

Contact: John Nash

ANNUAL FACILITIES REPORT FOR 2020

Action Requested: Recommend the Board approve the Capital Plans and the Institutional Roads Program, and receive the Facilities Governance Report.

Table of Contents

Section A

Capital Plans

	<u>page</u>	<u>Board Action</u>
1. Six-Year Capital Plan for State Funds, FY 2022 – FY 2027	2	Decision
2. Key Facts	3	
3. Project Descriptions	4	
4. History of Capital Requests for State Funds	13	
5. Five-Year Capital Plan for UIHC	14	
6. Five-Year Capital Plans	15	
• University of Iowa	16	
• Iowa State University	17	
• University of Northern Iowa	18	

Section B

Institutional Roads Program

	<u>page</u>	<u>Board Action</u>
1. Five-Year Institutional Roads Program, CY 2021 – CY 2025	20	Decision
2. Overview of the Institutional Roads Program	21	
3. CY 2021 only	22	
4. Project Descriptions	23	

Section C

Facilities Governance Report

		<u>Board Action</u>
1. Key Facts	27	Receive the Report
2. Size, Age and Value of Facilities	28	
State-Funded Square Footage Comparison:		
3. Regents vs Other State Agencies	32	
4. All Funds Spent	33	
5. Space Utilization	34	
6. Strategies for Optimal Utilization of Facilities	37	
7. Interinstitutional Collaboration	38	
8. Fire and Environmental Safety	39	
9. Deferred Maintenance	46	

Section A

CAPITAL PLANS

Executive Summary: Board action is requested to approve the Six-Year Capital Plan for State Funds, the Five-Year Capital Plan for UIHC and the Five-Year Capital Plan for Other Funds.

1. Six-Year Capital Plan for State Funds, Including Capital Request for FY 2022



Proposed State-Funded Projects		FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	6-Year State Request	Gifts & Other Funds	Total
all	Deferred maintenance, fire & environmental safety, campus security, energy conservation and regulatory compliance for General Education Fund facilities.	\$30,000	\$20,000	\$20,000	\$20,000	\$10,000	\$ -	\$100,000	\$ -	\$100,000
SUI	Pentacrest Modernization	-	3,432	15,275	12,122	16,287	43,651	90,767	-	\$90,767
ISU	Veterinary Diagnostic Laboratory Addition	-	15,700	15,700	16,500	11,000	-	58,900	3,500	\$62,400
ISU	LeBaron Hall Replacement	-	10,800	10,800	10,800	-	-	32,400	25,000	\$57,400
ISD	Girls Dormitory HVAC / Electrical	-	5,043	-	-	-	-	5,043	-	\$5,043
IPR	Equipment for ISU, UNI and UI licensed properties	-	1,200	-	-	-	-	1,200	-	\$1,200
ISD	Giangreco Hall - Exterior Rehabilitation	-	-	6,511	-	-	-	6,511	-	\$6,511
IPR	Replace Transmission Equipment at WOI-FM and KSUI-FM	-	-	200	200	250	185	835	-	\$835
UNI	Learning Commons	-	-	-	3,561	14,592	51,073	69,226	-	\$69,226
ISD	Giangreco Hall - Boys Dorm HVAC	-	-	-	3,369	-	-	3,369	-	\$3,369
Total Fiscal Year Request =		\$30,000	\$36,175	\$48,486	\$46,552	\$42,129	\$94,909	\$368,251	\$28,500	\$396,751

This proposed Six-Year Capital Plan for \$368 million in state funds would be funded by State Appropriations and/or Academic Building Revenue Bonds.

Of the \$368 million, \$268 million would be for multiple major renovations, an addition (ISU's VDL Addition), and a building replacement project (ISU's LeBaron Hall). The remaining \$100 million would be for deferred maintenance, fire and environmental safety, campus security, regulatory compliance and energy conservation projects.

➤ **Board Approval**

Each year, *Iowa Code* §8.23, section 1 requires the Board of Regents to submit “estimates of their expenditure requirements, including every proposed expenditure, for the ensuing fiscal year” to the Department of Management by October 1.

While legislation was enacted in 2005 that discontinued the requirement for a multi-year Capital Plan for State Funds, one is submitted here to be consistent with the Regents’ focus on planning and transparency.

Board approval of these plans does not constitute Board approval of any specific project, as those would be brought to the Board individually.

2. Key Facts

Six-Year Capital Plans for State Funds

• FY 2022	= \$ 30 million
• Average, over 21 years	= \$ 74 million
down 59% from average, difference	= (\$ 44 million)
• FY 2022 – FY 2027	= \$ 368 million
• Average, over 21 years	= \$ 480 million
down 23% from average, difference	= (\$ 112 million)

Five-Year Capital Plans for UIHC

• FY 2022	= \$ 6 million
• last year	= \$ 41 million
down 85% from last year, difference	= (\$ 35 million)
• FY 2022- FY 2026	= \$ 187 million
• last year	= \$ 624 million
down 70% from last year, difference	= (\$ 437 million)

Five-Year Capital Plans for Other Funds

• FY 2022	= \$ 148 million
• last year	= \$ 120 million
up 23% from last year, difference	= \$ 28 million
• FY 2022- FY 2026	= \$ 882 million
• last year	= \$ 828 million
up 7% from last year, difference	= \$ 54 million

3. Project Descriptions

a. Deferred Maintenance

For General Education Fund (GEF) facilities in all Regent Institutions: University of Iowa, Iowa State University, University of Northern Iowa, Iowa School for the Deaf and Iowa Public Radio

\$100,000,000 in deferred maintenance would be eliminated.

	<u>Appropriations</u>	<u>Gifts & Other Funds</u>	<u>Total</u>
FY 2022	\$ 30,000,000	-	\$ 30,000,000
FY 2023	20,000,000	-	20,000,000
FY 2024	20,000,000	-	20,000,000
FY 2025	20,000,000	-	20,000,000
FY 2026	10,000,000	-	10,000,000
FY 2027	-	-	-
Total	\$100,000,000	\$0	\$100,000,000

These funds would be for deferred maintenance, fire and environmental safety, campus security, regulatory compliance and energy conservation projects. Funds would be distributed to the Regent institutions by the Board.

State funding would have a positive effect on reducing the Regents \$1.2 billion in outstanding deferred maintenance and \$9 million in outstanding fire safety projects in GEF facilities.

b. Pentacrest Modernization (3 buildings)

University of Iowa

\$27,000,000 in deferred maintenance would be eliminated through this project.

	<u>Appropriations</u>	Gifts & Other <u>Funds</u>	<u>Total</u>
FY 2022	-	-	-
FY 2023	\$ 3,432,000	-	\$ 3,432,000
FY 2024	15,275,000	-	15,275,000
FY 2025	12,122,000	-	12,122,000
FY 2026	16,287,000	-	16,287,000
FY 2027	43,651,000	-	43,651,000
Total	\$90,767,000	\$0	\$90,767,000

Since 1978, the Pentacrest has been on the National Register of Historic Places. In 2007, the State of Iowa approved \$13 million in bonding authority to restore three of the Pentacrest's five buildings: MacBride Hall (1908), MacLean Hall (1912) and Jessup Hall (1924). The other two buildings, Old Capitol (1842) and Schaeffer Hall (1902), have both been restored within the last 20 years. However, due to the historic flood of 2008, that \$13 million in bonding authority had to be diverted on an emergency basis to other flooded and severely damaged campus buildings. With all flood recovery projects now complete, this a re-activation of that 2007 request for state funds to modernize those three remaining, unrestored Pentacrest buildings, starting with the 107-year-old MacLean Hall.

