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### FACILITIES GOVERNANCE REPORT

**Actions Requested:** Receive the report and reaffirm the Board's support for continued:

1. Inter-institutional collaboration and coordination on facility issues, and
2. Institutional correction of identified fire safety and deferred maintenance deficiencies within the limits of available resources.

**Executive Summary:** The annual Facilities Governance Report, required by the Board's *Policy Manual*, is intended to provide the Board with a broad overview of the facilities at each of the Regent institutions and the condition of these facilities. The report includes information and updates on fire and environmental safety, and deferred maintenance.

Along with its human resources and its intellectual, financial and equipment assets, facilities are one of the primary resources of a higher education institution. Quality facilities help ensure excellent academic programs, and the ability to attract and retain faculty, staff and students.

**Regent Facilities:** Academic/research/administrative (general fund) facilities at the Regent institutions total approximately 18.2 million gross square feet of the total 37.3 million gross square feet of Regent enterprise facilities. Categories of other facilities include University Hospitals and Clinics, residence systems, agricultural experiment station, and self-supporting operations, including student unions, parking systems, etc. The FY 2013 replacement value of all Regent facilities is estimated at \$15.8 billion, of which \$8.2 billion is the replacement value for academic/research/administrative facilities. The Regent institutions have a total of 4,505 on-campus acres and 616 off-campus acres, excluding farm acreage.

**Optimal Utilization of Facilities:** Each of the universities emphasizes space utilization in its stewardship of existing facilities and has established policies, procedures, practices or principles to help ensure the optimal utilization of facilities. These are consistent with the strategies and policies adopted by the Board in May 2006. Information on institutional specific initiatives can be found in Attachment A.

**Institutional Coordination/Cooperation:** In previous Facilities Governance reports, the universities provided an extensive list of collaborative and coordinated efforts in facilities-related areas. This collaboration allows the universities to share best practices with each other and to pool resources to investigate and pursue innovative and cost saving approaches, as well as collaborating on emerging facilities and utilities issues. These meetings include separate groups for custodial operations, maintenance, utilities, energy management, design and construction, landscape services, and interior design, as well as space management.

The Regent institutions work to explore new areas for collaborative efforts. Some of the current projects include the work of an inter-institutional team which is collaborating with respective human resource department members to develop the tiers of technical knowledge for electricians, environmental system mechanics and sheet metal mechanics. There is a planning partnership among researchers at the three universities on the production, preparation and transportation of biofuel crop fuels. The inter-institutional utilities group is focusing on plans for upcoming boiler air emission regulations, methods for performing electrical generator overhauls and plans for alternate fuels. The list of ongoing activities is extensive, as outlined on page 6 of this memorandum.

Fire and Environmental Safety Deficiencies and Deferred Maintenance: Fire safety deficiencies (identified by the State Fire Marshal, other entities engaged in fire safety reviews, or institutional personnel) and deferred maintenance (repair or replacement of all, or a part of, an existing capital asset that was not repaired or replaced at the appropriate time because of a lack of funds) can be corrected as individual projects, incorporated into major renovations / rehabilitations, or eliminated through the demolition of structures. The Board's FY 2014 capital request, approved at its September 2012 meeting, includes \$75 million for individual projects to correct fire safety and deferred maintenance deficiencies, as well as renovation projects which would correct deficiencies.

The State Fire Marshal's Office and other external entities have identified fire safety deficiencies in general fund facilities which the institutions have estimated would cost \$13.1 million to correct; this amount is lower than the amount (\$14.6 million) reported for Fall 2011.

Identified, potentially life-threatening fire safety deficiencies are promptly addressed and corrected, or facilities are closed until they can be made safe. Other identified deficiencies are prioritized for correction. Progress in addressing fire safety issues will continue to be challenged by new safety standards, aging buildings, and changes in building usage.

For Fall 2012, the Regent institutions report a total of \$554.0 million in deferred maintenance in general fund facilities and utilities, excluding on-going renovation projects, FY 2013 planned projects, and the deferred maintenance to be corrected as components of major renovation projects previously authorized. This total compares to the \$552.8 million reported for Fall 2011; this is an increase of \$1.2 million (.2%), significantly less than a construction cost inflation factor of 4.0%. Further information is included in Attachment B.

**Report Organization:** The report includes the following attachments:

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**BACKGROUND**

**Campus Facilities:** Regent facilities total 37.3 million gross square feet (GSF); approximately 35.2 percent of the square footage was constructed during the period 1961-1980, as was approximately 33.6 percent of the 18.2 million GSF of academic/research/administrative space. (The newest of these facilities are more than 30 years of age.) This construction “boom” was similar to the “boom” found among other higher education institutions in the United States.

The age of facilities is one of the factors contributing to the amount of deferred maintenance and the presence of fire safety deficiencies. Renovation provides a means to modernize facilities to meet current needs, and to address deferred maintenance and fire safety deficiencies. The following table summarizes, by year of construction, the Regent institutional total gross square footage (GSF) and academic/research/administrative (including Oakdale) total GSF.

