

MEMORANDUM

To: Board of Regents

From: Board Office

Subject: Register of University of Iowa Capital Improvement Business Transactions for Period of November 13, 2003, Through January 21, 2004

Date: February 9, 2004

Recommended Actions:

1. Take the following actions for the major capital projects, as defined by Board policy adopted in June 2003.
 - a. **Medical Laboratories—Biological Safety Level 3 Facility** project (see pages 5 through 10).
 1. Acknowledge receipt of the University's final submission of information to address the Board's capital project evaluation criteria (pages 8 through 10);
 2. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
 3. Approve the schematic design and project description and budget (\$2,112,350), with the understanding that this approval will constitute final Board approval and authorization to proceed with construction.
 - b. **Multi-Tenant Facility—Fitout Pod E** project (see pages 11 through 14).
 1. Acknowledge receipt of the University's final submission of information to address the Board's capital project evaluation criteria (pages 13 and 14);
 2. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
 3. Approve the program statement, schematic design, and project description and budget (\$2,100,000), with the understanding that this approval will constitute final Board approval and authorization to proceed with construction.

- c. **University Hospitals and Clinics—Nursing Clinical Education Center** project (see pages 15 through 20).
1. Acknowledge receipt of the University's initial submission of information to address the Board's capital project evaluation criteria (pages 16 through 20);
 2. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
 3. Approve the architectural agreement with Brooks, Borg and Skiles, Des Moines, Iowa (\$282,500).
- d. **Medical Laboratories—Research Laboratories Renovation** project (see pages 20 and 21).
1. Approve the architectural agreement with Rohrbach Carlson, Iowa City, Iowa (\$290,700).
 2. Approve the revised project budget (\$42,790,000), architectural amendment with Rohrbach Carlson (not to exceed \$168,500), and construction change order to be negotiated with Miron Construction Company (not to exceed \$2,500,000), for the **Roy J. and Lucille A. Carver Biomedical Research Building** project, to convert space on the first level of the facility designed for administrative offices to research laboratories (see pages 22 through 24).
 - The University also requests that the Executive Director be authorized to approve the negotiated change order with Miron Construction Company, subject to Board ratification.
 - The project was under construction prior to the Board's adoption of the policy for major capital projects in June 2003; therefore, the Board's capital project evaluation criteria do not apply to this project.
 3. Approve the remainder of the items on the Register of Capital Improvement Business Transactions for the University of Iowa.
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Executive Summary:

Requested
Actions

The University requests approval of the following items for major capital projects (new construction or renovation projects with estimated budgets of \$1 million or more):

Schematic design and project description and budget (\$2,112,350) for the **Medical Laboratories–Biological Safety Level 3 Facility** project which would construct a Biosafety Level 3 (BSL-3) facility on the roof of the Medical Laboratories building on the Health Sciences Campus to support anticipated biodefense-related research initiatives (see page 5).

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

Program statement, schematic design, and project description and budget (\$2,100,000) for the **Multi-Tenant Facility—Fitout Pod E** project which would complete shell space in the Multi-Tenant Facility at the Oakdale Campus to provide research laboratories and support facilities for the Inflammation Research Program of the Carver College of Medicine (see page 11).

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

Architectural agreement with Brooks, Borg and Skiles, Des Moines, Iowa (\$282,500), for the **University Hospitals and Clinics—Nursing Clinical Education Center** project which would renovate space in the General Hospital to consolidate the College of Nursing Learning Resource Center and the UIHC Nursing Education Center (see page 15).

Architectural agreement with Rohrbach Carlson, Iowa City, Iowa (\$290,700) for the **Medical Laboratories—Research Laboratories Renovation** project which would upgrade space on three floors of the Medical Laboratories building to provide modern research laboratories for the Departments of Internal Medicine and Orthopaedic Surgery of the Carver College of Medicine (see page 20).

Revised project budget (\$42,790,000), architectural amendment with Rohrbach Carlson (not to exceed \$168,500), and construction change order to be negotiated with Miron Construction Company (not to exceed \$2,500,000), for the **Roy J. and Lucille A. Carver Biomedical Research Building** project, currently under construction, to convert space on the first level of the facility designed for administrative offices to research laboratories (see page 22).

- The University also requests that the Executive Director be authorized to approve the negotiated change order with Miron Construction Company, subject to Board ratification.
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The University requests approval of the following project descriptions and budgets for projects with budgets between \$250,000 and \$1 million:

University Hospitals and Clinics—Rossi Guest House Expansion project (\$986,000) which would renovate former inpatient care unit space in the General Hospital to provide accommodations for the families of acute-care pediatric patients (see page 25).

University Hospitals and Clinics—Operating Room Development project (\$942,000) which would develop additional operating room areas within the UIHC Main Operating Room Suite in the Colloton Pavilion (see page 26).

Burge Residence Hall—Renovate Restrooms—Phase 1 project (\$712,000) which would renovate four restroom areas in one wing of Burge Hall to meet accessibility and building code requirements (see page 27).

Medical Laboratories—Replace Windows—Phase 2 project (\$486,000) which would complete the replacement of the deteriorating windows in the Medical Laboratories building (see page 28).

University Hospitals and Clinics—Refurbish Air Handling Units for Automatic System Interface project (\$409,000) which would correct deficiencies with the air handling systems in the Boyd Tower (see page 29).

Medical Laboratories–Biological Safety Level 3 Facility

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning Architectural Selection (Rohrbach Carlson, Iowa City, IA)		July 2003	Approved
Initial Review and Consideration of Capital Project Evaluation Criteria Architectural Agreement (Rohrbach Carlson, Iowa City, IA)	\$ 120,000	July 2003 July 2003 Sept. 2003	Approved Received Report Approved
Program Statement		Oct. 2003	Approved
Final Review and Consideration of Capital Project Evaluation Criteria Schematic Design		Feb. 2004 Feb. 2004	Receive Report Requested
Project Description and Total Budget	2,122,350	Feb. 2004	Requested

Background

The National Institutes of Health have indicated plans to invest \$1.7 billion to \$1.8 billion per year over the next three years in biodefense-related research grants and contracts.

The Carver College of Medicine anticipates securing a portion of this funding for three major new research initiatives in microbiology and infectious diseases specifically relating to biodefense pathogens and Severe Acute Respiratory Syndrome (SARS).