In alignment with the University's priorities, the University is committed to dedicating the Pentacrest entirely to educational, academic and student-based purposes. To help make that commitment, the University would invest \$30 million in University funds to renovate University Capitol Center, Calvin Hall, Jefferson Building and other university spaces, where current Pentacrest administrative staff and non-academic space would move. Jessup Hall currently hosts a majority of UI administrative offices.

Specifically, the UI is planning to repurpose and modernize the historic Calvin Hall, built in 1885 directly north of the Pentacrest, and the Jefferson Building, built in 1913 southeast of the Pentacrest, to host UI administrative offices and support services respectively. Those projects would take advantage of available space that does not serve classroom and other academic functions well. Interestingly, Calvin Hall used to be on the Pentacrest, where Jessup Hall is now, until it was moved 105 feet north across the street in 1905 at a rate of two feet per day by a team of horses and more than 1,000 carefully placed screw jacks. Classes continued in Calvin Hall uninterrupted during the move.

The University of Iowa recently funded and completed a project in the University Capitol Center, just south of the Pentacrest, which moved some non-academic functions from Jessup Hall to the University Capitol Center, a campus setting convenient to and often used by UI students. This shift in non-academic functions helps prepare the Pentacrest to host academic functions.

The Pentacrest Modernization project would transform MacBride, MacLean and Jessup Halls from 67% to 100% classrooms and academic space. Approximately \$27 million in deferred maintenance would be eliminated by this project, rising to \$47 million in ten years. The project

would improve access for mobility-impaired students, faculty, staff and visitors. It would upgrade classrooms to current standards and provide new lighting and energy-efficient electrical systems. Building exteriors would be restored to retain their historic character. This project would also replace numerous inadequate and inefficient heating, ventilation and air conditioning (HVAC) systems by harnessing campus-wide systems like the University's central chilled water system.

This three-building project would address long-standing operational and programmatic obsolescence in buildings that have not been modernized since their original construction, roughly 100 years ago. In addition to securing long-term use and care of these most-important and symbolic buildings, this project positions student/academic functions at the very core of the UI campus.

The Pentacrest is the historic and symbolic heart of the University of Iowa, and home to the first Iowa State Capitol.

Proposed Schedule

MacLean Hall

Planning/Design/Bid	17 months
Construction/Occupancy	26 months
<hr/>	
Jul. 2021 – Jan. 2025, Total	43 months

Jessup Hall

Planning/Design/Bid	17 months
Construction/Occupancy	26 months
<hr/>	
May 2022 – Nov. 2025, Total	43 months

MacBride Hall

Planning/Design/Bid	18 months
Construction/Occupancy	32 months
<hr/>	
Apr. 2023 – Jun. 2027, Total	43 months

Total Project

Jul. 2021 – Jun. 2027, Total	72 months
------------------------------	-----------

c. Veterinary Diagnostic Laboratory Addition
Iowa State University

	<u>Appropriations</u>	<u>Gifts</u>	<u>University Funds</u>	<u>Total</u>
FY 2022	-	-	-	-
FY 2023	\$15,700,000	-	-	\$15,700,000
FY 2024	15,700,000	-	-	15,700,000
FY 2025	16,500,000	1,000,000	2,500,000	20,000,000
FY 2026	11,000,000	-	-	11,000,000
FY 2027	-	-	-	-
Total	\$58,900,000	\$1,000,000	\$2,500,000	\$62,400,000

In 2018, the General Assembly authorized \$63.5 million toward the design and construction of a \$75 million, 72,500 gsf new VDL, which houses case receiving, initial assessment, and sample processing functions.

The VDL caseload has more than doubled in the last five years, which has exacerbated the critical shortage of functional and programmatically appropriate space. Deficiencies in space, functional layout and building environmental infrastructure affect the ability of the VDL to serve Iowa’s animal agriculture industry and limit the ability to develop and incorporate new state-of-the-art diagnostic tools and techniques.

This new request for \$58.9 million in state funds would go toward a \$62.4 million, 69,600 gsf addition to accommodate all remaining VDL programs, including laboratory testing, research space and support functions. These remaining units constitute critical laboratory functions, which affect more than 85% of all cases processed by the VDL. This addition would collocate all VDL operations, provide efficient and effective process flow, address critical issues of space quantity and quality, and provide the necessary biosafety and biocontainment for the only full-service and fully-accredited veterinary diagnostic lab in the state of Iowa.

The ISU Veterinary Diagnostic Laboratory (VDL) protects animal and human health, and advances Iowa’s \$32.5 billion dollar animal agriculture industry by providing timely, high quality, and comprehensive veterinary diagnostic services, instruction, and applied research to advance diagnostic and production animal medicine. The VDL has earned Tier 1 status in the National Animal Health Laboratory Network for the major role it plays in surveillance for foreign animal and emerging diseases.

The volume of diagnostic services, research and teaching continues to grow and expand, but is housed in insufficient, inadequate space in the College of Veterinary Medicine Building, and in obsolete and unsuitable space in the Veterinary Medicine Research Institute. Construction of a new, 142,000 gsf facility (VDL + VDL Addition) is required to accommodate the entire laboratory.

Alternatives Considered

Laboratory processes are sequential, integrated, and need to be in close proximity. All solutions recognized the need for additional, efficiently designed and optimally organized space, building and technology infrastructure that accommodates the needs of a 21st century laboratory, and a space that meets bio-containment and biosafety requirements. Renovation of existing space was considered, but adequacy and location of swing space, extended construction intervals due to phasing, and the magnitude of the infrastructure improvements required to address biosecurity

and biocontainment needs were significant limiting factors. Any solution must minimize disruptions to laboratory functions, not interfere with the operational continuity of the VDL and not affect the veracity of lab results or client responsiveness.

Having the front-end functions of the lab and the testing sections in two different buildings will create challenges with the flow of samples and impedes optimal workflow. To support critical long-term efficiency, effectiveness, and ensure future flexibility to develop and implement new and emerging technologies, a facility that collocates all diagnostic laboratory functions is required.

Annual Operating Expenses

Operations and Maintenance	\$ 223,000
Utilities	540,000
Other (Grounds, Mail, Environmental Health & Safety, Department of Public Safety)	55,000
Annual Capital Renewal	582,000
Total	\$1,400,000

Proposed Project Schedule

Planning and Design	18 months
Bidding	2 months
Construction	24 months
Occupancy	2 months
Total	46 months

d. LeBaron Hall – Replacement
Iowa State University

\$5,000,000 in deferred maintenance would be eliminated through this project.