Years	Regent Total Square Footage		Academic/Research/ Administrative Square Footage*	
	GSF of Intial Construction	Percent of Total	GSF of Intial Construction	Percent of Total
Pre-1930	5,409,463	14.51	3,588,056	19.74
1931-1950	1,665,477	4.47	905,807	4.98
1951-1960	2,343,075	6.28	868,968	4.78
1961-1970	7,273,314	19.51	2,737,970	15.06
1971-1980	5,854,348	15.70	3,369,335	18.54
1981-1990	3,502,687	9.40	1,624,279	8.94
1991-2000	4,994,747	13.40	2,094,195	11.52
2001-2010	5,696,112	15.28	2,692,622	14.81
2011-2012	541,943	1.45	296,849	1.63
<b>Total</b>	<b>37,281,166</b>	<b>100.00</b>	<b>18,178,081</b>	<b>100.00</b>

\*Includes Oakdale

The total square footage by institution, by function, is as follows:

	<u>SUI</u>	<u>ISU</u>	<u>UNI</u>	<u>ISD</u>	<u>IBSSS</u>	<u>Total</u>
Acad/Res/Admin	8,318,554	6,656,337	2,630,183	381,500	191,507	18,178,081
UIHC	3,573,449					3,573,449
All Other	6,383,389	7,004,628	2,141,619			15,529,636
<b>Total</b>	<b>18,275,392</b>	<b>13,660,965</b>	<b>4,771,802</b>	<b>381,500</b>	<b>191,507</b>	<b>37,281,166</b>

**Capital Expenditures:** Since FY 2008, the Regent institutions have expended more than \$1.36 billion for capital projects with project costs exceeding \$250,000.

The following table compares institutional expenditures for FY 2008 – FY 2012.

Projects with Costs Exceeding \$250,000 – All Funds* (\$ in millions)										
	FY 2008		FY 2009		FY 2010		FY 2011		FY 2012	
	#		#		#		#		#	
	<u>Proj</u>	<u>Exp</u>	<u>Proj</u>	<u>Exp</u>	<u>Proj</u>	<u>Exp</u>	<u>Proj</u>	<u>Exp</u>	<u>Proj</u>	<u>Exp</u>
SUI	144	\$ 93.0	167	\$ 162.1	194	\$ 147.5	181	\$ 160.7	198	\$ 225.9
ISU	66	96.2	81	104.1	65	103.0	89	89.9	105	79.1
UNI	22	24.9	28	21.8	38	18.5	41	23.0	37	13.4
Total	232	\$214.1	276	\$ 288.0	297	\$ 269.0	311	\$ 273.6	340	\$ 318.4

\* As submitted by the institutions to the Board Office on capital project status reports.

The expenditures are from all sources of funds including capital appropriations; building renewal (repair) funds; institutional road funds; gifts and grants; income from treasurer's temporary investments; proceeds of academic building, dormitory, telecommunications, and other revenue bond issues; and university hospitals building usage funds and revenue bonds.

**Optimal Utilization of Facilities:** In May 2006, the Board adopted policies and procedures on the optimal utilization of facilities. These policies are included in Attachment C on page 15.

To balance and align current space requests with long-range goals, decisions about space at the University of Iowa are reviewed and coordinated with the Campus Master Plan. Facilities Management's Space Planning & Utilization unit works directly with the Office of the Provost, Office of the Vice President for Research, departmental executive officers and deans, and others on space allocations and assignments. The majority of day-to-day space needs are accommodated by reassigning existing space. However, as the University accelerates its building renewal efforts and with many temporary reassignments due to flood damage, there are challenges in identifying swing space for the temporary relocation of the occupants while space is renovated. The University uses the Space Information Management System, a web-accessible database, which provides one central and reliable record of campus space, including the University of Iowa Hospitals and Clinics. These data support the Facilities and Administrative cost survey that is used to negotiate the University's federal indirect cost recovery rate; it is also used to calculate operating costs, and building replacement values for insurance coverage.

Iowa State University reports that it has adopted policies, procedures and practices to provide for the optimal utilization of existing campus facilities; the primary responsibility for the effective and efficient use of space rests with the Facilities Planning and Management (FP&M) Space Management Office, with support from administration. The University's Policy Library states that space is a limited resource owned by the University and available for reallocation to support the University's mission. The University's approach emphasizes that the optimal use of space includes reallocation to meet the best use, remodeling when necessary to provide functionally appropriate facilities to meet program needs, and construction of new space if no other

alternative is acceptable or available. One of the elements of the University's new Resource Management Model of budgeting is that units pay the full operating costs of the space they occupy and use. The University reports that departments have become more engaged in the preliminary planning and design of capital projects, and in the impact of decisions made at these early stages on a project's life cycle costs.

The University of Northern Iowa has established principles and procedures stating that space on campus should be utilized for the maximum benefit of the entire University. All instructional space assignments are made by the Registrar's Office, which may assign University classrooms or laboratories to a specific college or department for priority use, while retaining the authority to schedule the space when not in use. The University's Facilities Planning Advisory Committee serves as the recommending body to the President's Cabinet regarding space assignment and utilization, and capital program development and related issues.

