

**MEMORANDUM**

**To:** Board of Regents  
**From:** Board Office  
**Subject:** Register of Iowa State University Capital Improvement Business Transactions for Period of March 15, 2002, Through April 18, 2002  
**Date:** April 8, 2002

**Recommended Action:**

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

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**Executive Summary:**

Requested Approvals      Permission to proceed with project planning for the **Union Drive—Suite Building 2** project which would construct the second of three suite-style residence facilities for the Union Drive Neighborhood (see page 3).

Project descriptions and budgets:

**Pearson Hall—Replace Elevator** project (\$399,070) which would upgrade the elevator to comply with current building codes (see page 6).

**University Family Housing Community Center** project (\$1,800,000) which would construct a replacement facility to house various student service functions for the University Village residential neighborhood (see page 7).

**General Services Building—Roof Repairs** project (\$278,140) which would replace approximately 65 percent of the building's roofing area (see page 8).

Project description and budget (\$8,050,000) and architectural agreement with The Durrant Group, West Des Moines, Iowa (\$740,950) for the **Buchanan Hall Renovation** project which would convert the facility for occupancy primarily by upper level undergraduate students, correct deferred maintenance deficiencies and provide aesthetic improvements (see page 9).

Revised budget for the **College of Veterinary Medicine—Remodel Rooms 1531, 1551, 1552 and Suites 1535 and 1538** project (\$646,650) to include the installation of an access control system for improved security for the Veterinary Diagnostic Laboratory (see page 11).

Pre-design architectural agreement with Herbert Lewis Kruse Blunck, Des Moines, Iowa (\$116,400) for the **Memorial Union Renovation 2002** project which would provide various life safety, accessibility, and technology upgrades for the facility (see page 13).

Engineering agreement with Sebesta Blomberg and Associates, Roseville, Minnesota (\$823,300) for the **Utilities—North Campus Chilled Water Plant** project, which will construct a new chilled water plant to support projected campus growth (see page 14).

- As directed by the Board at the March 2002 meeting, the University reopened the engineer selection process for the project and invited all of the firms which responded to the initial request for proposals to participate.
- Five engineering firms expressed an interest in the project and were interviewed and evaluated by the University selection committee utilizing weighted criteria of the firms' experience with similar chilled water plant projects, university experience, project team members and their experience, as well as other factors.
- The University's selection committee once again unanimously determined that Sebesta Blomberg and Associates was the most qualified firm for the project based on its expertise and innovation in the design of large chilled water plants, its extensive experience with large chilled water systems and the installation of large chillers, and very favorable references.
  - None of the other engineering firms were able to demonstrate a comparable level of similar experience.
- The Board Office concurs with the University's recommendation, given the extraordinary review process that was undertaken for the engineer selection.

Architectural Amendment #2 (\$55,000) with Baldwin White Architects for the **Union Drive Community Center** project for compensation for Board-requested design revisions to the facility (see page 5).

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**Background and Analysis:**

**Union Drive Neighborhood**

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Feb. 1999	Approved
Agreement for Validation of Master Plan, Development of Building Program and Schematic Design (Baldwin White Architects, Des Moines, IA)	\$ 1,142,000	July 1999	Approved
<u>Suite Building 1 and Utility Infrastructure</u>			
Design Development through Construction— Suite Building 1 (Baldwin White Architects)	1,070,000	Nov. 2000	Approved
Engineering Agreement—Utility Infrastructure (Baldwin White Architects)	544,500	Nov. 2000	Approved
Program Statement and Design Documents		Dec. 2000	Approved
Project Description and Total Budget	23,716,200	Dec. 2000	Approved
Construction Contract Award— (Henkel Construction Company)	16,447,400	March 2001	Ratified
Architectural Amendment #1 (Baldwin White Architects)	55,592	Jan. 2002	Approved
<u>Community Center</u>			
Architectural Agreement (Baldwin White Architects)	1,140,250	Nov. 2000	Approved
Program Statement and Design Documents		Dec. 2000	Approved
Project Description and Total Budget	15,000,000	Dec. 2000	Approved
Revised Design Documents		Oct. 2001	Approved
Revised Total Project Budget	15,440,000	Oct. 2001	Approved
Architectural Amendment #1 (Baldwin White Architects)	250,000	May 2001	Approved
Architectural Amendment #2 (Baldwin White Architects)	55,000	April 2002	Requested
<u>Suite Building 2</u>			
Permission to Proceed		April 2002	Requested