	<u>Appropriations</u>	<u>Gifts</u>	<u>University Funds</u>	<u>Total</u>
FY 2022	-	-	-	-
FY 2023	\$10,800,000	\$5,000,000	-	\$15,800,000
FY 2024	10,800,000	5,000,000	5,000,000	20,800,000
FY 2025	10,800,000	5,000,000	5,000,000	20,800,000
FY 2026	-	-	-	-
FY 2027	-	-	-	-
Total	\$32,400,000	\$15,000,000	\$10,000,000	\$57,400,000

For ISU's College of Human Sciences, this project would replace LeBaron Hall (49,000 gross square feet) with a new building that is 70% larger, and renovate 6% of the adjoining MacKay Hall, built in 1911. Built in 1958, LeBaron Hall has not been significantly renovated since its original construction.

Over half of the College of Human Sciences (CHS) resides in a four-building complex on central campus, which includes LeBaron and MacKay, along with Palmer Hall (2000) and Human Nutritional Sciences Building (HNSB, 1992).

Following comprehensive, holistic and long-term space studies in 2014 and 2017, the need was revealed for additional space within CHS based on new programs, increased enrollment within the college, changing classroom needs and evolving research space. MacKay Hall was included in the study due to its deteriorated condition. The importance of optimizing the college's central campus location and its limited expansion opportunities were recognized.

Other findings found that mechanical systems are outdated. Air distribution is poor. Plumbing is inadequate and electrical and data systems have limited capacity and distribution. Accessibility in the complex is a concern, as well. Restrooms, elevators and wayfinding need to be significantly improved. Necessary infrastructure to support high-tech equipment for data collection, computing and creative laboratory design does not exist and cannot be added due to structural limitations in the building.

The ISU's College of Human Sciences' programs are highly ranked, yet current facilities no longer match programmatic excellence.

The LeBaron Hall – Replacement project would result in new and updated facilities that would offer a contemporary learning environment that would encourage independent learning and leadership building, create a sense of community and inclusiveness and better prepare students by facilitating industry-based and experiential learning.

Additional space would provide cutting-edge instructional opportunities, including multi-purpose classrooms of varying sizes. Teaching laboratories would meet industry standards and program enrollment needs. Centralized distance education classrooms would enhance the efficiency and effectiveness of alternative educational delivery methods.

Good common space, currently limited across all CHS facilities, would provide a sense of place, a community hub for students, faculty, staff and administration. The proposed new atrium and circulation core would serve various purposes, including teaching and research space for the event management program, event space for the college and the University, and space for students to study independently and in groups.

ISU's College of Human Sciences is a national leader in teaching, research and outreach across five academic units and fourteen majors with 4,500 students, 180 faculty and 140 staff. Renowned as a pioneer in home economics, ISU's CHS is built on that strong home economics foundation and includes apparel, merchandising and design, events management, hospitality management, food science and human nutrition, human development and family studies, kinesiology and PK-20 (pre-kindergarten through university) education.

Annual Operating Expenses

Operations and Maintenance	\$ 76,000
Utilities	155,000
Other (Grounds, Mail, Environmental Health & Safety, Department of Public Safety)	18,000
Annual Capital Renewal	147,000
Total	\$396,000

Proposed Project Schedule

Planning	24 months
Bidding	2 months
Construction	30 months
Occupancy	2 months
Total	58 months

e. Girls Dormitory HVAC & Electrical
Iowa School for the Deaf

\$3,800,000 in deferred maintenance would be eliminated by this project.

	<u>Appropriations</u>	<u>Gifts & Other Funds</u>	<u>Total</u>
FY 2022	-	-	-
FY 2023	\$5,043,747	-	\$5,043,747
FY 2024	-	-	-
FY 2025	-	-	-
FY 2026	-	-	-
FY 2027	-	-	-
Total	\$5,043,747	\$0	\$5,043,747

Built in 1961 (south half) and 1971 (north half), ISD's Girls' Dormitory is a three and four-story residence hall near ISD's main entrance. It houses 35 female students ages 5 to 18 year-round and includes two institutional departments: the Health Center and Audiology. The dormitory, the Health Center and Audiology would all be renovated in this project.

The HVAC (heating, ventilation and air conditioning) systems in the Girls' Dormitory are inefficient and have reached the end of their useful lives. While the Health Center, Audiology and student lounges have window air conditioning units, the sleeping quarters for the 35 girls are not air-conditioned. Updating the HVAC would require simultaneous enhancements to the electrical system including new lighting and electrical power.

The fire detection system needs to be upgraded to adequately notify deaf, blind or deaf and blind occupants. The upgraded system would emit a blue strobe for an intruder, amber strobe for bad weather and white strobe light for fire. Likewise, rather than a fire alarm horn, the system would broadcast a human voice plainly describing the hazardous event.

In addition, the 58-year-old brick exterior walls have water and air infiltration, making the existing HVAC systems work even harder and diminishing the comfort of the residents. Water is seeping into the basement through cracks in the concrete foundation. To resolve this, this project would waterproof the foundation and seal (tuck point) the exterior walls.

As defined by the Coordinating Council and approved by the Board of Regents, ISD implements the 'preferred vision,' which includes year-round extended learning opportunities for students who are deaf, blind or deaf and blind. This requires year-round housing, making ISD the only program out of five in the State of Iowa to provide on-site residency.

Proposed Project Schedule

Planning	1.5 months
Bidding	1.0 months
Construction	9.0 months
Occupancy	0.5 months
Total	12.0 months

**f. Replace Transmission Equipment at WOI-FM and KSUI-FM
Iowa Public Radio**

\$1,000,000 in deferred maintenance would be eliminated by this project.

	<u>Appropriations</u>	Gifts & Other <u>Funds</u>	<u>Total</u>
FY 2022	-	-	-
FY 2023	\$1,200,000	-	\$1,200,000
FY 2024	-	-	-
FY 2025	-	-	-
FY 2026	-	-	-
FY 2027	-	-	-
Total	\$1,200,000	\$0	\$1,200,000

WOI-FM transmitter, transmission line and antenna: \$875,000 of the \$1,200,000

This project would replace the antenna and transmission system for WOI-FM, owned by and licensed to Iowa State University. WOI-FM is the main signal for the Iowa Public Radio network in the Des Moines/Ames area and is an essential hub for IPR’s statewide network. Originating in Ames, the signal serves 60,600 listeners in 15 counties in central Iowa each week with news, information and cultural programming.

Portions of WOI-FM’s main transmitter system are 25-years-old, and the associated analog-only backup system is 40-years- old. The WOI-FM transmission line and antenna are also over 20-years-old with obsolete transmission line clamps. A failure in any segment would likely necessitate replacement of the entire transmission line. The usual life of transmission systems is 15-20 years, so this equipment is now exceeding its expected life. With replacement of these systems, WOI-FM would move the current transmitter system into a back-up role. This would also ensure that both the main transmission system and back-up system are HD (digital) radio-capable.

