Approved February 1, 1996
Date

MINUTES OF THE SENATE COMMITTEE ON WAYS AND MEANS.

The meeting was called to order by Chairperson Dave Kerr at 11:00 a.m. on January 29, 1996 in Room 123-S of the Capitol.

All members were present except:

Committee staff present: Alan Conroy, Legislative Research Department
Laura Howard, Legislative Research Department
Russell Mills, Legislative Research Department
Norman Furse, Revisor of Statutes
Michael Corrigan, Revisor of Statutes
Judy Bromich, Administrative Assistant
Ronda Miller, Committee Secretary

Conferees appearing before the committee:
Warren Corman, Director of Facilities, Board of Regents

Others attending: See attached list

The Chairman welcomed Warren Corman, noting that the purpose of the day's meeting would be to review the Regents' proposal for capital improvements.

Mr. Corman introduced other members of the Board of Regents: Dr. John Hiebert, Chairman; Dr. Steve Jordan, Executive Director; Denise Musser, Director of Communications; and Ted Ayres, General Counsel. Mr. Corman reviewed the capital improvement needs (which are detailed in Attachment 1) and told members that the Americans with Disabilities Act and the Fire & Life Safety Codes have added to the overall cost of these improvements. He stated that the proposal to issue bonds is a solution that does not call for a tax increase and would provide a way to meet ADA and fire safety requirements and improve existing buildings. He stated that the Board has studied data to estimate the inflation rate of construction costs over the next ten to fifteen years and are convinced that, at a minimum, it will be 6% and could be as much as 12% per year. He compared that to projections of the bond interest rate prepared by the Kansas Development Finance Authority (Attachment 2).

Mr. Corman presented information regarding ongoing EBF support for capital improvements but told of the projected growth in student population and the rising costs of remodeling, additions and upgrades to existing facilities that have outpaced that appropriation (See Attachment 3). He noted that the Board had taken its proposal before the Joint Committee on Building Construction and asked Senator Ben Vidricksen, Chairman, to address the Committee.

Senator Vidricksen told members that the Joint Committee on Building Construction had urged the Board to formulate a plan to address capital improvements needs, and they proposed the issuance of bonds. He commented that he personally and the Joint Committee in general endorsed the concept of issuing bonds. Chairman Kerr asked whether the Joint Committee had looked at the specifics of how the bond proceeds would be spent , i.e., the percentage to be spent on ADA requirements, etc. Senator Vidricksen stated that that information was presented. Mr. Corman testified that the Board has not met to determine precisely what projects of the $288 million capital improvements would be funded from the $163 million bond proposal, but he would recommend that the total amounts listed in Table 1 (Attachment 1) for complying with the Americans with Disabilities Act, the State Fire Marshal Fire Code Requirements, the improvement of classrooms, and the top priority at each campus would be funded. Because the bonding proposal is not sufficient to cover the costs of all capital improvements, Senator Karr expressed concern that projects that receive federal and endowment monies would rise to the top of the priority list and the existing priorities of the institutions would not be addressed.

Senator Petty requested that the Board of Regents request a formal legal opinion on whether the bonding proposal would be appropriate with respect to the constitutional prohibition of dedicating revenues from taxes to pay debt service on bonds.

Senator Brady requested that the Board provide a priority list based on need for the rehabilitation and remodeling projects expressing concern that a particular campus' second priority might not be addressed though it could be a greater need than another campus' first priority.

In answer to Senator Salisbury, Mr. Corman stated that the Americans with Disabilities Act of 1990 requires that regents institutions provide equal building accessibility rather than program accessibility. He called attention to a document illustrating conditions within the regents universities (Attachment 4).

Chairman Kerr inquired whether changing needs of the campuses could be met if the monies were spent up front over a fifteen year period. Mr. Corman stated that the Board chose not to allocate all monies to the bond issue in order to address emergency and changing needs on rehabilitation and repair projects. In answer to the Chairman, he noted that the bond issue would not allow the Board to address all the capital improvement needs for the next fifteen years.

Senator Burke moved, Senator Lawrence seconded, that bill draft 5 RS 1961 be introduced. The motion carried on a voice vote.

Senator Moran moved, Senator Vancrum seconded that the minutes of the January 23, 1996 meeting be approved. The motion carried on a voice vote.

The Chairman adjourned the meeting at 12:07 P.M. The next meeting is scheduled for January 30, 1996.

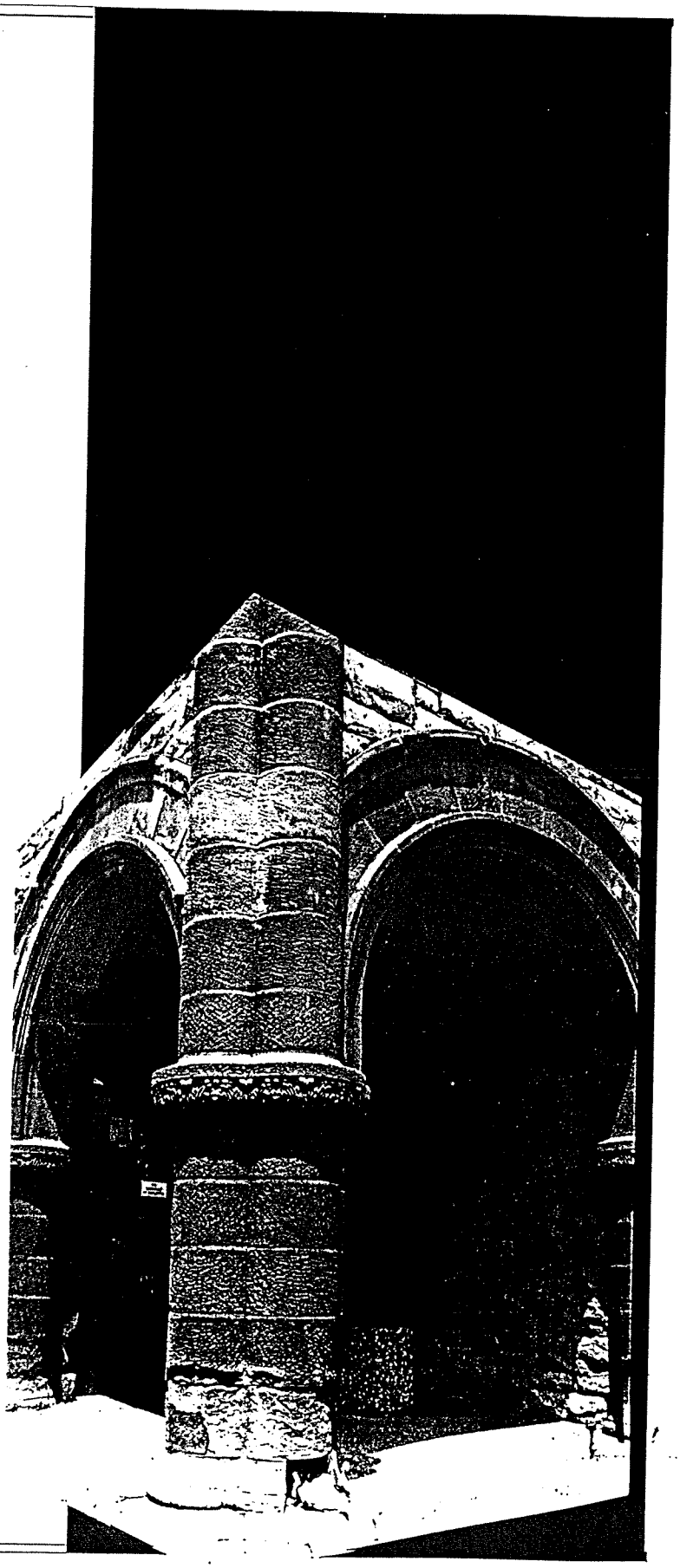
SENATE WAYS AND MEANS COMMITTEE GUEST LIST

DATE: JANUARY 29, 1996

NAME	REPRESENTING
Bill Colvin	Man. Mercury
Ron Pflughoft	FHSU
Sue Peterson	Kansas State University
Denise Casamento Munn	Board of Regents
Warren Corman	" " "
Steve Jordan	" " "
John Hulen	" " "
John Collar	Univ. Daily Kansan
[illegible]	INTERN
[illegible]	KNEA
Shelley Perry	KNEA
[illegible] Morris	Senator Morris
Judy Mayo	Self
Elaine Frisbie	Div. of the Budget
[illegible]	Ks. Governmental Consulting
Thorne Hoffman	DOAS
Ray Hauke	Staff, Ks Board of Regents
[illegible]	ESU
Rick [illegible]	Kansas Development Finance Authority

OF AGING CAMPUSES & CRUMBLING CLASSROOMS

CAPITAL NEEDS FOR KANSAS PUBLIC HIGHER EDUCATION



KANSAS BOARD OF REGENTS
OCTOBER, 1994

Senate Ways & Means
January 29, 1996
Attachment 1

OF AGING CAMPUSES & CRUMBLING CLASSROOMS

CAPITAL NEEDS FOR KANSAS PUBLIC HIGHER EDUCATION

KANSAS BOARD OF REGENTS
OCTOBER, 1994

CONTENTS

Coping with the aging of facilities and complying with current life safety building codes are two of the most pressing issues facing the Regents institutions. Other issues mandated by law include access for accommodating the disabled, the removal or encapsulation of asbestos, disposal of hazardous waste, limitation of air pollution, providing a safe domestic water supply among other issues regarding the maintenance of a safe environment.

- Faculty and staff at Wichita State University report discomfort and headaches because of the migration of fumes and chemical odors from the university's chemistry department.

- Fume hoods at Kansas State University have failed safety inspections for smoke and air velocity.

- The absence of an elevator in Russ Hall on the Pittsburg State University campus does not comply with the Americans with Disabilities Act.

Similar scenarios can be found at each of the six Regents universities.

The Regents are responsible for 24 million square feet of space in more than 600 buildings statewide with a replacement value of $2.7 billion. Almost one-half of the space was built before 1960. Twenty-five percent was constructed before 1940.

Rehabilitation and repair needs are tremendous. A recent systemwide study indicated a need for $177 million to bring all facilities to a satisfactory condition. *That study did not include funds to enhance accessibility or for environmental concerns such as asbestos removal or storage of hazardous materials.*

ACCESSIBILITY

One of the primary concerns involves providing access for people with a variety of disabilities, now mandated by state and federal laws. Studies have been completed for each campus indicating the required improvements and the related costs for each. Table 1 summarizes the need for funds to comply with the accessibility laws.

FIRE & LIFE SAFETY CODES

Reports from the State Fire Marshal detail concerns regarding fire and life safety primarily in older facilities. As buildings age and codes become more strict, it becomes more difficult to comply with fire and life safety requirements without extensive revisions to existing structures. Safety considerations such as automatic smoke and fire alarms, electro-magnetic door releases, and modern sprinkler systems have vastly improved the life safety of some of our facilities, but these systems are expensive.

The Allen Field House at The University of Kansas is a prime example. Built in the 1950s, it met all of the applicable codes for seating 17,000 people. Forty years later, it did not meet the new, tougher codes to seat 15,500 occupants. It will cost approximately $1.9 million to revise the structure to comply with the current codes. Table 1 summarizes the cost of complying with the fire and life safety codes on each campus.

REHABILITATION & REPAIRS

Funds provided by the Educational Building Fund (EBF) levy are insufficient to properly care for and protect the existing physical inventory owned by the six institutions within the Regents system or provide for necessary construction.

The allocation of $10 million per year from the EBF for Rehabilitation and Repair projects has been a life saver, but $10 million dollars per year is not enough to fund the backlog of projects and the new needs that arise. The 50-year depreciation table for our facilities inventory indicates a need for more than $40 million per year. The Regents action for the last 20 years has been to select only the highest priorities for each campus for funding, leaving a large list of unfunded projects.

Each year the total list of projects exceeds $60 million, leaving over $50

TABLE 1
CAPITAL IMPROVEMENT NEEDS ($ IN MILLIONS)

	KU	KUMC	KSU	WSU	ESU	PSU	FHSU	TOTAL
Americans with Disabilities Act	$4.1	$2.4	$3.7	$2.8	$1.9	$3.8	$3.0	$21.7
State Fire Marshal Fire Code Requirements	4.2	.3	3.0	.4	.9	.1	.2	9.1
Rehabilitation and Repair Projects	43.0	27.0	43.0	18.0	10.0	10.0	10.0	161.0
Improve Classrooms	4.9	.7	1.2	1.1	2.3	2.7	2.3	15.2
Major Remodeling of Existing Buildings	12.0	0	1.5	12.0	8.4	7.3	8.6	49.8
New Construction	9.0	10.0	12.5	0	0	0	0	31.5
Total	$77.2	$40.4	$64.9	$34.3	$23.5	$23.9	$24.1	$288.3

CLASSROOM IMPROVEMENTS

Although a portion of the 700 classrooms in the Regents institutions provide a good environment for learning, many shortcomings exist. Good classroom space should allow students to see visual presentations, to hear audio presentations free from noise and distortion, and to be physically comfortable with regard to airflow, temperature and seating. Classrooms also should provide modern teaching aids such as audio-visual provisions, darkening shades, computer wiring and accommodations to allow the use of VCRs, videotapes and TV monitors.

In 1993, the Regents institutions conducted a survey of classrooms to determine the amount of funds needed to modernize them. The shortcoming most frequently noted by the survey was a lack of proper heating, ventilation, and air conditioning.

Millions of dollars are needed to improve the total inventory of classrooms. The Board of Regents and its institutions are working to set priorities for a renovation program first for key classrooms and then the remaining classrooms. Classrooms in poor locations or otherwise infeasible for renovation will be converted to other uses with a goal of providing only good quality, modern spaces in which to teach.

For decades, the typical classroom included four walls, a podium, and a chalkboard. As long as lecture was the predominant mode of teaching, rows of armchairs served well. Now, as instruction becomes more student-centered, and as those students begin to take advantage of mediated programs for individualized and paced learning, the traditional classroom is no longer adequate. As teaching styles make a gradual but steady transition, so, too, must the teaching spaces.

A contemporary campus requires a variety of instructional spaces, with an emphasis on individualized work areas--multimedia desktop environments--for students. The ideal classroom offers the flexibility of a large group presentation or individualized learning, and gives the professor the ability to display the computer screen of any class member for critique and discussion. Such a design requires attention to room lighting, acoustics, and sightliness. Sufficient conduit and power must be available to interconnect all workstations with each other, with the instructor's teaching station, and with the campus network. Access to the campus local area network allows faculty to take advantage of library catalogs, information systems, data and software archives, and Internet resources. Telecommunications infrastructure must be planned for each building and classroom in order to maximize the institution's investment in information technology.

The teaching station must accommodate VHS tapes, laser discs, CD-ROMs, and the ability to project a large image and a variety of scan rates. The cost of one multimedia teaching station, with appropriate audio and video display is $30,000. Desktop workstations currently are averaging $2,500 per unit. Remodeling costs to provide lighting control and improved sightliness are expensive. Obviously, not every classroom can be modified immediately. A phased schedule is recommended with a constant eye to flexibility.

MAJOR REMODELING & NEW CONSTRUCTION

The Regents institutions also need major remodeling of existing facilities and additional space for some disciplines and programs. Some programs have outgrown facilities, while others have had to move into space not originally intended for instruction, laboratories, or offices.

The quality of facilities and its effect on the learning environment has an impact on the quality of instruction for Kansas students, whether in a classroom, laboratory, library or rehearsal room.

Inadequate space harms the quality of instruction by not allowing our universities to keep pace with program growth and modern technological developments that keep our instruction and our students competitive. Many programs have grown, but the buildings have not.

Our students are the state's most valuable natural resource, and our educational system is one of the state's major assets. The condition of our facilities has become a critical problem -- one that demands our immediate attention.

The top priorities for each campus will be explained on succeeding pages.

TABLE 2
MAJOR REMODELING AND NEW CONSTRUCTION ($ IN MILLIONS)

	MAJOR REMODELING		NEW CONSTRUCTION		
	State Funds	Federal, Gifts & Student Fees	State Funds	Federal, Gifts & Student Fees	Total
University of Kansas					
Murphy Hall addition	0	0	9.0	1.9	10.9
J.R. Pearson Hall renovation & addition for School of Education	12.0	2.1	0	0	14.1
University of Kansas Medical Center					
Nursing Educational Building	0	0	10.0	1.5	11.5
Kansas State University					
King Hall fume hoods	1.5	0	0	0	1.5
Science & Engineering Complex	0	0	12.5	16.0	28.5
Wichita State University					
Chemistry Building	12.0	3.0	0	0	15.0
Emporia State University					
Beach Music Remodeling and addition	5.0	1.0	0	0	6.0
Electrical Distribution	3.4	0	0	0	3.4
Pittsburg State University					
Russ Hall Remodeling	7.3	0	0	0	7.3
Fort Hays State University					
McCartney/Albertson/Martin Allen renovation	8.6	1.0	0	0	9.6
Total	49.8	7.1	31.5	19.4	107.8

The EBF simply has not kept pace with the climb in construction costs.

For more than 40 years, Kansas state institutions of higher education have benefitted from the Educational Building Fund levy (EBF). The fund was established in 1946 to provide for the building programs of the Kansas Board of Regents. The levy served Kansas well for nearly 20 years when the annual inflation of building construction equaled the 2.5 percent annual inflation of the funds from the mill levy.

In the early years of the EBF, construction costs were low, and the mill levy was adequate to serve the needs of the relatively small Kansas campuses. During the late 1930s and early 1940s, residential construction cost $3-$4 per square foot. In the 1950s, Emporia State University built its "new" Cram Hall chemistry and physics building with a planetarium for $16 per square foot. Gymnasiums and classroom-office facilities could be built for $10-$12 per square foot. Residential construction at that time was about $10 per square foot.

This parallel inflation came to an abrupt halt in the mid 1960s with the onset of a dramatic increase in the costs of labor and materials.

Table 3 illustrates the sharp rise in building costs in the Kansas City area from 1960-1971. The previous 2.5 percent annual rate of increase for building construction costs climbed to more than 12 percent per year.

In the past 20 years, the inventory of space for the Regents institutions has increased from 15 to 23 million gross square feet. The replacement cost has increased from $500 million to $2.5 billion. Although the space increased 53 percent in 20 years, the replacement cost increased 400 percent because of the rise in construction costs.

In 1973, the State of Kansas was paying $30 per square foot (total project cost) for a new classroom-office building. That figure included about $24 per square foot for construction and fixed equipment alone. In 1993, the total project cost for a similar facility was at least $100 per square foot (construction cost plus fixed equipment at $80), or a 330 percent rise in cost in 20 years.

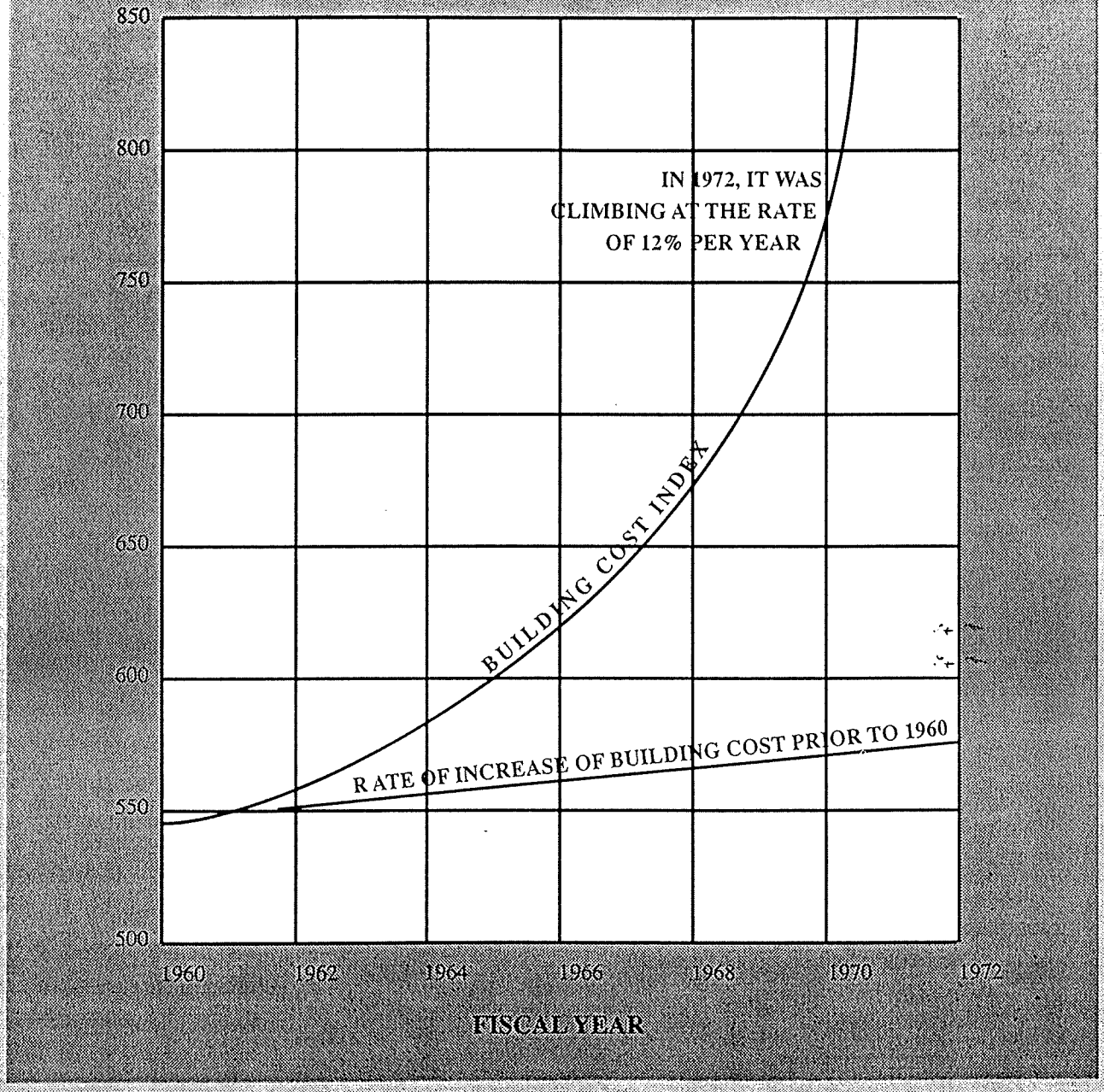
The EBF simply has not kept pace with the climb in construction costs. The cost of construction, maintenance and repairs has increased at a rate more than twice the income from the EBF. The EBF generated $6.9 million in 1973 and $16.8 million in 1993, a 143 percent increase in 20 years compared to the 400 percent increase in replacement costs of our physical inventory.

