

## MINUTES OF THE SENATE WAYS AND MEANS COMMITTEE

The meeting was called to order by Chairman Dwayne Umbarger at 10:40 A.M. on February 14, 2006, in Room 123-S of the Capitol.

All members were present.

## Committee staff present:

Jill Wolters, Revisor of Statutes Office  
Michael Corrigan, Revisor of Statutes Office  
Alan Conroy, Director, Kansas Legislative Research Department  
J. G. Scott, Kansas Legislative Research Department  
Michelle Alishahi, Kansas Legislative Research Department  
Reagan Cussimanio, Kansas Legislative Research Department  
Audrey Dunkel, Kansas Legislative Research Department  
Julian Efirid, Kansas Legislative Research Department  
Debra Hollon, Kansas Legislative Research Department  
Judy Bromich, Chief of Staff  
Mary Shaw, Committee Secretary

## Conferees appearing before the committee:

Reginald Robinson, President & CEO, Kansas Board of Regents  
Eric King, Director of Facilities, Kansas Board of Regents

## Others attending:

See attached list.

**Bill Introduction**

Senator Kelly moved, with a second by Senator Schmidt, to introduce a bill authorizing the state historical society to convey property to Audubon of Kansas (5rs2126). Motion carried on a voice vote.

The Chairman referred the following bill to the Kansas Public Employees Retirement System (KPERs) subcommittee:

**HB 2583--KPERs amendments relating to purchase of service credit, beneficiaries and disability benefits****Overview of State University Deferred Maintenance**

Deb Hollon, Kansas Legislative Research Department distributed copies of a Comparison of Building Maintenance Proposals (Attachment 1).

The Chairman welcomed Reginald Robinson, President & CEO, Kansas Board of Regents, who presented a briefing on State University Deferred Maintenance (Attachment 2). Mr. Robinson explained that the deferred maintenance issue on the six university campuses is a growing and dangerous problem and these needs have simply been deferred due to a lack of state funding. He noted that if the problem is not addressed, today's deferred maintenance backlog of \$584 million will grow to nearly \$800 million by fiscal year 2014.

Mr. Robinson addressed the Board of Regent's Comprehensive Facilities Audit (Summer 2004) and noted that the 537 educational and general buildings studied in the Board's 2004 report exclude auxiliary facilities such as residence halls, student unions and parking garages. He detailed the maintenance backlog on the six state university campuses in his written testimony on page 4. Mr. Robinson also addressed a Legislative Post Audit in July 2005 where the Legislative Division of Post Audit submitted a performance audit entitled *Regents Institutions: Reviewing Proposals for Increased Maintenance Funding at the State's Colleges and*

## CONTINUATION SHEET

MINUTES OF THE Senate Ways and Means Committee at 10:40 A.M. on February 14, 2006, in Room 123-S of the Capitol.

*Universities.* He noted that an important conclusion of the audit was that the 1996 "Crumbling Classrooms" initiative, which provided an important short-term funding solution, did not represent new state funding.

Regarding the Board's comprehensive funding plan (November 2005) Mr. Robinson explained that the Board adopted a comprehensive plan to address the growing deferred maintenance backlog and to protect valuable state assets worth almost \$4 million. He noted that the Board certainly recognizes the difficulties this proposal faces, but they are encouraged by the fact that many legislators are concerned and increasingly interested in the growing problem.

The Chairman welcomed Eric King, Director of Facilities, Kansas Board of Regents, who addressed a selected sample documentation of each regents university regarding Deferred Maintenance (Attachment 3). Mr. King also distributed copies of the Deferred Maintenance/Annual Maintenance Funding Plan (Attachment 4). He detailed the following items from his written testimony:

- University of Kansas - collapsing utility tunnels
- University of Kansas Medical Center - water line breakage
- Kansas State University - dangerous switchgear; stone deterioration; uneven floors
- Emporia State University - asbestos contamination

Committee questions and discussion followed.

The meeting adjourned at 11:50 a.m. The next meeting was scheduled for February 15, 2006, and will be held in Room 313-S, the Old Supreme Courtroom.



## Comparison of Building Maintenance Proposals

Senate Ways and Means  
2-14-06  
Attachment 1

### House Bill 2745

- Current one mill statewide property tax levy continued for state university building maintenance and Crumbling Classrooms debt service
- Additional two mill statewide property tax levy through FY 2013 for a revolving loan fund for building maintenance
- Additional one mill statewide property tax levy through FY 2013 for a revolving loan fund for technology investments and new programs
- New funds available for projects at state universities, community colleges, technical colleges, and Washburn University

#### **Additional Revenue:**

| <u>Fiscal Year</u> | <u>Two Mills Building</u> | <u>One Mill Technology</u> | <u>Total Additional Revenue</u> |
|--------------------|---------------------------|----------------------------|---------------------------------|
| FY 2007            | \$ 61,567,346             | \$ 30,783,673              | \$ 92,351,019                   |
| FY 2008            | 64,091,030                | 32,045,515                 | 96,136,545                      |
| FY 2009            | 66,410,654                | 33,205,327                 | 99,615,981                      |
| FY 2010            | 68,818,322                | 34,409,161                 | 103,227,483                     |
| FY 2011            | 71,314,130                | 35,657,065                 | 106,971,195                     |

### Regents Proposal

- Current one mill statewide property tax levy continued for state university building maintenance and Crumbling Classrooms debt service
- \$150 million in bonds to be issued over the course of three fiscal years to be used for deferred maintenance
- 1/10 of one cent sales tax to sunset through FY 2016 to be used for deferred maintenance
- Additional one mill statewide property tax levy beginning January 1, 2007, to be used for annual maintenance and debt service of the bonds
- Require a commitment by the universities to fund the ongoing annual maintenance of buildings constructed using private funds
- Revise the allocation process for Educational Building Fund moneys so that the age and complexity of the buildings are considered

#### **Additional Revenue:**

| <u>Fiscal Year</u> | <u>Sales Tax</u> | <u>One Mill Property Tax</u> | <u>Total Additional Revenue</u> |
|--------------------|------------------|------------------------------|---------------------------------|
| FY 2007            | \$ 37,207,000    | \$ 30,783,673                | \$ 67,990,673                   |
| FY 2008            | 42,010,000       | 32,045,515                   | 74,055,515                      |
| FY 2009            | 43,480,000       | 33,205,327                   | 76,685,327                      |
| FY 2010            | 45,002,000       | 34,409,161                   | 79,411,161                      |
| FY 2011            | 46,577,000       | 35,657,065                   | 82,234,065                      |

Plus: \$150.0 million in bonds issued over three fiscal years



# KANSAS BOARD OF REGENTS

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Senate Ways & Means Committee  
February 14, 2006

## Overview of State University Deferred Maintenance

Reginald L. Robinson, President and CEO  
Kansas Board of Regents

Good morning Chairman Umbarger, Ranking Member Barone, and Members of the Committee. I am pleased to have this opportunity to provide you with an overview of the state university deferred maintenance issue.