KSUI-FM transmission line and studio-to-transmitter link: \$325,000 of the \$1,200,000

This part of the project would replace the transmission line and studio-to-transmitter link for KSUI, owned by and licensed to the University of Iowa. KSUI is IPR’s largest classical radio signal, serving 48,000 listeners in 13 counties in eastern Iowa. IPR’s Classical Service has 10 stations statewide and is the only classical music radio service in the State.

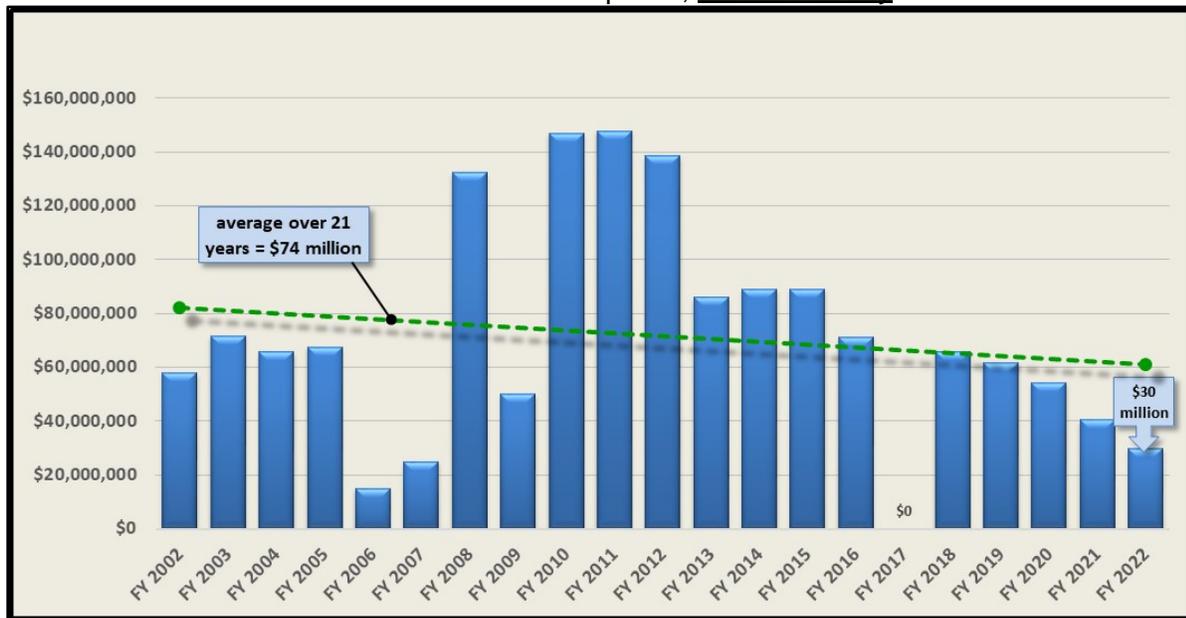
In 2015, this station’s transmission line failed catastrophically making it inoperable for several weeks, until repairs were complete. The station did, however, have a lower-powered backup site, which continued service temporarily to Cedar Rapids and Iowa City only. Even though the line was repaired, it was compromised and subject to another failure.

Proposed Project Schedule

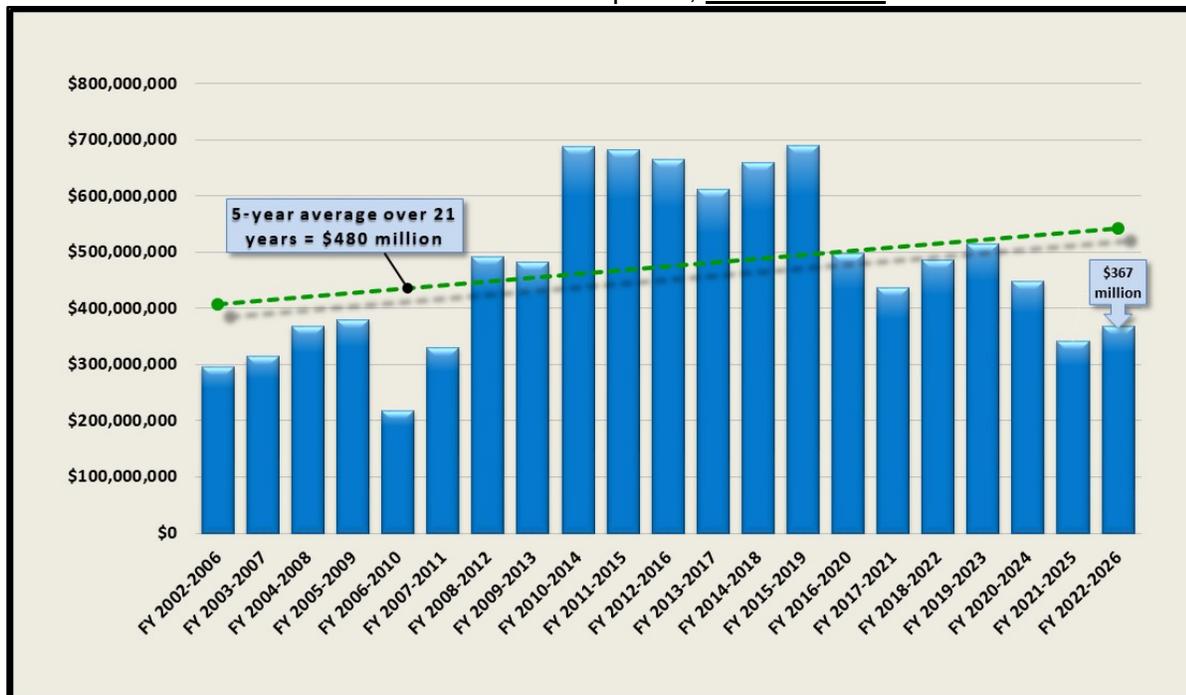
Planning	3 months
Bidding	1 months
Construction	8 months
Total	12 months

4. History of Capital Requests for State Funds

State Fund Requests, First Year Only



State Fund Requests, All Five Years



5. Five-Year Capital Plan for UIHC

This Five-Year Capital Plan for University of Iowa Hospitals and Clinics projects for FY 2022-FY 2026 for \$187 million is down 73% from last year's \$624 million. It is funded by Hospital Building Usage Funds (patient-generated revenues) and UIHC bonds.

The plan includes multiple projects that enhance UIHC infrastructure, renovate laboratories to accommodate new technology, convert inpatient rooms to single-bed rooms and meet accreditation requirements.