The three programs would require development of a Biological Safety Level 3 (BSL-3) containment facility on the Health Sciences Campus to work with these very contagious microbial pathogens; such a facility is necessary for the Carver College of Medicine to remain competitive for these programs.

Project Scope

The project would construct a BSL-3 facility as a one-story penthouse addition at the northwest corner of the fourth floor of the Medical Laboratories building on the Health Sciences Campus. (A map indicating the location of the Medical Laboratories Building is included as Attachment A.)

- The University originally planned to construct the BSL-3 facility at the northeast corner of the fourth floor; the University reports that relocating the facility to the northwest corner would provide additional usable floor and ceiling space to better accommodate the installation of duct work and other utilities, and would improve egress and reduce visibility of the facility from the ground level.

The BSL-3 project would provide a containment facility for scientists to work with agents that may cause serious or potentially lethal disease in the event of exposure and inhalation.

- The facility is designed to prevent exposure to these agents for the individuals within the facility and to prevent the escape of these agents to the outside environment; the facility would include a dedicated mechanical system and emergency generator to ensure containment.

Schematic Design

The following are highlights of the interior design.

- The BSL-3 facility would be accessible from the third level of the Medical Laboratories with the extension of an existing stairway at the northeast corner of the addition, and from an existing doorway south of the stairwell at the fourth floor corridor.
- The four tissue culture rooms would be located along the west wall; the animal housing and procedure areas would be located in the northwest corner.
- The controlled internal entry and exit areas serving the laboratories would be centrally located, along with laboratory support areas and an equipment room.
- The shower, locker room and office areas would be located along the north wall.
- A large mechanical room would be located along the east wall.

The following are highlights of the exterior design.

- The majority of the addition (area that houses the research space) would be constructed of a masonry tile veneer consistent with the tile exterior of the adjacent College of Medicine Administration Building to the west.
- The smaller portion of the addition (area that houses the stairway and office space) would be constructed of brick and limestone consistent with the Medical Laboratories exterior.
- The roofing material would consist of a rubber membrane material which was selected for consistency with the existing Medical Laboratories roof, performance history, and life expectancy (15 to 20 years).

Square Footage Table The following table provides the detailed square footages for the BSL-3 Facility.

Detailed Building Program

	<u>Building Program</u>	<u>Schematic Design</u>	
Tissue Culture (4)	716	711	
Equipment Room	473	478	
Laboratory Support	320	548	
Animal Housing and Procedure	131	163	
Microscopy Area	104	99	
Office Areas	<u>95</u>	<u>177</u>	
Total Net Assignable Space	1,839	2,176	nsf
Total Gross Square Feet	<u>3,108</u>	<u>3,532</u>	gsf

Net-to-Gross Ratio = 62 percent (schematic)

Design/Program Comparison The schematic design reflects an increase of 424 gross square feet (337 net square feet) with the relocation of the facility to the northwest corner of the Medical Laboratories building.

- The new location incorporates the northwest stair turret, extends an existing interior stairway, and provides additional interior space.

Schedule The University plans to receive construction bids in March 2004, with an anticipated completion date of December 2004.

Funding Carver College of Medicine Gifts and Earnings.

Project Budget

Construction	\$ 1,633,200
Design, Inspection, and Administration	
Consultants	217,400
Design and Construction Services	103,750
Occupancy	5,000
Contingencies	<u>163,000</u>
TOTAL	<u>\$ 2,122,350</u>

The project budget had been estimated at \$1.1 million. The University attributes the cost increase to scope increases for the mechanical and plumbing systems to meet BSL-3 requirements, the increase in square footage with the relocation of the facility, additional equipment costs, and additional consultant services to ensure BSL-3 certification.

Evaluation Criteria Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission/Strategic Plan This BSL-3 facility will serve three major new initiatives in microbiology and infectious diseases at the University of Iowa Carver College of Medicine (CCOM). A Midwest consortium, which was led by the University of Iowa and which also includes investigators at Iowa State University, received one of the two highest scores nationally in an NIH competition for planning grants for Regional Centers of Excellence in Biodefense and Emerging Pathogens. In the request for applications for this competition, NIH indicated an intent to fund 4-8 of these grants. This planning grant will provide \$1.475 million in total funding including \$475,000 in Facilities and Administrative (indirect) costs over two years and allow the University of Iowa to compete for a Regional Center of Excellence in 2004-2005. The funding for a Regional Center could reach \$50 million over five years.

On August 31, we were awarded a Bacterial Respiratory Pathogens Research Unit (BRPRU). The BRPRU is supported in large part from biodefense funding to provide infrastructure for vaccine research, development and testing. The Contract will run for seven years at a total cost of \$22.2 million dollars (Approximately \$3.3 million/year). A functional BSL-3 facility would be an important factor component of the BRPRU should the unit be asked to work with Biodefense related organisms in the event of a national emergency.

Another program grant in the CCOM to study the biodefense pathogen, *Francisella tularensis*, received a score indicative of a very high probability of funding. This is a five-year project with a total budget of \$9.3 million including \$2,547,626 in F and A costs.

In addition, investigators at Iowa who are one of the few groups nationally with a long history of corona virus research have begun to study the newly identified corona virus that is the cause of SARS.

All of these three programs require ready access to a BSL-3 containment facility to work with these very contagious microbial pathogens. This BSL-3 facility is essential for the success of the above programs and for the CCOM to be competitive for a significant portion of the \$1.7 to \$1.8 billion to be spent by NIH over the next three years in the field of biodefense and emerging pathogens.

To obtain select agent approval from the Center for Disease Controls, a BSL-3 level facility must be available. This facility must be constructed to specifications and must be certified by the campus Health Protection Officer.

Graduate students, postdoctoral fellows and, occasionally, undergraduates will use this facility in their research work.

This project will continue the impressive growth of the research programs in the UI CCOM, and will reflect the UI Carver College of Medicine leadership nationally in research against bioterrorism of the nation. Joint ventures with Iowa State University reflect the sharing of this research facility with other institutions within the State of Iowa. In addition, the facility will serve NIH funded Comprehensive Holden Cancer Center, as a number of drugs used in cancer research must be formulated in a BSL-3 facility. This facility will also serve as a resource for biotechnology firms in the area.

The U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and the National Institutes of Health have established safety practices, equipment and facility requirements for the biosafety in microbiological and biomedical laboratories in order to protect personnel, the environment and the community. Four biosafety levels have been established. The Biosafety Level 3 (BSL-3) is applicable to research facilities in which work is done on agents which may cause serious or potentially lethal disease as a result of exposure by inhalation. The facility is designed to prevent exposure of individuals within the facility to these agents and to prevent escape of these agents to the outside environment.