The Iowa School for the Deaf utilizes its space as effectively as possible. Portions of facilities that are no longer needed for School functions have been leased; the School reports that the relationships developed through these leases have been beneficial to all parties.

Prior to the storm of July 2011, the Iowa Braille School was continuing to improve the efficiency and productivity of services supported by the Vinton site, faculty and staff, including development of flexible and innovative services delivered in regional locations as needed. (To date all repairs / renovations have been completed with the exception of the replacement of the Old Main, Palmer and Rice Hall roofs and the Old Main 3<sup>rd</sup> floor interior; the anticipated completion date for these projects is August 31, 2013.) AmeriCorps NCCC established its North Central Regional site at the School in June 2008; renovation projects were completed in 2010 to accommodate an increased number of corps members. AmeriCorps expanded its presence in January 2012 by 260 team leaders and corps members; the expansion is funded by FEMA. Annually, the site accommodates approximately 750 corps members and 24 administrative staff.

**Institutional Cooperation / Coordination:** Iowa's public universities continue to work together and coordinate efforts related to facilities. This collaboration allows the universities to share best practices and to pool resources to investigate and pursue innovative and cost saving approaches. Regularly scheduled meetings are held for custodial operations, maintenance, utilities, energy management, design and construction (including collaboration on capital project procedures and contract document development to assure proper allocation of risk and incorporate best practices), landscape services, space management, workplace safety, and interior design personnel. Iowa State University Facilities Planning and Management is responsible for the administration of capital projects at the two special schools and provides technical consultation as needed. Iowa State University's Environmental Health and Safety Office continues to provide training and monitors compliance for asbestos, lead, chemical management and safety policies at the special schools. As an outcome of an inter-institutional workplace safety meeting held in 2010, an annual contractor safety conference co-hosted by the University of Iowa and Kirkwood Community College was developed; representatives of the other Regent universities attend.

Some of the collaborative and coordinated efforts highlighted in this year's institutional reports are:

- On-going collaborative monitoring of a common ash disposal site in Blackhawk County, with costs shared by the universities, enhancing consistency and cost efficiency in developing monitoring plans, paying for the monitoring wells and coordinating ground water testing.
- Sharing service contracts for environmental emissions testing, hazardous and universal waste disposal, electronic waste recycling, and boiler water treatment.
- Collaborating by the University of Northern Iowa and Iowa State University on a maintenance, repair and operations contract, with a company which has a broad inventory of equipment and maintenance supply items utilized by the facilities staff.
- Working together to address the impact and implement the National Fire Protection Agency Arc Flash requirements for safety in the workplace. (An arc flash, an explosive release of energy, takes place when a fault condition or short circuit occurs.) The potential exists for developing a single joint contract for personal protective equipment, arc flash clothing and high voltage tools.
- On-going monitoring of state licensure requirements for staff including electricians, plumbers, HVAC techs, fire alarm systems installers, elevator mechanics, etc. to assure applicability and compliance for all Regents institutions. Joint monitoring efforts minimize duplication of effort.
- Working in partnership by the University of Iowa and the University of Northern Iowa on a joint contract for selected green cleaning supplies and by all three universities for water treatment chemicals and on-site chemical related services.
- Teaming up by Iowa State University and University of Northern Iowa staffs on the implementation and processes associated with the FAMIS facilities management software and CentricProject project management collaboration software.
- Consulting on space standards for new capital projects: The University of Iowa and Iowa State University are members of the Higher Education Facility Management Association, along with other Big Ten institutions. The group collects and publishes benchmarking data from its members every two years.

Iowa's public universities and special schools also continue to expand cooperation and sharing arrangements with the public entities (cities, counties, school districts, conversation boards) in the municipalities in which they are located.

## FIRE AND ENVIRONMENTAL SAFETY AND DEFERRED MAINTENANCE

### BACKGROUND

**Fire and Environmental Safety:** Fire and environmental safety standards are established by several agencies, including the State Fire Marshal and federal and state governmental regulatory entities. The State Fire Marshal's Office or other external entities may identify deficiencies during campus inspections, or campus personnel may note the deficiencies.

Potentially life-threatening deficiencies are promptly addressed and corrected, or the facilities are closed until they can be made safe. Lesser risks are prioritized using multiple factors including hazard assessments and regulatory requirements. Corrective work is undertaken as funds are available, or the fire safety improvements may be accomplished as part of a renovation project. Each year, there are subtractions to the list as work is accomplished. Additions to the list can result from the altered use of a space, which changes the applicable building code requirements, or the new identification of a deficiency due to different interpretations of the code. Thus, the amount needed to correct the deficiencies does not necessarily decline by the amount that institutions have expended since the previous inspection.

The Regent institutions cooperate with the State Fire Marshal's Office in establishing fire safety priorities; each institution has a systematic method for determining the priority of fire safety improvements to be undertaken. Citations from the Office can be classified as (1) user [housekeeping or procedural items such as use of a doorstop to prop open a door], (2) maintenance [items that require no design and minimal expense, such as door repairs], or (3) other deficiencies [items for which the correction requires an outlay of funds beyond facility management maintenance funds; these items are prioritized].