**FIVE-YEAR CAPITAL PLAN for UIHC
FY 2022 - FY 2026 *(\$ in thousands)**

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total	Source of Funds*
Fire and Environmental Safety							
Facility Wide Improvements to Meet Accreditation/Regulatory Requirements	\$ 650	\$ 750	\$ 750	\$ 750	\$ 750	\$ 3,650	9
Fire Protection Systems Replacement / Enhancements (multiple projects)	400	400	400	400	500	2,100	9
Subtotal =	\$ 1,050	\$ 1,150	\$ 1,150	\$ 1,150	\$ 1,250	\$ 5,750	
RENOVATION							
UIHC Cancer Center Expansions (Multiple Projects)	\$ 500	\$ 6,000	\$ 6,000			\$ 12,500	9, 11
Catheterization Lab Expansion	\$ 4,200	\$ 21,800				\$ 26,000	9, 11
UIHC Electrical Power Enhancements (multiple projects)		\$ 13,275	\$ 3,525	\$ 3,080	\$ 6,300	\$ 26,180	9
UIHC Facilities Enhancement Program (multiple projects)		15,000	10,000	10,000	10,000	45,000	9
UIHC Facility Infrastructure Investment (multiple projects)		31,100	20,400	20,100	-	71,600	9
Subtotal =	\$ 4,700	\$ 87,175	\$ 39,925	\$ 33,180	\$ 16,300	\$ 181,280	
Total =	\$ 5,750	\$ 88,325	\$ 41,075	\$ 34,330	\$ 17,550	\$ 187,030	

*** Source of Funds Key:**

- | | | |
|--|--|---|
| 1 (not used: report State Funds in Table 1) | 5 Dept'l Renewal and Replacement Funds | 9 University Hospitals Building Usage Funds |
| 2 Building Renewal Funds | 6 Aux. Service or Enterprise Revenue Bond: | 10 Center for Disabilities & Development |
| 3 Treasurer's Temporary Investments (TTI) Income | 7 Iowa DOT (Road Use Tax Funds) | Building Usage Funds |
| 4 Gifts and Grants | 8 Student Health Fees | 11 UIHC Bonds |

* All projects identified in UIHC's Five-Year Capital Plan are contingent upon the availability of self-generated UI Hospitals and Clinics funding, UIHC bond revenue and/or gifts, approval through UIHC's annual capital budget process, finalizing specific renovation projects associated with UIHC's "Strategic Facility Master Plan" for FY 2006-2035, and approval of each project by the Board of Regents, State of Iowa. In addition, the "cutting edge" responsibility of the UIHC constantly brings about some revisions in planning. While this list includes all projects now envisioned for the FY 2022-2026 period, the dynamics of clinical service-educational demands, corollary societal forces, accreditation, and regulatory requirements may mandate other projects over time. In accord with long-standing practice, any such changes which arise will be fully documented for consideration and approval by the Board of Regents, State of Iowa.

The UIHC Five-Year Capital Plan includes only those projects that are anticipated to be initiated during FY 2022-2026. It does not include projects with previously approved budgets that will have expenditures during the FY 2022-2026 period.

6. Five-Year Capital Plan for Other Funds

The Five-Year Capital Plan for Other Funds for \$882 million for all three universities is up 6% from last year's \$828 million.

Capital Plans for Other Funds are funded by operating budget building repair funds, income from treasurer's temporary investments (TTI), auxiliary service or enterprise bond funds (athletics, residence systems, parking, utilities and student unions), donor gifts, grants, departmental renewal and replacement funds. Road projects are paid for by the Iowa Department of Transportation's "State Parks and Institutional Roads Program," funded by the Iowa Road Use Tax Fund (RUTF).

Other Funds are not financed by any state funds such as Capital Appropriations or Academic Building Revenue Bonds, nor are they funded by UIHC funds.

Five-Year Capital Plans for Other Funds
(\$ in thousands)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
SUI	\$ 38,935	\$105,440	\$102,822	\$111,410	\$146,689	\$505,296
ISU	78,472	72,832	22,082	12,392	12,162	197,940
UNI	30,859	29,880	32,577	43,623	42,250	179,189
Total	\$148,266	\$208,152	\$157,481	\$167,425	\$201,101	\$882,425 *

* Up 6% from last year.



FIVE-YEAR CAPITAL PLAN for OTHER FUNDS

(\$ in Thousands)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Five Year Total	Source of Funds*				
FIRE & ENVIRONMENTAL SAFETY	\$ 1,175	\$ 1,200	\$ 1,250	\$ 1,300	\$ 1,350	\$ 6,275	2				
DEFERRED MAINTENANCE	7,500	9,000	12,000	15,000	20,000	63,500	2				
CAMPUS SECURITY	1,000	1,000	1,000	1,000	1,000	5,000	2				
UTILITY IMPROVEMENTS (now part of the P3, no longer UI)											
NEW CONSTRUCTION											
College of Public Health Consolidation	\$ -	\$ -	\$ 5,000	\$ 20,000	\$ 10,805	\$ 35,805	4, 5				
Well-Being Center	\$ 5,000	\$ 45,000				\$ 50,000	6, 8				
IIHR Facility	-	1,740	10,000	5,700	-	17,440	4, 5				
NADS Addition	-	-	-	1,170	6,500	7,670	4, 5				
Subtotal =	\$ 5,000	\$ 46,740	\$ 15,000	\$ 26,870	\$ 17,305	\$ 110,915					
RENOVATIONS											
Athletic Facilities - Renewal & Improvements	\$ 1,500	\$ 1,750	\$ 2,000	\$ 2,500	\$ 3,000	\$ 10,750	4, 6				
Bowen Science Building - Renovate 4th Floor, All Cores	-	-	-	5,174	11,181	16,355	4, 5				
Bowen Science Building - Renovate 6th Floor, All Cores	-	-	-	5,066	4,246	9,312	4, 5				
Calvin Hall - Renovate	-	1,200	7,000	2,000	-	10,200	6				
College of Medicine Facilities - Renewal & Improvements	541	563	585	608	-	2,297	4, 5				
Duane Banks Field - Stadium Upgrades	-	-	15,000	-	-	15,000	4, 6				
Gilmore Hall Modernization	-	-	2,200	5,000	-	7,200	3				
Halsey Hall - Raze	-	-	-	-	3,070	3,070	2				
Hardin Library Renovation Phase I	1,000	4,000				5,000	3				
Housing Facilities - Renewal & Improvements	12,920	10,350	1,500	1,000	-	25,770	6				
Iowa Memorial Union Modernization				8,000	82,000	90,000	6				
Jefferson Building - Modernization	3,000	5,000	10,000	-	-	18,000	3				
Library - Modernization	-	4,000	22,000	22,000	6,600	54,600	3, 4, 5				
Medical Laboratories - Renovate 2nd Floor	2,812	-	-	-	-	2,812	4, 5				
Old Capitol - Repair West Terrace	-	2,560	-	-	-	2,560	2				
Old Museum of Art - Revitalization	-	-	1,500	15,380	-	16,880	4				
Telecommunications - Renewal & Improvements	3,100	3,100	3,100	3,100	3,100	15,500	5				
University Capitol Centre - Renovate for Student Services	-	4,110	750	-	-	4,860	3, 4, 5				
Westlawn - Raze	-	3,580	-	-	-	3,580	2, 3				
Subtotal =	\$ 24,873	\$ 40,213	\$ 65,635	\$ 69,828	\$ 113,197	\$ 313,746					
PARKING / INSTITUTIONAL ROADS											
Institutional Roads Program	\$ 872	\$ 872	\$ 872	\$ 872	\$ 872	\$ 4,360	7				
Parking System - Renewal & Improvements	3,290	2,615	1,315	1,340	1,315	9,875	5, 6				
Reconstruct Lot 40/44	2,400	-	-	-	-	2,400	5, 6				
East Campus New Ramp Construction	2,500	10,000	10,000	2,500	-	25,000	5, 6				
Hospital Ramp 1 Replacement	-	5,000	10,000	10,000	-	25,000	5, 6				
IMU Facility Replacement	-	-	-	-	14,000	14,000	5, 6				
Subtotal =	\$ 9,062	\$ 18,487	\$ 22,187	\$ 14,712	\$ 16,187	\$ 80,635					
SUI Total = \$ 38,935							\$ 105,440	\$ 102,822	\$ 111,410	\$ 146,689	\$ 505,296