Other Alternatives
Explored

At this time, the University does not have a laboratory on the main campus that meets the criteria needed for this new research program. There is a BSL-3 at the University Hygienic Lab at Oakdale, but the faculty scientists who will utilize the new BSL-3 are located on the main Health Science Campus. In addition, the research animals that will be studied are housed in the Animal Care Facility in the Medical Laboratories Building on the Health Science Campus. Given the nature of the biological agents involved, the transport of infectious materials and derivatives of these materials between Oakdale and the main campus is not feasible.

The CCOM has explored the potential of obtaining NIH funds to support the construction of this facility. NIH has currently restricted applications for BSL-3 facilities only to designated Regional Centers for Biodefense and Emerging Infections. Because we are in the planning stage for such a Center, the CCOM does not qualify for these funds.

Impact on Other
Facilities and
Square Footage

No other space on the Health Science Campus will be abandoned or changed as a result of the construction of the new BSL 3 facility.

Financial
Resources for
Construction
Project

The Roy J. and Lucille A. Carver College of Medicine will fund the project from earnings and gifts.

A good score was received on the initial Biodefense Planning grant, and therefore has an excellent chance to be funded for \$1,475,00, of which \$475,000 is indirect funds or F&A funds. With this seed grant in place, we would be eligible and will be very competitive to obtain a \$10,000,000 per year grant for the next 5 years. If this were obtained, we would receive \$6,780,000 in direct funds and \$3,220,000 in F&A funds each year, over the 5 years.

In addition, the CCOM has a newly funded Program Project Grant (PPG) of \$9.3 million over 5 years. The direct funding for this PPG is \$6,757,498 and the F&A funds are \$2,547,626. The Principal Investigator for this grant is Dr. William Nauseef.

This project is expected to be a productive research facility from inception.

Financial
Resources for
Operations and
Maintenance

The indirect cost recovery funds of the grants mentioned above and other CCOM grants will be the source of funds to maintain the facility.

The indirect cost of the grants described in items 1 and 4, will be used to support the BSL-3. This source of funding is part of the UI General Fund.

External Forces

In order for faculty to obtain approval to work with any of the CDC select agents A through C, they must have access to an approved BSL-3 facility. In addition, new national security regulations mandate that select agents in the category A and B be maintained under three levels of security. The new facility would be designed to comply with these regulations.

This facility would be constructed in accordance with the guidelines established by CDC for BSL-3 facilities.

Since the fall of 2001, the Federal government has had plans to invest \$1.7 - 1.8 billion per year over the next three years in biodefense related grants and contracts. A BSL-3 facility is vital for the safe handling of many of the organisms covered by this initiative. This facility will support the faculty at the College of Medicine who are participating in the Biodefense grants listed above and will allow additional faculty to develop projects which have the potential to be funded under the Biodefense initiative.

Multi-Tenant Facility—Fitout Pod E

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Initial Review and Consideration of Capital Project Evaluation Criteria		Nov. 2003	Received Report
Permission to Proceed with Project Planning Architectural Selection (Herbert Lewis Kruse Blunck, Des Moines, IA)		Nov. 2003	Approved
Final Review and Consideration of Capital Project Evaluation Criteria Program Statement		Feb. 2004	Receive Report
		Feb. 2004	Requested
		Feb. 2004	Requested
Schematic Design			
Project Description and Total Budget Architectural Agreement (Herbert Lewis Kruse Blunck, Des Moines, IA)	\$ 2,100,000 251,060	Feb. 2004 Feb. 2004	Requested Ratification*

* Approved by Executive Director in accordance with Board procedures.

Background

The Inflammation Research Program of the Carver College of Medicine, which is comprised of faculty from the Departments of Internal Medicine, Microbiology, Pediatrics, Biochemistry, and Anatomy and Cell Biology, provides research in the molecular and cell biology of inflammation, and its causes and consequences.

The Program's research efforts have application for the prevention and/or treatment of infectious diseases that may result from a bio-terrorism act; accordingly, federal funding for the Program has increased to an expected level of \$9.3 million.

The University reports significant growth in the number of pre-doctoral students who have chosen to complete thesis work within the Program since its inception in 1998.

The University further reports that deficiencies in the Program's existing research space, which consists of 11,500 net square feet in Pod D of the Multi-Tenant Facility, is a serious impediment to further development of the Program.

These space deficiencies have limited the availability of quality space for pre-doctoral students and have negatively impacted the University's recruitment of faculty, post-doctoral fellows and other research scientists for the Program.

Project Scope

The project would complete approximately 10,000 square feet of shelled space in Pod E of the Multi-Tenant Facility at the Oakdale Campus to accommodate the expansion needs of the Program.

Program Statement The project would provide laboratory and support areas, five private faculty offices, an open office area with workstations for eight individuals, two equipment rooms, and a multi-purpose room to accommodate eight workstations and small group meetings.

Schematic Design The following are highlights of the interior design:

- The research laboratories would be centrally located within the space; the laboratory support areas would be located along the east wall.
- The private office areas would be located along the west wall, and the open office area would be located in the northwest corner.
- The two equipment rooms would be located along the north and south walls, and the multi-purpose room would be located in the northeast corner.

Square Footage Table The following table shows the square footage for the project.

Detailed Building Program and Schematic Design

Laboratory	4,050		
Equipment Room	1,425		
Open Office	750		
Multi-Purpose Room	730		
Private Office	625		
Tissue Culture Rooms	810		
Cold Room	130		
Microscopy Room	125		
Shower	<u>125</u>		
Total Net Assignable Space	8,770	nsf	
Total Gross Square Feet	<u>10,020</u>	gsf	
Net-to-Gross Ratio = 88 percent			

Schedule The University plans to begin construction in May 2004, with an anticipated completion date of March 2005.

Funding Income from Treasurer's Temporary Investments reimbursed by a University of Iowa Facilities Corporation bank loan. (The Multi-Tenant Facility is owned by the Facilities Corporation.)

- The University reports that interim funding is needed for the project until the Facilities Corporation secures the bank loan.
- The loan would be repaid through a lease between the University and the University of Iowa Facilities Corporation, with lease payments made from Carver College of Medicine gifts and earnings.