Many of you are well aware of this growing and dangerous problem on the campuses of our six state universities. It is a problem that any homeowner across the state can relate to, and it is a problem that you, as state legislators, can directly relate to as the deferred maintenance problems of the building in which you work, the Statehouse, are now being addressed after years of neglect. The state university buildings and the Statehouse, all buildings that are owned by Kansas taxpayers, face the same problem – a problem that only gets more expensive the longer it is ignored.

### The Issue:

Important maintenance needs on the six state university campuses have simply been deferred due to a lack of state funding. The universities now face a daunting and increasingly dangerous maintenance backlog of \$584 million that continues to grow. To prevent further backlog, \$74 million per year is required, without factoring inflation, to adequately maintain the university campuses. Only \$15 million was available in fiscal year 2006. If this problem is not addressed, today's deferred maintenance backlog of \$584 million will grow to nearly \$800 million by fiscal year 2014.

It is important to note that this deferred maintenance problem is not unique to Kansas. Nationwide deferred maintenance backlog estimates vary from \$26 billion, which is acknowledged to be conservative, to over \$50 billion.

### The Crumbling Classrooms Initiative (1996):

In 1996, the Legislature authorized the issuance of revenue bonds to finance, in part, the Board of Regents "Crumbling Classrooms" initiative. The Senate unanimously endorsed the project and 164 of the 165 House members voted in favor.

Senate Ways and Means  
2-14-06  
Attachment 2

The Board of Regents initiative documented the need for \$288.3 million in capital improvement needs. The booklet "Of Aging Campuses & Crumbling Classrooms" published in October, 1994 was broadly distributed. Specific categories included:

|  |                        |              |
|--|------------------------|--------------|
| Americans with Disabilities Act Compliance | \$21.7 million         | 7.5%         |
| State Fire Marshal Fire Code Requirements  | \$9.1 million          | 3.2%         |
| Rehabilitation & Repair Projects           | \$161.0 million        | 55.8%        |
| Improve Classrooms                         | \$15.2 million         | 5.3%         |
| Major Remodeling of Existing Buildings     | \$49.8 million         | 17.3%        |
| New Construction                           | <u>\$31.5 million</u>  | <u>10.9%</u> |
| <b>Total</b>                               | <b>\$288.3 million</b> | <b>100%</b>  |

At the May 16, 1996, Board of Regents meeting, Warren Corman, Director of Facilities, reported that during the course of the legislation, the requested amount of \$288.3 million was reduced to \$163.6 million or 56.7% of the amount requested. The \$163.6 million was the estimated amount that could be financed with \$15 million per year from the Educational Building Fund (EBF), over a 15- year period. Three line items in the initial request were maintained at or near their original level: ADA Compliance, State Fire Marshal Fire Code Requirements, and Improving Classrooms.

The New Construction category was reduced by 12.5% to \$28 million. The three projects in this category were an Addition to Murphy Hall at the KU Lawrence campus, Additions to the KSU Science/Engineering Complex and a new Nurse Education Building at the KU Medical Center that replaced a deteriorated Hinch Hall. The added square footage from these three projects was less than 250,000 gross square feet.

Since the "Crumbling Classrooms" funding did not wholly fund the projects in the Major Repair of Existing Buildings and New Construction categories, the campuses were advised to seek additional non-state funding sources, reduce the size and budget for the projects, or a combination of the two. The Medical Center contributed \$1.3 million in private funds for the Nurse Education Building. The Lawrence campus reduced the scope of the Murphy Hall Addition project, and \$2.0 million was raised for the J.R. Pearson Renovation.

The Rehabilitation and Repair category received the most severe reductions, from \$161.0 million to \$39.4 million; a reduction of 75.5%.

The budget conforming to the revised (\$163.6 million) budget follows:

|  |                        |              |
|--|------------------------|--------------|
| Americans with Disabilities Act Compliance | \$21.7 million         | 13.3%        |
| State Fire Marshal Fire Code Requirements  | \$9.3 million          | 5.7%         |
| Rehabilitation & Repair Projects           | \$43.3 million         | 26.4%        |
| Improve Classrooms                         | \$16.6 million         | 10.1%        |
| Major Remodeling of Existing Buildings     | \$44.6 million         | 27.3%        |
| New Construction                           | <u>\$28.1 million</u>  | <u>17.2%</u> |
| <b>Total</b>                               | <b>\$163.6 million</b> | <b>100%</b>  |

Two bond series were sold, the first in November 1996 and the second in November 1997. Favorable interest rates at the time of sale along with arbitrage rebates, and subsequent refinancing at even better interest rates, resulted in a final budget of approximately \$178.6 million. Following is a breakdown:

|  |                        |              |
|--|------------------------|--------------|
| Americans with Disabilities Act Compliance | \$20.5 million         | 11.5%        |
| State Fire Marshal Fire Code Requirements  | \$11.8 million         | 6.6%         |
| Rehabilitation & Repair Projects           | \$40.8 million         | 22.8%        |
| Improve Classrooms                         | \$22.2 million         | 12.4%        |
| Major Remodeling of Existing Buildings     | \$52.1 million         | 29.2%        |
| New Construction                           | <u>\$31.2 million</u>  | <u>17.5%</u> |
| <b>Total</b>                               | <b>\$178.6 million</b> | <b>100%</b>  |

The majority of projects were completed over a five-year period. Throughout this time, the Board of Regents received and reviewed monthly spreadsheets from the campuses outlining encumbrances, expenditures, budget changes and other data by building and category. Approximately every quarter, the Board of Regents office and the Council of University Business Officers, met with Kansas Development Finance Authority officials to review the project status and to ensure that all bond requirements were being met.