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## Background

Development of the Union Drive Neighborhood, as envisioned by the University, includes the construction of three suite-style residence halls, each housing 320 students, and a Community Center facility, in the southwest area of campus. Renovations to Friley Hall would also occur after completion of new construction.

The Phase 1 project includes:

- Suite Building 1, a four story, 320 bed suite-style residential facility of approximately 84,000 gross square feet.
  - The facility is currently under construction and is expected to be completed for occupancy by the fall 2002 semester.
- Community Center, a three-story facility of approximately 58,900 gross square feet featuring a multiple service point food service and dining area and community-centered program space to serve the needs of the Union Drive Neighborhood.
  - The University plans to begin construction of the facility in the spring of 2002; the estimated completion date is winter 2003.
- Extensive utility and infrastructure improvements to serve the new facilities in the area.

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## Suite Building 2

The University now wishes to proceed with the first component of the Phase 2 project, construction of Suite Building 2.

The project would construct a second, four-story, 320 bed suite-style residential facility of approximately 84,000 gross square feet.

- The residential suites would consist of two double occupancy bedrooms that share a common bathroom.
- The facility would also provide residential staff housing, dens, kitchenettes, study space, laundry rooms, trash rooms, conference and computer rooms.

Suite Building 2 would be constructed on the site directly south of Suite Building 1. (See Attachment A for map.)

Project Schedule    The University plans to begin construction of the facility in the spring of 2003; the estimated completion date is June 2004.

- The University reports that this schedule has been coordinated with the other Union Drive construction projects.
- Construction of the Community Center is expected to be essentially complete when construction of Suite Building 2 is initiated.

Anticipated Cost    \$16,300,000.

Funding              Residence System Revenue Bonds.

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Community Center Architectural Amendment    **Amendment #2 (\$55,000)** would provide compensation for the design revisions to the Community Center approved by the Board in October 2001.

**Pearson Hall—Replace Elevator**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 399,070	April 2002	Requested
Background	The Pearson Hall elevator was installed in 1962 and has exceeded its useful life.		
	The elevator requires frequent repairs, and parts are no longer available.		
Project Scope	The project would replace the elevator jack, controls, drives, fire alarm and car interior.		
	The rebuilt elevator system will conform to current building codes.		
Funding	Building Repair Funds.		
Additional Information	Permission to proceed with the project is not required since the project budget does not exceed \$1 million.		

Project Budget

Construction Cost	\$ 331,510
Professional Fees	58,600
Contingency	<u>8,960</u>
TOTAL	<u>\$ 399,070</u>

**University Family Housing Community Center**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		March 2002	Approved
Project Description and Total Budget	\$ 1,800,000	April 2002	Requested

**Background** This project would construct a community center to serve the University Village (family housing) residential neighborhood located on the University's north campus.

**Project Scope** The approximately 9,000 gross square foot facility would house program areas for students and their families, including a retail grocery store, meeting and office areas, student lounges, a kitchenette, and a fitness center.

**Additional Information** The retail grocery store will replace the current Pammel Grocery, located south of the Administrative Services Building.

The other functions to be located in the new facility are currently housed in 100 University Village, which will be remodeled to serve as the North Campus Child Care Facility. (The schematic design was approved by the Board in September 2001.)

The project is consistent with the Department of Residence Master Plan which includes providing neighborhood-based services to meet the needs of the specific residential neighborhood.