To further complicate the issue, campus buildings are aging and are in need of continuous repairs and renovation. The rehabilitation and repair needs (R&R) have gradually taken a larger bite out of the EBF during the last 10 years. Twenty years ago, most of the R&R needs were funded from the State General Fund and not from the EBF. Currently, the institutions are drawing $10 million a year from the EBF, or about 60 percent of the EBF each year for R&R, leaving only 40 State Fire Marshal requirements for fire and life safety, asbestos removal, and other environmental concerns. In addition to all of these concerns a few number one priorities for new construction and major remodeling must be funded.

TABLE 3

BUILDING CONSTRUCTION COSTS

ENGINEERING NEWS RECORD INDEX - KANSAS CITY



To properly maintain our existing facilities, we need $40 million per year.

Table 4 shows the disparity between need and income over the last two decades. The growth in the EBF has been steady and predictable while increases in enrollment and construction costs have left us in a precarious position.

Our existing building inventory has a replacement value of $2.5 billion not including furnishings, library holdings or movable equipment. The replacement cost of our facilities has increased from $500 million in 1973 to $2.7 billion in 1993, an increase of 400 percent. This $2.5 billion does not include the $200 million value placed on exterior work such as streets, drives, landscaping, retaining walls, street lights, sewers, water and gas lines, steam lines and tunnels, parking lots and sidewalks. *This exterior work alone has a need for $40 million in repairs systemwide.*

Our total replacement value of buildings and exterior site improvements is at least $2.7 billion, (and our need for rehabilitation and repairs is more than $175 million.) This does not include replacement of outmoded or broken research and/or instructional equipment.

To compute a reasonable annual need for maintenance and repair dollars, the graph below shows the inventory value on a straight-line depreciation formula for buildings only.

50-year depreciation:

$$\frac{\$2.7 \text{ billion}}{50 \text{ years}} = \$50 \text{ million per year}$$

Campus residence halls are self supporting and comprise about 20 percent of inventory value, so deducting 20 percent from the annual need figures results in the the following:

50-year depreciation = $40 million per year

The above figures indicate a need for rehabilitation and repair dollars to properly maintain existing buildings. This does not include funds for new construction, additions, major remodeling, or the upgrading and maintenance of the exterior improvements and sitework.

The Regents enrollment poses an additional challenge. When the EBF was initiated more than 45 years ago, less than 16,000 students attended the five universities then in the state system. In the fall of 1992, enrollment topped 83,000 students, an increase of more than 400 percent. (See Table 5).

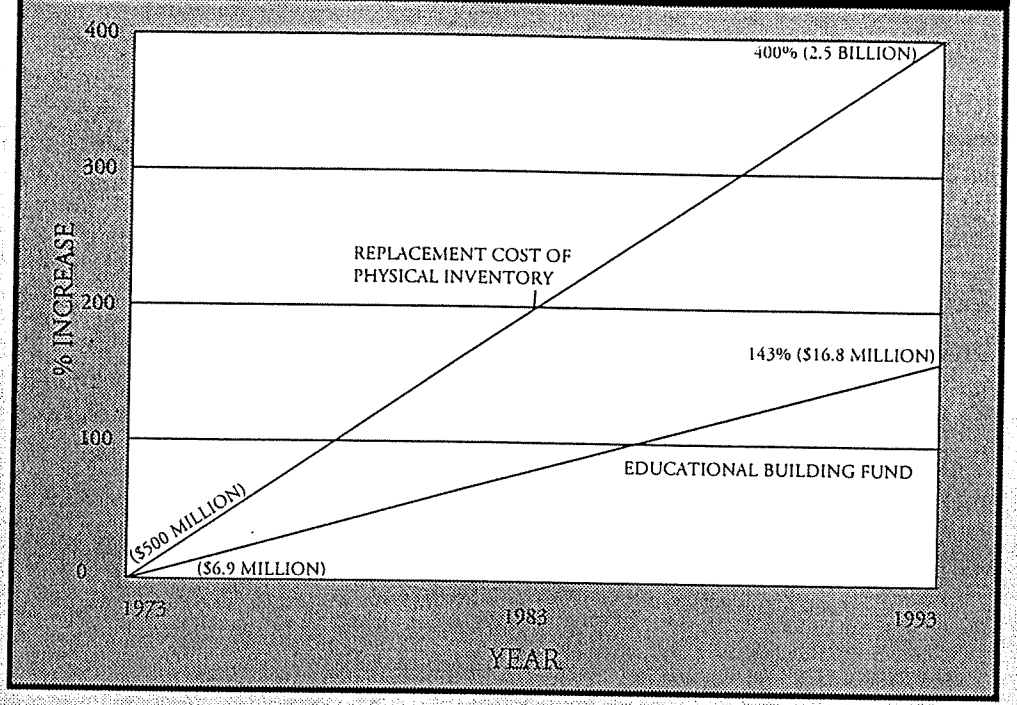
With enrollment projected to grow 19 percent during the next 15 years, we must be prepared to accommodate such an increase. The Regents Fall 1992 enrollment was 83,630. A 19 percent increase would be 15,900. This increase alone is equal to the entire enrollment of the Regents system in 1953.

This enrollment increase will strain our existing facilities.

KANSAS BOARD OF REGENTS

BUILDING PROGRAM COMPARISON OF NEEDS VS. INCOME FROM EDUCATIONAL BUILDING FUND

TABLE 4



40 YEARS OF ENROLLMENT CHANGE

KANSAS REGENTS SYSTEM

TABLE 5

INSTITUTION	Fall 1953	Fall 1992
University of Kansas	6,410	26,465
Kansas State University	5,013	20,451
Wichita State University	•	15,120
Emporia State University	959	6,006
Pittsburg State University	1,606	6,516
Fort Hays State University	1,246	5,603
University of Kansas Medical Center	674	2,696
KSU-Salina College of Technology	•	773
Total Enrollment	15,908	83,630
	Percent Increase 425.7%	

• Not a part of Regents System in 1953.

1-11

Much work needs to be done before July 26, 1995 to comply with federal law.

The Americans with Disabilities Act (ADA) of 1990 seeks to eliminate discrimination against individuals with disabilities. The Act establishes enforceable standards addressing discrimination with a goal of full inclusion and integration for the 43 million Americans with disabilities. The ADA requires that structural changes be completed by July 26, 1995.

Title II of the ADA covers state and local governments, both as employers and providers of services to the public. It prohibits public universities from discriminating against qualified individuals with a disability by excluding them from participation or denying them the benefits of the services, programs, or activities at the university. Reasonable modifications and accommodations must be made for removal of architectural, communication, and transportation barriers as well as the addition of auxiliary aids and services.

Much already has been accomplished on each campus to improve accessibility and to comply with regulations and standards established in Section 504 of the Federal Rehabilitation Act of 1973 and furthered by the provisions of the ADA, but much remains to be done.

Why do so many deficiencies still exist? Several factors influence this current dilemma:

1. Scope of Work: The current Americans with Disabilities Act Accessibility Guidelines (ADAAG) manual is a voluminous text expanded in detail and scope to cover newly defined disabilities.

2. Handicapped Defined: Earlier accessibility issues were confined to non-sighted, non-hearing, and non-ambulatory individuals. The ADA has expanded the definition of disability to include susceptibility to fainting and seizures, incoordination, limitations of stamina, chronic conditions lasting more than six months, etc. These new definitions have a major impact on facilities.

3. Changing Technology: Only in recent years have certain technologies been available. Telecommunications devices for the deaf (TDDs), infrared listening systems, and voice-activated equipment are but three examples.

4. Existing Facilities: Most campuses have made changes such as, curb cuts, parking stall designations, restroom modifications, etc. New buildings are being designed to comply with ADA. It is much more difficult to address buildings with split-level entries; changes in terrain requiring building access at multiple entrances; costly elevators, sites with steep slopes requiring switchback ramps and retaining walls, and other changes of this magnitude. In addition, few existing buildings fully meet all current requirements for signage, hardware, detectable warnings, audible and visual alarms, etc.

5. Lack of Resources: Rehabilitation and Repair allocations have been the primary source for funding improvements to existing buildings within the Regents' system. Many other necessary projects compete for those limited resources. Roof repairs, asbestos removal, and fire safety modifications are but a few examples of projects common to all universities. Only within the past few years have funds increased to allow serious accomplishments in terms of accessibility to take place. See Table 1 on page five for current needs for ADA.

Fire and life safety code violations must be rectified immediately.

Each year the State Fire Marshal's office and local fire protection authorities perform building inspections on each of the Regents' campuses and provide reports documenting possible violations to the applicable fire and life safety codes. Even though buildings complied with codes when they were constructed, fire and safety codes have become more strict and that which may have been satisfactory years ago does not meet the current standards.

The general objective of the fire and life safety codes is to provide a reasonable level of safety by reducing the probability of injury and loss of life from the effects of fire and other emergencies. The level of safety is defined by the combination of prevention, protection, egress and other features.

Dyche Museum at the University of Kansas is an example of a building complying with the code when the last addition was completed in 1963. In recent years, it was cited by fire authorities for storing a large number of specimens in ethyl alcohol, a highly flammable liquid. The Fire Chief of the City of Lawrence stated that if a fire should occur in the Museum, it would be unsafe for firefighters to enter the building. The 1993 Legislature authorized more than $1.5 million to design and construct an addition that would properly store these specimens to comply with the current fire codes.

Russ Hall, the central administration and general classroom building at Pittsburg State University, is a multi-story building without enclosed fire stairs. Smoke from a fire on a lower floor could easily rise to the upper floors and asphyxiate the occupants.

Each campus has a long list of items that demand attention. Concerns cited by the fire inspectors include the lack of:

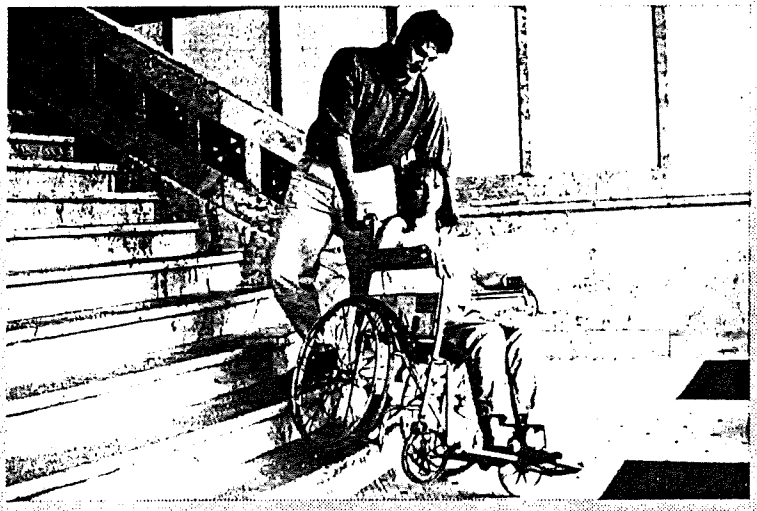
- properly located exits
- fire protected stairways
- smoke and fire protected area separations
- emergency lighting
- sprinkler systems
- visual/audio fire/smoke alarms
- panic hardware
- exit lighting
- fire-rated corridors
- areas of rescue assistance
- fire extinguishers
- stand pipes
- non-combustible ceiling tiles
- lightning protection systems
- proper wiring

Potential violations of the fire and life safety code have been identified and cost estimates prepared to rectify each of the projects. These code violations must be remedied for the safety of our students and the citizens of Kansas. See Table 1 on page five for funding needs.

top ADA violation: No elevator exists in Russ Hall, the four-story classroom and administration building at Pittsburg State University.

bottom left Fort Hays students are referred to another building for service because of inaccessibility.

bottom right Disabled students at the University of Kansas have no access to upper or lower floors in Spooner Hall.



1-13

Classrooms must be responsive to humans and the human environment.

Many Kansas high school graduates entering Board of Regents institutions are greeted with classrooms that are inferior to those in their high schools. Many classrooms remain unchanged from the time they were originally constructed, and some lack the basic requirements for quality teaching space:

- acoustics
- lighting
- seating
- mechanical environment
- colors and texture
- good sight lines

Classrooms must be responsive to humans and the human environment. A student has a positive learning experience in the classroom when he or she is satisfied physically, emotionally and intellectually. Aesthetic comfort cannot be separated from physical comfort. The classroom must be designed for the health and safety of the students.

The architectural systems of the classroom consisting of floor, ceiling, walls, seating and lighting create the classroom space. Modern heating, ventilating and air conditioning systems maintain thermal comfort and good air quality. These systems also contribute to the success of the new technology used in the teaching process--sound systems, audio-visual equipment and computers. Acoustics in the modern classroom are critical.

Chalkboards, lecterns and textbooks are being supplemented by computers, desktop video, distance learning and multimedia. Numerous solutions must be provided to respond to various programs and the needs of different students. Only a few years ago, students attended computer laboratories where the technology was taught as a subject separate from the curriculum. The computer has now moved into the curriculum, and technology now is part of the average classroom activity. Such technology must not be the focus of teaching but become integrated as a teaching tool.

During 1993 all Regents institutions conducted a survey of their 700 classrooms. Deficiencies were identified and the cost for corrective measures were estimated (Table 1).

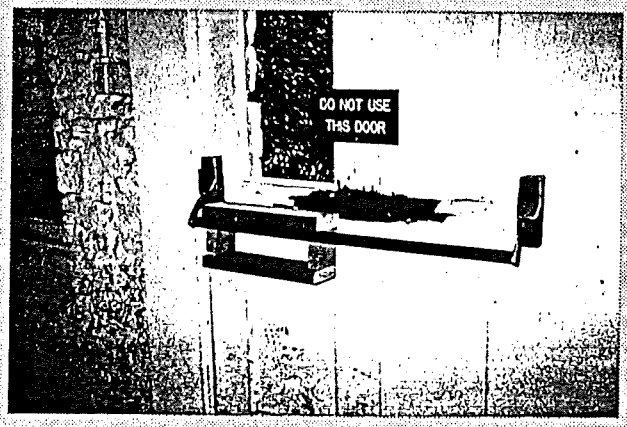
Kansans want their students to improve their academic performance and to excel. Good teaching and learning cannot be accomplished without quality classrooms and equipment. Many of our current classroom facilities are obsolete.

CLASSROOM IMPROVEMENTS

left Water has damaged the ceiling and fire exit signs because the emergency drive leaks into the hospital space below at KU Med Center.

top right Students must exit through a tiny window in case of fire at Wichita State University's Fiske Hall.

bottom right A building at Kansas State University sports broken doors and man-made panic devices.



We must not let our existing facilities deteriorate.

The Kansas Legislature and the Kansas Board of Regents are responsible for a large physical inventory of existing buildings and site improvements. This inventory consists of more than 600 public buildings, a gross area of over 24 million square feet and a replacement value of $2.7 billion. In addition to the buildings, the responsibility includes hundreds of millions of dollars for the value of furnishings, library books and movable equipment. It also includes the sitework and exterior infrastructure of roads, sidewalks, utility tunnels and a maze of underground piping for water, gas, electric and sewer system worth another several hundred million dollars.

This total value of approximately $3 billion must constantly be maintained and repaired. Much of the routine maintenance such as painting and minor repairs is accomplished by physical plant personnel. Most of the major repairs and rehabilitation projects require special funding and public bidding because they are beyond the capabilities of the campus staffs.

Several years ago the Kansas Legislature and the Board of Regents realized that the major rehabilitation and repair needs were tremendous and that the one or two million dollars per year that traditionally had been appropriated for this purpose was insufficient. A five-year appropriation was approved by the Legislature starting with FY 93 for $10 million per year in an attempt to reduce the large amount of deferred maintenance.

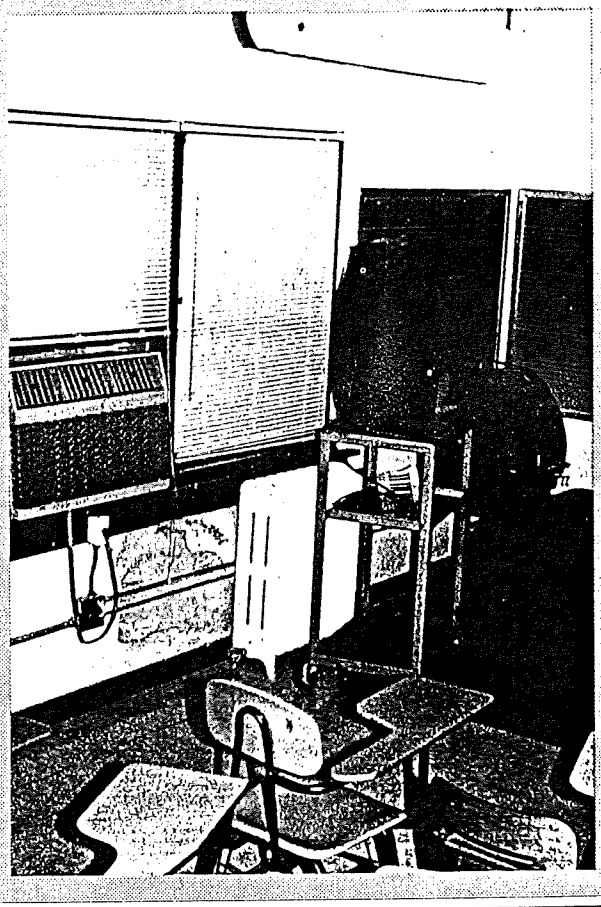
But as buildings grow older, maintenance and repair needs increase. Our facilities age through sun, wind, hail, rain, freezing and thawing, ground movement and extreme usage by the occupants. Funding for rehabilitation and repairs is absolutely necessary to sustain the basic operations of each institution and to protect the State's capital investment.

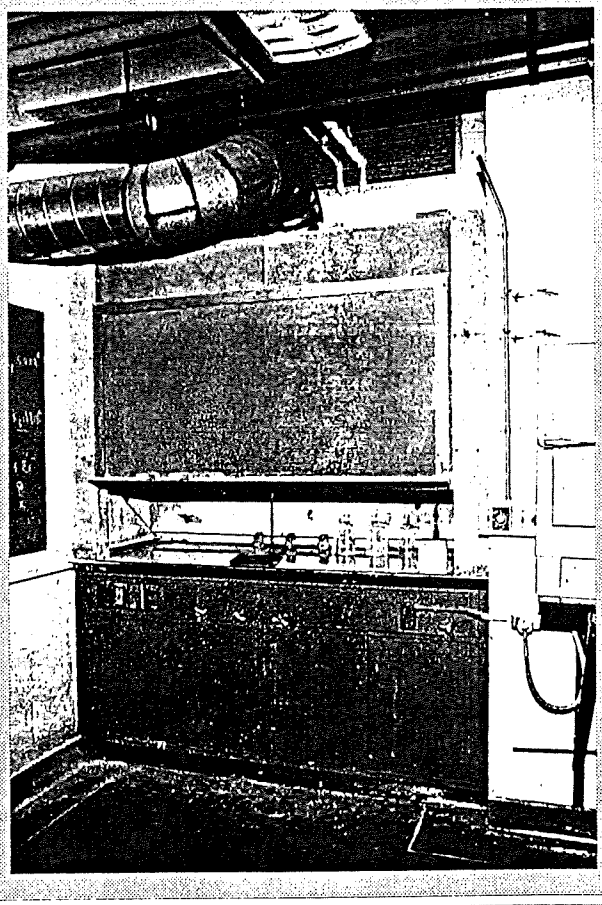
Ongoing projects include reroofing, repairing boilers, chillers and cooling towers, reworking heating, ventilating and cooling systems and controls, replacing windows, doors and hardware, repairing steam tunnels and piping, upgrading teaching and research laboratories, modernizing elevators and lighting distribution systems, repaving streets and replacing curbs, gutters and sidewalks.

REHABILITATION AND REPAIRS

left Wall deterioration, inferior air conditioning, and outdated video equipment greet students at ESU's Beach Music Hall.

right This makeshift lab hood/chalkboard in Malott Hall at KU presents a negative learning environment.





left Steps to Spencer Library at KU are dangerous and unsightly.

below A settled concrete slab creates a hazard at the front entrance of a KSU building.

