

**A PRESENTATION OF THE MASTER PLAN AND SCHEMATIC DESIGN FOR THE OLD CAPITOL—FIRE RESTORATION AND BUILDING IMPROVEMENTS PROJECT WILL BE MADE AT THE MAY BOARD MEETING**

SUI B-1

**MEMORANDUM**

**To:** Board of Regents

**From:** Board Office

**Subject:** Register of University of Iowa Capital Improvement Business Transactions for Period of March 21, 2002, Through April 17, 2002

**Date:** May 6, 2002

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**Recommended Action:**

Approve the Register of Capital Improvement Business Transactions for the University of Iowa.

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**Executive Summary:**

Requested Approvals

Master plan and schematic design for the **Old Capitol—Fire Restoration and Building Improvements** project which would reconstruct the facility to represent, as closely as possible, the original 1840s building design (see page 3).

- The master plan consists of four phases and includes both fire-related and non fire-related building improvements.

The University requests approval of the **Phase 1** project description and budget (\$4,455,000), which would provide fire-related improvements including reconstruction of the dome, cupola and bell tower, replacement of the roof, demolition of heating, ventilating and air conditioning system equipment and installation of a new air handling unit.

- Reconstruction of the interior fire damaged areas and installation of fire alarm and suppression systems would be included in the Phase 2 project.
- Exterior and site improvements would be included in the final two phases of the project.

Representatives of the University and the project architects, OPN Architects and Einhorn Yaffee Prescott, will present the master plan and schematic design at the May Board meeting.

- The master plan and schematic design booklet is included with the Board's docket materials.

Program statement for the **Dey House Addition** project, which would provide classrooms, a library, reading room, and offices for the Writers' Workshop (see page 6).

Schematic design and project description and budget (\$5,599,900) for the **Medical Laboratories—Cancer Biology and Immunology Renovation** project which would upgrade research space and construct a new mechanical room to support the remodeled area (see page 7).

- The schematic design booklet is included with the Board's docket materials.

Project description and budget for the **Athletic Learning Center** project (\$4,600,000) which would construct a new facility in the west campus residence area to provide study and tutorial spaces for student athletes (see page 9).

Revised project budget (\$17,140,000) and construction Change Order #19 (\$241,895) for the **Biological Sciences Renovation/Replacement—Phase 2** project for an increased project scope to provide additional research laboratories (see page 10).

Architect/engineer agreements with:

Stanley Consultants, Muscatine, Iowa (\$54,000) for the **Power Plant—Makeup Water System Improvements** project which would evaluate the University's water treatment system to identify and correct deficiencies which have affected the campus steam distribution system (see page 12).

ZBA, Inc., Iowa City, Iowa (\$45,800), for the **University Hospitals and Clinics—Center for Disabilities and Development Heating, Ventilating and Air Conditioning (HVAC) System Replacement—Phase B** project which would continue the replacement of the Center's outdated systems (see page 13).

Terracon, Cedar Rapids, Iowa (\$39,884) for asbestos abatement construction observation services for the **Rienow and Quadrangle Residence Halls—Upgrade Fire Protection** project which would upgrade the fire protection and emergency systems in the two residence halls (see page 14).

Architectural Amendment #1 (\$18,500) with RDG Crose Gardner Shukert, Des Moines, Iowa, for the **College Street Pedestrian Walkway** project which would construct a walkway between the Seamans Center for Engineering Arts and Sciences and the Lindquist Center (see page 15).

Change Order #122 (\$219,820) to the construction contract with Knutson Construction Services for the installation of additional electrical panels to serve the research laboratories of the **Medical Education and Biomedical Research Facility** project (see page 16).

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**Background and Analysis:**

**Old Capitol—Fire Restoration and Building Improvements**

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Jan. 2002	Ratified*
Architectural Selection (OPN Architects, Cedar Rapids, IA)		Jan. 2002	Ratified*
Authorization for Executive Director to Approve Negotiated Agreement with OPN Architects		Jan. 2002	Approved
Architectural Agreement—Research Study (OPN Architects)	\$ 101,440	March 2002	Ratified**
Architectural Agreement—Fire Restoration (OPN Architects)	665,000 (est.)	March 2002	Approval
Master Plan and Schematic Design <u>Phase 1—Dome, Cupola and Roof Replacement</u>		May 2002	Requested
Project Description and Total Budget	4,455,000	May 2002	Requested

\* Approved by Executive Director in accordance with Board procedures.