Project Budget

Construction	\$ 1,608,450
Design, Inspection, and Administration	
Consultants	271,050
Design and Construction Services	71,500
Contingencies	<u>149,000</u>
 TOTAL	 <u>\$ 2,100,000</u>

Design Agreement

Presented for Board ratification is the negotiated agreement with Herbert Lewis Kruse Blunck, Des Moines, Iowa, which will provide full design services for a fee of \$251,060, including reimbursables.

- The University requested Executive Director approval of the agreement in January 2004 to facilitate completion of the project to accommodate a grant-based research effort to be housed in the space.

Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission/Strategic Plan

The goal of this project is to create an integrated and interdisciplinary group of investigators dedicated to the study of host-microbe interactions. This will establish a critical mass of researchers for a future *Center for the Study of Host-Microbe Interactions and Inflammation*. It will also be an important step in successfully establishing a vibrant extension of the UI biomedical research community at the Oakdale campus. As such the project fulfills the UI's mission both to research and to education.

Research Mission: The assembly of a critical mass of scientists in an integrated program and with a shared and supportive infrastructure is essential for the retention of outstanding established UI investigators and for the successful recruitment of new investigators to the University. The Inflammation Research Program currently includes faculty from five different departments in the Carver College of Medicine (Internal Medicine, Microbiology, Pediatrics, Biochemistry, and Anatomy & Cell Biology).

Several researchers have recently joined the Inflammation Program. These researchers were attracted to the program by both the quality of the mentoring and research support, and they have chosen it over some other very impressive opportunities. The addition of these individuals will be excellent extensions and compliments to existing research activities. The Program has spawned new research proposals that have successfully gained extramural support. Several grant projects are in mature stages of support. Results of these projects are leading to additional support.

Educational mission:

Evidence of the commitment of the Inflammation Program to education includes both formal and informal activities. The number of students in Inflammation Program labs has risen from 5 to 25, since the inception of the program in 1998. This student community is remarkably diverse with both undergraduate and Ph.D. candidates from a variety of academic disciplines. The diversity of experience, expertise, and educational orientation of University students and the integration of their daily activities and individual projects creates a stimulating intellectual environment and a unique educational experience. Currently, there is no available space for program growth and the number of students doing research rotations has been limited until the proposed development of Pod E is completed.

Strategic plan-related criteria:

Realization of this proposal will provide support for research and educational missions, and will aid in development of the Oakdale campus as an integral extension of the UI biomedical community.

Other Alternatives Explored	Effort was made to identify 5,000 NSF of contiguous space on the UI main campus or in Building 3 at the Veterans Administration Medical Center to relocate the program. No suitable space was identified.
Impact on Other Facilities and Square Footage	It is expected that no space will be abandoned, transferred, or demolished as a result of this project. The proposed space accommodates the growth of an existing program.
Financial Resources for Construction Project	The project will be funded from Treasurer's Temporary Investment funds to be reimbursed by a University of Iowa Facilities Corporation (UIFC) bank loan. The loan will be repaid through a lease between the University of Iowa and UIFC with lease payments made from Carver College of Medicine gifts and earnings.
Financial Resources for Operations and Maintenance	Pod E is the fifth module in the five module Multi-Tenant Facility. Pod E will be operated and maintained in conjunction with the overall Multi-Tenant Facility.
External Forces	<p>The Inflammation Program's research interests relate to the national concern on preventing and/or treating infectious disease that may be initiated by a bio-terrorism act.</p> <p>Federal funding for the Inflammation Program has increased to an expected level of \$9.3 million. With the Inflammation Program's interest in infectious disease and the nation's focus on the fight against bio-terrorism, it is anticipated that increased grant monies will be available.</p>

University Hospitals and Clinics—Nursing Clinical Education Center

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Sept. 2002	Approved
Initial Review and Consideration of Capital Project Evaluation Criteria Architectural Agreement		Feb. 2004	Receive Report
(Brooks, Borg and Skiles, Des Moines, IA)	\$ 282,500	Feb. 2004	Requested

Background	<p>The College of Nursing operates a nursing student Learning Resource Center in the College of Nursing Building on the Health Sciences Campus.</p> <ul style="list-style-type: none"> The Center provides a central location where nursing students learn and practice physical and psychological assessment techniques and clinical procedures, and develop the necessary communication skills. <p>The UIHC's Department of Nursing Services and Patient Care operates a Nursing Education Center in scattered locations throughout University Hospitals.</p> <ul style="list-style-type: none"> This Center provides orientation and in-service programs for all departmental staff, continuing education programs, and proficiency testing for hospital, community, and regional nursing staff. <p>The existence of two separate Centers, which provide similar services and have similar facility requirements, results in the duplication of services, and is inefficient and costly.</p> <p>The development of a single Nursing Clinical Education Center would consolidate the functions of the two existing Centers and provide more efficient use of resources.</p>
Project Scope	<p>The project would renovate approximately 20,000 gross square feet of space on the fourth level of the General Hospital to house the new Center.</p> <ul style="list-style-type: none"> This space previously housed patient care and support functions for the UIHC Labor and Delivery Suite and Neonatal Intensive and Intermediate Care Units, which have relocated to the Pappajohn Pavilion.

The Center would provide classrooms, clinical simulation laboratories, information technology training facilities, and office space for nursing staff associated with the Center's educational programs.

The relocation of the Learning Resource Center would vacate approximately 6,000 square feet of space in the College of Nursing Building, which would be renovated to meet other space needs of the College.

Anticipated Cost/
Funding \$3 million; construction would be financed by University Hospitals Building Usage Funds; the College of Nursing will fund the furniture and equipment.

Design Services Expressions of interest to provide design services for the project were received from 17 firms. Three firms were selected for interviews with an institutional Architectural Selection Committee, in accordance with Board procedures for projects of \$1 million or more.

Based on the Committee's recommendation, the University requests approval of the selection of Brooks, Borg and Skiles, Des Moines, Iowa, to provide design services for the project.

- The firm was selected based on its professional qualifications, the quality of its previous University work, and the overall quality of the design presentation.

The agreement with Brooks, Borg and Skiles would provide full design services for a fee of \$282,500, including reimbursables.