*** Source of Funds Key:**

- | | |
|---|--|
| 1 (not used: report State Funds in Table 1) | 7 Iowa DOT (Road Use Tax Funds) |
| 2 General Fund Building Renewal | 8 Student Health Fee |
| 3 Income from Treasurer's Temporary Investments | 9 University Hospital Building Usage Fund |
| 4 Gifts and Grants | 10 Center for Disabilities and Development Building Usage Fund |
| 5 Departmental Renewal and Replacement Funds | 11 University Hospital Revenue Bonds |
| 6 Auxiliary Service or Enterprise Revenue Bonds | 12 Federal Appropriations |

IOWA STATE UNIVERSITY

FIVE-YEAR CAPITAL PLAN for OTHER FUNDS (\$ in Thousands)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Five Year Total	Source of Funds
FIRE & ENVIRONMENTAL SAFETY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DEFERRED MAINTENANCE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
CAMPUS SECURITY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
UTILITY IMPROVEMENTS							
Power Plant Station Power Replacement	\$ 2,900	\$ 2,000	\$ 2,200	\$ 1,700	\$ 1,500	\$ 10,300	6
Conversion of Coal Boilers to Natural Gas	6,500	4,000	-	-	-	10,500	6
Well #9 Replacement	500	-	-	-	-	500	6
Subtotal =	\$ 9,900	\$ 6,000	\$ 2,200	\$ 1,700	\$ 1,500	\$ 21,300	
NEW CONSTRUCTION							
Curtiss Farm- Feed Mill and Grain Science Complex	15,000	6,200	-	-	-	21,200	4
Industrial Engineering Building	20,000	20,000	-	-	-	40,000	4
Complex for Advanced Packaging Research	-	5,000	5,000	-	-	10,000	4
Subtotal =	\$ 35,000	\$ 31,200	\$ 5,000	\$ -	\$ -	\$ 71,200	
RENOVATIONS							
Black Engineering Renovation	-	-	2,500	-	-	2,500	4
Memorial Union Floors 4-6	5,000	6,000	-	-	-	11,000	6
Memorial Union-Second Floor-Remodel	500	500	-	-	-	1,000	6
Memorial Union-Third Floor-Remodel	-	1,200	1,100	-	-	2,300	6
Remodeling for Birch/Spruce ISD personnel	300	-	-	-	-	300	5
Armory – Remodel studio space for BPMI program	-	-	400	-	-	400	5
Ross Hall - Develop multi-departmental reception area	-	-	500	-	-	500	5
Gilman Hall - Remodel for General Chemistry faculty	-	500	-	-	-	500	5
Gilman Hall - Remodel for other faculty/staff	-	-	-	400	-	400	5
Gerdin - Remodel of UG & Grad programs & Career Services	-	1,650	-	-	-	1,650	4
Selected Building Demolition (Genetics Lab & Poultry)	800	-	-	-	-	800	6
Hilton and Scheman Renovations/Deferred Maintenance							
Private Funds	4,000	-	-	-	-	4,000	4
Auxiliary Funds	10,500	10,500	-	-	-	21,000	6
Union Drive Marketplace Phase II	2,000	-	-	-	-	2,000	6
Union Drive Marketplace Dishroom	500	-	-	-	-	500	6
Conversations Life Cycle Refresh	-	1,000	-	-	-	1,000	6
Subtotal =	\$ 23,600	\$ 21,350	\$ 4,500	\$ 400	\$ -	\$ 49,850	
TELECOMMUNICATIONS	\$ 2,800	\$ 4,990	\$ 4,310	\$ 3,170	\$ 3,540	\$ 18,810	6
Subtotal =	\$ 2,800	\$ 4,990	\$ 4,310	\$ 3,170	\$ 3,540	\$ 18,810	
PARKING / INSTITUTIONAL ROADS							
Iowa State Center/Jack Trice Stadium Event Parking	2,500	2,500	-	-	-	\$ 5,000	6
Institutional Roads Program	\$ 872	\$ 872	\$ 872	\$ 872	\$ 872	\$ 4,360	7
Annual Parking Lot Pavement Preservation	2,900	2,200	1,800	2,000	2,000	10,900	6
Subtotal =	\$ 6,272	\$ 5,572	\$ 2,672	\$ 2,872	\$ 2,872	\$ 20,260	
RESIDENCE SYSTEM							
Friley Residence Hall-Roof Replacement Phase 1 & 2 of 2	-	2,450	2,450	-	-	4,900	6
Frederiksen Court-Life Cycle Paint and Carpet	900	100	950	950	950	3,850	6
Barton Residence Hall-Window Replacement	-	750	-	-	-	750	6
Schilleter Village-Window and Deck Replacement	-	420	-	-	-	420	6
Helser Residence Hall-Bathroom Improvements Phases 1 -3 of 3	-	-	-	3,300	3,300	6,600	6
Subtotal =	\$ 900	\$ 3,720	\$ 3,400	\$ 4,250	\$ 4,250	\$ 16,520	
ISU Total =	\$ 78,472	\$ 72,832	\$ 22,082	\$ 12,392	\$ 12,162	\$ 197,940	

Source of Funds Key:

- | | |
|---|---|
| 1 (not used): report State Funds in Table 1) | 5 Departmental Renewal and Replacement Funds |
| 2 General Fund Building Renewal | 6 Auxiliary Service or Enterprise Revenue Bonds |
| 3 Income from Treasurer's Temporary Investments | 7 Iowa DOT (Road Use Tax Funds) |
| 4 Gifts and Grants | |