\*\* Approved by Executive Director as authorized by Board at January 2002 meeting.

Background

The Old Capitol was severely damaged by fire on November 20, 2001.

- The exterior dome and tower were destroyed, and the interior walls, ceilings, floors, and furnishings sustained water and smoke damage.

The University plans to proceed with the restoration in a manner consistent with the building's status as a National Historic Landmark.

Historic  
Preservation

The restoration of the Old Capitol will consist of a major building preservation project.

- The project architects conducted a thorough study of the building's history with respect to its architectural and physical features.
- The study has provided necessary information on the building condition, details and materials to undertake the historic restoration project.
- The reconstructed facility will represent the original 1840s building design as closely as possible.

- Wherever appropriate and possible, historic materials will be conserved, and replacement components will match the original materials.
- The replacement components will be invisible wherever possible and will be installed in a sensitive manner.

Master Plan and Schematic Design

The master plan consists of four phases, which include both fire-related and non fire-related building improvements:

- Phase 1—Reconstruction of the dome, cupola and bell tower, replacement of the roof, and demolition of heating, ventilating and air conditioning system equipment and installation of a new air handling unit.
- Phase 2—Reconstruction of the interior fire damaged areas (floors, walls, ceilings and spiral staircase), upgrade of the building infrastructure (fire alarm and suppression systems, electrical and lighting upgrades, elevator improvements), and enhancement of the building's lower level.
- Phase 3—Reconditioning of portions of the building exterior, including restoration of the west portico and wood trim, exterior masonry, and west stairs, and window replacement and repairs.
- Phase 4—Restoration of the site including landscape and walkway improvements and west terrace repairs.

Anticipated Cost

Cost estimates for each of the phases are being developed; the total estimated cost for the fire restoration portions of the four phases is \$6,161,000, excluding stabilization, recovery and millwork costs.

Anticipated Funding

Funding for the four phases is anticipated from insurance proceeds, gifts, various University sources, grants, and other sources of revenue.

Schematic Design Phase 1 Project

Phase 1 includes the reconstruction of the tower, and replacement of the roof and heating, ventilating and air conditioning components.

The tower structure would be constructed of a white oak heavy timber frame, consistent with the original structure.

The dome would be constructed of copper and covered with two layers of gold leaf; the second layer would provide additional protection and would more closely replicate the dome's historic appearance.

Roof The University proposes to replace the roof with a standing seam metal material, either copper or stainless steel, rather than replacing the asphalt shingles that existed prior to the fire. (See image of the building with a metal roof on page 8 of the design booklet.)

- The metal roof is recommended based on its durability, life expectancy, and cost effectiveness, and its compatibility with the architectural style and construction era of the Old Capitol.
- The metal roof would cost approximately **\$285,000** and would have an estimated life expectancy of 50 to 90 years.
- In comparison, an asphalt shingle roof would cost approximately \$114,000 but would have a life expectancy of approximately 20 years.

Phase 1 Schedule The University plans to begin construction of the Phase 1 project in late summer 2002; the estimated completion date is winter 2003.

Project Budget

Construction	\$ 3,080,000
Design, Inspection and Administration Consultants	573,000
Design and Construction Services	342,000
Contingency	<u>460,000</u>
<b>TOTAL</b>	<b><u>\$ 4,455,000</u></b>

Phase 1 Funding The Phase 1 project would be funded by insurance proceeds and other university sources.

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**Dey House Addition**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		June 2001	Approved
Architectural Selection (OPN Architects, Cedar Rapids, IA)		Nov. 2001	Approved
Architectural Agreement (OPN Architects)	\$ 144,000	April 2002	Approved
Program Statement		May 2002	Requested

Background

This project would construct an addition to the Dey House, an 1857 residential structure with historic significance, which houses the University of Iowa Program in Creative Writing (The Iowa Writers' Workshop).