The legislative Joint Committee on State Building Construction was advised and consulted each time the budget changed due to changes in interest rates, arbitrage rebates, or refinancing.

Literally, hundreds of projects of various size and scope were completed within a five-year period. The "Crumbling Classrooms" bond initiative was a success by any measure. Commitments to provide ADA compliance, life safety measures and upgraded classrooms were met. The major renovations of several major buildings were completed, and needed new space to meet the teaching mission of the universities was added. It may be useful to note that during the five-year period that the bond initiative covered, over 2 million gross square feet of academic/administrative space was added to the university campuses - as stated earlier, less than 250,000 g.s.f. of that growth was funded by "Crumbling Classrooms".

It is also noteworthy that in 2001, the Legislature broke its long-standing commitment/practice of providing funding for utilities, custodial and maintenance staff, and supplies to support new building space. Since 2002, universities have absorbed costs related to the support for new buildings which currently stands at approximately \$4.7 million annually. This is money that would have otherwise gone into the classroom.

While the 1996 "Crumbling Classrooms" initiative did provide a much-needed band-aid, this initiative did not provide new state dollars for maintenance. The initiative essentially charged building repairs to a credit card whose balance will not be paid off until the year 2012.

### The Board's Comprehensive Facilities Audit (Summer 2004):

At the suggestion of the State Legislature's Joint Committee on State Building Construction, a committee that has had a longstanding interest in this important issue, the Board conducted a comprehensive facilities audit which was performed by Board staff and a private facilities management consultant. The study resulted in a *Report on State University Deferred Maintenance and Capital Renewal* that was submitted to the Legislature in 2004. The report outlined important maintenance needs on the six state university campuses that have been deferred due to a lack of state funding and identified the maintenance backlog of \$584 million that continues to grow.

Again, to prevent further backlog, \$74 million per year is required, without factoring inflation, to adequately maintain the university campuses. Only \$15 million was available in fiscal year 2006. If this problem is not addressed, today's deferred maintenance backlog of \$584 million will grow to nearly \$800 million by fiscal year 2014.

The 2004 report notes that the primary factors leading to the current state of deferred maintenance is a lack of funding coupled with the age of the buildings. Eighty percent of the total building inventory is at least 20 years old. Heating, ventilation, electrical and plumbing systems, if they have not already been replaced, are either worn out or are about to wear out. This isn't because they haven't been maintained; it is simply because the systems have reached the end of their useful life. The average lifecycle of the components that make up buildings is 23 years – an issue that any homeowner can identify with.

Two out of every three buildings that the State of Kansas owns can be found on the six state university campuses. The 537 educational and general buildings studied in the Board's 2004 report exclude auxiliary facilities such as residence halls, student unions and parking garages. These 537 buildings represent 20 million square feet that are sited on 2,250 maintained acres. To put this amount of space into perspective, 20 million square feet is the equivalent of 350 football fields. The replacement value of these buildings, including utilities and infrastructure, is \$3.9 billion. The valuable infrastructure we are fortunate to have in place must be properly maintained. Any homeowner knows that routine maintenance and repairs only get more expensive the longer they are put off.

The maintenance backlog on the six state university campuses is as follows:

|   |                 |
|---|-----------------|
| Kansas State University                 | \$209.4 million |
| The University of Kansas                | \$168.5 million |
| The University of Kansas Medical Center | \$68.8 million  |
| Pittsburg State University              | \$39.8 million  |
| Fort Hays State University              | \$35.2 million  |
| Wichita State University                | \$33.9 million  |
| Emporia State University                | \$28.9 million  |



### **Legislative Post Audit (July 2005):**

In July 2005, the Legislative Division of Post Audit submitted a performance audit entitled *Regents Institutions: Reviewing Proposals for Increased Maintenance Funding at the State's Colleges and Universities*. The audit, which focused on the Legislature's 1996 "Crumbling Classrooms" initiative and the Board's 2004 facilities report, essentially echoed what the Board, many state legislators, and the Joint Building Committee in particular have said for years, that a dangerous maintenance backlog exists on our state university campuses.

An important conclusion of this audit is that the 1996 "Crumbling Classrooms" initiative, which provided an important short-term funding solution, did not represent new state funding. As the audit notes, this initiative allowed the Board of Regents to borrow money from an existing statewide property tax levy, the Educational Building Fund (EBF). While the initiative provided a short-term remedy, borrowing from the EBF, which will continue through fiscal year 2012, has significantly reduced the amount available for ongoing building maintenance. In addition, the audit highlights the fact that even with the benefit of "Crumbling Classrooms," nearly ten years later many of the same buildings addressed through that effort now require major repair or rehabilitation. The audit also concluded that the Board's 2004 report, which identified a critical maintenance backlog of \$584 million, likely underestimated the total cost of the deferred maintenance problem.

While the 1996 "Crumbling Classrooms" initiative did provide a much-needed band-aid, Post Audit pointed out that the initiative did not provide new state dollars for maintenance. The initiative essentially charged building repairs to a credit card whose balance won't be paid off until the year 2012.

### **The Board's Comprehensive Funding Plan (November 2005):**

In November 2005, the Board adopted a comprehensive plan to address the growing deferred maintenance backlog and to protect valuable state assets worth almost \$4 billion. This multi-pronged approach includes a temporary sales tax increase, a bond issue, an increase in the statewide Educational Building Fund mill levy, and new campus administrative practices that will alleviate future maintenance obligations. The Board certainly recognizes the difficulties this proposal faces, but we are encouraged by the fact that many legislators are concerned and increasingly interested in this growing problem.

The long-term funding plan, which was developed at the request of the State Legislature by the Board's Fiscal Affairs and Audit Committee, contains five key components:

- 1) New Building Accountability. Existing building space that may be vacated due to the construction of new buildings will be more thoroughly analyzed before new construction is approved.