Environmental safety deficiencies may be identified by campus personnel and regulatory entities. Environmental safety issues include asbestos, lead, underground storage tanks, spill prevention control and countermeasure plans, storm water pollution protection plans, polychlorinated biphenyls (PCBs), mercury, the Clean Air Act, and radioactive sites.

**Deferred Maintenance:** For a number of years, the institutions and Board Office have used the following common definition: Deferred maintenance is the repair or replacement of all, or a part of, an existing capital asset that was not repaired or replaced at the appropriate time because of a lack of funds.

Deferred maintenance is dependent upon time and is sometimes referred to as "capital renewal backlog." Replacement of a building or infrastructure system or component when it should be replaced is building renewal, not deferred maintenance. Deferred maintenance results from inaction on normal maintenance, including planned and preventive maintenance, and renewal and replacement projects.

Adequate funding of regular maintenance can significantly extend the useful lives of facilities and their components. Adequate funding of building renewal is also needed to replace building components.

Deferred maintenance in higher education is a national problem and is partially the result of building booms that occurred during the 1960s and 1970s. The facilities built at that time have aged and many of their component systems have reached the end of their design lives or have become obsolete. In a recent webinar conducted by the National Association of System Heads (NASH), Sightlines, a facility consulting firm, noted that based upon its data from 350 public and private campuses across the country, the amount of deferred maintenance was equivalent to \$90 / gross square foot. If the amount of deferred maintenance at the Regent institutions was the equivalent of that amount, it would total \$1.6 billion in general fund facilities; in fact the amount at the Regent institutions (\$554 million) is significantly less than this amount – approximately one-third the amount.

**Funding Sources:** The Regent institutions have made major efforts to correct fire and environmental safety issues and deferred maintenance over the last several years and have received significant state assistance.

Major funding sources for fire safety and individual deferred maintenance projects (not including deferred maintenance items completed as part of renovations) completed from FY 1993 through FY 2012 at the universities and special schools include: general fund operating budgets (\$163.4 million), utility renewal and replacement funds (\$71.3 million), proceeds from academic building revenue bonds and capital appropriations (\$58.0 million), income from treasurer's temporary investments (\$26.4 million), and UIHC building usage funds (\$22.4 million).

#### **ANALYSIS**

The budget reductions of the last few years have led to an increase in deferred maintenance and hindered the institutions' capabilities to correct fire and environmental safety deficiencies. Maintenance cycles and preventative maintenance activities have been delayed or eliminated, placing buildings and occupants more at-risk for unanticipated building system outages. The inability to make needed repairs/replacement of roofs, exterior building envelopes, windows, plumbing and electrical systems can cause further damage to the facilities, thus increasing the cost of future repairs.

The amount budgeted for FY 2013 for building repair represents approximately 0.26% of the \$8.2 billion replacement value of the university and special school general educational facilities. According to national standards, this percentage should, at a minimum, be equal to 1% of the replacement value of the facilities to prevent their further deterioration.

**Fire and Environmental Safety:** As reflected in Table 1 on page 13, fire safety projects completed from FY 1993 (the first year in which data were collected) through FY 2012, totaled \$70.1 million in general fund facilities, including UIHC (an average of \$3.55 million per year). Projects planned for or continued in FY 2013 total \$2.8 million.

The institutions indicate that \$13.1 million are needed to correct fire safety deficiencies in general fund and UIHC facilities identified in past inspections by the State Fire Marshal and other external entities as shown on the following page.



**FIRE SAFETY DEFICIENCIES**  
**Additional Funding Needed to Correct Fire Safety Deficiencies**  
**Identified by External Entities<sup>1</sup>**  
**General Fund Facilities**  
**(\$ Thousands)**

	Fall 2012 (FY 2013)
SUI (includes Oakdale)	\$ 4,995.4
UIHC	-
ISU	7,598.6
UNI	423.3
ISD	-
IBSSS	55.0
<b>Total</b>	<b>\$ 13,072.3</b>

<sup>1</sup>Includes items identified by State Fire Marshal's Office and other external entities; excludes work in buildings to be demolished, and for which waivers from the State Fire Marshal are to be requested.

The total amount reported is approximately \$1.57 million less than the amount reported last fall as the institutions addressed fire safety deficiencies previously identified within available resources. Progress in addressing the deficiencies has been made.

The 2011 General Assembly appropriated \$2 million for FY 2012 for immediate fire safety needs and for compliance with the Americans with Disabilities Act. The FY 2012 appropriation was allocated by the Board at its September 2011 meeting: [http://www.regents.iowa.gov/Meetings/DocketMemos/11Memos/September2011/0911\\_ITEM03\\_d.pdf](http://www.regents.iowa.gov/Meetings/DocketMemos/11Memos/September2011/0911_ITEM03_d.pdf). Funds not utilized by the special schools for storm damage recovery from the \$2 million appropriated for FY 2013 will be available for use for fire safety needs.