The Department of Music and Dance at the University of Kansas has long been recognized for its excellence. However, the educational process has become seriously compromised due to the lack of adequate facilities. The teaching and research capabilities and opportunities for both faculty and students are severely limited by inadequate, inappropriate, or nonexistent facilities.

During the past 30 years the Departments of Music and Dance, Theatre, and Communications have outgrown Murphy Hall. The instrumental rehearsal room, designed to accommodate 80 musicians, has problems with acoustics, availability, accessibility, and size. The marching band can no longer practice in Hoch Auditorium, and when outdoor practice is not feasible, the 250-member band crowds into an 80-person room. The sound levels are deafening and travel to the chorus rooms above. With the loss of Hoch Auditorium, the Military Science Building firing range has been used as a temporary practice facility. Because Hoch Auditorium was used for marching band rehearsals, it has become critical that a new rehearsal facility be built within the next few years.

No rehearsal rooms exist for smaller instrumental and choral ensembles or sectional rehearsals, nor for the rehearsal of opera and musical performances, chamber, or mainstage productions. At night, chairs are pushed to the walls in classrooms to create rehearsal space. This situation provides no opportunity for staging, movement, lighting, or blocking, and the acoustics are poor. There is no recording or playback equipment in either of the rehearsal areas.

Storage is inadequate. Because of the tremendous growth in programs, the space intended for instrument storage has been converted to the percussion studio, and an area designed for building maintenance equipment storage has been converted to instrument storage. Tens of thousands of dollars worth of instruments are rapidly deteriorating because of the lack of temperature and humidity control.

Additional library space is needed for music holdings. Many resources are not available to faculty and students due to the lack of adequate space to shelve holdings in the existing music library.

Although improvements to offices, support spaces and accessibility throughout Murphy Hall must be addressed in the future, the additional rehearsal hall, new teaching and support spaces and expanded storage areas, along with limited renovation in the existing facility, will solve many of the music department's needs.

An addition to Murphy Hall will provide 60,000 square feet of rehearsal and support space.

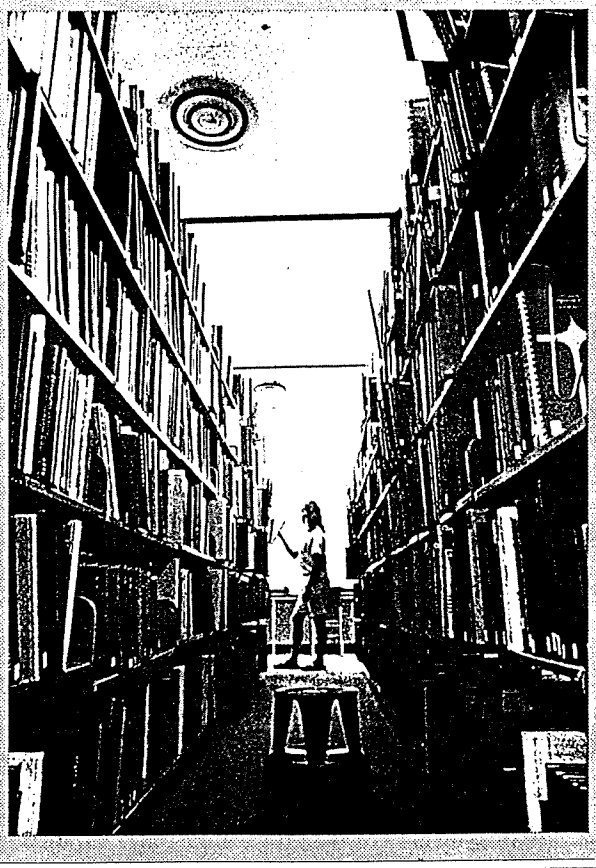
MURPHY HALL ADDITION - $10.9 MILLION

The University of Kansas

below Inadequate lighting and shallow book shelving contribute to students' difficulties in the music library in Murphy Hall.

top right The University of Kansas Symphony Orchestra rehearses in a room in Murphy Hall. This facility is overcrowded and has grossly improper acoustics.

bottom right James Smith, music library assistant at KU, works in cramped quarters within the music library in Murphy Hall.



The preparation of teachers has a long and illustrious history at the University of Kansas. Since 1876, KU has prepared thousands of Kansans to lead future generations to a brighter, better-educated future.

With more than 12,000 graduates, KU's School of Education has developed innovative teaching techniques, generated headline-grabbing research, and led the call for educational reforms. Since 1956, the School of Education has called Bailey Hall (1901) its home.

Technology is central to education. In fact, Goals 2000, national legislation passed by Congress and endorsed by the President and National Governors Association, directs the development of long-range plans to use technology to improve teaching and learning. Teachers of today - and tomorrow - must be prepared to use tools such as computers and video as comfortably as a chalkboard. But daily use of such tools in a building constructed before the advent of the light bulb presents a daunting challenge.

In 1991, KU chose Joseph R. Pearson Hall, a residence hall, as a new home for the School of Education. Plans call for Pearson's conversion to a classroom building to provide space required for the School of Education, the Clinical Child Psychology Program, the Division of Continuing Education's Office of Academic Support and Instructional Services, and the Academic Systems for the Training and Use of Technology in Education programs. In addition, two research centers affiliated with the School are to be housed in the new facility: the Center for Educational Testing and Evaluation and the Center for Economic Education.

For the first time, portions of the School of Education now housed in seven buildings throughout the Lawrence campus will be under one roof. Other programs related to the School of Education also will be housed at Pearson. Besides conserving space through common and interdisciplinary activities, shared space will permit the consolidation of activities now dispersed across campus. Basic administrative functions common to all departmental units will be centrally grouped, allowing more efficient management.

A new facility is needed to support the changing mission of the school. An innovative undergraduate teacher-education program, an increased emphasis on graduate training and research, and the use of modern technology in training and research are important activities that will be strengthened by a modern facility.

A new location for the School of Education also will allow for growth. Demand for teachers will exceed the personnel needs of other human service fields. Kansas will be hard-hit by teacher retirements as early as the late 1990s.

KU must meet the demand while monitoring growth, maintaining a balance among graduate and undergraduate programs, and recognizing that many students are commuting professionals.

The School of Education expects to use telecommunications to support its teaching, research and service missions. The new building will accommodate advances in telecommunications, including high-speed networking and video delivery to all offices, classrooms and conference rooms. A specially designed telecommunication classroom will be available for broadcasting instruction to distant sites in the state.

Pearson Hall is a six-story building with a basement and a subbasement. Renovation will refinish the entire interior. A new roof is needed, and thermally efficient windows will replace single-pane windows. A new mechanical system will be required, electrical systems will be upgraded, and voice and data systems will be provided. Accessibility requirements mandate that the existing elevators, circulation spaces, restrooms and other facilities be improved. Asbestos contained within must be removed.

A 25,000 gross square foot, four-story addition will be built on the east side of Pearson to provide larger spaces for classrooms and studios as required in the description of space requirements.

Total gross square footage available when the renovation and addition are completed is 128,000.

JRP HALL RENOVATION AND ADDITION - $14.1 MILLION

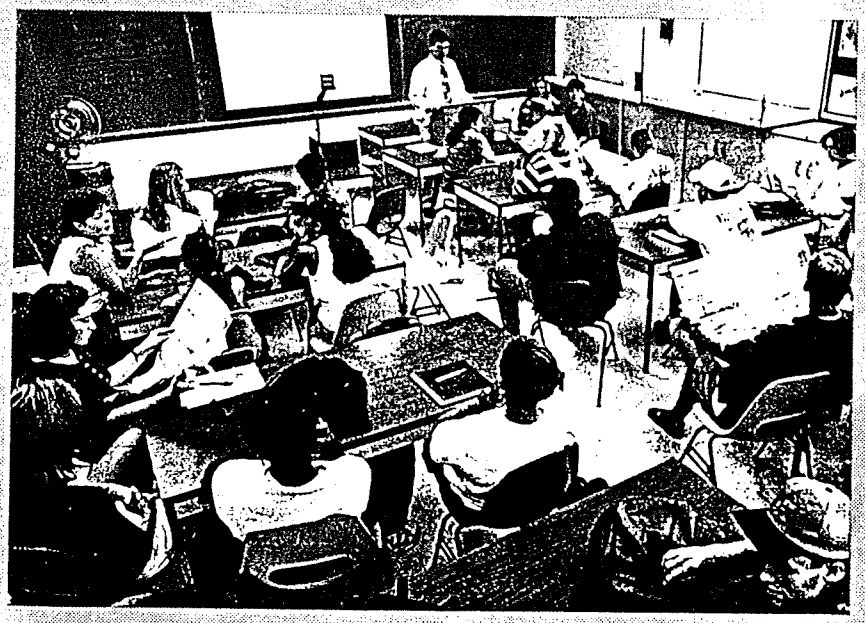
The University of Kansas

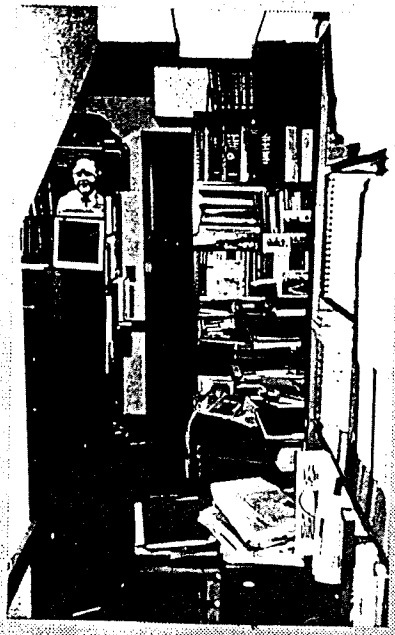
below School of Education students convene in an overcrowded classroom in Bailey Hall.

right Cramped faculty offices in Bailey Hall include some as little as four feet wide, with a total area of less than 100 square feet.

middle right An addition to the Joseph R. Pearson Hall will provide a new home for the School of Education.

bottom right A "unique" T-shaped learning environment in Bailey Hall classroom.





Instruction for nursing began on the University of Kansas Medical Center campus in 1906 when the School of Nursing was founded as a department within the School of Medicine. In 1974, the School of Nursing was organized as a separate school, and, since that time, has consolidated all its administrative, faculty, and teaching labs in the Taylor building.

This facility was constructed in 1953 for student housing. As student housing on campus was phased out, these spaces were occupied by the School of Nursing with minor renovations. The basic configuration of a "dormitory" structure is inefficient for the use of faculty offices and clerical space due to room dimensions and the long, double-loaded corridor arrangement. The classrooms and teaching laboratories are not appropriate for today's learning strategies, such as small group exercises and experimental learning, or for current teaching technologies, such as computer-assisted instruction, interactive video, and distance learning. Moreover, mechanical functions are outdated for current needs. Electrical and telecommunication capabilities limit the School's ability to meet classroom and programmatic goals.

The School currently has approximately 300 undergraduate students, 260 master's students, and 30 doctoral students. Applications to the undergraduate program are at an all-time high and have increased by 125 percent over the past five years. Enrollment in the graduate program has increased by more than 100 percent since 1989.

The Taylor facility only has one classroom for teaching purposes, requiring the School to schedule other classrooms as available throughout the Medical Center.

The demand for nurses has increased as a result of improvements in health care, shortened hospital stays, increased longevity, and the growth in health care technology. Nursing skills required in today's highly technical health care environment demand specialized equipment and intensive teaching strategies. In addition to teaching high technical skills for the hospital enviroment, the expansion of nursing care into community settings requires model clinic settings to teach high level assessment and intervention skills.The current facility does not allow for flexibility to cover the demands of this environment and will not provide for space for new programs as the needs develop in the next decade. Additional faculty will be needed to meet the demands of the increased enrollment in graduate and doctoral programs.

The doctoral students and the growing research programs in the School of Nursing also require unique dedicated space. Specialized nursing research requires space for clinically oriented activities such as individual patient assessments, private interviews of research subjects, and in-group and individual nursing practice intervention studies.

The School of Nursing has expanded its educational offerings throughout the State, currently offering a primary care nurse practictioner program in collaboration with WSU andFHSU and expanding into other sites ihn the near future. In addition the Kansas health care community looks to the KU School of Nursing for continuing education to provide programming to meet the mandatory continuing education credits required for ongoing licensure. Such continuing education for nurses in the community and outlying areas will multiply in the years to come. These programs also require state-of-the-art classrooms and clinical laboratory facilities to keep practicing nurses current. This will require additional computer labs, TV equipment for teleconferencing to facilities around the state, and technical equipment for teaching purposes that will be new to the medical field.

The present facility contains 41,000 gross square feet with 25,357 net square feet of assignable space. Projected needs require a facility of 67,500 gross square feet, which has a projected construction cost of $8.85 million. Consultant fees, construction costs, and the equipment costs put the project total at $11.5 million.

NURSING EDUCATION BUILDING - $11.5 MILLION

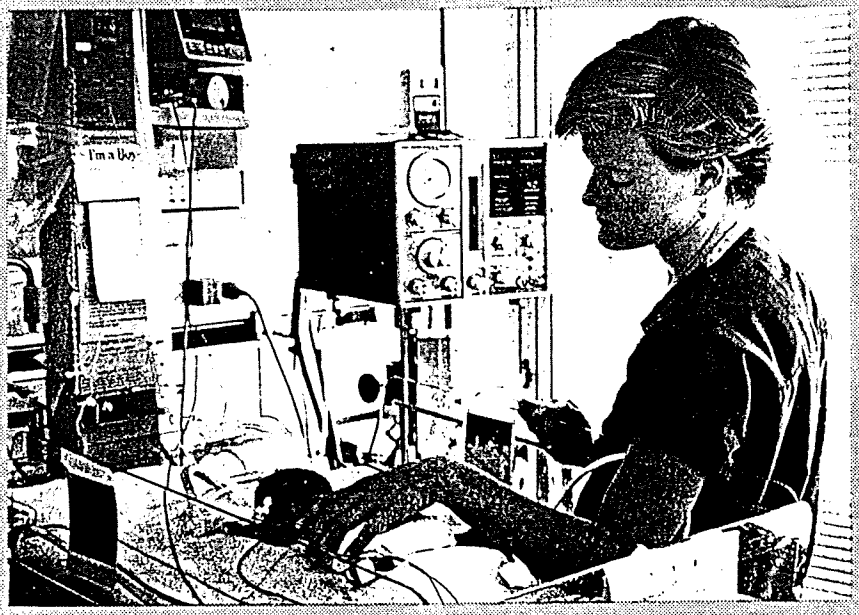
University of Kansas Medical Center

top top Surgical training for nurses occurs in a hospital setting.

bottom left Student nurse cares for young patient in neo-natal unit.

top right Students learn skills in lab situations first.

bottom right Precise skills are needed to treat patients in the burn unit.



King Hall was built in 1966 to provide modern instructional and research facilities for the Department of Chemistry.

King Hall houses all instructional laboratories for introductory-level chemistry courses, the Laboratory for Chemical Separations, and the research laboratories for several analytical faculty members. The 10 instructional laboratories accommodate approximately 1,370 introductory-level students each semester.

In recent years operational and safety problems in King Hall have seriously limited its use. In order to address these concerns, Kansas State University contracted with a consulting engineer to evaluate the existing fume hood exhaust system, note its condition, and provide alternatives for repair or replacement that would comply with current applicable university and industry standards and codes.

The consultants surveyed each hood system by reviewing original drawings and specifications and the latest available inspection reports from the K-State Department of Public Safety. Although detailed analysis of other building air systems was outside the scope of this work, relationships between other systems and the fume hoods were considered.

Two basic problems exist. First, the original design does not meet current standards for operator safety and air quality. The fume hoods were designed for a face velocity of 70 feet per minute (fpm) with the sash fully open. The present university-recommended face velocity for general laboratory use is 100 fpm, which is consistent with other applicable standards. No provisions were made for ventilated chemical storage cabinets.

Second, the equipment and duct work has deteriorated considerably. A current university safety officer's test report indicates that most of the fume hoods in King Hall do not meet the 100 fpm face velocity requirement, and most also fail a smoke test. The consultant's report notes various degrees of corrosion, including holes in the duct work. These and other problems have limited the scope of teaching and research and created potentially hazardous conditions for students, faculty, and staff.

In addition, the small office/labs, originally intended to be private faculty research areas, are underutilized because newer laboratory equipment and complex experiments cannot be accommodated in this space.

The consultants recommend vented storage cabinets and replacement of the fume hoods with energy efficient, fast response, variable air volume systems. The new hoods will provide the necessary 100 fpm at the fume hood sash and control migration of chemical vapors. Exhaust duct work and fans also will be replaced. An exhaust system manifold and redundant, high plume exhaust fans will provide protection for King Hall occupants and those in the surrounding area.

Remodeling the office/labs into offices, reclaiming office space as teaching labs, and updating older teaching space to better research facilities all yield a significant improvement in space and could reduce the number of hoods replaced.

These improvements in King Hall place the Department of Chemistry in a better position to meet its immediate instructional and research needs. However, to meet the longer term campuswide student demand, additional teaching space must be added.

With completion of the first phase of Science and Engineering, remaining research laboratories in King Hall could be converted into five instructional laboratories and the research functions moved to areas vacated by the Department of Biochemistry in the Chemistry/ Biochemistry Building (C/BI). Other research laboratories and offices in Willard Hall also could be moved to C/BI at this time. The interconnected facilities of the upgraded King Hall and C/BI, completed in 1988, will provide the Department of Chemistry with adequate, appropriate teaching and research facilities to serve the state of Kansas through the early part of the next century.

KING HALL FUME HOODS -- $1.5 MILLION

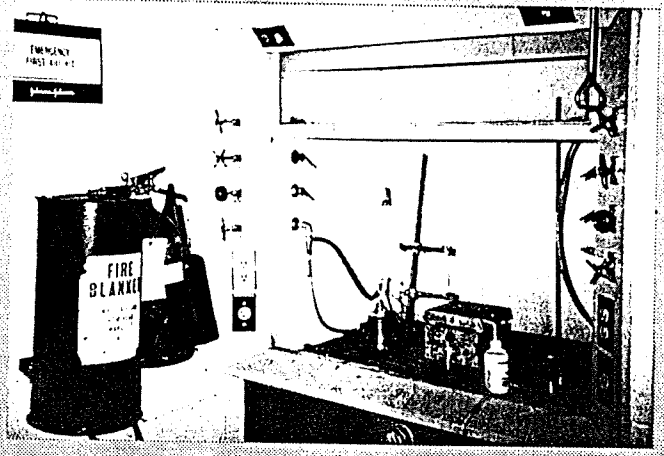
Kansas State University

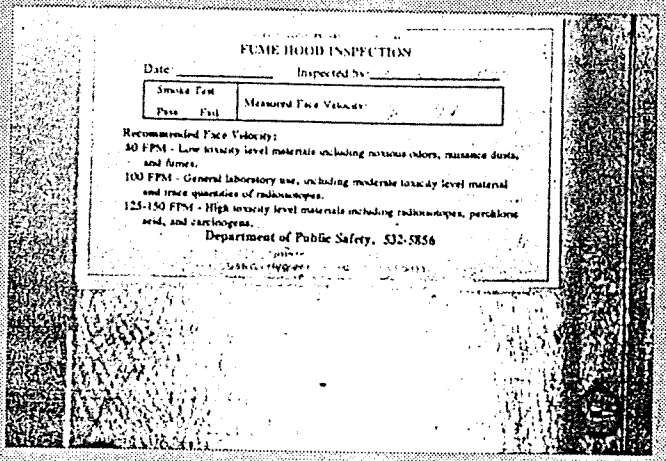
1-26

bottom Besides not meeting current standards for air quality, ductwork in King Hall shows signs of corrosion and deterioration throughout the system.

top right Deficient hood design for air exchange, lighting, power receptacles, and chemical storage poses potential hazards for users.

bottom right Safety tests indicate that most of the fume hoods fail smoke tests and do not meet face velocity requirements.




FUME HOOD INSPECTION

Date: Inspected by:

Smoke Test	
Pass Fail	Measured Face Velocity:

Recommended Face Velocity:
80 FPM - Low toxicity level materials including noxious odors, nuisance dusts, and fumes.
100 FPM - General laboratory use, including moderate toxicity level material and trace quantities of radioisotopes.
125-150 FPM - High toxicity level materials including radioisotopes, perchloric acid, and carcinogens.

Department of Public Safety, 532-5856

Engineering and the basic sciences are integral components of Kansas State University, representing a large portion of its identity and strength. The sciences provide the core of many academic programs and disciplines throughout the university, including agriculture and engineering, and generate significant research funding. Both areas are integral to Kansas State University and must remain strong and viable if the university is to carry out its mission to serve the citizens of Kansas.

The nine College of Engineering departments enroll close to 3,000 undergraduate majors, representing about 15 percent of the total university, and approximately 500 engineering graduate students.

Research funding has grown steadily in science and engineering and continues to rise. In FY92 the College of Engineering generated more than $6 million in extramural funding. Subsequent years indicate that this amount almost doubled. Chemistry, biochemistry, and biology generated approximately $7 million in FY92 and also have shown growth in succeeding years.