FIVE-YEAR CAPITAL PLAN for OTHER FUNDS
(\$ in Thousands)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Five Year Total	Source of Funds
FIRE & ENVIRONMENTAL SAFETY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DEFERRED MAINTENANCE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
CAMPUS SECURITY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
UTILITY IMPROVEMENTS							
Steam Distribution System Replacement Phase 2 - West Campus	\$ 1,875	\$ -	\$ -	\$ -	\$ -	\$ 1,875	6
Power Plant Boiler #3 Electrical Infrastructure	1,300	-	-	-	-	\$ 1,300	6
Campus & Tunnel T-5 Vault Repairs	1,400	-	-	-	-	\$ 1,400	6
Subtotal =	\$ 4,575	\$ -	\$ -	\$ -	\$ -	\$ 4,575	
NEW CONSTRUCTION							
Subtotal =	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
RENOVATIONS							
Industrial Technology Center Modernization (Private funds portion)	\$ -	\$ 2,138	\$ 2,138	\$ -	\$ -	4,276	1, 4
Maucker Union, University Center	-	-	3,069	19,437	18,414	40,920	4, 6
Gallagher Bluedorn Performing Arts Center Expansion	6,000	8,360	-	-	-	14,360	4
Outdoor Track Replacement	1,000	-	-	-	-	1,000	
Basketball/Volleyball Practice Facility	14,348	14,346	-	-	-	28,694	4
Outdoor Soccer Field	-	-	1,684	-	-	1,684	4
UNI-Dome Restroom and Club Boxes	-	-	20,000	20,000	20,000	60,000	4
Building Repair	1,400	1,400	1,400	1,400	1,400	7,000	2
Subtotal =	\$ 22,748	\$ 26,244	\$ 28,291	\$ 40,837	\$ 39,814	\$ 157,934	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads	\$ 436	\$ 436	\$ 436	\$ 436	\$ 436	\$ 2,180	7
Subtotal =	\$ 436	\$ 436	\$ 436	\$ 436	\$ 436	\$ 2,180	
RESIDENCE SYSTEM							
Noehren Hall Student Room Remodel Phase 2A and 2B	\$ 2,000	\$ 2,000	\$ -	\$ -	\$ -	4,000	6
Residence System - ResNet Upgrades	1,100	1,200	500	-	-	2,800	6
Roof Replacement	-	-	350	350	2,000	2,700	6
Dormitory Vanity and Sanitary Piping Replacement	-	-	3,000	2,000	-	5,000	6
Subtotal =	\$ 3,100	\$ 3,200	\$ 3,850	\$ 2,350	\$ 2,000	\$ 14,500	
UNI Total =	\$ 30,859	\$ 29,880	\$ 32,577	\$ 43,623	\$ 42,250	\$ 179,189	

Source of Funds Key:

- 1 (not used: report State Funds in Table 1)
- 2 General Fund Building Renewal
- 3 Income from Treasurer's Temporary Investments
- 4 Gifts and Grants
- 5 Departmental Renewal and Replace
- 6 Auxiliary Service or Enterprise Reve
- 7 Iowa DOT (Road Use Tax Funds)
- 8 Student Health Fee
- 9 Multimodal Transportation Center Maintenance
- 10 Parking Operations

**End of
Section A**

(page intentionally left blank)

Section B

INSTITUTIONAL ROADS PROGRAM

Executive Summary: Funded by the Iowa DOT’s “State Parks and Institutional Roads Program” and required by the Board’s *Policy Manual*, the Board Office proposes \$1,723,000 for CY 2021 and \$11,000,000 for the next five years.

1. Five-Year Institutional Roads Program for CY 2021 – CY 2025

Institutional Roads Program		Calendar Years					Total		
		CY 2021	CY 2022	CY 2023	CY 2024	CY 2025			
SUI	Reconstruction and Improvements	Hawkeye Park Road - Phase 2	\$ 200,000					\$ 200,000	
		Melrose Avenue to Hawkeye Drive		\$ 163,010	\$ 2,236,990			\$ 2,400,000	
		Reconstruction and Improvement Subtotal	\$ 200,000	\$ 163,010	\$ 2,236,990	\$ -	\$ -	\$ 2,600,000	
	Repair	Pavement Management	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 225,000	
		Annual Special Maintenance	\$ 150,000	\$ 150,000	\$ 125,000	\$ 555,000	\$ 555,000	\$ 1,535,000	
		Repair Subtotal	\$ 195,000	\$ 195,000	\$ 170,000	\$ 600,000	\$ 600,000	\$ 1,760,000	
	SUI Total		\$ 395,000	\$ 358,010	\$ 2,406,990	\$ 600,000	\$ 600,000	\$ 4,360,000	
	ISU	Reconstruction	Scholl Road - Ontario to just north of railroad tracks		\$ 267,000	\$ 295,000	\$ 188,000		\$ 750,000
			13th Street - Squaw Creek east to ISU property limit					\$ 222,000	\$ 222,000
			Improvement Subtotal	\$ -	\$ 267,000	\$ 295,000	\$ 188,000	\$ 222,000	\$ 972,000
Improvements		Scholl Road lighting - Ontario to Applied Science	\$ 65,000					\$ 65,000	
		University Boulevard & Haber Road - Signal Replacement	\$ 404,400					\$ 404,400	
		Mortensen Road - Traffic Control			\$ 200,000			\$ 200,000	
		South 16th Street (east of Jack Trice Stadium) - traffic signal				\$ 200,000	\$ 200,000	\$ 400,000	
		University Boulevard & 6th Street - Signal Replacement				\$ 100,000	\$ 100,000	\$ 200,000	
		Reconstruction Subtotal	\$ 469,400	\$ -	\$ 200,000	\$ 300,000	\$ 300,000	\$ 1,269,400	
Repair		Pavement Management	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 75,000	
		Annual Special Maintenance	\$ 58,780	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 398,780	
		Pavement Preservation	\$ 328,820	\$ 505,000	\$ 277,000	\$ 284,000	\$ 250,000	\$ 1,644,820	
		Repair Subtotal	\$ 402,600	\$ 605,000	\$ 377,000	\$ 384,000	\$ 350,000	\$ 2,118,600	
ISU Total		\$ 872,000	\$ 872,000	\$ 872,000	\$ 872,000	\$ 872,000	\$ 4,360,000		
UNI		Reconstruction	Center for Energy Environmental Education Drive	\$ 100,000					\$ 100,000
	Nebraska Street (North of W. 22nd Street)		\$ 152,000					\$ 152,000	
	Jennings Drive Lighting System Replacement - Phase 2		\$ 150,000					\$ 150,000	
	Center for Energy Environmental Education Drive							\$ -	
	Wisconsin Street (North of W. 26th Street)			\$ 386,000				\$ 386,000	
	West 31st Street Modifications (Illinois Street to Ohio Street)				\$ 174,000			\$ 174,000	
	Strayer-Wood Loop				\$ 237,000			\$ 237,000	
	Campus Street North (Commons Circle)					\$ 284,000		\$ 284,000	
	Campus Street (South of University Avenue to Jennings Drive)					\$ 127,000		\$ 127,000	
	Campus Street (South of University Avenue to Jennings Drive)						\$ 400,000	\$ 400,000	
	Reconstruction Subtotal	\$ 402,000	\$ 386,000	\$ 411,000	\$ 411,000	\$ 400,000	\$ 2,010,000		
	Repair	Pavement Maintenance	\$ 34,000	\$ 50,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 159,000	
		Repair Subtotal	\$ 34,000	\$ 50,000	\$ 25,000	\$ 25,000	\$ 36,000	\$ 170,000	
	UNI Total		\$ 436,000	\$ 436,000	\$ 436,000	\$ 436,000	\$ 436,000	\$ 2,180,000	
	Repair	crack sealing, pavement repairs	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000	
ISD and Iowa Lakeside Laboratory Total		\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000		
GRAND TOTAL		\$ 1,723,000	\$ 1,686,010	\$ 3,734,990	\$ 1,928,000	\$ 1,928,000	\$ 11,000,000		

2. Overview of Five-Year Institutional Roads Program

The Iowa Department of Transportation's "State Parks and Institutional Roads Program" provides 65/100 of one percent of the \$1.7 billion Iowa Road Use Tax Fund (RUTF) for the construction, reconstruction, improvement and maintenance of roads and streets located on all state land, including the Regents, of course. As specified by the *Iowa Code*, the Regents' annual allocation is 30 percent of this amount. The RUTF is adjusted annually based on actual road use tax receipts.