Evaluation
Criteria Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional
Mission/Strategic
Plan The UIHC's Department of Nursing Services and Patient Care operates a Nursing Education Center (NEC), with facilities scattered throughout the hospital, in providing orientation and in-service programs for all departmental staff, providing continuing education programs as an Iowa Board of Nursing Approved Provider, and in providing proficiency testing for nursing staff from the hospital, community and region. The College of Nursing (CON) operates a student Learning Resource Center (LRC) in the College of Nursing Building on the University of Iowa's health science campus. The LRC's facilities serve as the central location where nursing students learn and practice physical and psychological assessment and clinical procedures and develop the necessary skills to interact and communicate effectively with patients and other members of the health care team. The presence of two facilities on the health science campus with similar facility requirements and providing a similar service is both inefficient and costly. The development of a Nursing Clinical Education Center at the UIHC will address these deficiencies and provide a single facility to be shared by students, faculty and staff from both the College of Nursing and UIHC. The development of this center will result in the more efficient use of common resources, including space, equipment and education staff. The project will result in the freeing-up of space within

the College of Nursing and UIHC that will be used to meet other space needs. This project is in concert with the UIHC's missions of serving as the primary teaching hospital for the University and in providing a base for innovative research to improve health care. Additionally, this project fulfills multiple strategic goals of the hospital, including but not limited to: fostering the recruitment and retention of high quality staff while enhancing their diversity; excelling in all aspects of service to patients and their families by providing thorough staff training; implementation of interdisciplinary interaction and collaboration to enrich patient care through the advance of nursing enterprises; utilization of proper interdisciplinary mix of resources; optimizing operational efficiencies by integrating and centralizing standard practices; and optimizing clinical efficiencies by continuing development of care maps based upon outcomes, variance analyses and evidence-based medicine drawn upon the expertise of various departments, including the Department of Nursing.

Other Alternatives
Explored

In an effort to meet the growing need for nursing services and provide nursing staff and students with the technology and training required in the ever-changing health care industry, no practical alternatives were available for consideration. Both the UIHC and CON view this project as a great opportunity to combine resources and meet common requirements for training staff and students. It is well recognized that the estimated half-life of technological knowledge is approximately eighteen months and ongoing education is essential for nursing practice, especially in a nationally recognized health science center. Currently, neither the UIHC or CON has a distance learning facility to serve off-site students and staff or to download educational programs at the patient care unit level to eliminate the need for nurses to leave the unit to access these programs. Neither the LRC nor the NEC have library facilities that provide either hard copy or on-line access to the most recent clinical nursing research. Neither facility has a communications laboratory in which students and staff can practice therapeutic communication.

This is of critical importance since communication proficiency is at the heart of assessment and therapeutic relationships and the single most important skill in reducing clinical errors. Given all these needs, it has been evident that a combined education center would be of great benefit. While the CON had no facilities in which such a center could be developed, the UIHC has the opportunity to provide the necessary space once the current perinatal units are vacated with the development of the new Perinatal Care Center in the John Pappajohn Pavilion. The selection of the UIHC site was thus the only feasible option for developing the center.

Impact on Other Facilities and Square Footage	No facilities will be abandoned, transferred or demolished. The project will result in approximately thirty-three hundred gross square feet of space in UIHC and approximately six thousand gross square feet in the College of Nursing Building becoming available for reassignment to other functions. The Nursing Clinical Education Center (NCEC) will occupy approximately fifteen thousand gross square feet of space on the fourth level of General Hospital that will be vacated in the spring of 2004 with the relocation of the Labor and Delivery Suite, Neonatal Intensive and Intermediate Care units, and newborn nursery to the Pappajohn Pavilion. This figure will be further refined as planning proceeds.
Financial Resources for Construction Project	The project's construction will be funded through University Hospitals Building Usage Funds acquired from depreciation allowances of third parties underwriting the cost of patient care plus hospital net earnings from paying patients. No state capital appropriated dollars will be involved. The services to be provided as the result of this project are not ones that generate a significant level of revenue. Accordingly, it is not appropriate or meaningful to consider a return on investment for this specific project. The costs associated with the development of this project, as with other similar non-revenue generating services, are supported by all UIHC revenue centers.
Financial Resources for Operations and Maintenance	The source of funds to cover the associated operating and maintenance costs will be hospital operating revenues derived from providing patient care services.
External Forces	<p>This project is important in meeting the strategic mission of the Department of Nursing and also the UIHC's related to nursing education and support for nursing in the practice setting. Currently there are over 126,000 nursing positions unfilled in America's hospitals. In addition to this, there are approximately 21,000 fewer nursing students today than in 1995. It is estimated that by 2020 there will be a shortage of at least 400,000 RNs in the United States (JCAHO, 2003). This unparalleled nursing shortage requires that new, collaborative efforts, such as the Nursing Clinical Education Center, be developed to attract students and train experienced, competent, professional, registered nurses.</p> <p>This project will provide the foundation for nursing education and competency within the Department of Nursing at UIHC and will serve as an updated learning resource center for the University of Iowa College of Nursing. A unique education and competency driven environment will be provided within this space, which will include state-of-the-art simulation laboratories to provide hands-on opportunities for nurses who are being trained for positions at the UIHC and for students and registered nurses to master skills and competencies needed to provide care for acutely ill patients, conference and lecture rooms for classes and continuing education programs, and a library and computer laboratories for use in obtaining the most recent information on clinical nursing research and for developing the necessary skills in the use of computers for research and the provision of patient care.</p>

The UIHC has recently received the Magnet Hospital designation. The purpose of this initiative is to retain and recruit professional registered nurses; maintaining magnet status is dependent upon continuing education for nursing. Magnet is based on a hospital's commitment to a high level of professional practice and education within the hospital setting. An essential element of magnetism is the development of a strong workforce of competent nurses. This is a strategic goal for both the Department of Nursing and UIHC and will be enhanced by the Nursing Education Center.

Lastly, recruitment and retention efforts are continually underway through the Human Resources Office within the Department Nursing. A recent survey conducted in 2002 demonstrated that nurses value competent peers and coworkers. This Nursing Education Center will enhance this nurse retention goal by providing a venue for high level competency attainment, practice of new clinical skills, and serve as a catalyst to retain professional nurses at the UIHC.

The College of Nursing regards this project as critical to its educational mission. The NCEC is crucial to contributing to a productive organization. It will serve as a strong tool to recruit highly qualified high school students to pursue their education at the University of Iowa. The College of Nursing is ranked as one of the top nursing programs in the country. In addition, the Nursing Service Administration graduate program is first in the country and a gerontology graduate program second in the country as ranked by *U.S. News and World Reports*. This resource center will enable the College of Nursing to become a greater educational force within nursing. Approximately 650 students of the current enrollment of 717 students will use this facility.