- 2) Building Fund Allocations. Today, building fund allocation is based solely on gross square footage. In the future, funding distributions would take into account the age and complexity of the buildings.
- 3) Commitment to New Building Operating Costs. The state universities would commit to funding the annual maintenance and operation costs for new privately-funded buildings.
- 4) Eliminate the Current Deferred Maintenance Backlog. The current \$584 million deferred maintenance backlog would be eliminated through a \$150 million bond issue, with the debt serviced from the statewide Educational Building Fund (EBF), and a 1/10 of a cent sales tax increase that would sunset after ten years.
- 5) Guarantee Annual Building Maintenance. \$74 million is required each year to adequately maintain the university campuses. A permanent 1-mill increase to the existing statewide EBF would provide guaranteed funding for annual maintenance.

To put the EBF increase and the temporary sales tax into perspective:

- According to the Kansas Legislative Research Department, a one-mill property tax increase on an “average,” or \$150,000 home, amounts to an extra \$17.25 per year. \$17.25 per year equates to \$1.44 per month, or \$0.33 per week, or not quite \$0.05 per day.
- According to the Kansas Department of Revenue, a 1/10 of one-cent sales tax increase means, per capita, that each Kansan would pay an extra \$14.81 per year. \$14.81 per year equates to \$1.23 per month, or \$0.28 per week, or \$0.04 per day.

The Kansas taxpayers’ valuable investment in our state university campuses could essentially be protected for the price of a cup of coffee each month.

### **The Governor’s FY 2007 Budget Recommendations:**

As you may know, the Governor’s FY 2007 budget recommendations did not include a proposal to address the dangerous deferred building maintenance backlog on the six state university campuses. Again, this is a growing problem that any homeowner knows only gets more expensive the longer it is ignored. Just as the Statehouse is being renovated today, we also owe it to Kansas taxpayers to preserve and protect their important investments in the buildings at our state’s universities.

### **In Conclusion:**

To borrow a quote from Senate President Steve Morris, that appeared in *The Topeka Capital-Journal* in November 2005:

“We would not tolerate those kinds of conditions in our K-12 facilities. Some of these problems have life-safety issues.”

In July 2005, the Board’s Chairwoman, Donna Shank of Liberal, in a letter to the editor that was printed statewide, very accurately summarized this important issue when she stated:

“What does all this mean for hard-working Kansans? This means that duct tape is being used for building maintenance instead of mortar. This means that steel awnings have been installed to shield people from large pieces of limestone that are crumbling off buildings. This means that 80-year old hot water pipes, located inside building walls, are bursting and causing millions of dollars in damage. This means that your investment in our valuable state university infrastructure is not being protected.

In summary, this important audit echoes what the Board of Regents and many state legislators have said for years, that a dangerous university maintenance backlog exists and that new state funding hasn’t been found to fix the growing problem. Routine maintenance projects aren’t exciting and they don’t generate bold newspaper headlines. However, any homeowner knows that routine maintenance and repairs only get more expensive the longer they are put off. Hard working Kansans and their families expect their investments to be protected and they expect a high quality higher education system that will prepare them to compete in the global 21<sup>st</sup> Century economy. The important assets found on our state university campuses must be protected. Duct tape can no longer fix this growing problem.”

Mr. Chairman, again, thank you for the opportunity to provide you with this overview. The Board certainly appreciates this Committee’s serious consideration of this important issue – an issue that only grows more expensive the longer it is ignored.

# Selected Sample Documentation of Deferred Maintenance

November 18, 2004

## University of Kansas

### Collapsing Utility Tunnels:

The underground tunnels that house steam pipes, electric cables, and data transmission lines are leaking and are near collapsing. Every time maintenance workers have to go into certain parts of the tunnels, they are risking their lives. Fortunately, the worst sections of the tunnels are being replaced under the Energy Performance Contract but much work remains. If a tunnel collapses, it could take with it the electricity for multiple buildings. If one of those buildings is Malott Hall, where a large share of research on campus is conducted, the value of the lost research would be millions. (submitted by Theresa Klinkenberg)

### Collapsing Utility Tunnels:

In November 2003 a deteriorating condition in the tunnel between Lippincott and Spooner Hall was identified by an FO employee. This tunnel section was hand dug through the shale layer and had a brick arched roof. This section of tunnel is approximately 25 feet deep. In the mid 1960s the tunnel was in bad condition and the tunnel was lined with a corrugated metal tube material. Three years ago this tunnel was inspected by a structural engineer and was considered in poor condition but seemed OK. Today you can easily push your hand through the metal liner of the tube that was installed in the 1960s. The structural engineer re inspected the tunnel and basically condemned the tunnel preventing access by maintenance staff. On a steam system it is critical to maintain the steam and condensate piping expansion joints and steam traps. Several of these steam system components exist in this section of tunnel. If we had a maintenance employee in an adjacent tunnel doing maintenance when a failure occurred, the tunnel would fill with steam removing the oxygen from the tunnel resulting in a fatality. The tunnel serves the Kansas Memorial Union, Dyche, Lippincott, Spooner, Douthart (student residence) and Grace Pearson (student residence) Halls. Loss of steam could result in loss of use of over 511,000 square feet of facilities. During the winter months there would be a serious concern for property loss due to freezing conditions. Loss of steam heat would potentially result in displacement of 100 students from resident halls. Loss of steam could potentially result in displacement of over 181,000 s.f. of academic, research and museum space and associated faculty, students and staff until steam heat could be restored. Within Dyche Hall there is an estimated \$200,000,000 in specimens that are temperature and humidity sensitive that would be in jeopardy of being damaged or lost due to lack of steam. Also in Dyche Hall there is approximately \$5 million in research that would be seriously delayed until steam is restored. The Spencer Art Museum is one of the top major University collections in the country. At Spencer Art Museum there is approximately 25,000 works of art and a majority of the collection is irreplaceable. Cost impact to the Kansas Union closing due to a lack of steam heat would result in a loss of revenue ranging from \$5,000+/day during the time between semesters (no students on campus) to \$30,000+/day for a typical day during the semester to \$300,000/day in the first couple weeks of each semester. To provide temporary heat, one option would be temporary rental boilers. From past experience, boiler rental would cost approximately \$9,000/month plus initial

Senate Ways and Means  
2-14-06  
Attachment 3

costs to connect to the facilities plus monthly fuel costs. It would take a minimum of four portable boilers to provide the steam requirements, a minimum of one week to locate and transport the boilers to the site and a minimum of one week to install the temporary piping. This two-week plus period without heat would place the facilities in jeopardy of freeze damage to plumbing. Freeze damage to plumbing in turn could result in damage to furnishings and other valuable contents.