The Dey House is located on the east campus to the southwest of the President's Residence.

The proposed project would include construction of a building addition or a freestanding structure to the Dey House.

- Based on the expectations associated with the gift funding for the project, it is anticipated that the additional space would provide improved facilities for teaching as well as new initiatives.

Building Program

The building program includes:

- Faculty/Office Classrooms (4) which would provide expanded faculty office space to accommodate the Workshop's instructional sessions which support creative writing, public reading, and critical feedback.
- Library area to house collections produced by Workshop graduates.
- Reading Room (student commons) which would be used for public readings by Workshop students and guest authors, with seating for up to 100 attendees.
- Standard classrooms (2 ) and graduate student offices (8).

Detailed Building Program

Academic Areas

Faculty/Office Classrooms (4)	1,340	
Library	1,280	
Reading Room	1,280	
Workshop Classrooms (2)	880	
Graduate Student Offices (8)	<u>400</u>	
Total		5,180 nsf
Total Gross Square Feet		8,506 gsf
Net-to-Gross Ratio = 61 percent		

Estimated Cost \$2 million, exclusive of instructional technologies and furnishings/fixtures/equipment.

Funding Gifts to the University.

**Medical Laboratories—Cancer Biology and Immunology Renovation**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		April 2001	Approved
Program Statement		July 2001	Approved
Engineering Agreement—Mechanical Room and Utilities (Shive-Hattery, Iowa City, IA)	\$ 66,800	July 2001	Approved
Engineering Agreement—Electrical Design (Renovation) (Design Engineers, Cedar Rapids, IA)	46,000	Jan. 2002	Approved
Schematic Design		May 2002	Requested
Project Description and Budget	5,599,900	May 2002	Requested

**Background** The first floor of the Medical Laboratories building houses a portion of the research operations of the Cancer Biology and Immunology Program of the Department of Pathology; the space was last renovated in the 1950s.

The long-term goals of the multi-investigator Program are to facilitate and enhance basic biomedical research, research training and research support.

The renovation project would provide an optimal facility and environment to enhance the research productivity and research career development of departmental faculty.

The project would remodel approximately 15,900 square feet of

laboratory, laboratory support spaces, conference rooms and offices on the first floor of the building, and construct a 3,480 square foot mechanical room in the interior courtyard of the building to provide the heating, ventilating and air conditioning support for the remodeled area.

Schematic Design

First Floor

The project will renovate and reconfigure the areas located along the north, south and west corridors.

The work will include the demolition and installation of partitions, doors, windows, laboratory casework, and mechanical and electrical systems.

Ground Floor

The single-story mechanical room addition would be constructed along the south interior wall of the building and would fill in the existing courtyard area.

- The design and materials for the addition, including the roof, would conform with the existing mechanical room located to the north.
- The roof would be constructed of a rubber membrane material which would have an estimated life expectancy of 20 years.

Work in the mechanical room includes the installation of a new air handling unit and exhaust systems, and the extension of utilities to serve the new air handling unit.

Project Schedule

The University plans to begin construction in November 2002; the anticipated completion date is September 2004.

The following table compares the square footages included in the schematic design with the square footages included in the program approved by the Board in July 2001.

- The square footages are unchanged from the building program; the University reports that it was necessary to finalize the areas very early in the project in accordance with project funding from the National Institutes of Health.

	<u>Building Program</u>	<u>Schematic Design</u>	
Laboratories	7,288	7,288	
Laboratory Support Areas	3,069	3,069	
Offices	2,447	2,447	
Conference	1,254	1,254	
Existing Corridors	<u>1,840</u>	<u>1,840</u>	
<b>Total Project Area</b>	<b><u>15,898</u></b>	<b><u>15,898</u></b>	nsf

Project Budget

Construction	\$ 4,699,700
Design, Inspection and Administration	
Design and Construction Services	305,000
Consultants	125,800
Contingency	<u>469,400</u>
<b>TOTAL</b>	<b><u>\$ 5,599,900</u></b>

Funding            College of Medicine Gifts and Earnings, Income from Treasurer's Temporary Investments, National Institutes of Health, and Utility Enterprise Improvement and Replacement Funds.