Project Budget

Construction Cost	\$ 1,461,800
Professional Fees	230,100
Movable Equipment	50,000
Contingency	<u>58,100</u>

TOTAL \$ 1,800,000

Source of Funds	
Residence System	\$ 1,300,000
Income from Treasurer's Temporary Investments	<u>500,000</u>

TOTAL \$ 1,800,000

**General Services Building—Roof Repairs**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 278,140	April 2002	Requested

Background	<p>The roofing materials on roof sections A – F of the General Services Building were installed in 1973; the flashings on roof sections G and H were installed in 1985.</p> <p>These roof areas have outlived their life expectancies, leak, and require frequent repairs.</p>
Project Scope	<p>The proposed project would replace roof sections A – F (approximately 40,000 gross square feet or 65 percent of the total roof area) with a rubber membrane roofing system.</p> <ul style="list-style-type: none"> <li>The rubber membrane material was selected based on its performance record, cost, and ease of repairs; the estimated life expectancy is 20 years.</li> </ul> <p>The project would also replace the flashings on roof sections G and H.</p>
Additional Information	<p>Permission to proceed with the project is not required since the project budget does not exceed \$1 million.</p>
Funding	<p>Building Repair Funds.</p>

Project Budget

Construction Cost	\$ 230,120
Professional Fees	41,690
Contingency	<u>6,330</u>
TOTAL	<u>\$ 278,140</u>



**Buchanan Hall Renovation**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Agreement for Feasibility Study (Wells Woodburn O’Neil, West Des Moines, IA)	\$ 64,600	June 2000	Approved
Permission to Proceed		Dec. 2000	Approved
Project Description and Total Budget Architectural Agreement—Pre-Design Through Construction (The Durrant Group, West Des Moines, IA)	8,050,000  740,950	April 2002  April 2002	Requested  Requested

**Background** Buchanan Hall is a 93,739 square foot high-rise residential facility constructed in 1964 and located south of the main campus near Lincoln Way and Ash Avenue. (See Attachment B for map.)

The residence hall currently houses 258 graduate students (fall 2001 occupancy) in suite-style rooms that share a common bathroom; this is less than the total design occupancy of the facility of 390 students.

- The University reports that the number of graduate students wishing to live in Buchanan Hall has been decreasing over the past several years.

A feasibility study was undertaken to recommend modifications to Buchanan Hall in response to changing student needs, to improve program space to enrich the student learning and living experience, and to provide a more attractive residential facility.

**Project Scope** The renovation would convert Buchanan Hall for occupancy primarily by upper level undergraduate students in response to the need for additional alternative style on-campus undergraduate housing.

The project would remodel the facility to provide student interaction areas consistent with the University’s mission to support undergraduate living learning environments in the residence halls.

- The residence hall would also remain available for occupancy by graduate students.

The project would also provide a hall director's apartment, correct deferred maintenance deficiencies, and improve the aesthetics of the building.

Included would be the reconstruction of bathrooms, replacement of windows, modifications to the air conditioning system, replacement of furnishings, and construction of a south entrance addition.

Design Services Expressions of interest to provide design services were received from 14 firms.

Five firms were selected for interviews with the University Architectural Selection Committee in accordance with Board procedures for projects of \$1 million or more.

The University recommends the selection of The Durrant Group, West Des Moines, Iowa, to provide design services for the project.

The firm is recommended based on its successful experience with university housing renovation projects and its understanding of the key issues associated with the project.

The architectural agreement with The Durrant Group would provide pre-design through construction phase design services or a fee of \$740,950, including reimbursables.

Funding Residence System Funds.

Project Budget

Construction Cost	\$ 6,520,670
Professional Fees	883,850
Movable Equipment	400,000
Contingency	<u>245,480</u>
TOTAL	<u>\$ 8,050,000</u>

**College of Veterinary Medicine—Remodel Rooms 1531, 1551, 1552 and Suites 1535 and 1538**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 601,650	Nov. 2001	Approved
Revised Project Budget	646,650	April 2002	Requested