At the University of Iowa, significant progress towards a safer campus was achieved in FY 2012. Significant fire safety improvement projects were conducted in the following general fund facilities: Bowen Science Building, Main Library and North Hall. Facilities Management continued with its next round to network fire alarm systems in 13 additional buildings, making a total of 60 general fund buildings connected to the network. This system provides actual building floor plans, showing each fire alarm device, and will provide the University Police communications center with real time information on each linked building. The network can also allow the University Police to activate the building's severe weather alert and perform live voice announcements, if needed, for other types of campus emergencies.

Progress was also made at Iowa State University as corrections to deficiencies were undertaken in Curtiss and Sweeney Halls. It is important to note that the dollar amount for correction of deficiencies at the University represents a "worse-case scenario." The State Fire Marshal's Office has indicated, in its inspection reports, that self-closing devices on all doors leading to exits could be installed or the building sprinkled. The cost for sprinklers in 12 buildings to address fire corridor deficiencies cited in the 2011 inspection by the Fire Marshal's Office is included in the University's report; in previous reports, the University indicated that based upon current monies, it is likely that sprinklers would be installed only when a building

undergoes significant renovation. In the buildings not scheduled for renovations, the University would install self-closing devices, as funding is identified.

At the University of Northern Iowa, fire safety deficiencies are being addressed as part of the renovation of Bartlett Hall, which is currently underway. The renovation of Sabin Hall, recently completed, also corrected the fire safety deficiencies.

During the past fiscal year, Iowa School for the Deaf completed the installation of interior, fire rated doors in the Girls' Dormitory and the Elementary Building.

A partial elevator upgrade was undertaken in FY 2012 in Old Main at the Iowa Braille School. The remainder of the elevator work is being accomplished in conjunction with the Old Main Storm Damage project.

The institutions report that they have developed the necessary plans to address campus environmental safety issues.

**Deferred Maintenance:** As shown in Table 2 on page 14, deferred maintenance totaling \$302.9 million (an average of \$15.1 million per year) from FY 1993 through FY 2012, was corrected in Regent general fund buildings and utilities, not including deferred maintenance corrected as part of renovations. Projects planned for or continued in FY 2013 total \$19.9 million. Major renovation projects which have corrected or will correct a significant amount of deferred maintenance are also included in Table 2.

The following table summarizes the deferred maintenance reported by the institutions. (Dollar amounts for projects planned to be undertaken in FY 2013 and the deferred maintenance components of ongoing and funded renovation projects are not included.)

**General Fund Facilities and Utilities  
Fall 2012<sup>1</sup>  
(\$ Thousands)**

	<u>SUI</u> <sup>3</sup>	<u>ISU</u>	<u>UNI</u>	<u>ISD</u>	<u>IBSSS</u>	<u>Total</u>
<b>Individual Projects</b>						
Buildings <sup>2</sup>	\$ 116,595.4	\$ 235,153.7	\$ 23,279.3	\$ 426.0	\$ 1,065.6	\$ 376,520.0
Utilities	42,697.6	10,699.5	18,219.6	1,090.0	75.0	72,781.7
Subtotal	\$ 159,293.0	\$ 245,853.2	\$ 41,498.9	\$ 1,516.0	\$ 1,140.6	\$ 449,301.7
<b>Included within Five Year Capital Plan (FY 2014 - FY 2018)</b>						
Buildings <sup>2</sup>	\$ 69,113.2	\$ 16,869.0	\$ 18,705.3	\$ -	\$ -	\$ 104,687.5
Utilities	-	-	-	-	-	-
Subtotal	\$ 69,113.2	\$ 16,869.0	\$ 18,705.3	\$ -	\$ -	\$ 104,687.5
<b>Grand Total</b>						
Buildings	\$ 185,708.6	\$ 252,022.7	\$ 41,984.6	\$ 426.0	\$ 1,065.6	\$ 481,207.5
Utilities	42,697.6	10,699.5	18,219.6	1,090.0	75.0	72,781.7
Total	\$ 228,406.2	\$ 262,722.2	\$ 60,204.2	\$ 1,516.0	\$ 1,140.6	\$ 553,989.2

<sup>1</sup>Excludes dollar amounts for projects to be undertaken in FY 2013, those to be funded through previously authorized academic building revenue bonds, capital appropriations; and the deferred maintenance components of ongoing renovation projects.

<sup>2</sup>Includes site work.

<sup>3</sup>Excludes deferred maintenance in the Art Building East (excluding original 1936 building) and Hancher / Voxman Clapp for which the Board has approved the razing of the facilities.

The amount of deferred maintenance reported for Fall 2012 is \$1.2 million (0.2%) higher than the amount reported for Fall 2011; this increase is significantly less than the construction inflationary index of 4%. The total amount increased from \$552.8 million to \$554.0 million. The University of Iowa Hospitals and Clinics has not reported any deferred maintenance and indicates that it does not have any maintenance needs that meet the definition of deferred maintenance. Iowa State University reports an increase in the dollar amount needed to correct deferred maintenance (Fall 2011 to Fall 2012), while the other institutions report a decrease.