In the summer of 2004 the university started an emergency replacement of this section of tunnel at a cost of approximately \$1.4 million dollars. For FY 2005 we had anticipated continuing the repairs to the tunnel section started in the summer of 2003. Instead we reallocated the funds to this emergency, deferred a re-roofing project for another year, picked up funding balances from other completed projects and we utilizing the crumbling classrooms bond refinance funds allocated to KU to complete the funding package. (submitted by Jim Modig)

#### Failing Masonry Walls and Floors:

In the spring of 2004 a staff person in Oldfathers Studios contacted Facilities Operations and Design and Construction Management expressing concern about the condition of some interior walls. What we found was significant floor settlement causing wide horizontal cracks in the 20+ feet high masonry walls. This was a very unstable wall condition in several studio class labs. A structural engineer was called in to analyze the condition and provide short term and long term repair options. The only option provided was the complete removal of the walls, replace the floor slabs and reconstruct the walls to current design standards and codes. Oldfathers Studio is 19,745 s.f. of offices and studio class labs. Of the 4,402 s.f. of first floor space, 8838 s.f. of studio class lab space was in jeopardy of being closed off due to unsafe conditions. A second engineer was brought in to identify an option for temporary bracing and support for the walls. A couple smaller rooms have been closed off; a small area in a large scene storage room (approx. 2,300 s.f.) has been marked off disallowing further storage or scene assembly activity. Several walls have installed temporary vertical steel supports to allow continued use of the spaces. The interior wall failure would not result in building collapse. A wall failure could have resulted in serious injury to students and faculty and potentially loss of life. Failure would displace a class activity that cannot easily be relocated to other facilities due to the size, and supporting equipment.

This same wall and floor condition exists in a couple more facilities on campus. In Wescoe Hall on first floor the soils have rebounded causing the first floor slab to undulate as much as 4 to 6 inches. This has caused the demountable partitions to rack and push up the suspended ceiling system. The uneven floor causes a tripping hazard and the partitions pushing up the ceiling system creates a condition where light fixtures become unstable and are at risk of falling out of the ceiling. Potential for injury to students, faculty and staff exist in the building and this requires close monitoring to reduce the risk of injury. This level of the building is predominately office space and repair will displace approximately 48 offices and associated support space totaling over 7,500 s.f. The repair would result in temporary relocation of the offices to other space, demolition of the partitions and floor slab, stabilization of the sub soil and reconstruction of the slab and partitions. Cost of repair is over \$750,000 plus relocation costs. In Robinson a similar wall and floor condition exists with similar risks of injury to students, faculty and staff. (submitted by Jim Modig)

## **University of Kansas Medical Center**

### Water Line Breakage:

In the wee hours of Father's Day 2004, an 80-year old, 1½ inch domestic hot water pipe burst. Approximately 12,000 to 15,000 gallons of water flooded the five floors of Murphy Hall. 120 employees who work in the building were temporarily relocated to other campus locations. It took a full week to restore and reopen the Rehabilitation Medicine Clinic on the ground floor. Over the next five weeks, the remaining operations were restored with the EVC being the last to reoccupy his space on the second on August 2. The total cost of the restoration, not including lost staff time, was \$570,000.

The Medical Center has three main research facilities: Wahl Hall West and East, Lied and Hixon. Approximately 60% of the campus research space is concentrated in Wahl West and East which were constructed in 1953 and 1963 respectively. If the water pipe had burst in those buildings the value of the lost research alone could exceed \$50 million. (submitted by Theresa Klinkenberg)

### Unreliable Electrical Switches:

The Medical Center has a 30-year old switch that brings electricity to the campus from the BPU. That switch is so old that parts are no longer available to repair or maintain it. In 2003, the Medical Center made the decision to use funds available from the Energy Performance Contract to replace the \$2 million switch. Unfortunately, it could not be installed before the summer of 2004 when two events caused the power to go out and the switch to fail. The failure of the switch to trigger the emergency generator resulted in Psychiatric and Rehabilitation Medicine patients being left in the dark in the middle of the night for at least 45 minutes. These beds are in University buildings, not the Hospital. The Hospital's emergency generator, which was purchased two years ago, worked.

28 of the Medical Center's buildings are at least 30 years old. (submitted by Theresa Klinkenberg)

## **Kansas State University**

### Dangerous Switchgear:

K-State employees call it the "Frankenstein" room because its knife blade switches resemble the electrical switches in the good Doctor's monster-creating laboratory. The 4160 volt switchgear room in the 1920's power plant building provides electricity to the central core of the K-State campus. The equipment is a source of frustration for employees because of the procedures that must be taken when operating and maintaining the antiquated switches. Due to the danger of the high voltage electricity arcing from the switch to anyone touching the three-foot knife blade switches, employees must use a slender ten-foot long wooden pole to operate the switches. Since the 1960's, the 4160 volt system has given way to 12,500 volt systems that provide the electrical power for modern office, classroom, and laboratory buildings. (submitted by Jerry Carter)

### Stone Deterioration:

In the fall of 1999, a grapefruit size piece of stone fell off Nichols Hall and landed near the building and then rolled within a few feet of a student walking along the nearby sidewalk. Investigation of the building's stone exterior by engineers brought to light that weather and time had damaged the building's limestone facade. Since then, two other buildings have been found with similar problems. Now Nichols, Leisure Hall, and Memorial Stadium entries are protected with heavy gauge steel screens allowing pedestrians safe access at entries. Meanwhile these building's exterior limestone continues to deteriorate and fall from the buildings. (submitted by Jerry Carter)

### Heaving Hangar Apron:

The Salina hangar apron built in the early 1950's when it was an Air Force base, is moving and breaking-up from years of severe temperature changes. This past summer (2004), it was discovered that the apron has pushed the hangar's walls with enough force to shear the four-foot square by six-foot deep concrete bases. This caused two of the steel columns supporting the building to buckle and twist several inches, weakening the building structure. Emergency repairs were made by placing temporary column supports and excavating the bases of the two columns and replacing them. Work also included cutting an expansion joint between the concrete apron and the hangar. Costs spent to date is \$137,000, and the apron continues to move and break-up. (submitted by Jerry Carter)