Based on current staffing, enrollment levels, and research efforts, engineering and the sciences have serious space needs, both for quantity and quality. These estimates do not include needs for projected enrollment increases (expected to be 15-20 percent in the next decade), expanded research efforts (already rising), or possible new program development. These future needs could double this estimate within the next 10 years.

The science portion of this program will provide 34,500 nasf (net assignable square feet) of modern teaching and research space for the Department of Biochemistry and 3,000 nasf of general classroom space as an addition to Ackert Hall. It then will allow the consolidation of all of the currently assigned space in Burt, Willard, and C/BI into one building, and put it closer to units with which it collaborates, such as biology and plant sciences. The Department of Chemistry can then move the balance of its offices and research units from Willard to C/BI, providing additional and improved space. Vacated space in Willard can be assigned to the Department of Art. Burt Hall space could be reassigned to alleviate other space needs.

The engineering portion of this program will provide 38,923 nasf of adequate and appropriate space in the new addition to Durland Hall for the Department of Civil Engineering, currently housed in Seaton Hall, and added research and instruction space that will benefit the college as a whole. This will further consolidate the departments within the College of Engineering. Seaton Hall space can be upgraded for reassignment to the Department of Biological and Agricultural Engineering, the Department of Architectural Engineering/Construction Science, the College of Architecture and Design, or other purposes.

This request is the initial step in the completion of a comprehensive plan to simultaneously address some of the needs of both the sciences and engineering.

A disruption to either program may have serious repercussions. For engineering, it could cripple the teaching and research efforts of one of the strongest, most respected colleges of the university; for the sciences, it could reduce the capacity to meet academic needs and continue relevant research. For students, it could mean reduced program offerings and the inability to enroll in required courses on schedule, thus increasing time to graduation.

This portion of the program is for two smaller, separate building projects, representing approximately one half of the current needs, as additions to existing buildings. The construction of the balance of the program should be an uninterrupted continuation of this project. Building designs should reflect the possibility of adding floors or other appropriate means to accommodate future needs.

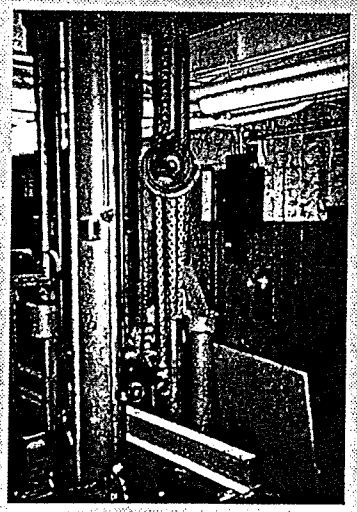
SCIENCE/ENGINEERING IMPROVEMENT PROJECT, PHASE I - $28.5 MILLION *Kansas State University*

top left Burt Hall, one of three buildings where biochemistry researchers are housed, lacks adequate space for chemical storage, experimentation, and air handling systems.

bottom left Testing facilities for engineering lack adequate and appropriate utility services, equipment, and space.

middle & bottom center Space in the older buildings is inadequate and inappropriate for current scientific techniques and technologies. Poor teaching and research conditions exist.

right Engineering areas originally designed for blacksmithing and farm machinery classes show evidence of continued modifications and deterioration.



The Department of Chemistry currently is housed in McKinley Hall at Wichita State University along with the departments of anthropology, geology, and cooperative education. McKinley Hall was built in 1928 with north and south wings added during the 1960s.

The normal aging process, combined with numerous modifications to the building and its engineering systems, have resulted in conditions that are insufficient to provide adequate ventilation and proper air conditioning for modern research in chemicals with high levels of toxicity. The quality and amount of usable space, storage of chemicals, and the venting and exhausting of fumes are persistent problems.

Students and faculty using McKinley Hall have frequently complained of discomfort and headaches due in part to the migration of fumes and chemical odors within the building. After engineering and air quality consultants investigated these problems, several recommendations for modifications to the building's air supply and exhaust systems were implemented as stop gap measures.

A major remodeling of McKinley Hall for chemistry is an economical alternative to constructing a new building. Gutting the building - saving the classic structure, roof, and exterior walls -- is necessary. Relocating cooperative education, anthropology, and geology to other facilities on campus will require additional remodeling to other accommodations. A significant savings will be realized in this approach.

McKinley Hall now contains 92,594 gross square feet (GSF). The remodeling of the former attic space on fourth floor will result in a reduction to approximately 90,000 square feet due to headroom at the exterior walls or approximately 60,000 net assignable square feet based on an efficiency factor of 0.66. Construction and fixed equipment at McKinley is estimated to run approximately $90/GSF. With necessary allowances for remodeling for other academic programs, fees, movable equipment, miscellaneous costs, and contingency, the total project cost is estimated at $15 million.

The University currently is under contract with a team of consultants for architectural programming services for a new building. These services are being redirected at a program statement for the remodeling of McKinley Hall.

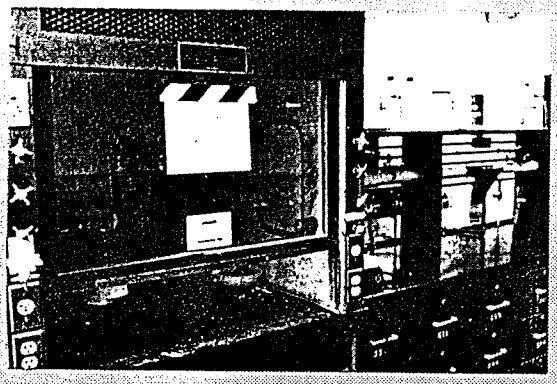
CHEMISTRY BUILDING/MCKINLEY HALL REMODELING - $15 MILLION *Wichita State University*

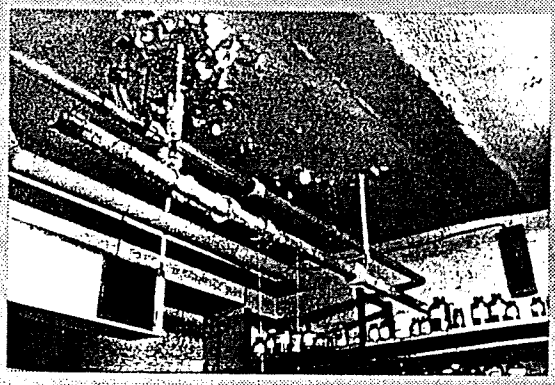
top left Crowded chemical storage and distribution facilities at WSU.

bottom left Antiquated and crowded lab facilities.

top right Inoperable fume hood due to insufficient exhaust and ventilation systems.

bottom right Ceiling damage from plumbing leaks and the effects of hazardous fumes.





In August 1990, a 4,160-volt distribution cable ignited a fire in the communications cable located in the steam tunnel north of the Liberal Arts and Sciences building on the ESU campus. Much of the campus was without electricity for several days and buildings had to be evacuated at a critical time in the academic year. Smaller outages have plagued this electrical system because of its age and condition.

ESU is served electrically by a single Kansas Power & Light (KP&L) substation located south of the Maintenance Building, which serves six distribution circuits. Distribution of power from the KP&L substation to the building transformers is supplied radially, which means the substation supplies each series of buildings through a single cable with no alternate source of power to the cable or buildings.

The power supplied by a radial system is unreliable compared to the "loop" system employed at many university campuses. Most of the nearly 8,000 lineal feet of conductor cable on the ESU campus is over 30 years old and is approaching the end of its useful life.

The university has grave concerns about placing communication cable for the University's phone and computer systems in the same raceways as the distribution cables. We recommend replacing the existing radial system with a loop system and removing all other cabling in the main electrical distribution raceways.

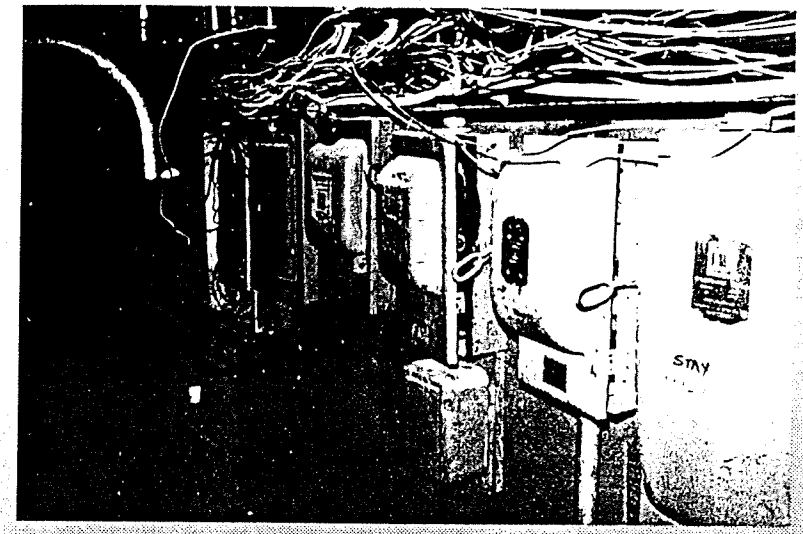
New switchgear will permit three loops to provide electrical service to the campus, with each source on the loop being supplied from multiple sources. The first loop of the new electrical distribution system will include the Memorial Union, King Hall, Plumb Hall, Beach Music Hall, Liberal Arts and Sciences, and William Allen White Library. Loop switches will be located at each building to allow each to be shut-off independently of the other buildings.

The second loop of the new system will include the Power House, Twin Towers, Singular, Trusler, Welch Stadium, Welch Stadium West, Police and Safety, Morse Northeast and the Physical Education Building. The final loop on the electrical distribution will provide electrical power to Stormont Maintenance, Visser Hall, Butcher Children's School, Morse Central, Morse North, Cremer Hall, Breukelman Science Hall, Morse Southeast, Morse South, Cram Science Hall and Brighton Lecture Hall.

The $3.4 million estimated budget includes construction, professional fees, 10 percent project contingency, and miscellaneous costs and asbestos removal.

ELECTRICAL DISTRIBUTION PROJECT - $3.4 MILLION

Emporia State University



top left Unsafe conditions at a disconnect switch station in the tunnel system.

bottom left Concrete blocks must be utilized to keep transformers above the water level.

bottom right Antiquated and unreliable high voltage electrical distribution system on the ESU campus.

Beach Music Hall has served the Division of Music at Emporia State University since 1926. Its architectural, structural, mechanical and electrical elements and systems have remained unchanged since the opening day of this facility. The growth and development of the Music Program over the past 68 years have required the division to expand into the Liberal Arts & Sciences Building adjacent to Beach Music Hall and "make do" with the restrictions and conditions of each building. A major renovation of Beach Music Hall is necessary to move this facility into the next century.

The mechanical and electrical systems require immediate attention to satisfactorily meet the current building codes, life-safety and fire-code regulations. According to inspections by the Division of Architectural Services, the building appears to be structurally sound. However, a thorough structural analysis and testing would be required to verify the capability of this structure. Architectural elements within this facility (doors, windows, finishes, detailing, etc.) are at or near deterioration due to weather, termite damage, abuse, deferred maintenance, and age. Piecemeal patching and repair have produced a negative environment in which to provide instruction.

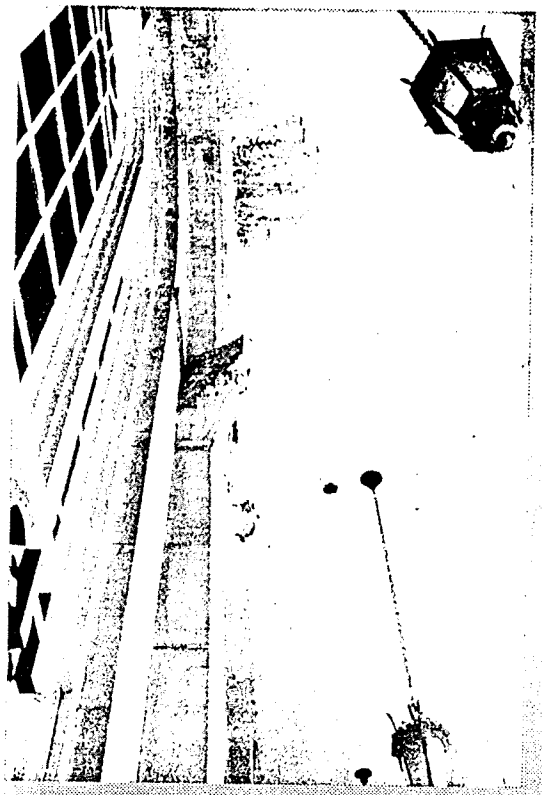
The planning layout of Beach Music Hall is the same as it was originally designed. However, the requirements and demands placed on a music instruction facility have expanded since 1926 and the technological and physical requirements of this building need immediate updating to meet the current and future expectations of the division of music. Proper planning of existing space is vital to the success of the project and program. The building plan indicates a close scrutiny of current and future requirements is necessary to adequately accommodate the spatial demands of the division of music. Space planning points to a building addition.

The University, on many occasions, has given tours of Beach Music Hall to representatives and members from the Board of Regents, Legislature, and the Governor's Office. The reactions and comments from these visitors have reinforced the belief that the need for major renovation on this facility is critical, not only for the physical elements of the building, but also for the continued success of the division of music at Emporia State University.

The $6 million estimated budget includes construction, professional fees, movable equipment, 10 percent project contingency, miscellaneous costs, and asbestos removal.

BEACH MUSIC HALL RENOVATION - $6 MILLION

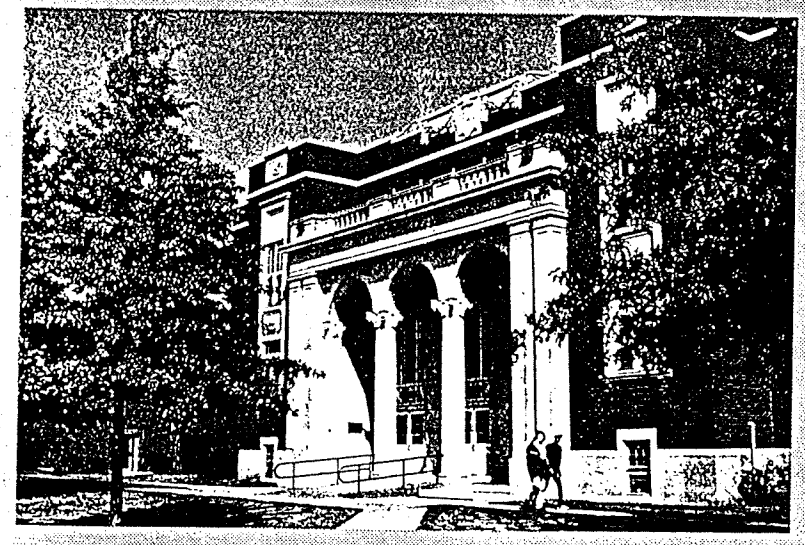
Emporia State University



left Exterior damage to Beach Music Hall poses a hazard to pedestrians.

bottom left The architectural, structural, mechanical, and electrical elements of Beach Music Hall have remained unchanged since it opened in 1926.

bottom right An outdated music practice cubicle typical of those in Beach Music Hall.



Historically, Russ Hall has been an important symbol for Pittsburg State University. In addition, it serves as a major building on campus, housing academic departments, numerous classrooms and central administration offices.

Russ Hall was the first building constructed on the PSU campus, opening in 1908. Disaster hit in 1914 when the building was struck by lightning and was quickly engulfed in flames. By dawn, the smoldering ruins were sobering. The building had suffered devastating damage. The embers of Russ Hall had barely cooled when rumors began circulating in this Southeast Kansas community that the state might realize significant savings if it took this opportunity to close the school. Within 36 hours of the fire, the citizens of Pittsburg had pledged $136,000 for the reconstruction and renovation of Russ Hall. Following this outpouring of support, the 1915 Legislature appropriated $188,565 to repay the local citizens and to complete the restoration of Russ Hall.

Throughout its history, Russ Hall and its impressive columns have symbolized the strong academic traditions of the University. Russ Hall also has housed many essential programs and services for the institution. The imposing structure sits on the main artery of the Pittsburg community and serves as the initial point of welcome for most campus visitors.

The original building was four stories and contained 71,000 square feet. In the 1950s, an addition was built providing another 19,000 square feet for classrooms and offices. Modifications and repairs throughout the years have kept the building functional. However, because of its age and changes in safety codes and accessibility requirements, Russ Hall needs complete renovation.

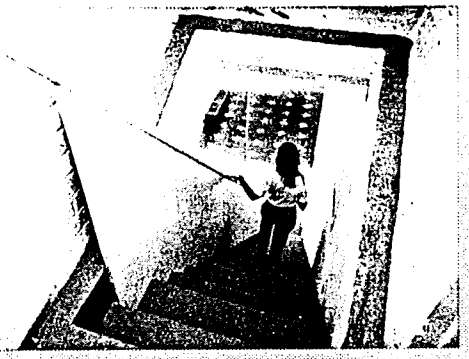
A major flaw in the building is its lack of accessibility for the disabled since no elevator exists in the four-story building. Renovation will include the installation of an elevator and other modifications making Russ Hall accessible as well as meeting requirements of the Americans With Disabilities Act.

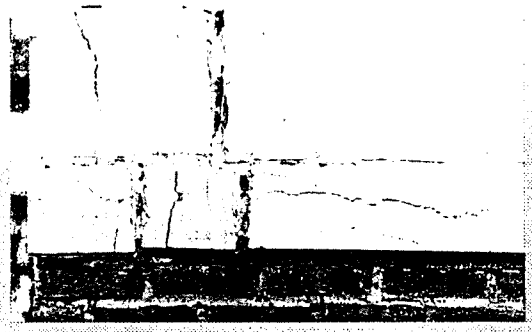
The open interior stairwells and exterior fire escapes are totally inadequate based on today's life and safety standards. The early 1900s design poses code problems that need to be addressed through renovation.

Classrooms also will be upgraded to provide the type of learning environment needed in this electronic media age of the 1990s. Administrative services housed in the building will be made more efficient with more functional use of space. The deterioration of exterior surfaces and details also will be addressed. Significant energy savings will be realized in the long run with the installation of more efficient heating and cooling systems as well as replacement of the double-hung, oversized windows. Electrical service to the building will be enhanced. In all aspects, the building will be renovated to serve educational and safety requirements well into the next century.

RUSS HALL RENOVATION - $7.3 MILLION

Pittsburg State University





top left A stairway to an observatory on top of Russ Hall does not comply with fire or life safety codes.

bottom left Throughout its history, Russ Hall and its impressive columns have been considered a symbol of the University's strong academic tradition.

top right Renovation plans call for replacement of the coping stone, part of the original walls of Russ Hall, built in 1908.

bottom right Russ Hall fire exits, on the exterior of the building, do not meet 1994 life safety codes which require enclosed and protected interior stairwells

The completion of the Physical Sciences Building and the Sternberg Museum projects at Fort Hays State University will free a substantial amount of space in McCartney, Albertson, and Martin Allen halls for other programs. This remodeling project upgrades portions of McCartney Hall, Albertson Hall, and Martin Allen Hall.

Space vacated by the Museum on the first floor of McCartney Hall will provide an expansion for the College of Business. Currently, the College of Business occupies the second and third floors of McCartney Hall, with the first floor housing the Sternberg Museum collections. New classrooms, labs and offices will be in the remodeling plans. In addition, existing classrooms will be upgraded to enhance instruction; the first floor will be retrofitted with a central HVAC system, and ADA and Fire Safety deficiencies will be corrected.

Space available in Albertson Hall after Chemistry, Physics, and Geosciences have moved to the new building will be used to move the Department of Speech-Language Pathology, thus relieving severe overcrowding in Malloy Hall, and more importantly, allowing Speech-Language Pathology to better serve its clients. Additional renovations are required to satisfy the needs of Agriculture, Biological Sciences, and Allied Health. The labs in the 1928 wing are obsolete by today's standards. Classrooms will be upgraded to enhance teaching, a central HVAC system will be incorporated into the original 1928 wing, and ADA and Fire Safety corrective measures will be included in the remodeling.

Martin Allen Hall, one of the smaller buildings on campus, is a prime location for the Kelly Center, after the Academic Computing Center has moved to the Physical Sciences Building. The Kelly Center is housed in Picken Hall and offers students, faculty and staff psychological services, counseling, services for the disabled, and substance abuse counseling. The Center also provides students with practicum experience.

Because all buildings are located on the main campus quadrangle, their continued effective use is vital to the University. The combined projects will cost approximately $9.6 million.

MCCARTNEY/ALBERTSON/MARTIN ALLEN HALLS RENOVATIONS - $9.6 MILLION *Fort Hays State University*

top left A fourth floor science lab in Albertson Hall has inadequate ceiling height, lighting, and storage.

bottom left A small office in Albertson Hall is shared by two faculty members.

top right A faculty member and secretary share 120 square feet of office space in McCartney Hall.

bottom right Biology specimens are stored in a faculty office in Albertson Hall because of lack of storage space in the building.