The College of Nursing also produces a disproportionate number of nurses nationally who are placed in executive nursing positions. At last count, the College of Nursing listed over 750 of its 9,300 graduates as either CEO's of hospitals, CFO's, COO's, chief nursing officers, directors of nursing, or deans.

The American Association of Colleges of Nursing (AACN) has recently accredited the College of Nursing. The *Essentials* document, which provides direction for accreditation has core competencies as a part of the criteria. One key competency is the acquisition and use of technical skills required for delivery of nursing care. Graduates must approach their understanding and use of skills in a sophisticated theoretical and analytic manner. This state-of-the-art facility will support the attainment of this core competency.

The College of Nursing, through the new program Professional Master's in Nursing and Healthcare Practice (MNHP), constitutes a significant response to the state and national shortage of nurses by preparing greater numbers of nurses in less time. Also, experience indicates that men who opt for nursing tend to come through the second-degree route and may also be persuaded by the more gender-neutral term of "healthcare practice" in the title. These students will be educated in this updated resource environment.

Other programs within the College respond to the shortage of nurses. The College currently has four nurse practitioner programs. The content of these programs defines the essentials of advanced practice roles in which practitioners practice independently and interdependently. When preparing graduates, the educational programs must provide students. The NCEC will enable nurse practitioner students to gain the critical experience. As students graduate from the College of Nursing they will see UIHC's dedication and commitment to nursing, and will choose to stay with an institution with such values.

Medical Laboratories—Research Laboratories Renovation

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Initial Review and Consideration of Capital Project Evaluation Criteria		Nov. 2003	Received Report
Permission to Proceed with Project Planning		Nov. 2003	Approved
Architectural Agreement (Rohrbach Carlson, Iowa City, IA)	\$ 290,700	Feb. 2004	Requested

Background The Medical Laboratories Building was constructed in 1928; portions of the facility were remodeled in the 1960s. The University reports that the existing research space in the facility is deteriorated and of poor quality.

The University wishes to renovate space in the building to meet the modern research and instructional needs of the Departments of Internal Medicine and Orthopedic Surgery of the Carver College of Medicine.

Project Scope The project would renovate approximately 16,000 net square feet of space on the basement, first and second floors of the Medical Laboratories Building to provide modern research laboratories to facilitate and enhance interactive research among faculty investigators in the areas of Immunoregulation of Inflammation in Digestive Diseases, Vascular Biology, and Cell and Molecular Biology, and to enhance the training of undergraduate students, graduate students and post-doctoral fellows in this subject and related research areas.

- The project area includes both 1928 constructed space and space that was remodeled in the 1960s.

The project would also install an additional heating, ventilating and air conditioning unit to upgrade the mechanical systems that serve the laboratory areas.

Anticipated Cost/Funding Estimated at \$5.3 million, to be funded in part by a grant from the National Institutes of Health (\$2,534,658).

The remaining funding is expected to be from Carver College of Medicine Gifts and Earnings, Income from Treasurer's Temporary Investments, and/or Building Renewal Funds.

Design Services Expressions of interest to provide design services for the project were received from one firm, Rohrbach Carlson of Iowa City; the University requests approval of the selection of Rohrbach Carlson to provide design services for the project.

- The firm was involved in the preparation of a study that accompanied the University's grant submission to the National Institutes of Health for the project.
- The University reports that Rohrbach Carlson has successfully completed the design for other Medical Laboratories and University projects, and has a strong working relationship with the Carver College of Medicine.

The agreement with Rohrbach Carlson would provide all design services but mechanical engineering services for a fee of \$290,700, including reimbursables. (The University would provide mechanical engineering services for the project.)

Roy J. and Lucille A. Carver Biomedical Research Building

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Nov. 1999	Approved
Architectural Selection (Rohrbach Carlson, Iowa City)		May 2000	Approved
Architectural Agreement (Rohrbach Carlson, Iowa City)	\$ 2,416,700	July 2000	Approved
Program Statement		Feb. 2001	Approved
Schematic Design		March 2001	Approved
Architectural Amendment #1 (Rohrbach Carlson, Iowa City)	103,000	June 2001	Approved
Project Description and Budget	40,731,000	March 2002	Approved
Architectural Amendment #2 (Rohrbach Carlson, Iowa City)	159,457	March 2002	Approved
Architectural Amendment #3 (Rohrbach Carlson, Iowa City)	270,000	Oct. 2002	Approved
Architectural Amendment #4 (Rohrbach Carlson, Iowa City)	222,500	Nov. 2002	Approved
Architectural Amendment #5 (Rohrbach Carlson, Iowa City)	29,367		Not Required*
Construction Contract Award— General Construction (Miron Construction Company)	26,585,000	Jan. 2003	Ratified
Construction Contract Award— Steindler Demolition Phase 2B, Asbestos Abatement (Great Plains Asbestos)	40,964	Jan. 2003	Ratified
Architectural Agreement—Furnishings Design (Rohrbach Carlson, Iowa City, IA)	105,000	July 2003	Approved
Construction Change Orders #1 - #14 (Miron Construction Company)	(68,254)		Not Required*
Revised Project Budget	42,790,000	Feb. 2004	Requested
Architectural Amendment #6 (Rohrbach Carlson, Iowa City, IA)	168,500 (est)	Feb. 2004	Requested
Construction Change Order #15 (Miron Construction Company)	2,500,000 (est)	Feb. 2004	Requested
Executive Director Authorization to Approve Negotiated Change Order		Feb. 2004	Requested

* Approved by University in accordance with Board procedures.