### Sagging Hangar Doors:

The Salina hangar doors, approximately 40 foot high and running half the length of the hangar have sprung over years of use and cannot be manually operated. To operate the hangar doors requires a team of employees using a surplus Air Force aircraft tug that is about the size of a forklift. One employee slowly pulls the door with the tug and two others watch the sprung rollers as the door screeches along the guide rail. The rollers and rail are inspected before and after each operation and if any damage is discovered, the steel is welded or otherwise temporarily repaired. (submitted by Jerry Carter)

### Leaking Steam Lines:

Boilers provide steam to the campus buildings through a network of steam lines. Once the steam has passed through the building it begins to cool down and condense into water. The steam and condensate water contain chemicals to keep the boilers efficient. The water is drained back to the boilers through a system of pipes referred to as the condensate return system. The majority of the old condensate return system is anywhere from 50 to 80 years old much of which has become rusted and broken due to age, ground movement, etc. Each year the power plant employees add make-up water to the boiler system to replace the condensate water that leaks from the deteriorated piping. The amount of make-water would fill an Olympic-size swimming pool. This is a waste of chemicals and water, and this also makes the steam very inefficient. To excavate and replace the twelve miles of condensate return lines within the heart of campus will require a substantial commitment of funds. (submitted by Jerry Carter)

### Deteriorated Windows:

In the winter, cold air blows through and in the summer, hot, humid air and dust blow through the old deteriorated windows in several buildings dating from the late 19<sup>th</sup> century and early 20<sup>th</sup> century. Extremely inefficient and inoperable, the windows are a constant frustration to faculty and students whose offices, laboratories and classrooms are in these old buildings. In most cases, these old buildings can only be air-conditioned with window units that vibrate the windows and create enough noise that students cannot hear their professor lecture. (submitted by Jerry Carter)

### Uneven Floors:

Recently, a new department head in Journalism toured the building at the request of her department. At the north wing of Kedzie Hall are offices and classrooms that have floors extremely out of level. Although structurally safe, the floors of this building and other old wood-framed buildings have settled to a degree that one side of a desk, bookshelf, or file must be shimmed anywhere from one to two inches so that they will not fall over. These building are reminiscent to walking on the deck of a ship that has permanently listed to one side. (submitted by Jerry Carter)

## **Wichita State University**

### Hazardous Asbestos Containing Material:

Corbin Education Center has a large amount of asbestos containing building materials, and needs replacement of its HVAC system. The steel two-pipe system has deteriorated to the point that leaks frequently occur above the suspended gypsum board ceiling, and then saturates the asbestos finish material. This creates problems with falling asbestos and the development of mold, requiring the shutdown and disruption of both faculty office and classroom space to make the needed repairs. Such repairs are further complicated based on the architectural significance of this Frank Lloyd Wright designed building. WSU proposes to vacate the building one half at a time (north wing / south wing), and undertake a major project of asbestos abatement, replacement of the HVAC system, replacement of ceilings, and upgrade to more energy efficient lighting. (submitted by John Gist)

### Unreliable Electrical Switches:

Duerksen Fine Arts Center was built in 1956 and is still served by the original electric service which is comprised of a 3-phase can-type transformer, and a main distribution panel with fused disconnects located in a remote basement room. Given the age and condition of the service equipment, power disconnect switches and fuses are not considered reliable or operable. Therefore, electrical equipment has to be maintained and added to in a 'hot', live condition. This presents potential life threatening situations to electricians. In addition, with each year of extended service, the probability of a catastrophic failure and potential explosion of a transformer can increase. Insofar that the transformer cans are labeled to contain traces of PCBs, a catastrophic failure can result in a significant spread of contamination within the building. Such event would



make the building unavailable for a extended period of time to decontaminate and replace the power service. (submitted by John Gist)

## **Emporia State University**

### Obsolete Electrical Components:

Many of the buildings on our campus have existing electrical main distribution panels that are 50 or more years old. Manufacture parts and breakers have become obsolete and are no longer available. The only method open to us to make repairs or replace breakers is to go and find them on the "black market". Reclamation and restoration shops are the only source for these items and it's becoming more difficult locating specific model and type salvage. Our greatest fear is that at some time one of these systems will fail and we will not be able to make repairs. This will effectively close down the building until we can completely replace the existing system with a new one. This will take time and money. (submitted by Mark Runge)

### Deteriorated Roof System:

Rain becomes a major headache for us when dealing with the P.E. Building. The existing roofing system is a classic example of a failed 70's experiment with 2-ply built-up roofing system. Continuous problems over the last 30 years have seen us battling this roof with fixes and patches at failure locations all over the entire roof. With little or no chance in finding these leaks our best solutions have been swimming pools and buckets. It's a great way to catch water but difficult to play around in gymnasiums! This roof is obsolete and requires total replacement. The estimate for this project is \$650,000, considerably more than our total R&R annual allocation. (submitted by Mark Runge)

### Asbestos Contamination:

A 200 foot section of our underground tunnel system has been sealed off from anyone entering due to the contamination of the tunnel by asbestos. Critical steam and water lines and connections are extremely difficult to access due to this situation. A leak or break would cause a considerable problem and could affect the steam supply to major portions of the campus. Additional access points and abatement is the only solution to this potential disaster. (submitted by Mark Runge)

### Damage from Expansive Soils:

Roosevelt Hall is literally floating on expansive soils. This facility was built in 1953 with a foundation system that did not adequately resist the movement of these expansive clays. Consequently, this movement has caused considerable interior and exterior wall damage and cracking in the foundation walls. This damage is expanding and could cause damage to building systems (water lines, gas lines, etc.) if left uncorrected. Building elements are not normally designed for excessive movement and will create their own "control joints" to accommodate this action. An extensive structural study and determination is necessary to successfully pin this foundation down to a firm and stable substrate. This remedial action will allow us to utilize this facility for several more decades. A great return on the dollars spent on this problem. (submitted by Mark Runge)