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Background	<p>The Veterinary Diagnostic Laboratory of the College of Veterinary Medicine provides laboratory diagnostic support to veterinarians who care for livestock and companion animals.</p> <p>The Laboratory's outreach and research activities in virology, microbiology and molecular biology have grown rapidly in recent years, primarily a result of the growing swine industry.</p> <p>The development of sophisticated molecular level techniques and an expanded Laboratory staff require improved facilities and additional space to meet the increasing demand for the Laboratory's services.</p>
Project Scope	Remodeling of approximately 4,457 gross square feet of underutilized storage, office, and laboratory space in the Veterinary Diagnostic Laboratory to provide office and laboratory space for virology, microbiology and molecular biology research.
Revised Budget	The revised budget of \$646,650, an increase of \$45,000, would provide for the installation of an access control system on approximately ten doors to improve security.
Funding	The additional funds would be provided by the Veterinary Diagnostic Laboratory and Building Repair Funds.

Project Budget

	<u>Initial Budget Nov. 2001</u>	<u>Revised Budget April 2002</u>
Construction Costs	\$ 480,470	\$ 508,050
Professional Fees	72,290	77,240
Movable Equipment	31,890	31,890
Contingency	<u>17,000</u>	<u>29,470</u>
TOTAL	<u>\$ 601,650</u>	<u>\$ 646,650</u>
Source of Funds:		
Veterinary Diagnostic Laboratory	\$ 601,650	\$ 641,650
Building Repair Funds	<u>0</u>	<u>5,000</u>
TOTAL	<u>\$ 601,650</u>	<u>\$ 646,650</u>

**Memorial Union Renovation 2002**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Jan. 2002	Approved
Architectural Agreement—Pre-Design Services (Herbert Lewis Kruse Blunck, Des Moines, IA)	\$ 116,400	April 2002	Requested

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Background	<p>This project would upgrade and renovate space in the Memorial Union to address fire safety deficiencies, accessibility compliance, and circulation issues; the project would also provide technology upgrades.</p> <p>The University plans to evaluate a number of improvements for the facility; the work would be prioritized and completed as funding is available.</p> <p>The proposed improvements would allow the building to be functional and accessible for all users.</p>
Design Services	<p>Expressions of interest to provide design services were received from 15 firms.</p> <p>Four firms were selected for interviews with the University Architectural Selection Committee in accordance with Board procedures for projects of \$1 million or more.</p> <p>The University recommends the selection of Herbert Lewis Kruse Blunck, Des Moines, Iowa, to provide design services for the project.</p> <p>The firm is recommended based on its extensive experience with University projects, including several projects at Iowa State University, its understanding of the key issues associated with the project, and its successful design work with historical landmarks.</p> <p>The architectural agreement with Herbert Lewis Kruse Blunck would provide pre-design services for a fee of \$116,400, including reimbursables.</p>
Estimated Cost	\$5 Million to \$9 Million.
Anticipated Funding	Financing amortized by fees from designated tuition, rental income from various occupants, Memorial Union activities, and possibly University support.

**Utilities—North Campus Chilled Water Plant**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Feb. 2001	Approved
Project Description and Total Budget	\$ 13,000,000	Feb. 2001	Approved
Engineering Agreement (Sebesta Blomberg and Associates) Roseville, MN)	823,300	March 2002	Deferred
Engineering Agreement (Sebesta Blomberg and Associates) Roseville, MN)	823,300	April 2002	Requested

Background	<p>This project will be undertaken in accordance with a 1993 Chilled Water Master Plan which was completed to project the growth in University chilled water requirements. The Master Plan indicated the need to construct additional chilled water production capacity by the year 2003. (Subsequent delays with some new building projects extended this deadline by approximately one year.)</p> <p>The existing chilled water production equipment is housed in the University Power Plant. There is insufficient space at the Plant to expand the chilled water facilities, and construction of an addition to the Plant would not be cost effective.</p> <p>Therefore, the Master Plan recommended the construction of a satellite chilled water plant to satisfy the University's future chilled water capacity requirements.</p> <p>Large chilled water systems and large chilled water equipment are specialized facilities that require specific expertise.</p> <p>Chilled water is absolutely essential to University operations, and technology-based research is totally dependent upon consistent, reliable chilled water service.</p>
Project Scope	<p>The plant would be constructed to house two chillers and would ultimately contain 6,000 to 8,000 tons of chilled water capacity; this would satisfy the University's chilled water needs past the year 2010. Only one of the two chillers would be installed initially; the remaining chiller would be added as required by the University's growth.</p> <p>The University plans to construct the plant in the northern area of campus since this location would best support anticipated campus expansion.</p>
Engineer	<p>At the March Board meeting, the University requested approval of the</p>

Selection Process selection of and agreement with Sebesta Blomberg and Associates, of Roseville, Minnesota, to provide engineering services for the project.