Background	<p>This project is constructing a facility with 131,500 gross square feet (74,400 net square feet) of additional biomedical research space as an extension to the Medical Education and Biomedical Research Facility. (The project was formerly known as Building B.)</p> <p>The Roy J. and Lucille A. Carver Biomedical Research Building will house research facilities to accommodate the current and anticipated growth in the College of Medicine's research activities and the administrative functions of the College of Medicine.</p> <p>The schematic design for the facility, approved in March 2001, included a total of seven levels with the administrative units of the Carver College of Medicine on Level 1, and research laboratory space on the remaining levels.</p> <p>The project is currently under construction; the anticipated completion date is March 2006.</p>
Project Scope Modification	<p>Due to the increasing demand for research space, the University wishes to convert the first floor administrative office space, approximately 11,500 square feet or two-thirds of this level, into research laboratories and support space.</p> <ul style="list-style-type: none"><li data-bbox="511 997 1472 1102">• The administrative offices of the Carver College of Medicine would remain in their existing location in the College of Medicine Administration Building. <p>The laboratory configuration on the first level would replicate the laboratory design on the second and third floors; an existing conference facility and public spaces would remain on this level with minor adjustments.</p> <p>The University believes this proposal would yield a more productive use for the facility and would help attract additional sponsored research revenue to the College.</p>
Revised Budget	<p>The revised budget of \$42,790,000, an increase of \$2,059,000, would fund the additional design services and construction costs associated with the modified project scope.</p>
Architectural Amendment	<p>Amendment #6 with Rohrbach Carlson, not to exceed \$168,500, including reimbursables, would provide design modifications to the building systems and windows to accommodate the research function.</p>

Construction Change Order Change Order #15 with Miron Construction Company, to be negotiated for an amount not to exceed \$2,500,000, would incorporate the modifications for the area into the existing construction contract.

- The negotiated change order would be based on actual unit prices bid by Miron Construction Company for the general construction contract.
- To avoid project delays and cost increases, the University requests that the Executive Director be authorized to approve the negotiated change order; the approved change order would be reported for Board ratification.

Project Funding Revenue Bonds and Carver College of Medicine Gifts and Earnings; funding for the budget increase would be provided by Carver College of Medicine Gifts and Earnings.

Project Budget

	Initial Budget <u>March 2002</u>	Revised Budget <u>Feb. 2004</u>
Construction	\$ 32,753,000	\$ 36,030,000
Design, Inspection, and Administration		
Consultants	2,962,007	3,150,000
Design and Construction Services	1,537,993	1,500,000
Art in State Buildings	203,000	215,000
Contingency	<u>3,275,000</u>	<u>1,895,000</u>
TOTAL	<u>\$ 40,731,000</u>	<u>\$ 42,790,000</u>

University Hospitals and Clinics—Rossi Guest House Expansion

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Architectural Agreement (OPN Architects, Cedar Rapids, IA)	\$ 50,900		Not Required*
Project Description and Total Budget	986,000	Feb. 2004	Requested

* Approved by Executive Director in accordance with Board procedures.

Background	<p>The UIHC Rossi Guest House, located on the fifth floor of the south wing of the General Hospital, provides accommodations for the families of adult patients receiving medical treatment at UIHC.</p> <p>The University wishes to expand the Rossi Guest House to also provide accommodations for the families of pediatric patients.</p> <ul style="list-style-type: none"> • The Ronald McDonald House, located near Carver-Hawkeye Arena, currently serves this need; however, the facility cannot fully accommodate the demand for these services. • The Ronald McDonald House primarily serves the families of patients with long-term illnesses; there is a need for housing within UIHC in closer proximity to the Pediatric Intensive Care Unit in the Colloton Pavilion for the families of acute-care patients.
Project Scope	<p>The project would renovate 8,400 gross square feet of former inpatient care unit space on the fourth floor of the south wing of the General Hospital (below the existing Rossi Guest House).</p> <p>The project would provide 16 guest rooms, a family lounge, kitchenette, laundry room and storage space, and would upgrade mechanical, electrical heating, ventilating and air conditioning, and fire protection systems.</p>
Funding	Children’s Miracle Network Gift Funds.

Project Budget

Construction	\$ 790,000
Professional Fees	79,000
Planning and Supervision	38,000
Contingencies	<u>79,000</u>
TOTAL	<u>\$ 986,000</u>

University Hospitals and Clinics—Operating Room Development

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Architectural Agreement (HLM Design USA, Iowa City, IA)	\$ 72,400	Jan. 2004	Not Required*
Project Description and Total Budget	942,000	Feb. 2004	Requested

* Approved by Executive Director in accordance with Board procedures.

Background The UIHC Main Operating Room (OR) Suite occupies approximately 40,000 gross square feet on the fifth floor of the Colloton Pavilion.

- Despite a number of operational enhancements to maximize operating room usage and efficiency, the Main OR Suite currently functions at an effective utilization rate of approximately 90 percent, with some surgical services approaching or exceeding 100 percent facility usage.

The lack of additional operating rooms for the Main OR Suite has begun to limit UIHC's ability to accommodate its surgical patients.

- Over the last five years, the OR Suite patient volume has increased 14 percent and is projected to increase approximately 2 percent per year for the foreseeable future.

In December 2003, UIHC received Board authorization to proceed with the **Ambulatory Surgery Center and Procedure Suite Development** project which would relocate the Ambulatory Surgery Center (ASC) which is currently located in 20,000 square feet of space adjacent to the Main OR Suite; the space vacated by the ASC would be used for future expansion of the OR Suite.

To respond to the current need for additional space for the Main OR Suite prior to the availability of the ASC space, UIHC wishes to develop an additional, smaller surgical area within the Main OR Suite.

Project Scope The project would develop two additional operating rooms by finishing and equipping 880 gross square feet of space.

- This space was originally constructed to operating room dimensions but was not developed; it has been used for equipment and supply storage.

The proposed project would provide a short-term solution to address the critical need for additional space for the Main OR Suite.

Funding University Hospitals Building Usage Funds.

Project Budget

Construction	\$ 753,500
Professional Fees, Planning and Supervision	113,100
Contingencies	<u>75,400</u>
TOTAL	<u>\$ 942,000</u>

Burge Residence Hall—Renovate Restrooms—Phase 1

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 712,000	Feb. 2004	Requested

Background The existing restrooms in Burge Residence Hall have not been renovated since the building's construction in 1956 and are in poor condition.

The restrooms are not accessible to persons with disabilities and do not provide a sufficient number of showers to meet current building codes for residence halls.

Project Scope The Phase 1 project would renovate a total of four restrooms, one on each of four levels, in one wing of Burge Hall.

The project area includes one male and three female restrooms and totals 3,200 square feet.

Additional Information This is the first of four phases of restroom renovations planned for Burge Hall; the University anticipates undertaking the remaining phases in 2005 through 2007.

Funding Residence Services Improvement Funds.

Project Budget

Construction	\$ 556,000
Design, Inspection, and Administration	
Consultants	66,500
Design and Construction Services	34,000
Contingencies	<u>55,500</u>
TOTAL	<u>\$ 712,000</u>

Medical Laboratories—Replace Windows—Phase 2

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 486,000	Feb. 2004	Requested

Background The existing windows of the Medical Laboratories were installed with the building's construction in 1925; the windows are in poor condition, do not fit tightly, and are not energy efficient.