KANSAS BOARD OF REGENTS
700 SW HARRISON • SUITE 1410 • TOPEKA, KS 66603-3760
GENERAL ADMINISTRATION - 913 296-3421 • STUDENT ASSISTANCE - 913 296-3517 • FAX 913 296-0983

January 17, 1996

REVENUE BOND ISSUE FOR NEEDS OUTLINED IN "CRUMBLING CLASSROOMS"

A. BALANCE FOR UNKNOWN CONTINGENCIES

If we assume that revenue bonds could be sold in the summer of 1996; that funds could be allocated in the fall of 1996, that architects/engineers could be interviewed and hired late in the fall of 1996 or early winter of 1996, that plans could be developed for the larger projects for major remodeling by the fall of 1997 and that bids for construction could be received by Christmas of 1997 or in January of 1998, we could assume that construction would be complete on the major projects by two or three years later, depending on the size and complexity of the project. This schedule would mean that completion of construction could be any time from January of 2000 to January of 2001. During this five year design and construction period we would put in place $90 million of ADA and fire and life safety projects, classroom improvements and rehabilitation and repair projects in addition to the $73 million of major remodelings and additional space projects. During this time the balance in the Educational Building Fund would increase to approximately $27 million in reserve that is not needed to amortize the revenue bond issue. Over the 15 years of the bond issue the total amount that would be accumulated over and above the amount needed for the bonds would be $133 million.

B. FIRE INSURANCE

The State of Kansas was 'self insured' when Hoch Auditorium burned from a lightning strike several years ago. We now have a policy in effect for major catastrophes up to $25 million with a large deductible. This policy, while not perfect, does provide a coverage for fire and natural disasters that we did not have before.

C. CONSTRUCTION COST INFLATION

Attached to this paper is another paper dated January 1996 and entitled ***Bond Interest Rate Versus Increase in Cost of Construction.*** It describes the advantage of bonding now at the unusually low rates instead of waiting each year, paying cash, and allowing inflation in construction costs to eat into our total project list of needs. In addition to the projects mentioned in that paper, on January 10, 1996 the Wheatshocker Residence Hall Remodeling project at Wichita State University was bid. The bids were about 33% over our budget. We had an ample number of good companies bidding on the project and their bids were close together. It is another example of inflation in the construction industry.

Senate Ways & Means
January 29, 1996
Attachment 2

KANSAS BOARD OF REGENTS
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GENERAL ADMINISTRATION - 913 296-3421 • STUDENT ASSISTANCE - 913 296-3517 • FAX 913 296-0983

January 1996

BOND INTEREST RATE VERSUS INCREASE IN COST OF CONSTRUCTION

During the past twenty five years, the office of the Kansas Board of Regents has kept data on construction costs and inflation. In 1970 it cost the State of Kansas $28 per square foot to build a new classroom office facility. This was total project cost including furniture, landscaping; fees, etc. Twenty five years later, due to construction inflation, the cost for a classroom office building is budgeted for $103 per square foot, total project cost. This increase of $75 per square foot is a 268% increase in twenty five years or an average annual increase of 11%.

Construction inflation is increasing in the Midwest. Our major projects have been bid much higher than expected and we have been forced to convert equipment dollars into construction funds or, in some cases, not award a contract. Several examples are Hoch Auditorium Replacement at the University of Kansas, Farrell Library Addition and Remodeling at Kansas State University and the Cancer Center at the University of Kansas Medical Center.

National, regional and statewide experts involved in the design and construction business are predicting increasing inflation rates for construction. This includes repairs and rehabilitation work and all types of remodeling. Our office has been monitoring construction cost factors and predictions, and has contacted the office of the Associated General Contractors of Kansas, the office of the State Architect which is responsible for all state owned construction in Kansas, and various large architectural offices in Kansas which are responsible for setting budgets and cost estimates for large projects years in advance of construction.

These various offices agree that construction inflation is increasing and will continue to increase. The best estimate of construction inflation settles on at least 6% per year for the next seven or eight years. Some are using 8 or 10% to be on the safe side but none of the advisors are using less than 6%.

An example of what happens to our spending power at 6% inflation is revealed as follows: Assume that we are going to take $15 million cash per year and spend it each year for the next 15 years. If we reduce the construction buying power by 6% each year, the $15 million will only be worth $6.26 million during the fifteenth year. Instead of construction buying power of fifteen years times $15 million per year for $225 million the total value of the fifteen year buying power is diminished to $146 million.

Historically, construction inflation has grown faster than salaries and wages. Even in Kansas, where the economy is considered more modest and does not experience large ups and downs, construction costs have increased more than other costs. We see nothing to change this.

Another way of looking at this is to assume that we are going to spend $15 million per year for remodeling and repair projects for fifteen years. This is a total expenditure of $225 million in fifteen years. If we pay cash each year we will get $146 million worth of work for the $225 million invested. This is a loss to inflation of $79 million over the fifteen years. If, on the other hand, we issue bonds at current interest rates and have $163 million up front in cash to do construction, we will pay interest costs of $62 million ($225 - $163 = $62). We have spent the same amount of money in fifteen years, $225 million, but will have received a value in construction projects of $163 instead of $146 million. Also, as an added benefit we will have received the use and the value of the repairs and remodeling many years sooner. This will also increase the life of our buildings as there will be less years of deferred maintenance to further deteriorate the buildings. The net savings to the State of Kansas is more than $17 million.

Bond interest rate projections for tax-exempt issues are prepared by the Kansas Development Finance Authority based on interest rate schedules published by ***The Bond Buyer***, a nationally recognized publication reporting municipal finance news on a daily basis. The interest rates published in this paper are very similar to interest rate scales published by other nationally recognized sources.

The Bond Buyer publishes daily "Municipal Market Data General Obligation Yields" which provide estimated interest rates for four different credit qualities. For financing projections the KDFA uses the most conservative rating for the particular issue, generally the "A" or "AA" rating. Although the interest ratings published in ***The Bond Buyer*** are for general obligation bonds, sales of KDFA revenue bonds for agencies of the State of Kansas have consistently proved that the use of the published interest rate scales for general obligation issues is conservative.

The interest rates used by the KDFA in preparing the analysis for the Board of Regents in December 1995 were from ***The Bond Buyer*** interest rate scale "A", the most conservative rate scale. The KDFA also added twenty basis points as an additional element of conservatism. Interest rates in early January 1996 are approximately the same as for December 1995. A copy of the interest rate schedule published January 3, 1996 by ***The Bond Buyer*** is enclosed as Attachment A. Also enclosed as Attachment B is a comparison of actual interest rates on a recent issue for Kansas State University to nationally recognized market rate scales. The bond issue was neither rated or insured but sold near the "AA" nationally published rates.

All indications are that bond interest rates might be lower slightly in the next few months. The rate used in our comparisons is 5.1% for bond interest rates and 6% for construction inflation. This difference provides sufficient data to encourage us to issue revenue bonds as quickly as possible and could save the State of Kansas more than $15 million over the next fifteen years. A million dollars per year!

MARKET STATISTICS *for Friday, December 29, 1996*

Treasury SLG Rates

	Friday	Prev. Week	Prev. Month
Overnight*	3.38	3.56	3.68
Three Months	4.86	4.93	5.36
Six Months	4.98	5.18	5.34
Nine Months	5.03	5.17	5.27
One Year	5.05	5.17	5.24
Two Years	5.07	5.21	5.23
Three Years	5.15	5.29	5.28
Four Years	5.22	5.35	5.34
Five Years	5.30	5.41	5.41
10 Years	5.50	5.64	5.63
15 Years	5.75	5.90	5.89
20 Years	5.92	6.07	6.08
25 Years	5.88	6.02	6.04
30 Years	5.86	5.99	6.01

*Annualized effective rate.
n.a. — no data available because of holiday.

Municipals

Continued from front page

said a constructive tone was fueled by demand for a light new-issue calendar and manageable dealer supply.

Reflecting the better bid for bonds last week, **Standard & Poor's Corp.'s** Blue List of dealer inventories fell $35 million today to $1.27 billion, down from over $2 billion less than two weeks ago.

The Bond Buyer's 30-day visible supply of new issues expected to come to market within the next month, meanwhile, stood unchanged from Friday at $2.57 billion, including $1.18 billion of competitive issues, and $1.29 billion set for negotiated sales.

For the moment, however, traders stressed that the market had little direction and said the tone was nondescript.

"I think you're supposed to see the market a little weaker, but nobody is overanalyzing it," a trader said late this morning. "I don't think there are any leaders this morning."

Market participants said they expected the market to stretch a bit today as the primary market awakens from a winter's nap, when lead manager **A.G. Edwards & Sons Inc.** plans to price $155 *million in* Sikeston, Mo., insured electric

U.S. Securities Prices

Prices as of 4 p.m. EST Source: GovPX Inc.'s Prophesy Treasury Pricing

Treasury Bills

(In percent of discount)	Closing Price	Prev. Close	Day's High	Day's Low	Closing Yield	Total Volume
3M — 3/28/96	4.930	4.835	4.965	4.840	4.976	637
6M — 6/27/96	4.945	4.890	4.975	4.890	5.153	379
1Y — 12/12/96	4.878	4.900	4.950	4.870	5.140	1,451

Treasury Notes and Bonds

(In points and 32ds)	Closing Price	Prev. Close	Day's High	Day's Low	Closing Yield	Total Volume
2Y — 5¼ due 12/97	100-052	100-032	100-05+	100-016	5.162	1,523
3Y — 5½ due 11/98	100-23+	100-200	100-240	100-180	5.218	810
5Y — 5½ due 12/00	100-160	100-110	100-170	100-07+	5.384	2,787
10Y — 5⅞ due 11/05	102-05+	101-280	102-07+	101-260	5.585	1,063
30Y — 6⅞ due 8/25	112-250	112-100	112-250	112-040	5.951	628

TOTAL VOLUME ..... $25.511 down 45%

Plus signs indicate an additional one-64th. Total volume represents the portion of dealer trades executed through GovPX Broker Contributors, in millions of dollars.

Lehman Brothers Long Treasury Bond Index

	Price Index			Yield Index			Total
	Yesterday	Prev. Day	Change	Yesterday	Prev. Day	Change	Return
Close	1634.16	1628.30	+5.86	6.00	6.03	–0.03	6706.15
High	1634.16	—	—	—	—	—	6706.15
Low	1624.20	—	—	—	—	—	6661.89

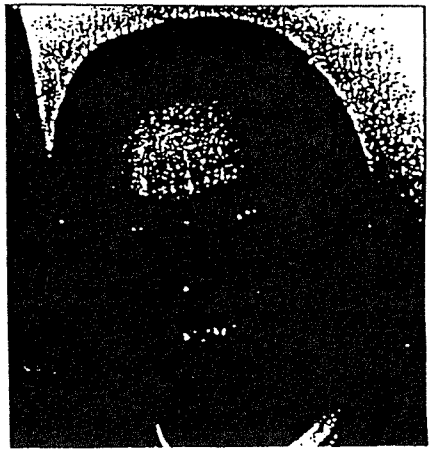
The Lehman Brothers Long Treasury Bond Index represents the weighted average of all publicly held issues with maturities between 10 and 30 years (Dec. 31, 1980 = 1000).

Outlook

Continued from front page

cause of higher rates they would be expected to pay to private owners.

The provision to sell SEPA caused a storm of controversy because it called for the transfer — by auction — to private ownership substantial assets in the Southeast that are owned by the **U.S. Army Corps of Engineers**, including generating plants, locks, dams, reservoirs, and other properties important to electric power, navigational, recreational, drinking water, and other interests. SEPA, among other things,



Municipal Market Data General Obligation Yields

Figures are for 2:30 p.m. EST, Dec. 29, 1995. These data are provided by Municipal Market Data, (617) 345-2900, and are considered proprietary. Although they have been obtained from sources considered reliable, there is no guarantee of completeness or accuracy.

Year	AAA	AAA (Ins)	AA	A
1996	3.45	3.55	3.55	3.70
1997	3.70	3.85	3.80	3.95
1998	3.85	4.00	3.95	4.10
1999	4.00	4.15	4.10	4.25
2000	4.10	4.25	4.20	4.35
2001	4.20	4.35	4.30	4.45
2002	4.30	4.45	4.40	4.55
2003	4.40	4.55	4.50	4.65
2004	4.50	4.65	4.60	4.75
2005	4.60	4.75	4.70	4.85
2006	4.70	4.85	4.80	4.95
2007	4.80	4.95	4.90	5.05
2008	4.90	5.05	5.00	5.15
2009	4.95	5.10	5.05	5.20
2010	5.00	5.15	5.10	5.25
2011	5.05	5.20	5.15	5.30
2012	5.05	5.25	5.20	5.35
2013	5.10	5.25	5.20	5.35
2014	5.10	5.25	5.20	5.35
2015	5.15	5.30	5.25	5.40
2016	5.15	5.30	5.25	5.40
2017	5.15	5.30	5.25	5.40
2018	5.15	5.30	5.25	5.40
2019	5.15	5.30	5.25	5.40
2020	5.15	5.30	5.25	5.40
2021	5.15	5.30	5.25	5.40
2022	5.20	5.35	5.30	5.45
2023	5.20	5.35	5.30	5.45
2024	5.20	5.35	5.30	5.45
2025	5.20	5.35	5.30	5.45

lations.

"If there's going to be a sale, that's

Kansas Development Finance Authority
Refunding Revenue Bonds Series G, 1995
Kansas Board of Regents - Kansas State University Parking System Refunding Project
Comparison of Accepted Bid to Market Rates

Sale Date: November 16, 1995
Average Weighted Life: 5.575 Years
Ratings: Not rated or insured

		Bond Buyer GO Yields			Bloomberg Generic OAS GO Yields					
Year	Maturity Year	AA	AA/A Composite	A	AA	AA/A Composite	A	Bid Received	Variance from Bond Buyer AA/A Composite	Variance from Bloomberg AA/A Composite
1	1996	3.750%	3.825%	3.900%	3.740%	3.835%	3.930%	3.800%	0.025%	0.035%
2	1997	4.000%	4.075%	4.150%	3.940%	4.035%	4.130%	4.000%	0.075%	0.035%
3	1998	4.150%	4.225%	4.300%	4.090%	4.185%	4.280%	4.100%	0.125%	0.085%
4	1999	4.250%	4.325%	4.400%	4.210%	4.305%	4.400%	4.200%	0.125%	0.105%
5	2000	4.350%	4.425%	4.500%	4.310%	4.405%	4.500%	4.350%	0.075%	0.055%
6	2001	4.450%	4.525%	4.600%	4.410%	4.505%	4.600%	4.450%	0.075%	0.055%
7	2002	4.550%	4.625%	4.700%	4.510%	4.605%	4.700%	4.550%	0.075%	0.055%
8	2003	4.650%	4.725%	4.800%	4.610%	4.705%	4.800%	4.650%	0.075%	0.055%
9	2004	4.750%	4.825%	4.900%	4.710%	4.805%	4.900%	4.750%	0.075%	0.055%

Notes:
1. Bloomberg 6 and 8 year maturities are interpolated.
2. Bond Buyer and Bloomberg yields are as of market close on 11-16-95.

DRAFT (revised)

OF AGING CAMPUSES & CRUMBLING CLASSROOMS

December 18, 1995

A POSSIBLE SOLUTION -

The "Crumbling Classrooms" brochure outlined the highest priority needs for the Regents institutions. These needs included a wide array of rehabilitation and repair projects that include the normal and routine projects, but also included the important categories involving the Americans with Disabilities Act (ADA), the State Fire Marshal's requirements for projects to comply with the fire and life safety codes and improving our antiquated classrooms to provide for modern teaching techniques. The brochure also outlined the highest priority needs for each campus for either a major remodeling project to an existing building or in a few select cases, a new structure. These needs are summarized in Tables 1 and 2 on pages 5 and 7 of the "Crumbling Classrooms" booklet.

The Kansas Board of Regents has been searching for a long-range plan that will solve the serious problem of funding for these important and necessary projects. The Board and its staff have consulted with Governor Graves, Legislators on the Joint Committee for Building construction, Legislative Chairs of the House and Senate Tax Committees and especially with the State Budget Director and her staff. The Board has been very concerned that it did not wish to recommend an increase in state taxes to fund its needs but it, the Board, has really struggled with a solution that everyone could support and that would provide the funding for a lengthy list of R & R projects and for the necessary building remodelings and new construction.

The most appropriate solution could be funded by revenue bonds issued by the Kansas Development Finance Authority (KDFA) with the amortization of the bonds by a substantial portion of the annual collection of the Educational Building Fund (EBF). The KDFA believes that we could finance approximately $163 million in projects by dedicating about $15 million per year of EBF revenue for a fifteen year period. This figure includes all interest costs and all other costs associated with the issuance of the bonds.

The approach is now reasonable because bond interest rates are currently very low. We also know that construction costs are expected to increase faster than the bond interest rate. In the past it was the other way around in that bond interest rates were higher and construction inflation was generally lower. Under the current conditions we can actually save money in the long run by issuing bonds now and paying the interest rather than doing projects each year for the next fifteen years.

By using the available EBF revenue stream the Board is not creating a new tax problem for the state and its citizens but is using the funding source that has been in existence since the mid 40s and was established by the Kansas Legislature for this purpose - taking care of the building and repair needs of the Regents institutions.

The $163,000,000 could be spent as follows in accordance with the data from the "Crumbling Classrooms" booklet.

Senate Ways & Means
January 29, 1996
Attachment 3

Rehabilitation and Repairs, ADA, Fire & Life Safety and Classroom Improve.	= $90 million
Major Remodeling of Existing Buildings	= 46
New Construction	= 27
	$163

In addition to having enough revenue to retire the revenue bonds, the Board, Governor and Legislature will have approximately an excess of $83 million in the EBF that is not needed for the amortization of the bond issue. This $83 million could be used for additional R&R or for unforseen projects that emerge or for a combination of both.

By combining the R&R, ADA, Fire Safety and Classroom Improvements all into one category of funding, the Board will have the responsibility of deciding which projects are the highest priority and which will be delayed. We have a federal mandate to complete the ADA projects as soon as we can. If we were to earmark the entire $83 million for R&R, we would then have available $173 million (including the revenue bond amount of $90 million).

But in addition to the potential $173 million for R&R the bond issue would provide for the projects in Table 2 on page 7 of the "Crumbing Classrooms" booklet. Table 2 shows.

TABLE 2
MAJOR REMODELING AND NEW CONSTRUCTION ($ IN MILLIONS)

	MAJOR REMODELING		NEW CONSTRUCTION		
	State Funds	Federal, Gifts & Student Fees	State Funds	Federal, Gifts & Student Fees	Total
University of Kansas					
Murphy Hall addition	0	0	9.0	1.9	10.9
J.R. Pearson Hall renovation & addition for School of Education	12.0	2.1	0	0	14.1
University of Kansas Medical Center					
Nursing Educational Building	0	0	10.0	1.5	11.5
Kansas State University					
King Hall fume hoods	1.5	0	0	0	1.5
Science & Engineering Complex	0	0	12.5	16.0	28.5
Wichita State University					
Chemistry Building	12.0	3.0	0	0	15.0
Emporia State University					
Beach Music Remodeling and addition	5.0	1.0	0	0	6.0
Electrical Distribution	3.4	0	0	0	3.4
Pittsburg State University					
Russ Hall Remodeling	7.3	0	0	0	7.3
Fort Hays State University					
McCartney/Albertson/Martin Allen renovation	8.6	1.0	0	0	9.6
Total	49.8	7.1	31.5	19.4	107.8

The bond issue would provide for $46 million for the major remodeling projects in Table 2 instead of the $49.8 shown in the table. The difference of $3.8 million would have to be shifted to the other fund column and be derived from federal, gifts or other sources. In the same manner, the funds for new construction from the bond issue would be $27 million whereas the Table 2 indicates a need for $31.5 million, a difference of $4.5 million. We would have to find some additional funds from other sources or scale back our program accordingly. But it is possible to do. The bond issue would enable the Regents institutions to plan and construct the top ten major projects shown on Table 2.

All of the projects over $500,000 would have complete architectural programs to guide them. The State Building Advisory Committee would solicit proposals from the architectural and engineering firms in Kansas and firms would be selected to do the major projects. There are three new construction projects and seven major remodeling projects that fit this category.

In addition to this planning effort, we have about twenty "on call" architectural and engineering firms under contract to do the smaller projects. They are assisted by the staff of the State Architect and the staff architects, engineers and technicians on each campus. The work effort required to produce the jobs from the $163 million bond issue can be handled quickly and efficiently by the existing work force available in Kansas.

One of the benefits of work of this magnitude is that several different types of functions can be combined in the same building project. For example, we can do ADA projects, fire code and life safety work and classroom improvements all at the same time in the same contract for a particular building instead of a number of smaller separate projects, thus saving dollars by combining small projects.

SUMMARY

The Board of Regents feels that this bond issue approach is the best way to solve the enormous problems facing the Regents institutions concerning R&R and capital improvements without increasing the tax burden on the state's citizens. We would like to propose this approval to the Joint Committee for Building Construction and to Governor Graves for serious consideration for action in the 1996 Legislative Session.

