real estate transactions. Thus, projects so structured are not tracked in the capital program and are not part of this Report.

Ground Lease projects for auxiliary purposes include thirteen student and faculty rental housing projects, five faculty for-sale-housing projects (representing multiple phases and product types) and five motel and hotel projects. Donor development projects, where a donor assumes responsibility for funding and construction of 100 percent of a project, have now been employed at four UC campuses and at two agricultural field stations.

Given the University's success in executing PPP projects, this capital project delivery method is now evaluated alongside traditional delivery methods permitted under the Public Contract Code. particularly for auxiliary uses. The PPP method has the potential to deliver projects quickly, although when negotiations establishing the project are protracted, as has been the case with some, these time savings may not materialize. While the University's excellent financing makes it unlikely that a PPP project can produce significant savings compared to an effectively implemented UC delivery method, particularly for programmatic projects, even in these cases, the PPP approach may allow the University to augment its capital delivery system and shift project construction and operating risk.

#### D. University Controlled Insurance Program (UCIP)

In January 2010, the University developed and implemented a University Controlled Insurance Program (UCIP) for all projects with a construction contract budget of over \$25 million. This program covers general liability and workers' compensation. Aside from savings that could range from 1 to 3 percent of construction costs, benefits include higher limits and broader coverage's, uniform and consistent coverage for the entire project, enhanced and coordinated safety for all contractors, and potentially reduced litigation and cross complaints.

Even at this early stage the UCIP has shown significant initial cost savings. The actual savings and impacts of the entire program will be evaluated annually. As of June 2011, 8 projects with a construction value of \$1.4 billion have been enrolled in the program; the number of projects in the program will increase as more and more reach the bidding and construction phases in the coming fiscal year.

	1	2	2 3		5	6	7		8	9
	Active Projects	Orlginal Budget	Budget at End of 10-11	Inflation Adjusted Budget 10-11	Total # with Budget Changes	Changes to Original Budget	% Change from Original Budget		# with Schedule Changes	% with Schedule Change
Berkeley	21	1,174,389,000	1,271,119,000	1,260,450,000	4	86.061.000	7.3%	а	11	52.4%
Davis	26	787,568,000	955,450,000	946,247,000	5	158,679,000	(7)	ы	9	34.69
rvine	17	410,879,000	410,879,000	410,879,000	0	0	0.0%		2	11.89
os Angeles	51	1,707,910,000	1,860,797,000	1,860,797,000	7	152,887,000		cl	19	37,3%
Merced	7	204,525,000	204.525.000	204,525,000	0	. , 0	0.0%	1	1	14.3%
Riverside	15	279,625,000	292,980,000	284,798,000	6	5.173.000	1.8%		4	26.7%
San Diego	32	1,570,751,000	1,613,135,000	1,610,257,000	5	39,506,000	2.5%		7	21.9%
San Francisco	36	2,143,081,000	1,985,503,000	1,985,503,000	2	(157,578,000)	(7.4%)		6	16.7%
Santa Barbara	12	202,659,000	214,135,000	197,873,000	1	(4,786,000)			6	50.0%
Santa Cruz	5	94,206,000	106,846,500	102,180,000	4	7,974,000	8.5%		2	40.0%
DANR	1	1,708,000	2,134,000	2,134,000	1	426,000	24.9%		1	100.0%
	223	8,577,300,000	8,917,503,000	8,865,643,000	35	288,342,000	3.4%	T	68	30,5%
			Inflation Adjustments:	51,860,000						
BUDGET CHANGES										
Reduced 7										
ncreased 28										
CHEDULE					- 1					
On Schedule 155										
Schedule Changed 68										
Stat		1,892,258,000	2,464,750,000	2,412,889,000						
Non-stat	180	6,685,042,000	6,452,753,000	6,452,753,000						
TOTALS	223	8,577,300,000	8,917,503,000	8,865,642,000	35	288,342,000	3.4%		68	30.5%

- (1) Active Projects: Projects with budgets exceeding \$750,000 on which funds were expended in 2010-2011 and had not been completed (no Notice of Completion filed) by June 30, 2011.
- (2) Original Budget: The sum of the original budgets for the active projects officially approved,
- (3) Budget at End of 2010-11: The sum of the project budgets at year end. This figure includes all increases and decreases made to the original budget since its approval.
- (4) Budget with inflation removed for state-funded projects. Value of inflation adjustments shown in Italics.
- (5) Total # with Budget Changes: the number of active projects that have had budget changes (increases or decreases) over the life of the project to date.
- (6) Changes to Original Budget: This is a net dollar amount of augmentations and decreases. State-funded project budgets are adjusted to the original cost index for the project so that inflationary changes are not reflected as budget augmentations.
- (7) % Change Original Budget: The budget changes represent the percent of change from the original budget, due to revised program scope or market conditions.
- (8) # with Schedule Changes: The number of projects that have had changes in their schedule since original approval ("schedule change" is defined as being "over schedule" by more than 90 days).
- (9) % with Schedule Changes: The percentage of the total campus projects with schedule changes.
- (a) Schedule delays are due to State funding suspension for a number of projects (Campbell Hall, Durant etc.) as well as litigation for the Student Alhietic High Performance Center.
- (b) Includes augmentations for UCDMC Surgery and Emergency Services Pavilion that was budgeted before the 2004 cost escalations, and bid during the volatile construction market.
- (c) Although he campus had a \$190.9M in bid savings in 2010-11, the data reflects a net increase in the original budget due to the inclusion of augmentations for Santa Monica Replacement Hospital that has been carried forward since it was originally awarded in 2002, 2004, 2006 and 2010.