**Athletic Learning Center**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Architectural Agreement (OPN Architects, Cedar Rapids, IA)	\$ 285,500	Nov. 2001	Approved
Program Statement		March 2002	Approved
Schematic Design		April 2002	Approved
Project Description and Total Budget	4,600,000	May 2002	Requested

Background            Included in the Master Plan for development of the west campus residence area (**West Campus Residence Hall and Student Life Facilities** project) is an Athletic Learning Center which would provide study and tutorial spaces for use by student athletes.

The two-story facility would house a large classroom, library, study lounges, tutorial rooms, conference room, and administrative office and support areas.

Project Budget

Construction	\$ 3,731,400
Design, Inspection and Administration	
Design and Construction Services	156,500
Consultants	339,850
Contingency	<u>372,250</u>
<b>TOTAL</b>	<b><u>\$ 4,600,000</u></b>

Funding            Athletic Department Gifts and Earnings.

**Biological Sciences Renovation/Replacement—Phase 2**

Project Summary

<u>Phases 1 and 2</u>	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Oct. 1994	Approved
Program Statement		Nov. 1996	Approved
<u>Phase 2</u>			
Architectural Agreements			
Final Schematic Design Services (Brooks Borg and Skiles)	115,000	Sept. 1998	Approved
Detailed Design Services (Brooks Borg and Skiles)	1,084,000	June 1999	Approved
Architectural Amendment #1	33,100	July 1999	Ratified*
Schematic Design		May 2000	Approved
Project Description and Total Budget	16,840,000	May 2000	Approved
Construction Contract Award—Phase 2a, Asbestos Abatement (Iowa-Illinois Thermal Insulation)			
	110,415	August 2000	Ratified
Construction Contract Award— General Construction (McComas-Lacina Construction)			
	10,770,000	August 2000	Ratified
Construction Change Orders #1-#18	341,537		
Construction Contract Award—Phase 2b, Asbestos Abatement (M.E.D.A.)			
	26,392	May 2001	Ratified
Architectural Amendment #2	15,170	Nov. 2001	Approved
Architectural Amendment #3	24,600	Nov. 2001	Approved
Architectural Amendments #4 - #8 (Brooks Borg and Skiles)	87,875	March 2002	Approved
Revised Project Budget	17,140,000	May 2002	Requested
Construction Change Order #19	241,895	May 2002	Requested

\*Approved by University in accordance with Board procedures.

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**Background** Following construction of the Phase 1 project (Biology Building East), the Phase 2 project has included the complete interior reconstruction of Old Biology (constructed in 1902), and renovation of the heating, ventilating and air conditioning systems and life safety components of Biology 1 and 2 (constructed in 1965 and 1971, respectively).

**Revised Budget** The revised budget of \$17,140,000, an increase of \$300,000, reflects an increase in the project scope to include additional laboratory renovations and the development of additional laboratory space to accommodate future research initiatives.

Funding                   The additional funds would be provided by the College of Liberal Arts and Sciences.

Change Order           Change Order #19 (\$241,895) would incorporate the additional work into the general construction contract with McComas-Lacina Construction.

Project Budget

	Initial Budget <u>May 2000</u>	Revised Budget <u>May 2002</u>
Construction	\$ 13,341,000	\$ 13,581,000
Design, Inspection and Administration		
Consultants	1,180,500	1,244,745
Design/Construction Services	695,500	667,255
Asbestos Abatement	253,000	253,000
Contingency	<u>1,370,000</u>	<u>1,394,000</u>
TOTAL	<u>\$ 16,840,000</u>	<u>\$ 17,140,000</u>
Source of Funds:		
State Appropriations	\$ 14,700,000	\$ 14,700,000
Gifts and Income from Treasurer's		
Temporary Investments	2,140,000	2,140,000
College of Liberal Arts and Sciences	<u>0</u>	<u>300,000</u>
TOTAL	<u>\$ 16,840,000</u>	<u>\$ 17,140,000</u>