Educational Building Fund

15 / 15 Plan

Fifteen Year Debt Service Using $15.0 Million of EBF Revenues

Bond Proceeds:	$151,080,000
Project Fund Investment Earnings:	12,539,644
Total Project Costs:	**$163,619,644**

Total Principal Payments / Total Bond Issue	$156,475,000
Total Interest Payments	71,936,560
Total Debt Service:	**$228,411,560**

Projects to be Funded (BOR Estimate) :

ADA & Fire Code Compliance, Classroom Improvements and Rehabilitation & Repair	90,000,000
Major Remodeling Projects	46,000,000
New Construction Projects	27,000,000
Total Funded Projects	**$163,000,000**

Crumbling Classrooms Report

ADA Accessibility Guidelines	21,700,000
State Fire Marshal Code Requirements	9,100,000
Rehabilitation & Repair Projects	161,000,000
Improve Classrooms	15,200,000
Subtotal	$207,000,000
Major Remodeling of Existing Buildings	49,800,000
New Construction	31,500,000
Total	**$288,300,000**

EDUCATIONAL BUILDING FUND ("EBF")

Table A represents projected revenues to the year 2017. Property tax revenue estimates use the Division of the Budget ("DOB") projections to the year 2001 and then a constant 3.15% growth rate to the year 2017. Motor vehicle tax receipts also use DOB projections to the year 2001 and then a constant 4% growth rate to the year 2017. The State Replacement Funds are also projected by DOB through the year 2000 and then held constant with a zero growth factor through 2017. The EBF has an average annual compound growth rate of approximately 3.1%. This clearly does not keep in step with construction cost forecasts of 6%.

State of Kansas
Educational Building Fund
Fiscal Year 1995 to 2017

3-6

Fiscal Year	Second Payment of Property Tax Levy		First Payment of Property Tax Levy		Motor Vehicle Taxes		State Replacement Funds		Total	
	Amount	Incr. (Decr.) from Prior Year	Amount	Incr. (Decr.) from Prior Year	Amount	Incr. (Decr.) from Prior Year	Amount	Incr. (Decr.) from Prior Year	Amount	Incr. (Decr.) from Prior Year
1995	$5,318,740		$9,877,661		$2,347,560				$17,543,961	
1996	5,290,087	-0.54%	9,112,631	-7.75%	2,443,498	4.09%			16,846,216	-3.98%
1997	6,598,802	24.74%	9,408,792	3.25%	2,447,890	0.18%	$138,736		18,594,220	10.38%
1998	6,813,262	3.25%	9,667,534	2.75%	2,379,856	-2.78%	297,482	114.42%	19,158,134	3.03%
1999	7,000,628	2.75%	9,933,390	2.75%	2,299,816	-3.36%	470,902	58.30%	19,704,736	2.85%
2000	7,193,144	2.75%	10,206,558	2.75%	2,193,763	-4.61%	673,670	43.06%	20,267,135	2.85%
2001	7,390,956	2.75%	10,487,240	2.75%	2,102,384	-4.17%	865,766	28.51%	20,846,346	2.86%
2002	7,623,771	3.15%	10,817,588	3.15%	2,186,479	4.00%	865,766		21,493,604	3.10%
2003	7,863,920	3.15%	11,158,342	3.15%	2,273,938	4.00%	865,766		22,161,966	3.11%
2004	8,111,633	3.15%	11,509,830	3.15%	2,364,896	4.00%	865,766		22,852,125	3.11%
2005	8,367,149	3.15%	11,872,390	3.15%	2,459,492	4.00%	865,766		23,564,797	3.12%
2006	8,630,714	3.15%	12,246,370	3.15%	2,557,872	4.00%	865,766		24,300,722	3.12%
2007	8,902,581	3.15%	12,632,131	3.15%	2,660,187	4.00%	865,766		25,060,665	3.13%
2008	9,183,012	3.15%	13,030,043	3.15%	2,766,594	4.00%	865,766		25,845,415	3.13%
2009	9,472,277	3.15%	13,440,489	3.15%	2,877,258	4.00%	865,766		26,655,790	3.14%
2010	9,770,654	3.15%	13,863,864	3.15%	2,992,348	4.00%	865,766		27,492,632	3.14%
2011	10,078,430	3.15%	14,300,576	3.15%	3,112,042	4.00%	865,766		28,356,814	3.14%
2012	10,395,901	3.15%	14,751,044	3.15%	3,236,524	4.00%	865,766		29,249,235	3.15%
2013	10,723,372	3.15%	15,215,702	3.15%	3,365,985	4.00%	865,766		30,170,825	3.15%
2014	11,061,158	3.15%	15,694,997	3.15%	3,500,624	4.00%	865,766		31,122,545	3.15%
2015	11,409,584	3.15%	16,189,389	3.15%	3,640,649	4.00%	865,766		32,105,388	3.16%
2016	11,768,986	3.15%	16,699,355	3.15%	3,786,275	4.00%	865,766		33,120,382	3.16%
2017	12,139,709	3.15%	17,225,385	3.15%	3,937,726	4.00%	865,766		34,168,586	3.16%
Totals	$201,108,470		$289,341,301		$63,933,656		$16,298,812		$570,682,239	
FY 2002 to 2017 Change Factor	3.15%		3.15%		4.0%					
FY 1998 to 2007 only									$219,410,230	
FY 1998 to 2012 only									$357,010,116	
FY 1998 to 2017 only									$517,697,842	

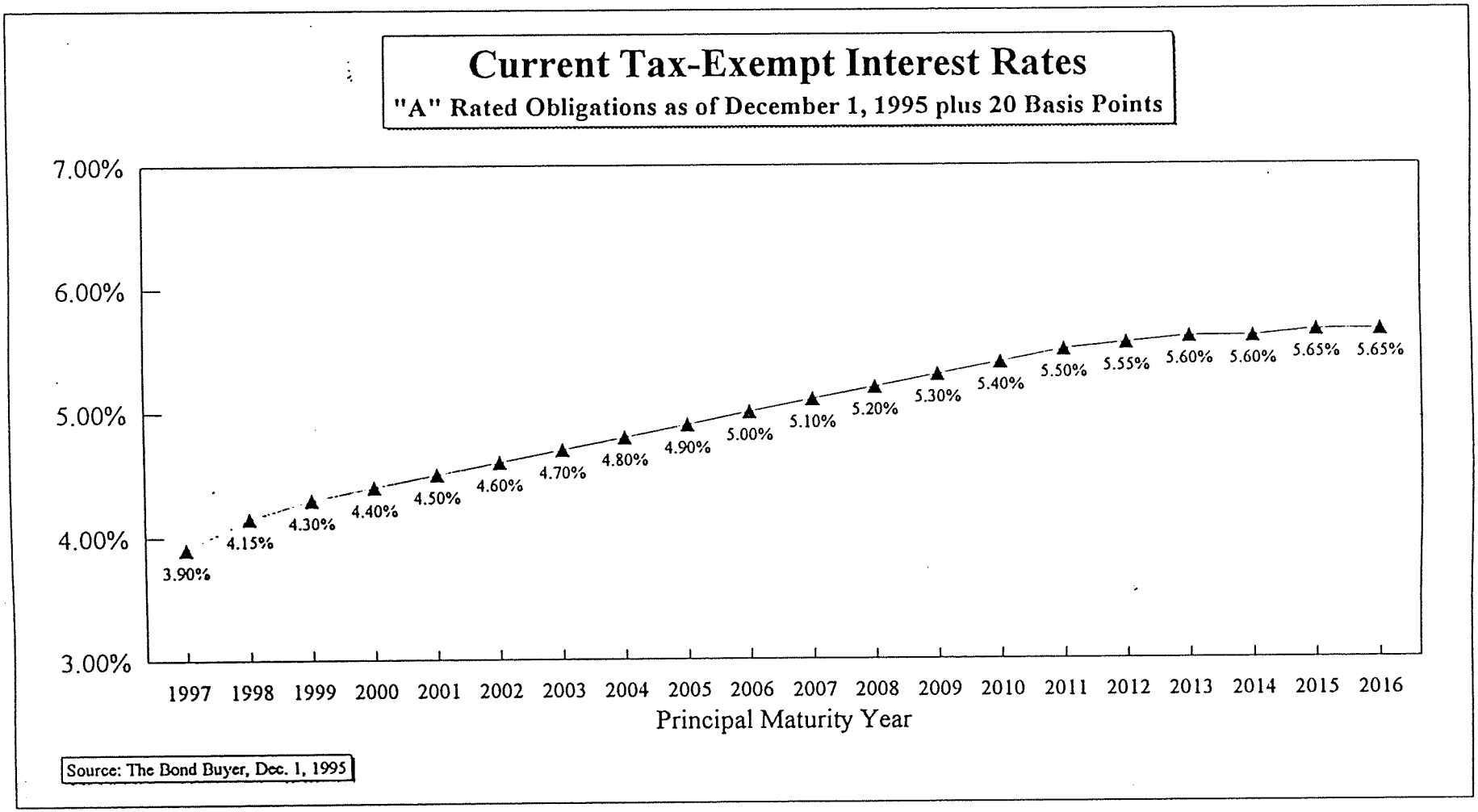
-2-

CONSTRUCTION COSTS

Construction costs, which are used in this analysis to help predict repair, maintenance and replacement costs are projected to grow at a compound rate of 6%. This is a critical assumption for this analysis as the present value calculations compare this to the cost of tax exempt money at today's market rates. As an example, a $1,000 repair today will cost $1,790 in ten years, $2,400 in fifteen years and $3,210 in twenty years. The 6% inflation factor for construction costs has been determined to be very conservative by professionals in both the public and private sector.

INTEREST COSTS

Graph 1 represents the current yield curve for tax exempt bond issues, plus 20 basis points for conservatism. This yield curve changes virtually daily, but dramatic changes usually happen over an extended period of time. We are currently in a very flat yield curve with very low interest rates. The cost of financing long term capital expenditures is very favorable and substantial changes are not foreseen for calendar year 1996. A bond issue could be completed approximately 60 to 120 days after Legislative approval.


Current Tax-Exempt Interest Rates
"A" Rated Obligations as of December 1, 1995 plus 20 Basis Points
7.00%
6.00%
5.00%
4.00%
3.00%
3.90%
4.15%
4.30%
4.40%
4.50%
4.60%
4.70%
4.80%
4.90%
5.00%
5.10%
5.20%
5.30%
5.40%
5.50%
5.55%
5.60%
5.60%
5.65%
5.65%
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
Principal Maturity Year
Source: The Bond Buyer, Dec. 1, 1995

Graph 1

Kansas Development Finance Authority
Revenue Bonds
State of Kansas
Kansas Board of Regents - Educational Building Fund Projects
Fifteen Year Debt Service Using $15 Million of EBF Revenues

Source and Use of Funds

Source of funds:			
Bonds issued		$156,475,000.00	
Project Fund investment earnings		12,539,644.00	
Accrued interest to date of settlement		382,083.00	
Total			$169,396,727.00
Use of funds:			
Project costs:			
Provided by bond proceeds	$151,080,000.00		
Provided by Project Fund investment earnings	12,539,644.00		
Total Project Costs		$163,619,644.00	
Costs of issuance		1,425,306.40	
Capitalized interest credited to debt service account		3,969,693.60	
Accrued interest credited to debt service account		382,083.00	
Total			$169,396,727.00

Note: These schedules should be used for estimation purposes only. Interest rates used in this analysis are estimates based on market conditions existing at the time of this analysis. Project Fund investment earnings are estimated based on equal monthly construction draws over a three year period. Any revenue sources noted in this analysis have been provided by outside sources and have not been verified by KDFA.

Kansas Development Finance Authority
Revenue Bonds
State of Kansas
Kansas Board of Regents - Educational Building Fund Projects
Fifteen Year Debt Service Using $15 Million of EBF Revenues

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Projected Debt Service

Period	Date	Fiscal Year	Principal Payment	Principal Balance	Interest Rate	Interest Payment	Gross Debt Service	Fiscal Year Gross Debt Service	Total EBF Projected Revenues	Total Remaining EBF Revenues after Debt Service	EBF Revenues for Debt Service as a Percent of Total EBF Revenues	Remaining EBF Revenues as a Percent of Total EBF Revenues
Dated	09/01/96	1997		$156,475,000								
1	04/01/97	1997				$4,457,635	$4,457,635	$4,457,635	No effect on EBF Revenues, paid from capitalized interest			
2	10/01/97	1998	$6,480,000	149,995,000	3.900%	3,820,830	10,300,830					
3	04/01/98	1998				3,694,470	3,694,470	13,995,300	$19,158,134	$5,162,834	73.05%	26.95%
4	10/01/98	1999	7,770,000	142,225,000	4.150%	3,694,470	11,464,470					
5	04/01/99	1999				3,533,243	3,533,243	14,997,713	19,704,736	4,707,023	76.11%	23.89%
6	10/01/99	2000	8,105,000	134,120,000	4.300%	3,533,243	11,638,243					
7	04/01/2000	2000				3,358,985	3,358,985	14,997,228	20,267,135	5,269,907	74.00%	26.00%
8	10/01/2000	2001	8,465,000	125,655,000	4.400%	3,358,985	11,823,985					
9	04/01/2001	2001				3,172,755	3,172,755	14,996,740	20,846,346	5,849,606	71.94%	28.06%
10	10/01/2001	2002	8,850,000	116,805,000	4.500%	3,172,755	12,022,755					
11	04/01/2002	2002				2,973,630	2,973,630	14,996,385	21,493,604	6,497,219	69.77%	30.23%
12	10/01/2002	2003	9,265,000	107,540,000	4.600%	2,973,630	12,238,630					
13	04/01/2003	2003				2,760,535	2,760,535	14,999,165	22,161,966	7,162,801	67.68%	32.32%
14	10/01/2003	2004	9,705,000	97,835,000	4.700%	2,760,535	12,465,535					
15	04/01/2004	2004				2,532,468	2,532,468	14,998,003	22,852,125	7,854,122	65.63%	34.37%
16	10/01/2004	2005	10,175,000	87,660,000	4.800%	2,532,468	12,707,468					
17	04/01/2005	2005				2,288,268	2,288,268	14,995,735	23,564,797	8,569,062	63.64%	36.36%
18	10/01/2005	2006	10,685,000	76,975,000	4.900%	2,288,268	12,973,268					
19	04/01/2006	2006				2,026,485	2,026,485	14,999,753	24,300,722	9,300,969	61.73%	38.27%
20	10/01/2006	2007	11,225,000	65,750,000	5.000%	2,026,485	13,251,485					
21	04/01/2007	2007				1,745,860	1,745,860	14,997,345	25,060,665	10,063,320	59.84%	40.16%
22	10/01/2007	2008	11,805,000	53,945,000	5.100%	1,745,860	13,550,860					
23	04/01/2008	2008				1,444,833	1,444,833	14,995,693	25,845,415	10,849,722	58.02%	41.98%
24	10/01/2008	2009	12,430,000	41,515,000	5.200%	1,444,833	13,874,833					
25	04/01/2009	2009				1,121,653	1,121,653	14,996,485	26,655,790	11,659,305	56.26%	43.74%
26	10/01/2009	2010	13,100,000	28,415,000	5.300%	1,121,653	14,221,653					
27	04/01/2010	2010				774,503	774,503	14,996,155	27,492,632	12,496,477	54.55%	45.45%

Kansas Development Finance Authority
Revenue Bonds
State of Kansas
Kansas Board of Regents - Educational Building Fund Projects
Fifteen Year Debt Service Using $15 Million of EBF Revenues

3-12

Projected Debt Service

Period	Date	Fiscal Year	Principal Payment	Principal Balance	Interest Rate	Interest Payment	Gross Debt Service	Fiscal Year Gross Debt Service	Total EBF Projected Revenues	Total Remaining EBF Revenues after Debt Service	EBF Revenues for Debt Service as a Percent of Total EBF Revenues	Remaining EBF Revenues as a Percent of Total EBF Revenues
28	10/01/2010	2011	13,820,000	14,595,000	5.400%	774,503	14,594,503					
29	04/01/2011	2011				401,363	401,363	14,995,865	28,356,814	13,360,949	52.88%	47.12%
30	10/01/2011	2012	14,595,000		5.500%	401,363	14,996,363	14,996,363	29,249,235	14,252,872	51.27%	48.73%
	Totals		$156,475,000			$71,936,560	$228,411,560	$228,411,560	$357,010,116	$133,056,188	62.73%	37.27%

Kansas Development Finance Authority
Revenue Bonds
State of Kansas
Kansas Board of Regents - Educational Building Fund Projects
Fifteen Year Debt Service Using $15 Million of EBF Revenues

Bond Issuance Statistics:		
Dated date	09/01/96	
Settlement / Closing date	09/19/96	
First payment date	04/01/97	
Day basis per year	360	
Periods per year	2	
Days per period	180	
Principal payments per year	1	
Interest payments per year	2	
Weighted average coupon rate	5.09269306%	Bond year calculation from Dated date
Net interest cost (includes Underwriter's discount)	5.16469698%	Bond year calculation from Dated date
Effective interest rate (excludes issuance costs)	5.06418740%	Present value calculation from Settlement date
True interest cost (includes Underwriter's discount)	5.15898652%	Present value calculation from Settlement date
Arbitrage yield (includes bond insurance costs)	5.06418740%	Present value calculation from Settlement date
All-in bond yield (includes all issuance costs)	5.19728688%	Present value calculation from Settlement date
Weighted average life of issue (from dated date)	9.027286	Years
Total life of issue (from dated date)	15.083333	Years
Bond years	1,412,544.583	
Average annual payment, net of all credits	14,930,261.67	
Accrued interest at settlement date	382,083.00	
Bond reserve fund earnings rate		
Project fund earnings rate	5.050000%	
Capitalized interest earnings rate	5.000000%	

Bond Issue Summary:	Amount	As a % of Total Issue -
Net financed costs	$151,080,000.00	96.55%
Issuance costs	1,425,306.40	0.91%
Capitalized interest	3,969,693.60	2.54%
Bond reserve		
Total issue	$156,475,000.00	100.00%

Notes:

1. First period Bond Reserve and Accrued Interest Cash Flow is comprised of the following:

Reserve income for the period	
Accrued interest to date of settlement	382,083.00
	382,083.00

2. Final period Bond Reserve and Accrued Interest Cash Flow is comprised of the following:

Reserve income for the period	
Bond reserve balance	

Filename:
c:\123data\project\reg_ebf\ebf15flt.wk4

Prepared by Kansas Development Finance Authority

12/06/95

ADDITIONAL POINTS OF CONSIDERATION

- Approving a bond issue morally commits the Legislature to appropriate sufficient funds to meet the covenants of the bond indenture. Note that the Board of Regents is pledging the EBF, not the sources of revenues presently flowing to the EBF. If the Legislature were to alter the revenue sources funding the EBF, *e.g.*, discontinue the property tax levy or state vehicle tax, it would be morally obligated to substitute revenues in sufficient amounts to continue compliance with bond covenants. Revenue source changes, although usually not considered, should not be ruled out if major tax changes are necessary.

- Consideration of a bond issue of this size will require additional financial analysis to insure optimum market acceptance. Numerous structuring considerations will need to be analyzed. KDFA would engage the necessary finance professionals, as it does with all bond issues, to participate in structuring the issue. Any considerations that might contemplate legislative changes will need to be analyzed in the next thirty to forty-five days. This short time frame would not allow KDFA to utilize its competitive selection process; using the Department of Administration's Financial Advisor for this analysis is a possible solution to meet the short time frame for this consideration.

- Debt issuance for ongoing maintenance is not sound fiscal management. However, leveraging a revenue stream to alleviate deferred maintenance coupled with a plan to keep current with ongoing maintenance is prudent and cost effective. Neither of the scenarios completely address the deferred maintenance dilemma facing the Board of Regents, but they do provide positive impact and display a commitment to resolving as much of this problem as current resources permit.

CONCLUSIONS

With the establishment of debt service requirements for several different bond issue projections, a comparison can now be made by calculating the present cash value of the cost of future repairs equivalent to the annual debt service requirements. Table B shows EBF projected annual revenues through the year 2017 and the remainder of EBF projected annual revenues that are not dedicated to debt service. Table C and Table D represent a comparison of the available construction funds derived in Scenario 1 and 2 to present values of the costs of repairs made in the future assuming inflation of those costs at 6% annually. Graph 2 and Graph 3 visually display these comparisons. Present value comparison, as used in this analysis, is an accurate tool utilized in many financial analyses when considering future expenditures.

- Because the current cost of money is less than projected construction cost inflation, it is more cost effective to perform the repairs now and leverage the EBF rather than incurring higher annual repair costs in the future (borrowing money costs less than borrowing time)

- Additional costs associated with deferred maintenance should be considered in making the final decision to issue bonds or continue to defer maintenance

- The term of any contemplated bond issue should not exceed the average life expectancy of the repairs

State of Kansas
Educational Building Fund
Fiscal Year 1998 to 2017
Remaining EBF Revenues Not Dedicated to Debt Service

Fiscal Year	Total Projected EBF Revenues	Remaining EBF Revenues Available After Using Fifty Percent for Debt Service (Scenario 1)	Remaining EBF Revenues Available After Using $15 Million for Debt Service (Scenario 2) (Note 1)
1998	$19,158,000	$9,579,000	$5,158,000
1999	19,705,000	9,853,000	4,705,000
2000	20,267,000	10,134,000	5,267,000
2001	20,846,000	10,423,000	5,846,000
2002	21,494,000	10,747,000	6,494,000
2003	22,162,000	11,081,000	7,162,000
2004	22,852,000	11,426,000	7,852,000
2005	23,565,000	11,783,000	8,565,000
2006	24,301,000	12,151,000	9,301,000
2007	25,061,000	12,531,000	10,061,000
Cumulative Total	219,411,000	109,708,000	70,411,000
2008	25,845,000	12,923,000	10,845,000
2009	26,656,000	13,328,000	11,656,000
2010	27,493,000	13,747,000	12,493,000
2011	28,357,000	14,179,000	13,357,000
2012	29,249,000	14,625,000	14,249,000
Cumulative Total	429,938,000	214,975,000	~~160,938,000~~ 133,011,000
2013	30,171,000	15,086,000	15,171,000
2014	31,123,000	15,562,000	16,123,000
2015	32,105,000	16,053,000	17,105,000
2016	33,120,000	16,560,000	18,120,000
2017	34,169,000	17,085,000	19,169,000
Cumulative Total	$590,626,000	$295,321,000	~~$246,626,000~~ 219,699,000

Note 1: Annual debt service rounded to $14 Million in 1998 and $15 Million thereafter. Actual debt service slightly less.