In exercising its facilities stewardship responsibilities, the University of Iowa relies on four basic strategies: 1) ongoing maintenance and operational care of existing facilities, 2) reinvestment in the renewal of long-term physical assets, 3) reduction of the backlog of deferred maintenance, and 4) decommissioning of obsolescent facilities or those with substantial deferred maintenance. The University uses a total cost of ownership decision-making framework for the consideration of various alternatives that may include renovation, improvement, or demolition of existing facilities.

The University of Iowa contracted in 2004 with ISES (a Stone Mountain, Georgia firm) to conduct a facilities assessment. To maintain current facilities condition information, the University contracted with ISES in 2009 to return the campus for another assessment of existing facilities. However, the de-appropriation of funds caused the University to suspend the facilities condition analysis during FY 2010. ISES completed its most recent inspection in 2012.

Iowa State University reports that it has a comprehensive, systematic process for identifying its deferred maintenance needs. The methodology involves assessing all general fund buildings in eight different categories. The assessment takes into account the replacement value of the building, the value of the sub-systems within the building, the age of the building and its systems, and the condition of those systems. The process was expanded during FY 2005 to also include building specific assessments to create project estimates for repair and replacement of building system components, such as an air handler, exterior building entrance steps, etc.; the data are entered into the facilities management system. Facilities deferred maintenance priorities are combined with programmatic priorities to assure that funds are applied for maximum effectiveness, both for deferred maintenance and program needs.

In FY 2008, the deferred maintenance needs for each building at the University of Northern Iowa were updated from 2003 survey maintenance data, with input by custodial staff and maintenance personnel, and the buildings' occupants. Deferred maintenance was identified by category, i.e. roofs, interiors, etc. The University reports that it is currently updating its deferred maintenance information with a thorough review of each building. A significant reduction in the University's deferred maintenance is due to the closing of Malcolm Price Laboratory School and the approval by the Board to demolish most of the facility.

TABLE 1  
BOARD OF REGENTS, STATE OF IOWA  
FIRE SAFETY PROJECTS\*  
GENERAL FUND FACILITIES  
(\$ Thousands)

Projects:	SUI**	UIHC	ISU	UNI	ISD	IBSSS	Total
Completed Projects:							
FY 1993	\$ 1,476.5	\$ 507.3	\$ 1,135.6	\$ 551.3	\$ 111.5	\$ 11.0	\$ 3,681.7
FY 1994	721.2	619.2	365.6	447.3	97.5	6.9	2,271.7
FY 1995	1,664.2	619.4	153.6	62.5	211.5	10.9	2,608.1
FY 1996	2,233.4	55.0	2,163.7	83.6	91.5	4.0	4,751.2
FY 1997	1,320.0	380.0	235.8	63.8	125.0	41.2	2,132.3
FY 1998	1,401.0	1,552.3	735.9	126.3	225.0	8.1	3,948.6
FY 1999	1,696.0	1,880.8	288.0	12.2	12.0	8.4	4,110.4
FY 2000	1,272.0	2,335.0	219.0	64.3	1.0	1.0	3,903.3
FY 2001	944.0	2,071.7	538.3	77.5	1.0		3,632.5
FY 2002	718.0	1,322.7	542.8	8.2	25.0		2,616.7
FY 2003	930.0	1,377.0	336.9	26.3	23.0	65.0	2,758.2
FY 2004	1,554.5	915.9	295.5	25.0	6.0		2,796.9
FY 2005	1,502.0	2,103.0	177.0	25.0	25.0		3,832.0
FY 2006	1,637.0	2,058.6	215.9	30.0	75.0	1.7	3,943.2
FY 2007	978.3	650.0	928.6	36.0	700.0	4.7	2,672.6
FY 2008	1,128.2	676.4	470.0	80.2	30.0	343.3 ***	3,398.1
FY 2009	1,373.0	1,760.1	700.5	80.2	405.0	507.3	4,451.1
FY 2010	1,705.1	-	392.0	52.7	300.0	872.6	3,427.4
FY 2011	3,944.5	350.0	265.6	88.0	50.0	20.6	4,968.7
FY 2012	2,588.8	1,145.2	172.3	204.3	24.4		4,185.0
Subtotal	\$ 30,787.7	\$ 22,379.6	\$ 10,332.6	\$ 2,144.7	\$ 2,514.0	\$ 1,931.1	\$ 70,089.7
Projects Planned for or Continued in FY 2013	\$ 1,243.0	\$ 750.0	\$ 520.5	\$ 185.8	\$ -	\$ 64.5	\$ 2,763.8
<b>Total</b>	<b>\$ 32,030.7</b>	<b>\$ 23,129.6</b>	<b>\$ 10,853.1</b>	<b>\$ 2,330.5</b>	<b>\$ 2,514.0</b>	<b>\$ 1,995.6</b>	<b>\$ 72,853.5</b>
<b>By Source of Funds:</b>							
Building Renewal / General University	\$ 17,235.7		\$ 5,588.9	\$ 1,041.9	\$ 786.0	\$ 1,572.3	\$ 26,224.8
Income from Treasurer's Temporary Investments	9,320.8		542.8	174.8			10,038.4
Academic Building Revenue Bonds	3,150.2		2,880.7	826.0			6,856.9
Special and Capital Appropriations	1,760.0		1,444.7	286.5	935.0	362.3	4,788.5
University Hospital Building Usage Funds		\$ 23,129.6					23,129.6
Other	564.0		396.0	1.3	793.0	61.0	1,815.3
<b>Total</b>	<b>\$ 32,030.7</b>	<b>\$ 23,129.6</b>	<b>\$ 10,853.1</b>	<b>\$ 2,330.5</b>	<b>\$ 2,514.0</b>	<b>\$ 1,995.6</b>	<b>\$ 72,853.5</b>

\*Does not include fire safety components of major renovation projects.