Project Scope The Phase 2 project, which would complete the window replacements for the Medical Laboratories, includes the installation of 159 insulated wood windows to match the original windows.

Funding Building Renewal Funds and/or Income from Treasurer's Temporary Investments.

Project Budget

Construction	\$ 411,800
Design, Inspection, and Administration	33,300
Contingencies	<u>40,900</u>
TOTAL	<u>\$ 486,000</u>

University Hospitals and Clinics—Refurbish Air Handling Units for Automatic System Interface

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 409,000	Feb. 2004	Requested

Background The existing air handling unit in the Boyd Tower is over 25 years old and has exceeded its life expectancy.

The unit suffers from worn and damaged components, plugged coils (which promotes mold growth), and air leakage; it does not operate efficiently and contributes to increased energy usage and cost.

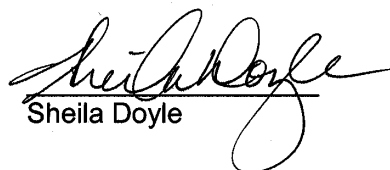
Project Scope The project would refurbish the existing air handling systems in the Boyd Tower including the air handling unit, return fan, controls and related components. The modifications are expected to improve the operating efficiency of the unit and correct airflow deficiencies.

Funding University Hospitals Building Usage Funds.

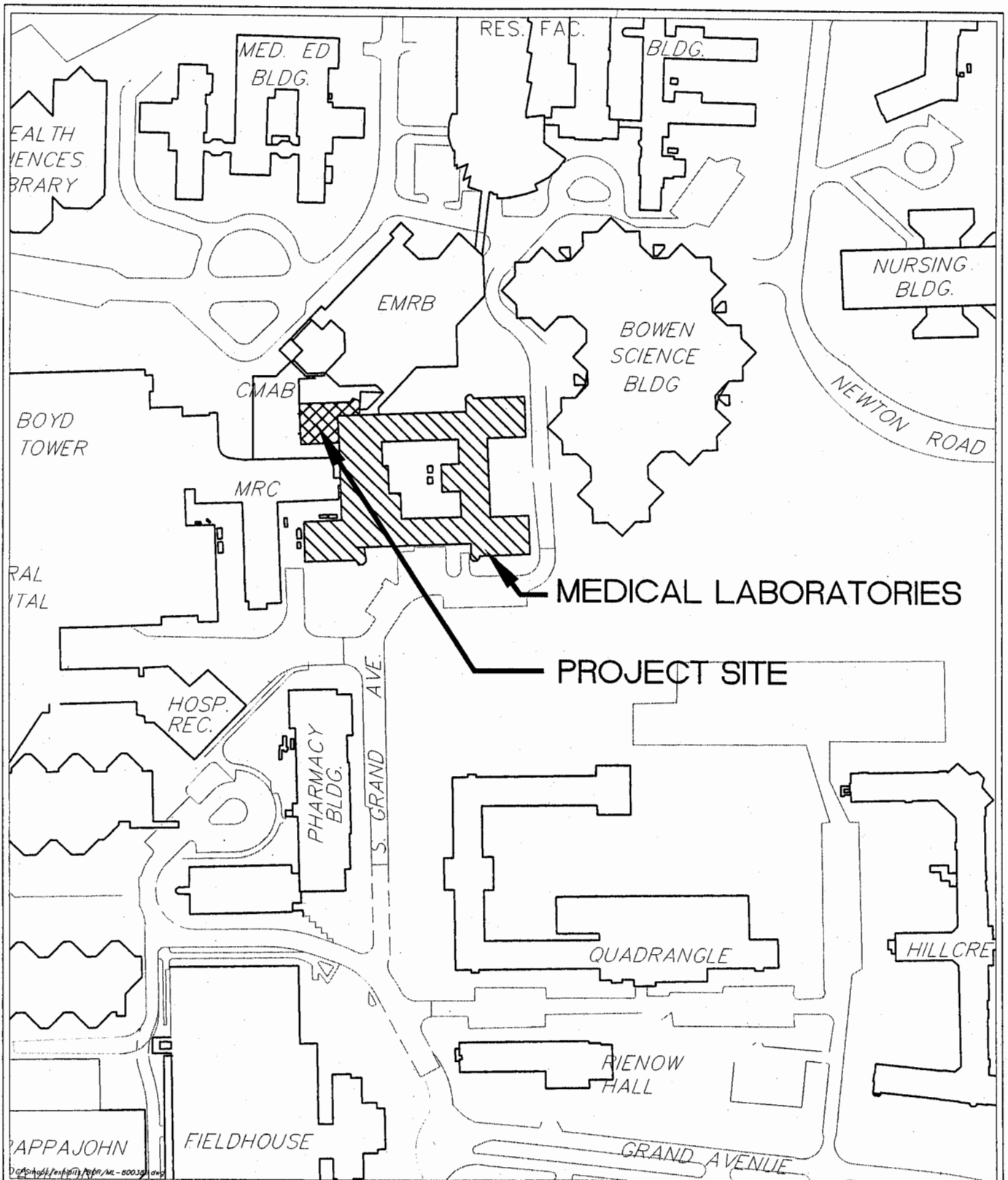
Project Budget

Construction	\$ 327,000
Professional Fees	32,700
Planning and Supervision	16,600
Contingencies	<u>32,700</u>
TOTAL	<u>\$ 409,000</u>

Also presented for Board ratification is one project budget less than \$250,000, one engineering amendment, eight construction contracts awarded by the Executive Director or the University, the acceptance of 13 completed construction contracts, and 22 final reports. The register prepared by the University is included in the Regent Exhibit Book.


Sheila Doyle

Approved: 
Gregory S. Nichols



	PROJECT TITLE MEDICAL LABORATORIES INSTALL BSL3 FACILITY BIOLOGICAL SAFETY LEVEL 3 FACILITY				DRAWN mh CHECKED BAR APPROVED BAR	REVISIONS	THE UNIVERSITY OF IOWA Design & Construction Services 230 University Services Building Iowa City, Iowa 52242-1922 (319) 335-1283 fax (319) 335-2722	SHEET TITLE SITE PLAN	1
	BLDG. ABBRV. ML	BLDG. NO. 28	JOB NO. 02-300380	DATE ISSUED 1-23-04					