However, the Board directed the University to reopen the selection process for the project engineer and return with a recommendation at the April Board meeting.

The University contacted the 11 firms which responded to the initial request for proposals to provide engineering services for the project; all of the firms were invited to make a presentation to a selection committee.

- Five of the 11 firms expressed an interest in participating in the subsequent interview process.

In order for the University selection committee to review the capabilities of all firms in a consistent format, the University developed a set of data sheets for completion by each of the five firms with the following information:

- Project team members, their years of experience at the firm, and total years of experience of all team members.
- Any sub-consultants proposed to be used on the project.
- Experience with chilled water plant projects, including those with: steam driven chillers of over 2,500 tons of capacity; chilled water systems of over 10,000 tons of capacity; systems utilizing variable primary pumping; and in a campus environment (similar to the proposed project).

Interview Process For the second series of interviews, the selection committee was expanded to include representatives of the Department of Mechanical Engineering with background in chiller and power plants, and the Board Office.

A list of standard questions was asked of each firm, and an evaluation matrix was developed to evaluate each firm and its capabilities.

The evaluation factors, listed below, were weighted to emphasize the criteria essential to the success of this project.

- Recent experience with steam driven chillers
- Large chilled water system experience
- Demonstrated knowledge of primary systems
- University experience
- Past Iowa State University experience
- Iowa firm
- Use of Iowa subconsultants
- Site visit
- Quality of initial proposal
- Multi-disciplined firm
- Depth of personnel
- Project manager
- Project mechanical consultant
- Project electrical consultant
- Project team
- Acceptable schedule
- Reasonable man-hour cost
- References
- Strength of University/firm team

The five firms were interviewed on March 21; each firm was given 45 minutes to discuss its approach to the project, its experience, and to highlight the information requested in the University's data sheets.

A 15-minute question and answer period followed each presentation; the questions included the standard ones asked of each firm, plus additional questions specific to each firm's presentation.

After each interview, members of the selection team independently completed their evaluation matrix, and the individual results were compiled into a single evaluation matrix.

University  
Recommendation

The selection team was unanimous in its selection of Sebesta Blomberg and Associates as the most qualified firm to provide engineering services for the project.

- Sebesta Blomberg is a leader in the design of large chilled water plants with significant experience in a university setting.
- The firm has extensive experience with large central chilled water systems and the installation of large steam-driven centrifugal chillers.



- Sebesta Blomberg has been innovative in the design of variable primary flow chilled water systems, which is a more energy efficient design for large chilled water systems; the University has used this approach since 1993.
- None of the other engineering firms were able to demonstrate a comparable level of similar experience.
- The references for Sebesta Blomberg were very complimentary, especially with respect to the individuals who would be working on the project.
- The project team would include Snyder and Associates of Ankeny, Iowa, to provide civil engineering services, and an Iowa architectural firm to be jointly selected by Sebesta Blomberg and the University.
- The University estimates that approximately 30 percent of the design hours for the project will be done by Iowa firms.

The Board Office concurs with the University's recommendation given the extraordinary review process that was undertaken for the engineer selection.

Engineering  
Agreement

The agreement with Sebesta Blomberg and Associates would provide full design services from pre-design through construction for a fee of \$823,300, including reimbursables.

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Included in the University's capital register for Board ratification are eight project budgets under \$250,000, one amendment approved by the University, three construction contracts awarded by the Executive Director, the acceptance of two completed construction contracts, and three 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