## **Pittsburg State University**

### Exterior Building Deterioration:

McCray Hall is a 75-year old building. Time has taken its toll on exterior windows, limestone detailing, brick mortar, etc. The wood windows have aged to the point where they are rotting and barely prevent moisture penetration. The extensive limestone work is cracked and worn to the point where it is difficult to keep water from entering the exterior the walls. The brick mortar over the years has "washed" into the void behind the face brick and during freezing weather is being pushed forward a little more each year. A casual glance at this building will not reveal these problems or the very serious nature of the problems. The building is at a turning point. Without a major effort to repair and restore the building **now** the deterioration of the building will accelerate rapidly. Moisture penetrating the building always raises the specter of a mold infestation. Extensive work by physical plant personnel has kept the water damage to a minimum and we have been able to keep mold outbreaks under control. The building is located within a historical district and is one of the earliest buildings on the campus. Therefore, repairs to the exterior must maintain the historical character of the building. All this adds up to a very expensive repair and restoration project that is critically needed. This is a wonderful old building housing the music department and an important link to the history of the campus. We have no other building on campus that can do what it does. We have continually worked on the building with our limited resources but are reaching the point where we simply do not have sufficient funds to do what is needed for this building. There are two serious potential impacts to the university. First, financial since the longer it takes to fund the repairs the more extensive the damage and the more expensive the repairs become. Second, a mold infestation could potentially shut the building down and result in a very expensive remediation project. Loss of the use of the building would be a major disruption of the music program at the university. (submitted by Kerry Beyeler)

### Deteriorating Domestic Water Lines:

Heckert-Wells Hall is the Biology/Chemistry Building constructed 20-years ago. The domestic water piping in this building, and there is a lot in this building, is failing. We have without success tried to determine the cause of developing pin-hole in the copper piping. The end result is we are very near the point of a forced replacement. Because much of the piping is concealed we are looking at a major expense, possibly approaching \$200,000 not including potential damage if the pipes aren't fixed in a timely manner. The chemistry and biology departments will be unable to function without water; therefore, the time element (when and how long) becomes very difficult to address. A pipe failure could result in major water damage to the building if it occurs during an unoccupied time. Small "pin-hole" leaks hidden inside walls over a period of time can also result in major water damage or mold infestations. Either of these scenarios could result in the loss of the use of the building for a period of time and a major disruption of the academic and research work going on in the building. (submitted by Kerry Beyeler)

## **Fort Hays State University**

### Stone Masonry Deterioration:

Sheridan Hall, completed in 1916 was constructed of load bearing masonry walls. The exterior surfaces of these walls consist of coursed limestone, native to western Kansas. This particular type of limestone found in the Ellis county region, is a very soft and porous variety, as compared to that found in eastern Kansas. Given those qualities, this stone is very susceptible to damage from the repeated freeze/ thaw cycles of our climate. As moisture is absorbed into the stone during winter months and freezes, it causes cracking and spalling of the exposed stone surfaces. In past years, this type of condition has necessitated the temporary closing of some entrances, where a number of stone fragments fell onto pedestrian pathways below. To date, approximately \$250,000 worth of the most severely damaged stones have been extracted and replaced. Two years ago, the entire stone exterior was chemically sealed to retard the rate of damage to remaining surfaces. At present, a number of stones remain in need of replacement at the upper water tables and parapet walls. (submitted by Dana Cunningham)

Obsolete Electrical Transformer:

Picken Hall, completed in 1904 and 1908 is provided with electrical service through an aging electrical transformer located in the lower level mechanical room. As currently located in a very small equipment room, the unit is almost inaccessible to technicians providing service on this equipment. Clearances around the perimeter of the unit do not meet current electrical code requirements. Should this unit experience a catastrophic failure, it would be impossible to readily extract and replace it with a new unit. Delays associated with providing a new unit, at an exterior location, and reconnecting the unit to electrical distribution panels, would severely impact offices, classrooms and labs located within the building. This unit needs to be replaced with a new transformer of proper capacity and located external to the building, to provide ready service access. Three years ago, a similar condition existed at Custer Hall. During the summer, this unit failed and caught fire. Fortunately the building only suffered smoke damage on the lower level, where the unit was located. The entire building was without electrical service for several days, while emergency repairs were undertaken. These repairs included relocating the transformer to an exterior location. (submitted by Dana Cunningham)

Unreliable High Voltage Electrical Switch Conditions:

Concrete and masonry utility tunnels throughout campus contain the backbone of electrical, steam and telecommunication systems servicing academic and residential life facilities. A component of the high voltage electrical system includes switchgear located within these tunnels. Location of these components within a tunnel system creates obvious problems of accessibility for service to the units. Of even greater concern, is the fact this tunnel system lies completely within a 100-year flood plain. Should the campus ever flood, as it did in the 1950's, it is almost certain these switches would fail. If that were to occur, it would be impossible for technicians to gain access to the units and undertake necessary repairs or replacement. In 1993, this possibility was very real, as floodwaters reached within three feet of breaching the flood levy bordering the campus. Had this occurred, the campus would have been without power, until such time as flood waters receded to a point the tunnels could be safely entered. Three years ago, one of these switches was relocated to above grade. Other units remain in need of relocation, as a part of a comprehensive improvement plan for the campus high voltage system. (submitted by Dana Cunningham)