Prepared by KDFA

Table B

12/06/95

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State of Kansas
Kansas Board of Regents - Educational Building Fund
Comparison of Available Construction Funds
Bond Financing vs. Annual Payment

For Scenario 1 - Using Fifty Percent of EBF Revenues

Term	Available Construction Funds with Bond Financing	Available Construction Funds without Bond Financing	Savings from using Bond Financing
10 Year	$83,355,000	$79,575,360	$3,779,640
15 Year	$116,685,000	$111,815,351	$4,869,649
20 Year	$144,110,000	$139,950,406	$4,159,594

Table C

For Scenario 2 - Using $15 Million of EBF Revenues

Term	Available Construction Funds with Bond Financing	Available Construction Funds without Bond Financing	Savings from using Bond Financing
10 Year	$114,590,000	$109,436,766	$5,153,234
15 Year	$151,080,000	$144,710,869	$6,369,131
20 Year	$176,830,000	$171,073,374	$5,756,626

Table D

Note: Both Table C and D assume 6% annual construction cost inflation

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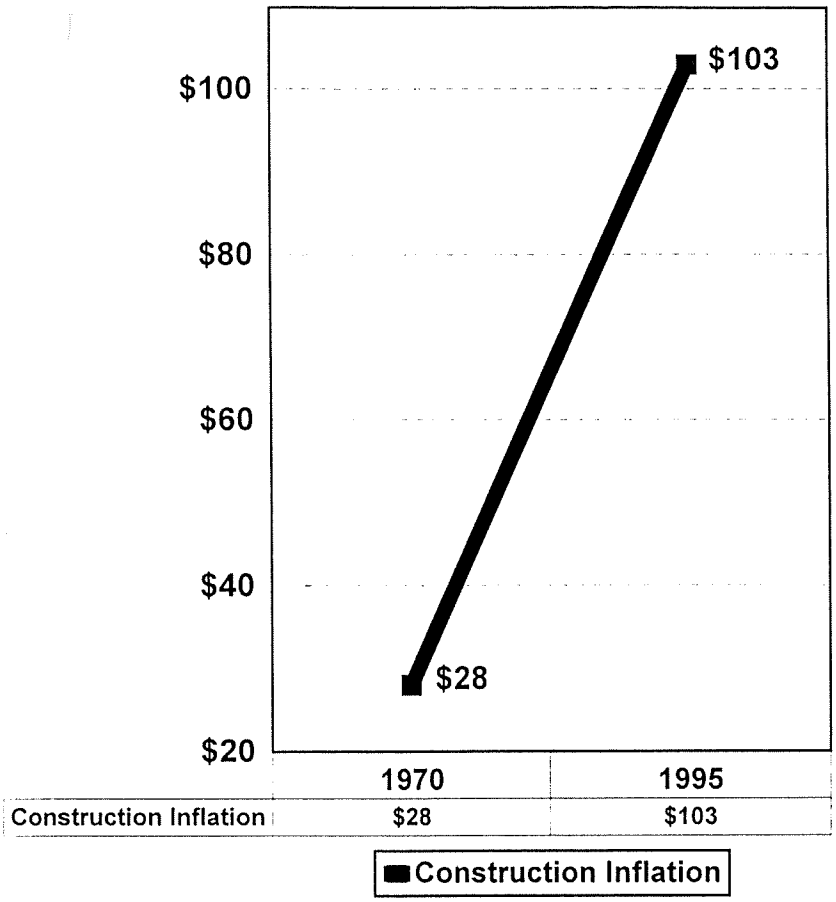
3-17



Kansas Board of Regents Construction Inflation for Previous 25 Years *

* The increase in 25 years is $75. This is a 268% increase ($75 / $28).

This is an average annual increase of 11% (268% / 25 years).

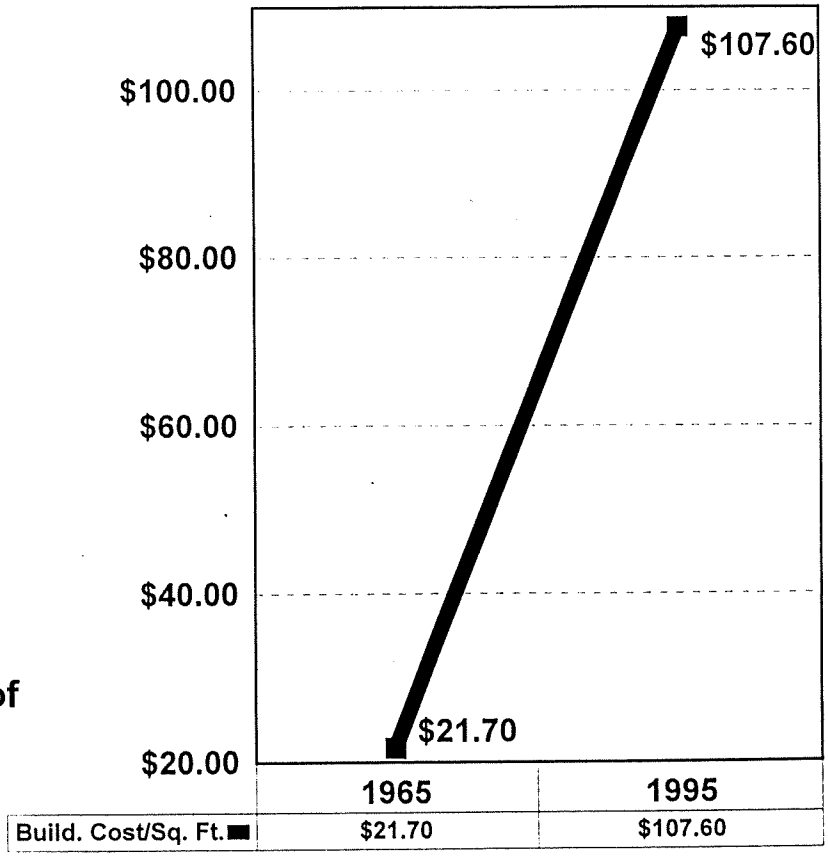
NOTE: THIS DATA IS FROM ACTUAL RECORDS IN THE BOARD OF REGENTS OFFICE FROM REGENTS CONSTRUCTION

Office of State Architect Construction Inflation for Previous 30 Years **

** This increase in 30 years is $85.90. This is a 396% increase ($85.90 / $21.70).

This is an average annual increase of 13.2% (396% / 30 years).

NOTE: THIS DATA IS FROM NATIONAL DATA ON ALL TYPES OF BUILDINGS



Crumbling Classrooms:

Why Remodel, repair and renovate?

January 1996

Kansas Board of Regents

Emporia State University • Fort Hays State University • Kansas State University • Pittsburg State University • The University of Kansas • Wichita State University

Senate Ways & Means
January 29, 1996
Attachment 4

Why remodel, repair and renovate?

- **Because taxpayers' investment in our six Regents universities infrastructure is at risk.**

The Regents are responsible for 24 million square feet of space in more than 600 buildings statewide with a replacement value of $2.7 billion.

Almost half of that space was built before 1960. Some buildings have not been remodeled for 60 years.

- **Safety is an issue.** Electrical systems are out of date. Fume hoods are not adequate for safety inspections for smoke and air velocity.
- **Accessibility to those with physical disabilities must be addressed in accordance with the Americans with Disabilities Act.** Fixtures such as elevators, ramps and hand rails are needed. Remodeling in some older buildings sometimes requires major renovation.
- **Fire and life safety codes must be met.** Money is needed to fund safety equipment such as automatic smoke and fire alarms, electromagnetic door releases and modern sprinkler systems, primarily in older or expanded buildings.
- **Learning facilities are out of date, inappropriate, too tight.** Buildings in use today were built for a much smaller population of students. Now, they are too small or inappropriate for today's needs.

And the bottom line is:

- **These projects are NEEDED NOW — to meet present needs; some are needed to prevent further decay and damage to existing buildings.**
- **It makes good sense to finance needed renovation now.**

Reviewing the choice between *Bond Interest Rate vs. Increases in the Cost of Construction* describes how taking advantage of unusually low bond rates makes more sense rather than paying cash each year and allowing inflation costs to reduce the buying power of today's dollar.

This supplement was prepared to offer a closer look at some of the conditions within the six Regents universities.

Some were photographed as recently as January 1996.

They illustrate the conditions of the facilities outlined as PRIORITY NEEDS in the table below:

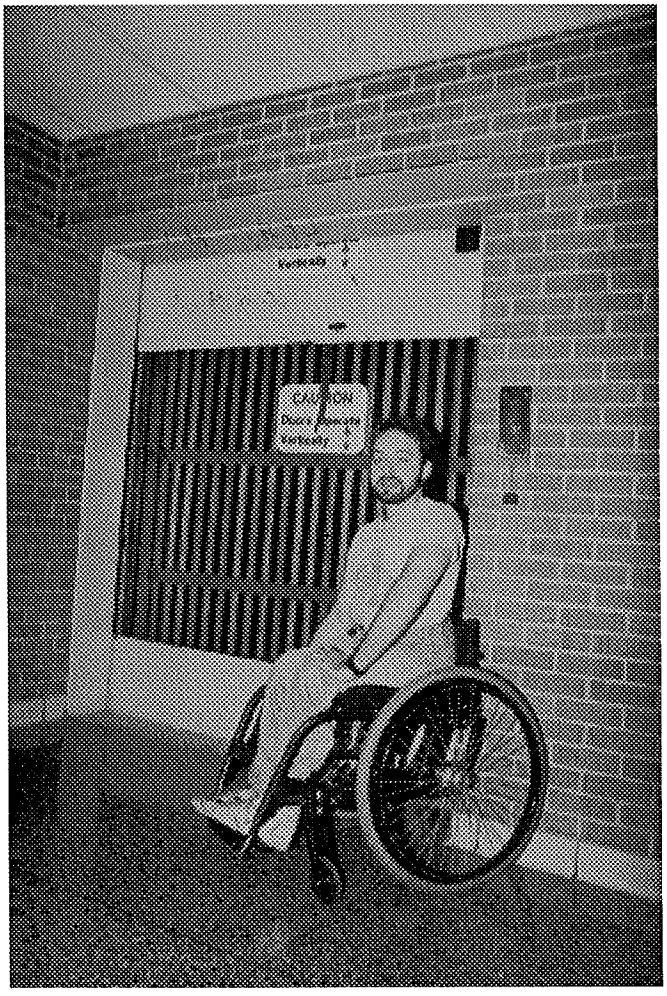
TABLE 2

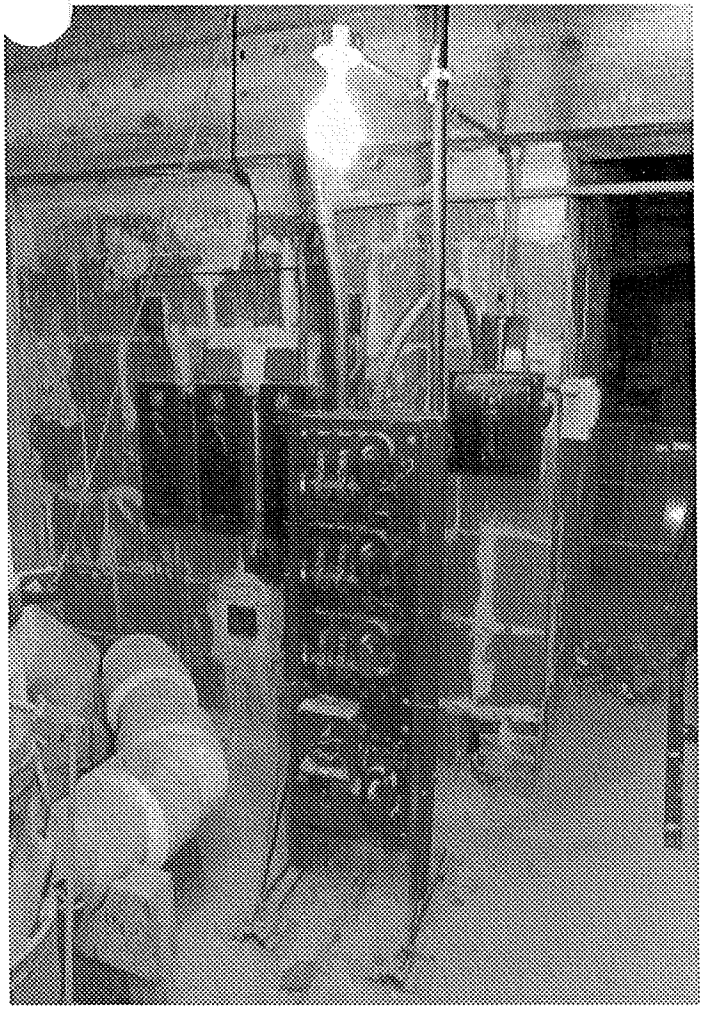
MAJOR REMODELING AND NEW CONSTRUCTION ($ IN MILLIONS)

	MAJOR REMODELING		NEW CONSTRUCTION		
	State Funds	Federal, Gifts & Student Fees	State Funds	Federal, Gifts & Student Fees	TOTAL
University of Kansas					
Murphy Hall addition	0	0	9.0	1.9	10.9
J.P. Pearson Hall renovation & addition for School of Education	12.0	2.1	0	0	14.1
University of Kansas Medical Center					
Nursing Educational Building	0	0	10	1.5	11.5
Kansas State University					
King Hall fume hoods	1.5	0	0	0	1.5
Science & Engineering Complex	0	0	12.5	16.0	28.5
Wichita State University					
Chemistry Buliding	12.0	3.0	0	0	15.0
Emporia State University					
Beach Music Remodeling and addition	5.0	1.0	0	0	6.0
Electrical Distribution	3.4	0	0	0	3.4
Pittsburg State University					
Russ Hall Remodeling	7.3	0	0	0	7.3
Fort Hays State University					
McCartney/Albertson/Martin Allen Renovation	8.6	1.0	0	0	9.6
Total	49.8	7.1	31.5	19.4	107.8

This instrumental rehearsal room at Murphy Hall at the University of Kansas was built in1957 for 80 musicians; today it is too small for KU's 250-member band. This inadequate space creates unsolvable acoustical and size logistics problems as the band can only practice together in sections. Alternate space resources have run out: formerly the group practiced in Hoch Auditorium and in the basement firing range of the Military Science Building. However, Hoch Auditorium burned down in 1991 and environmental code problems with lead at the Military Science Building would not allow it to be used safely.

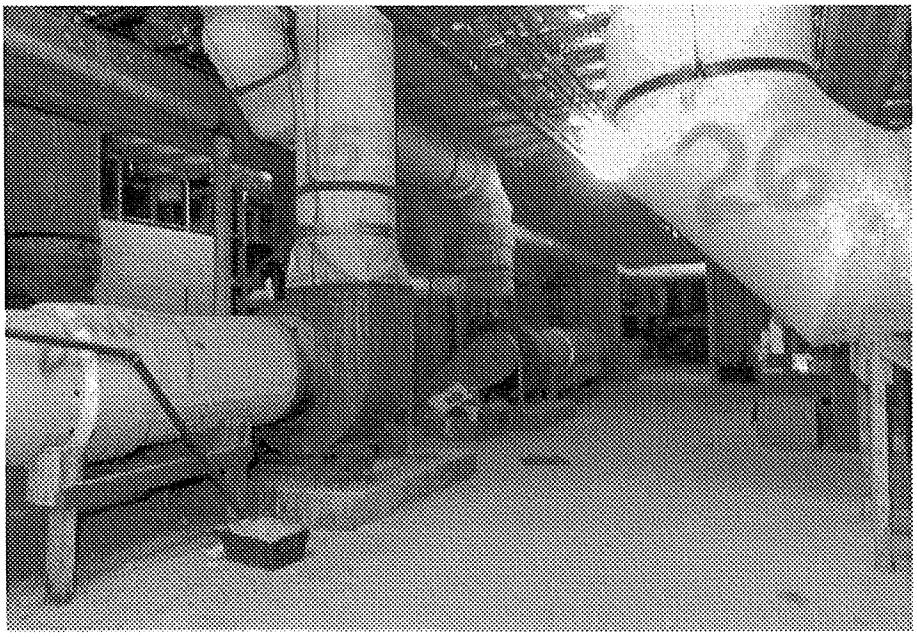
The only elevator at Murphy Hall was designed for freight and does not provide the legal access required by the Act for Disabled Americans. The fine arts building was designed to fit the slope of the hill on which it stands, thus students are constrained by many different floor levels and many steps.

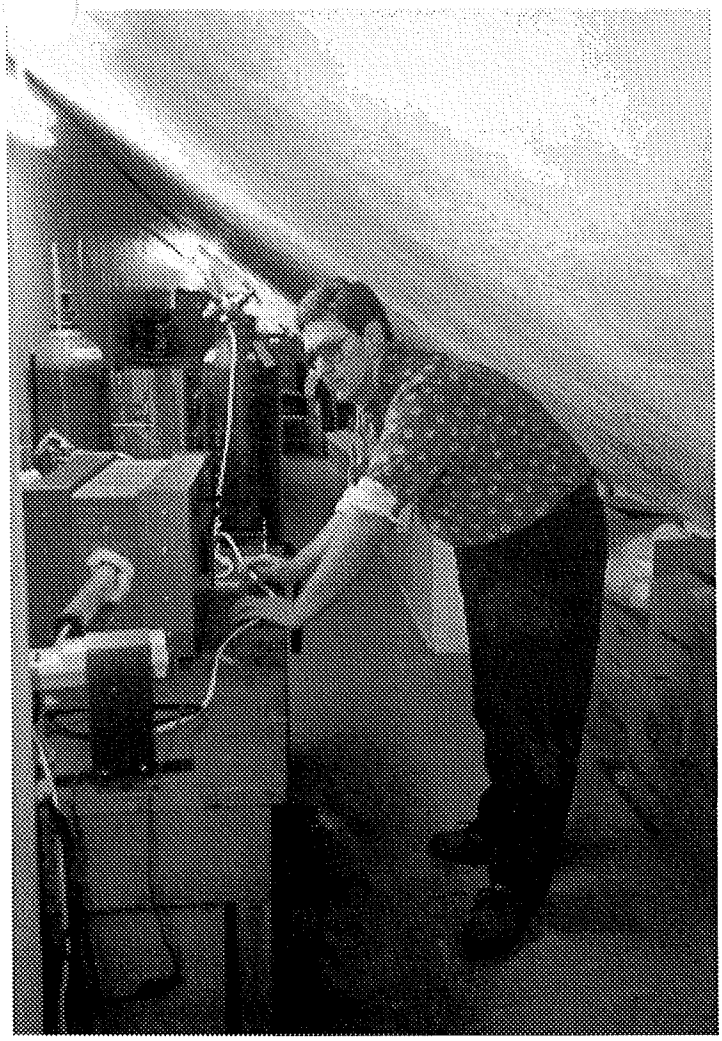




Because Willard Hall at Kansas State University h. ver been renovated since it was built in 1939, it is totally inadequate for the teaching of modern sciences. This antiquated elevator control panel from the 1930's is still the primary elevator connecting all floors of Willard Hall. The Department of Chemistry and other critical sciences are still housed here.

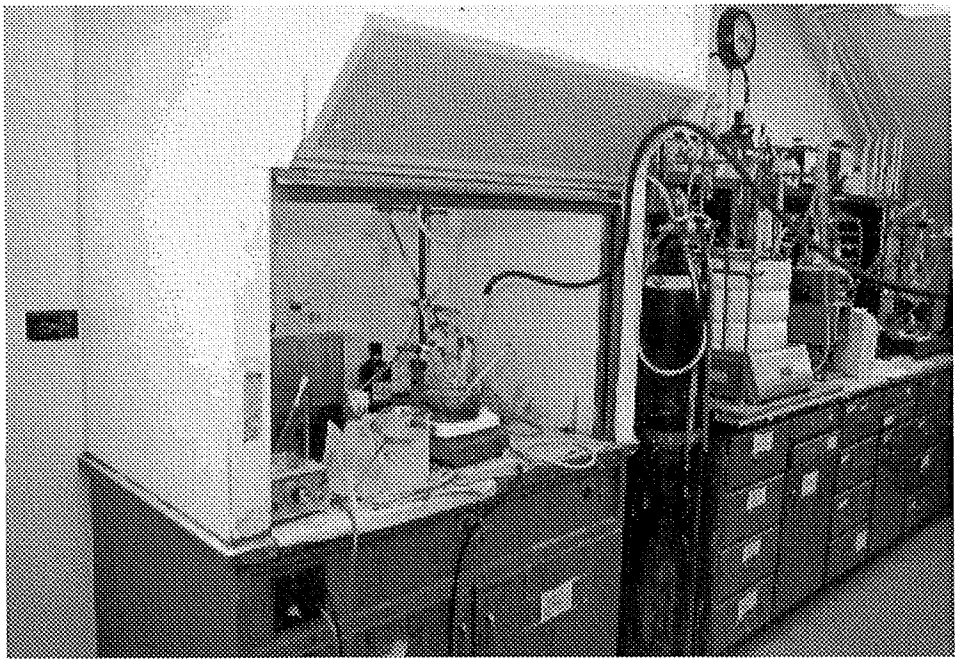
This 1930 ventilation equipment in Willard Hall is inoperable, inadequate and obsolete. It does not allow proper and safe use of fume hoods in the chemistry laboratory spaces.