\*\*SUI - Excludes UIHC; includes projects approved and funded for FY 93 - FY 03; for FY 1993 also includes projects completed with Academic Building Revenue Bonds, 1991. Includes fire safety improvements in Old Capitol - Fire Restoration and Buildings Improvements and Chemistry Renovation projects.

\*\*\*Includes fire safety components of renovation projects.

TABLE 2  
BOARD OF REGENTS, STATE OF IOWA, FY 1993 - FY 2013  
GENERAL FUND BUILDING AND UTILITY DEFERRED MAINTENANCE PROJECTS AND  
RENOVATION PROJECTS WHICH INCLUDE CORRECTION OF DEFERRED MAINTENANCE  
(\$ thousands)

	SUI	ISU	UNI	ISD	IBSSS	Total
<b>Deferred Maintenance Projects:</b>						
Completed Projects:**						
FY 1993	\$ 6,591.9	\$ 970.2	\$ 1,593.4	\$ 45.0	\$ 16.1	\$ 9,216.6
FY 1994	2,881.6	1,881.1	1,459.6	543.5	75.9	6,841.7
FY 1995	4,922.1	7,805.3	1,703.1	148.0	24.8	14,603.3
FY 1996	6,571.3	6,944.4	2,581.3	173.0	207.8	16,477.8
FY 1997	3,262.6	2,953.8	2,256.7	133.1	95.6	8,701.8
FY 1998	3,053.0	3,495.3	1,677.7	282.5	172.5	8,681.0
FY 1999	2,928.8	3,492.2	3,435.2	470.0	36.8	10,363.0
FY 2000	6,375.4	5,522.2	3,859.1	758.0	595.1	17,109.8
FY 2001	3,798.2	6,104.2	858.7	485.0	49.1	11,295.2
FY 2002	2,598.9	2,463.9	3,442.6	660.0	1,159.8	10,325.2
FY 2003	7,377.6	4,194.8	439.4	165.0	69.3	12,246.1
FY 2004	7,154.0	4,187.5	761.5	596.3	56.0	12,755.3
FY 2005	9,695.8 **	5,253.1	1,400.0	625.0	53.0	17,026.9
FY 2006	12,434.8 **	2,764.8	964.8	1,040.0	23.8	17,228.2
FY 2007	12,464.0 **	4,966.3	1,710.0	160.0	320.5	19,620.8
FY 2008	15,780.6 **	3,498.9	910.2	195.0	967.9	21,352.6
FY 2009	9,847.2 **	3,936.0	3,022.6	217.5	335.9	17,359.2
FY 2010	19,046.3	10,521.7	2,757.9	250.0	605.3	33,181.2
FY 2011	17,805.1	2,422.3	2,798.2	250.0	171.1	23,446.7
FY 2012	6,648.2	5,105.9	1,891.3	900.0	506.1	15,051.5
Subtotal	\$ 161,237.4	\$ 88,483.9	\$ 39,523.3	\$ 8,096.9	\$ 5,542.4	\$ 302,883.9
Projects Planned for or Continued in FY 2013	\$ 10,808.5 **	\$ 7,844.1	\$ 1,018.9	\$ 215.0	\$ 2.5	\$ 19,889.0
<b>Total</b>	<b>\$ 172,045.9</b>	<b>\$ 96,328.0</b>	<b>\$ 40,542.2</b>	<b>\$ 8,311.9</b>	<b>\$ 5,544.9</b>	<b>\$ 322,772.9</b>
<b>FY 1993 - FY 2012 Renovation Projects Which Include Correction of Significant Amounts of Deferred Maintenance***</b>	<b>\$ 118,381.4</b>	<b>\$ 75,789.0</b>	<b>\$ 105,290.0</b>			<b>\$ 299,460.4</b>
<b>Renovation Projects Planned or Continued for FY 2013 with Correction of Significant Amounts of Deferred Maintenance***</b>	<b>\$ 62,565.0</b>	<b>\$ 14,314.8</b>	<b>\$ 21,000.0</b>			<b>\$ 97,879.8</b>
<b>GRAND TOTAL</b>	<b>\$ 352,992.3</b>	<b>\$ 186,431.8</b>	<b>\$ 166,832.2</b>	<b>\$ 8,311.9</b>	<b>\$ 5,544.9</b>	<b>\$ 720,113.1</b>
<b>Total - By Source of Funds</b>						
Building Renewal/Building Maintenance/General University	\$ 74,788.3	\$ 68,499.1	\$ 28,038.4	\$ 3,195.6	\$ 2,966.6	\$ 177,488.0
Building Renewal/Academic Building Revenue Bonds	52,728.3		83.5			52,811.8
Income from Treasurer's Temporary Investments (TTI)	16,128.4		1,158.9			28,641.0
Gifts, Grants	9,381.7	24,724.8	5,355.8			39,462.3
Utility Renewal and Replacement and Revenue Bonds	61,737.3	16,720.6	-			78,457.9
Academic Building Revenue Bonds; Project Notes	23,636.6	21,849.9	50,920.5			96,407.0
Capital and Special Appropriations	54,990.0	15,642.6	72,238.9	2,755.0	2,077.7	147,704.2
Agriculture Experiment Station & Cooperative Extension		1,175.2				1,175.2
Facilities Overhead Use Allowance	1,679.0	6,215.5				7,894.5
College of Medicine Earnings, Gifts / Treasurer's Temp. Investment	4,114.3					4,114.3
Other (includes unspecified combination of above fund sources)	53,808.4	20,250.4	9,036.2	2,361.3	500.6	85,956.9
<b>GRAND TOTAL - INDIVIDUAL DEFERRED MAINTENANCE ITEMS AND RENOVATION COSTS</b>	<b>\$ 352,992.3</b>	<b>\$ 186,431.8</b>	<b>\$ 166,832.2</b>	<b>\$ 8,311.9</b>	<b>\$ 5,544.9</b>	<b>\$ 720,113.1</b>