## Deferred Maintenance/Annual Maintenance Funding Plan

| Fiscal Year   | Annual Income (in millions) |                           |                                |                   | Annual Expenses (in millions)              |                                       |                       |                      |                         |                   |
|---------------|-----------------------------|---------------------------|--------------------------------|-------------------|--|---------------------------------------|-----------------------|----------------------|-------------------------|-------------------|
|               | Current<br>1-Mil<br>Levy    | Proposed<br>1-Mil<br>Levy | Proposed<br>1/10¢<br>Sales Tax | Total<br>Revenues | Debt Service<br>on Crumbling<br>Classrooms | Debt<br>Service on<br>\$150 M<br>Bond | Annual<br>Maintenance | Insurance<br>Premium | Deferred<br>Maintenance | Total<br>Expenses |
| 2007          | 30.2                        | 15.1                      | 20.0                           | 65.3              | 15.0                                       | 5.0                                   | 29.9                  | 0.37                 | 15.0                    | 65.3              |
| 2008          | 30.8                        | 30.8                      | 40.8                           | 102.4             | 15.0                                       | 5.0                                   | 37.0                  | 0.38                 | 45.0                    | 102.4             |
| 2009          | 31.4                        | 31.4                      | 41.6                           | 104.5             | 15.0                                       | 5.0                                   | 34.1                  | 0.38                 | 50.0                    | 104.5             |
| 2010          | 32.0                        | 32.0                      | 42.4                           | 106.5             | 15.0                                       | 5.0                                   | 29.2                  | 0.39                 | 57.0                    | 106.5             |
| 2011          | 32.7                        | 32.7                      | 43.3                           | 108.7             | 15.0                                       | 5.0                                   | 31.3                  | 0.40                 | 57.0                    | 108.7             |
| 2012          | 33.3                        | 33.3                      | 44.2                           | 110.8             | 15.0                                       | 5.0                                   | 33.4                  | 0.41                 | 57.0                    | 110.8             |
| 2013          | 34.0                        | 34.0                      | 45.0                           | 113.1             |  | 20.0                                  | 35.7                  | 0.42                 | 57.0                    | 113.1             |
| 2014          | 34.7                        | 34.7                      | 45.9                           | 115.3             |  | 20.0                                  | 37.9                  | 0.43                 | 57.0                    | 115.3             |
| 2015          | 35.4                        | 35.4                      | 46.9                           | 117.6             |  | 20.0                                  | 40.2                  | 0.43                 | 57.0                    | 117.6             |
| 2016          | 36.1                        | 36.1                      | 23.9                           | 96.1              |  | 20.0                                  | 17.0                  | 0.44                 | 58.6                    | 96.1              |
| 2017          | 36.8                        | 36.8                      |                                | 73.6              |  | 20.0                                  | 53.2                  | 0.45                 |                         | 73.6              |
| 2018          | 37.5                        | 37.5                      |                                | 75.1              |  | 20.0                                  | 54.6                  | 0.46                 |                         | 75.1              |
| 2019          | 38.3                        | 38.3                      |                                | 76.6              |  | 20.0                                  | 56.1                  | 0.47                 |                         | 76.6              |
| 2020          | 39.1                        | 39.1                      |                                | 78.1              |  | 20.0                                  | 57.7                  | 0.48                 |                         | 78.1              |
| 2021          | 39.8                        | 39.8                      |                                | 79.7              |  | 20.0                                  | 59.2                  | 0.49                 |                         | 79.7              |
| 2022          | 40.6                        | 40.6                      |                                | 81.3              |  | 20.0                                  | 60.8                  | 0.50                 |                         | 81.3              |
| <b>Totals</b> | <b>562.9</b>                | <b>547.8</b>              | <b>394.1</b>                   | <b>1,504.8</b>    | <b>90.0</b>                                | <b>230.0</b>                          | <b>667.3</b>          | <b>6.9</b>           | <b>510.6</b>            | <b>1,504.8</b>    |

Senate Ways and Means  
2-14-06  
Attachment 4

| Fiscal Year |
|-------------|
| 2007        |
| 2008        |
| 2009        |
| 2010        |
| 2011        |
| 2012        |
| 2013        |
| 2014        |
| 2015        |
| 2016        |
| 2017        |
| 2018        |
| 2019        |
| 2020        |
| 2021        |
| 2022        |
| Totals      |

| Backlog | Bonds | Annual Spending <sup>1</sup> | Balance |
|---------|-------|------------------------------|---------|
| 598.6   | 50    | 15.0                         | 533.6   |
| 546.9   | 50    | 45.0                         | 451.9   |
| 463.2   | 50    | 50.0                         | 363.2   |
| 372.3   |       | 57.0                         | 315.3   |
| 323.2   |       | 57.0                         | 266.2   |
| 272.9   |       | 57.0                         | 215.9   |
| 221.3   |       | 57.0                         | 164.3   |
| 168.4   |       | 57.0                         | 111.4   |
| 114.1   |       | 57.0                         | 57.1    |
| 58.6    |       | 58.6                         | 0.0     |
|         | 150.0 | 510.6                        |         |

| University Operating Budgets | Educational Building Fund | Total   | Amount we should be spending <sup>2</sup> | Annual Surplus/ (Deficit) |
|------------------------------|---------------------------|---------|---|---------------------------|
| 38.8                         | 29.9                      | 68.7    | 75.9                                      | (7.2)                     |
| 39.5                         | 37.0                      | 76.6    | 77.7                                      | (1.2)                     |
| 40.3                         | 34.1                      | 74.4    | 79.7                                      | (5.3)                     |
| 41.1                         | 29.2                      | 70.3    | 81.7                                      | (11.4)                    |
| 42.0                         | 31.3                      | 73.2    | 83.7                                      | (10.5)                    |
| 42.8                         | 33.4                      | 76.2    | 85.8                                      | (9.6)                     |
| 43.7                         | 35.7                      | 79.3    | 88.0                                      | (8.7)                     |
| 44.5                         | 37.9                      | 82.4    | 90.2                                      | (7.7)                     |
| 45.4                         | 40.2                      | 85.6    | 92.4                                      | (6.8)                     |
| 46.3                         | 17.0                      | 63.4    | 94.7                                      | (31.4)                    |
| 47.2                         | 53.2                      | 100.4   | 97.1                                      | 3.3                       |
| 48.2                         | 54.6                      | 102.8   | 99.5                                      | 3.3                       |
| 49.2                         | 56.1                      | 105.3   | 102.0                                     | 3.3                       |
| 50.1                         | 57.7                      | 107.8   | 104.6                                     | 3.2                       |
| 51.1                         | 59.2                      | 110.4   | 107.2                                     | 3.2                       |
| 52.2                         | 60.8                      | 113.0   | 109.9                                     | 3.1                       |
| 722.5                        | 667.3                     | 1,389.8 | 1,470.0                                   | -80.2                     |

<sup>1</sup>The Fall 2004 "Report on State University Deferred Maintenance and Capital Renewal", identified a \$584 million backlog of deferred maintenance. The above tables have assumed a 2.5% annual inflation rate.

<sup>2</sup>The Fall 2004 "Report on State University Deferred Maintenance and Capital Renewal", identified an annual need of \$74 million to maintain the physical plant adequately. The above tables have assumed a 2.5% annual inflation rate.