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**Power Plant—Makeup Water System Improvements**

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
<u>Power Plant—Upgrade of Makeup Water System</u>			
Project Description and Total Budget	\$ 590,000	Sept. 2000	Approved
Engineering Agreement (Shive-Hattery, Iowa City, IA)	65,000	Sept. 2000	Approved
<u>Power Plant—Makeup Water System Improvements</u>			
Engineering Agreement (Stanley Consultants, Muscatine, IA)	54,000	May 2002	Requested

Background The University was proceeding with the **Power Plant—Upgrade of Makeup Water System** project to replace the sulfuric acid storage tank of the Power Plant make-up water system; this system provides high purity water for the proper operation of the boilers.

- The project was to have included replacement of the storage tank, which had corroded from normal system wear, and other associated improvements.

Following completion of the project design, a number of erosions were noted in the campus steam distribution system.

An extensive investigation determined that the erosions were the result of deficiencies in the water treatment system.

As a result, the University wishes to proceed with a new project to evaluate the existing water treatment system.

Project Scope The project would evaluate and identify deficiencies in the existing water treatment system, and recommend a cost-effective replacement system that would protect the steam plant and the campus distribution system.

- In parallel with this project, an evaluation is being conducted to establish the extent of the damage to the steam distribution system; a project would be developed to correct any identified deficiencies.

Design Services Stanley Consultants, which has been involved in the investigation of the water treatment system, has been selected to evaluate and identify the best, cost-effective system for a fixed fee of \$54,000.

Additional Information      When the replacement system is identified and the project budget is established, the **Power Plant—Upgrade of Makeup Water System** project will be terminated; this work would be undertaken at a future date.

Funding      Utilities Enterprise Improvement and Replacement Funds.

**University Hospitals and Clinics—Center for Disabilities and Development Heating, Ventilating and Air Conditioning (HVAC) System Replacement—Phase B**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 600,000	April 2002	Approved
Architectural Agreement (ZBA, Inc., Iowa City, IA)	45,800	May 2002	Requested

Background      The University began the replacement of the heating, ventilating and air conditioning systems for the UIHC Center for Disabilities and Development (formerly the University Hospital School) with the Phase A project which addressed the HVAC systems in 16,000 square feet of space on the second floor of the Center.

This was the first of a multiple-phased project to replace the Center's outdated HVAC systems, which are more than 20 years old and have reached the end of their useful lives.

Project Scope      The Phase B project will replace the HVAC systems which serve the patient and support areas in 22,000 square feet of space on the first level and third level north of the Center; the existing equipment serving these areas is 28 years of age.

The project will replace air handling units, ductwork, pumps, control systems, and corridor ceilings and lights.

The completed project will meet current building and energy codes.

Design Services      The agreement with ZBA, Inc., would provide full design services for a fixed fee of \$45,800.

**Rienow and Quadrangle Residence Halls—Upgrade Fire Protection**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
<u>Residence Halls and Family Housing— Upgrade Fire Protection</u>			
Permission to Proceed Agreement for Schematic Design and Cost Estimates (Alvine and Associates, Iowa City, IA)	\$ 288,000	July 1995 July 1997	Approved Approved
<u>Rienow and Quadrangle Residence Halls— Upgrade Fire Protection</u>			
Engineering Agreements			
General Construction Design Services (Alvine and Associates, Iowa City, IA)	362,000	Oct. 2001	Approved
Asbestos Abatement Design Services (Shive-Hattery, Iowa City, IA)	66,688	Oct. 2001	Approved
Construction Contract Awards—			
Bid Package No. 1—Asbestos Abatement— Quadrangle/Rienow Residence Halls (EnviroBate Management Services)	156,162	May 2002	Ratification
Bid Package No. 2—Asbestos Abatement— Rienow Residence Hall (Great Plains Asbestos Control)	155,577	May 2002	Ratification
Bid Package No. 3—Ceiling and Light Fixture Replacement—Rienow Hall (Merit Electric)	126,870	May 2002	Ratification
Engineering Agreement—Asbestos Abatement Construction Observation Services (Terracon, Cedar Rapids, IA)	39,884	May 2002	Requested

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**Background** This project will continue the upgrade of fire protection and emergency systems in the residence halls.