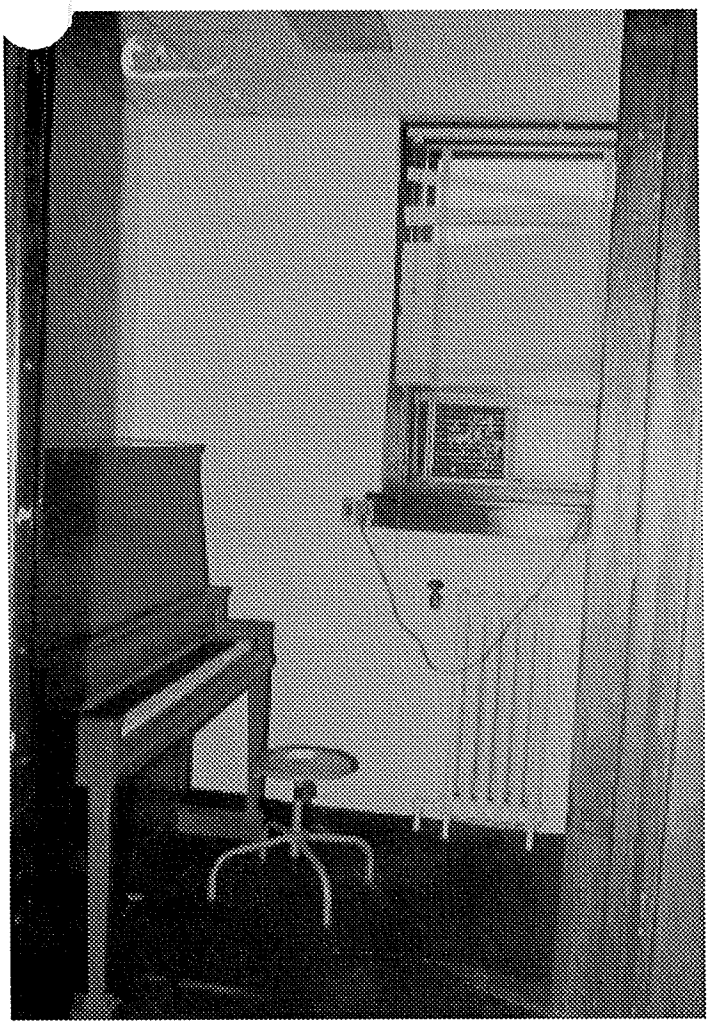




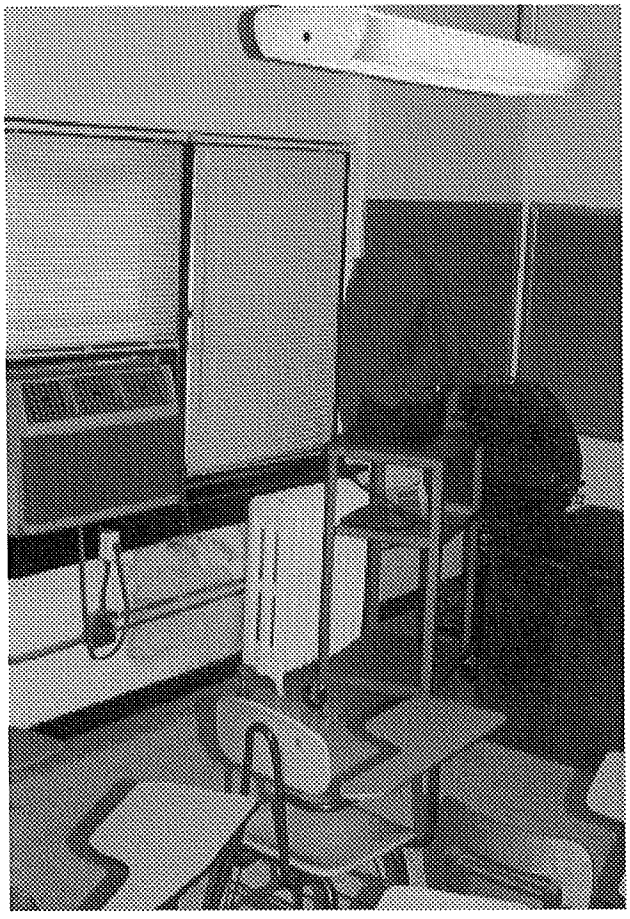
This chemistry lab at McKinley Hall, Wichita S. University, is insufficiently housed in a converted attic because of space constraints. The chemistry building's center section has not been remodeled since 1928; the facility has major problems with its ventilation systems, lacks chemical storage space, and is jeopardized by antiquated plumbing and heating and cooling systems.

Both instructional equipment and laboratory benches in McKinley are obsolete and worn out due to many years of intensive use by thousands of students. The building must undergo a complete renovation to comply with building codes.

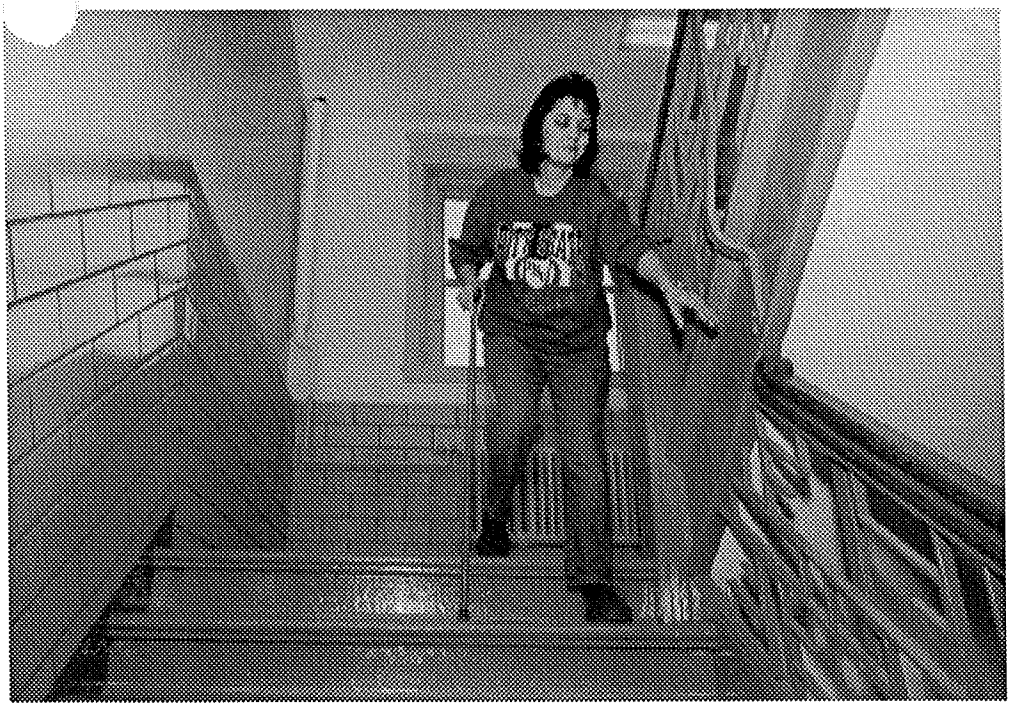




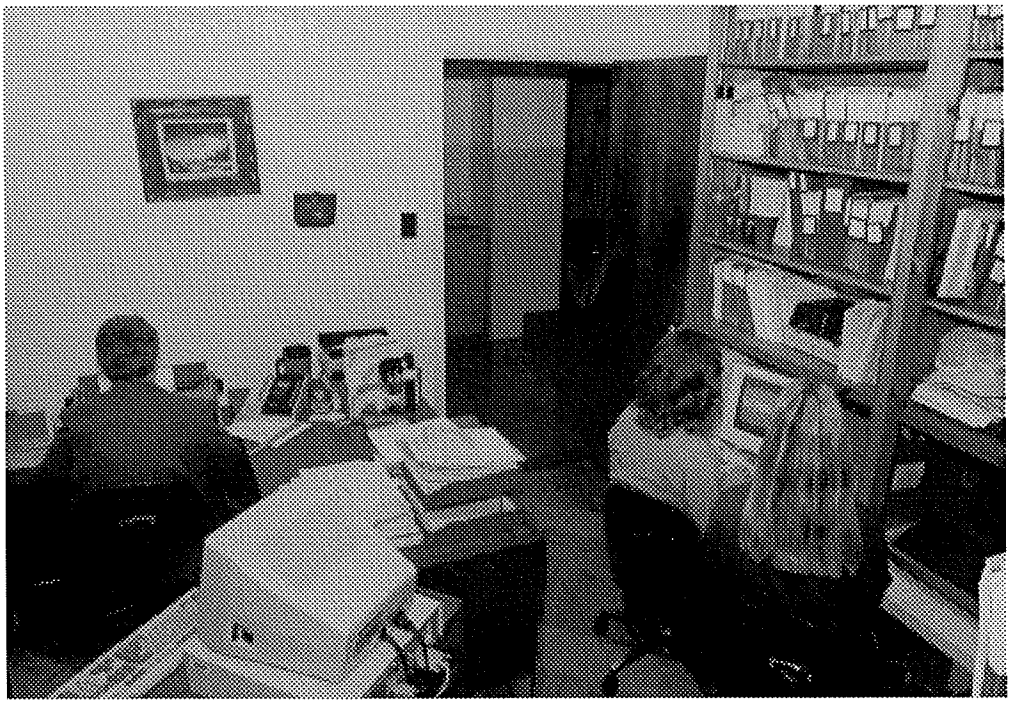
Because Beach Music Hall at Emporia State Uni\ .y has not been remodeled since 1926, its use of space has not kept pace with the growth of the university's population. This closet-sized practice room shows the original cast iron steam radiator. Loud window unit air conditioning, minimal lighting, lack of ventilation and no acoustical treatment make practice and writing on the upright piano difficult at best.



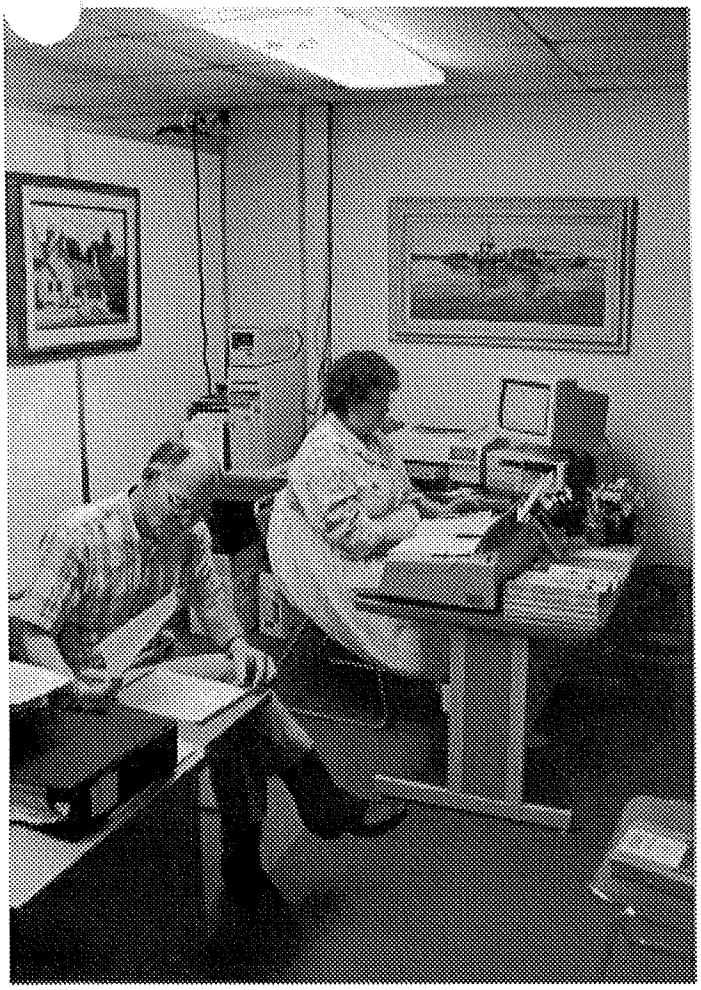
This classroom in Beach Music Hall is heated by a 1926 steam radiator (poor control over the heat), is cooled by a window unit (inefficient and noisy) and shows moisture infiltration at the exterior wall that is ruining the plaster. The central systems of heating, cooling, ventilating, plumbing and electrical are outdated or non-existent.



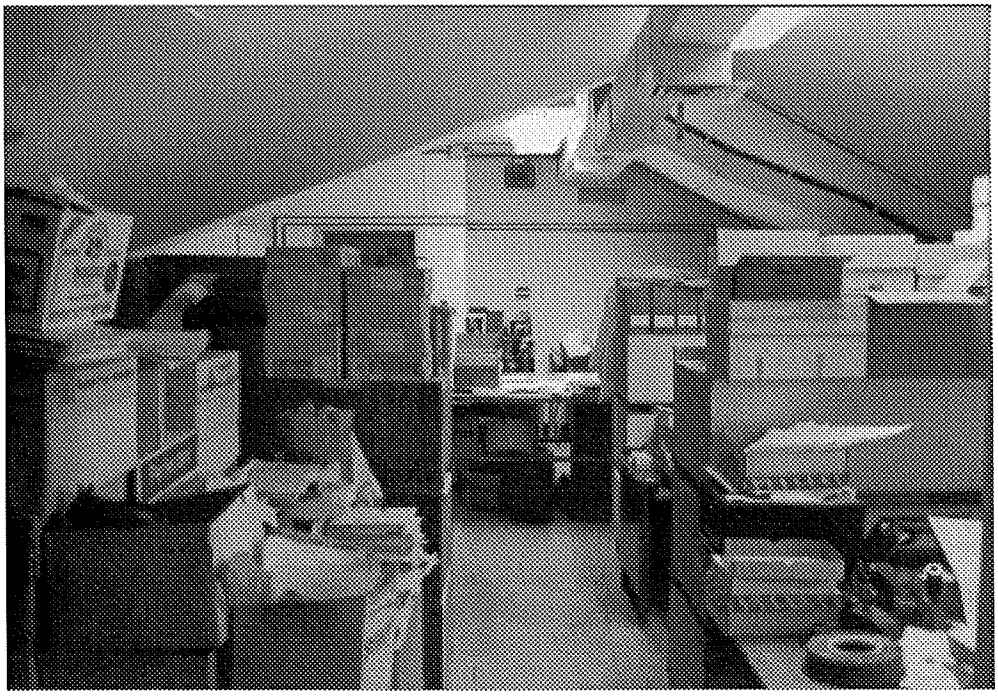
Russ Hall at Pittsburg State University was constructed in 1908, burned, and was reconstructed in 1915. It houses administration offices for several academic disciplines as well as many classrooms. It is not accessible. This picture shows a PSU staff member who suffers from multiple sclerosis in her daily attempts to navigate the main staircase. This project calls for a complete renovation to comply with the building and safety codes and will bring the existing, outdated plumbing, heating and electrical systems up to modern requirements.



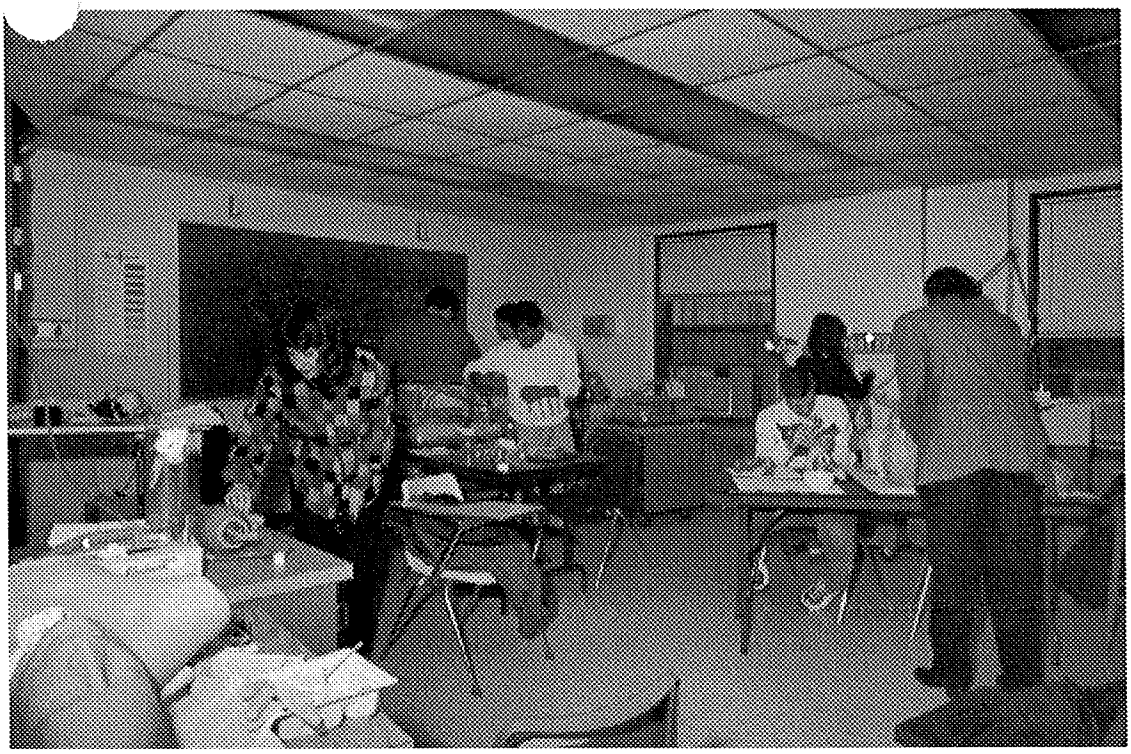
Work space for both staff and student is very tight in Russ Hall. In this photo two students are working in an aisle using a book shelf for their desk. The aisle is the entrance walkway to these offices. The early 1900's space in this facility must be revised and updated to allow suitable work and teaching space.



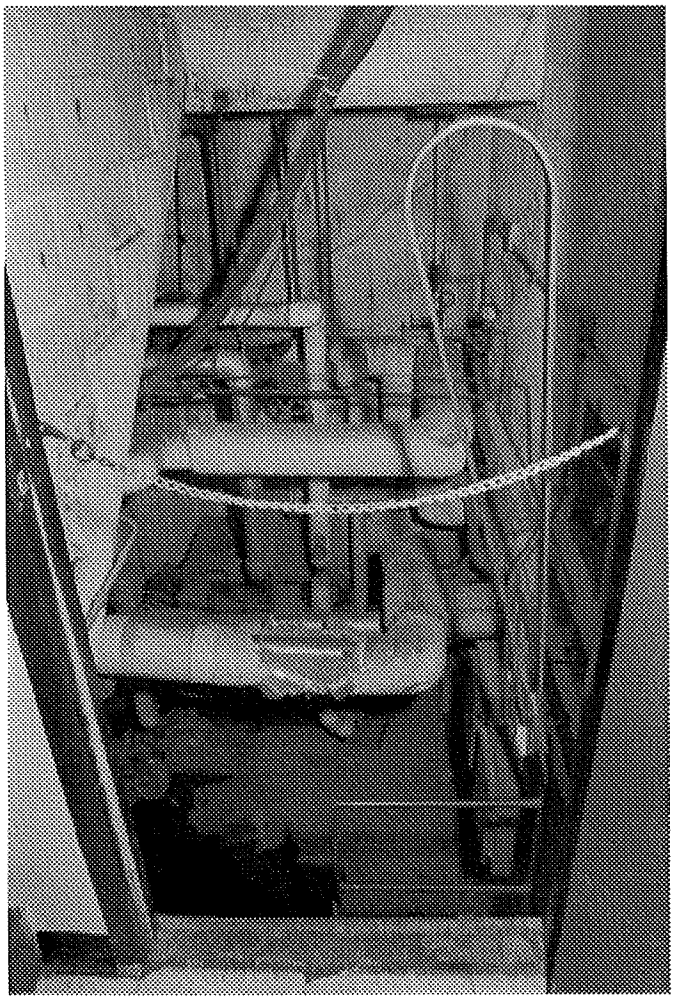
McCartney Hall at Fort Hays State University was built in 1926, Martin Allen Hall was constructed in 1905 and the original portion of Albertson Hall was erected in 1928. The above photo in McCartney Hall shows that a professor and a secretary are sharing an office space of 120 square feet - a bare minimum space for one person. Plumbing, heating, air conditioning, ventilating and electrical systems are dangerously antiquated and must be replaced.



This photo depicts a fourth floor science laboratory in Albertson Hall with an inadequate ceiling height, almost no lighting and serious storage problems. The 1928 wing needs a complete replacement of the plumbing, electrical and HVAC systems. Code and life safety requirements dictate major refinements to the building.



Allied Health stu
at the KU Medical
Center use makeshift
equipment for learning
patient care skills.



Peeling insulation, damp floors and other problems plague the KU Med Center's Taylor Building environmental control infrastructure

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