\* SUI - includes projects approved and funded for FY 93 - FY 96; for FY 1993 also includes projects completed with Academic Building Revenue Bonds.  
 \*\* Includes Oakdale campus; for FY 2008 includes deferred maintenance eliminated through demolition of International Center  
 \*\*\* Renovation projects include SUI - Gilmore Hall, Schaeffer Hall, Phillips Hall, Bowen Science Building Microbiology, Medical Education Building, Hencher Auditorium, Engineering Building, Biological Sciences - Phase 2, Hydraulics Laboratory Modernization, Old Capitol, SUH-Chemistry and Old Music Renovations;  
 ISU - Carl Hall, Laboratory of Mechanics, Gilman Hall and Systems Upgrade, State Gym, Beardshear Hall, Hamilton Hall  
 Physics Hall Auditorium, Carver Hall, Morrill Hall, Pearson Hall, Crop Genomics Info, Lab Remodel, MacKay, Office and Lab, and Smedecor Hall Renovations;  
 UNI - Seerley, Wright and Lang Halls, and Commons Renovations, Steam Distribution System Replacement - Phase 1, Innovative Teaching and Technology Center, Science Building Renovation - Phase 1, Russell Hall Renovation, Gilchrist Hall Renovation/Restoration, Electrical Distribution System, Phases 1 and 2, Sabin Hall Renovation  
 \*\*\*\* Includes SUH/Dental Science Renovation and Library - Learning Commons; ISU-Curtiss Hall Renovation - Phase 1; UNI - Bartlett Hall Renovation / Baker Hall Demolition

**Strategies and Policies for Optimal Utilization of Existing Campus Facilities**  
(adopted by Board of Regents, May 2006)

1. Institutions should be as thorough and innovative as possible in their allocation and reallocation of space within their existing physical plants.
2. Each university should adopt general principles, consistent with the Board's and each university's strategic plan, regarding space assignment and scheduling of classes and should so inform the campus community. Each university should also ensure that its policies and procedures regarding space are consistent with these principles.
3. The universities should use their appropriate campus committees to stimulate discussions on improving the utilization of campus space and facilities, and to provide recommendations to the university administration.
4. Space planning should continue to be an institutional responsibility and be part of comprehensive long range campus planning, which includes an analysis of the quality, quantity and location of the space.
5. Requests for new space should continue to be documented and justified on a functional need basis with a demonstration that the identified program need cannot be met more economically through more efficient use of existing space or renovation, consistent with the Board's previous adoption of the capital project evaluation criteria.
6. Each university should review its existing utilization data when planning for new or renovated space; to the greatest extent possible, objective measures should be used to determine space needs. These objective measures could include benchmarking data or objective models, supplemented by further analyses and specialized studies.
7. Each university should consider development of policies regarding office space for part-time employees, including adjunct faculty, graduate students and emeritus faculty.
8. Each university should keep and utilize for each new construction or renovation project guidelines for the size of offices.
9. Each institution should submit with its request to lease space in the general vicinity of the main campus, an explanation of the spaces on campus examined and found unsuitable.
10. Classrooms, class laboratories and other facilities should be designed and scheduled for optimal utilization given program needs and student expectations.
11. The universities should strive to design efficient facilities, providing for as much usable (net) square footage as reasonably possible within the gross square footage and program goals of the building.
12. For those facilities thought to be obsolete, the institutions should assess their buildings' physical condition, contribution to the university's heritage, adaptability to being efficiently renovated and reused, and viability of reuse versus replacement; based upon this assessment, each university should determine whether it is prudent to retain each of its obsolete structures.