The majority of the residence hall upgrades are not required to meet fire safety codes, but represent the University's efforts to upgrade voluntarily the existing fire safety systems.

**Project Scope** The proposed improvements for Rienow Hall include installation of a combination fire sprinkler and standpipe system, fire pump, and high rise fire command center; upgrade of the existing fire alarm system and emergency lighting; pressurization of two stairways; and installation of additional fire extinguishers and cabinets.

The proposed improvements for Quadrangle Hall include replacement of the fire alarm system; upgrade of emergency lighting; modifications to stairways for egress improvements; and installation of a new electrical supply feeder and additional fire extinguishers and cabinets.

Engineering Agreement	The engineering agreement with Terracon would provide asbestos abatement construction observation services for a fee of \$39,884, including reimbursables.
Funding	Dormitory Revenue Bonds.

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**College Street Pedestrian Walkway**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Architectural/Engineering Agreement (RDG Crose Gardner Shukert, Des Moines, IA)	\$ 48,500	Feb. 2001	Approved
Architectural Amendment #1	18,500	May 2002	Requested

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**Background** This project would construct an east-west pedestrian walkway between South Capitol and Madison Streets on the east campus; the walkway would be constructed to the south of the Seamans Center for Engineering Arts and Sciences and to the north of the Lindquist Center.

The project is one component of the City of Iowa City's comprehensive pedestrian mall and pathway plan which was begun in the 1970s to address a four-block area of the City.

**Anticipated Funding** Income from Treasurer's Temporary Investments.

**Architectural Amendment** Amendment #1 (\$18,500) would provide compensation for the inclusion of civil and structural engineering services and design services for the Lindquist Building north entrance plaza; preparation of design options to meet emergency vehicle access requirements; additional evaluation and design of accessible routes; and expansion of an outdoor classroom.

In addition, the amendment would remove bidding and construction phase design services since project funding has yet to be finalized.

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**Medical Education and Biomedical Research Facility**

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		May 1996	Approved
Program Statement		June 1997	Approved
Schematic Design		June 1997	Approved
Project Description and Total Budget	\$ 47,135,000	June 1997	Approved
Architectural Agreement (Payette Associates)	3,750,700	Nov. 1996	Approved
Architectural Amendments (3)	1,161,200		Approved
Construction Contract (Knutson Construction Services)	40,430,000	Dec. 1998	Approved
Revised Budget	56,852,000	Dec. 1998	Approved
Previous Change Orders (121)	5,168,415		Approved*
Revised Budget	58,022,180	June 2001	Approved
Construction Change Order #122	219,820	May 2002	Requested

\* Approved by Board and University in accordance with Board procedures.

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Background	<p>The Medical Education and Biomedical Research Facility is the centerpiece of the Health Sciences Campus Master Plan and will be the flagship building for the College of Medicine.</p> <p>The primary components of the building include instructional facilities for students in the medical and related clinical program, and research laboratories and support facilities for the research programs of the College.</p> <p>The project has an estimated completion date of November 2002.</p>
Funding	State Appropriations, Revenue Bonds, and College of Medicine Gifts and Earnings.
Change Order	<p>Change Order #122 (\$219,820) to the general construction contract with Knutson Construction Services would install additional electrical panels to upgrade the electrical service for the research laboratories.</p> <ul style="list-style-type: none"> <li>The electrical power requirements for a large portion of the building's research equipment have increased since construction of the facility began in January 1999.</li> </ul>

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Included in the University's capital register for Board ratification are seven project budgets under \$250,000, six construction contracts awarded by the Executive Director, the acceptance of four completed construction contracts, and five final reports. These items are listed in the register prepared by the University and are included in the Regent Exhibit Book.

  
Sheila Lodge

Approved:   
Gregory S. Nichols

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