No State of Iowa General Funds are used for any primary, secondary and municipal projects, like those at the Regents, in Iowa.

Each year, the Iowa DOT provides the Board Office with their allocation. Over the last five years, that allocation has been around \$2.2 million per year, covering the next five calendar years.

- While the Board Office understands that state funds are scarce, this level of funding is not sufficient to address all Regent roadway improvement needs.

After allocating \$20,000 per year for five years or \$100,000 to the ISD and the Iowa Lakeside Laboratory, the Regents' remaining allocation is further distributed 40% SUI, 40% ISU and 20% UNI for their most urgent roadway needs.

SUI, ISU and UNI's most urgent roadway needs fall into three categories:

- reconstruction,
- improvements and
- repairs.

Institutional roads funding most recent increase was in 2015, when the State increased the gasoline and diesel fuel taxes by 10 cents per gallon. The last gas/diesel fuel tax before that was in 1989.

The *Iowa Code* authorizes the State Transportation Commission of the DOT to fund Institutional Roads projects "upon the request of the state board, department, or commission which has jurisdiction over such roads." Subsequently, the Board is asked to approve the Regents' "Institutional Roads Program" annually.

3. CY 2021 only

The \$1,723,000 proposed for CY 2021 is an 11% decrease from last year, while the \$11,000,000 proposed for all five years is a 7% increase from last year's five-year plan.

SUI See page 23.	Hawkeye Park Road – Phase 1		
	Melrose Avenue to Hawkeye Drive	\$ 200,000	
	Pavement Management (ongoing)	45,000	
	Annual Special Maintenance (ongoing)	150,000	\$ 395,000
ISU See page 24.	Scholl Road lighting –		
	Ontario to the Applied Science Buildings	65,000	
	University Boulevard & Wallace Road, Signal Replacement	404,400	
	Pavement Management (ongoing)	15,000	
	Annual Special Maintenance (ongoing)	58,780	
	Pavement Preservation (ongoing)	328,820	\$ 872,000
UNI See page 25.	Center for Energy Environmental Education Drive	\$ 100,000	
	Nebraska Street (North of W. 22nd Street)	152,000	
	Jennings Drive Lighting System Replacement - Phase 2	150,000	
	Pavement Maintenance (ongoing)	34,000	\$ 436,000
	ISD & Iowa Lakeside Laboratory	Crack Sealing/Repairs	\$ 20,000
Proposed Institutional Roads projects for CY 2021			\$ 1,723,000

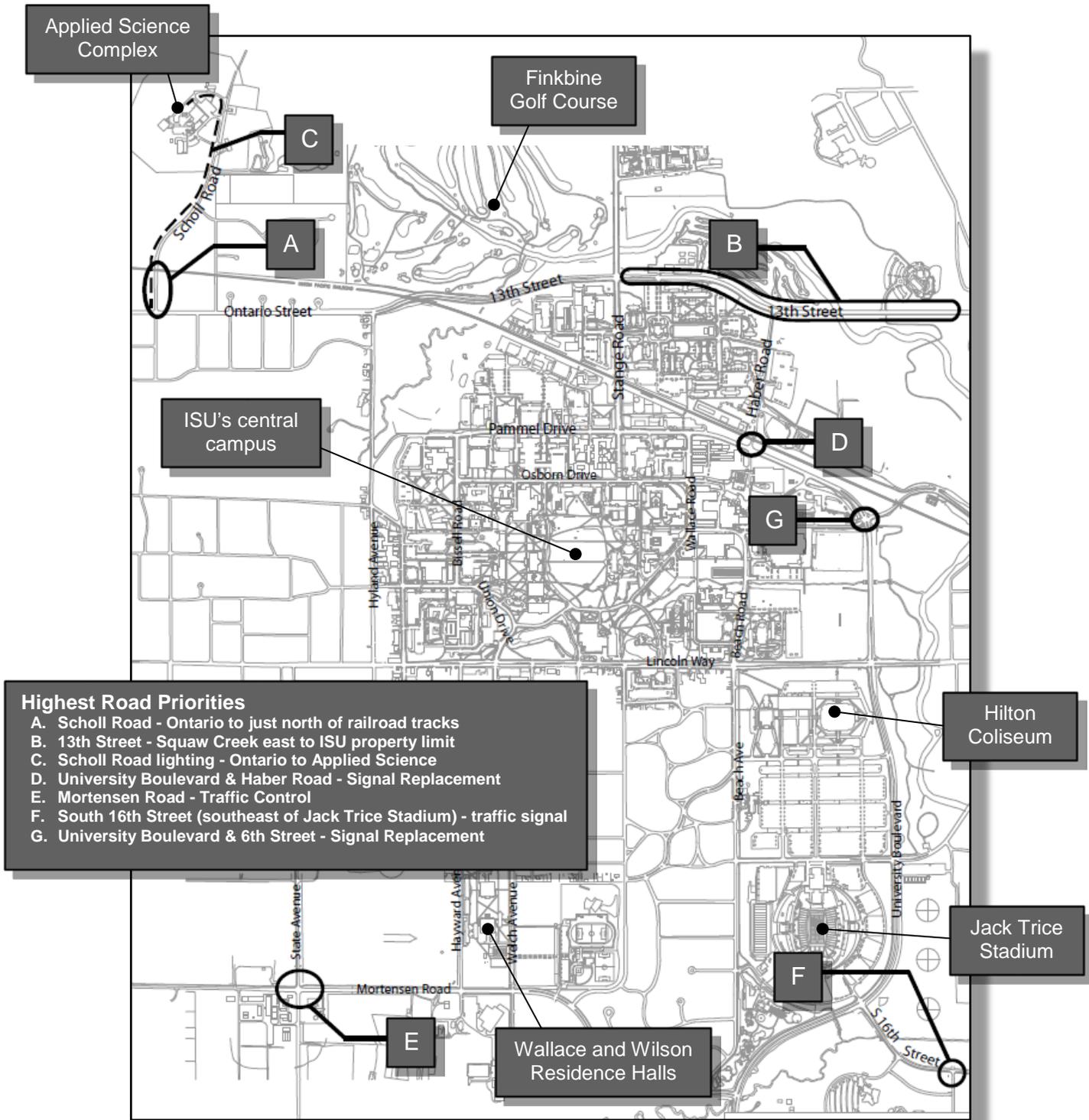
These projects are also subject to the Board's capital project approval process, consistent with the Board's *Policy Manual*, Chapter 2.3.

4. Project Descriptions

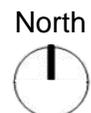
- a. **University of Iowa:** Hawkeye Park Road Phase 1, Melrose Avenue to Hawkeye Drive planned for CY 2021



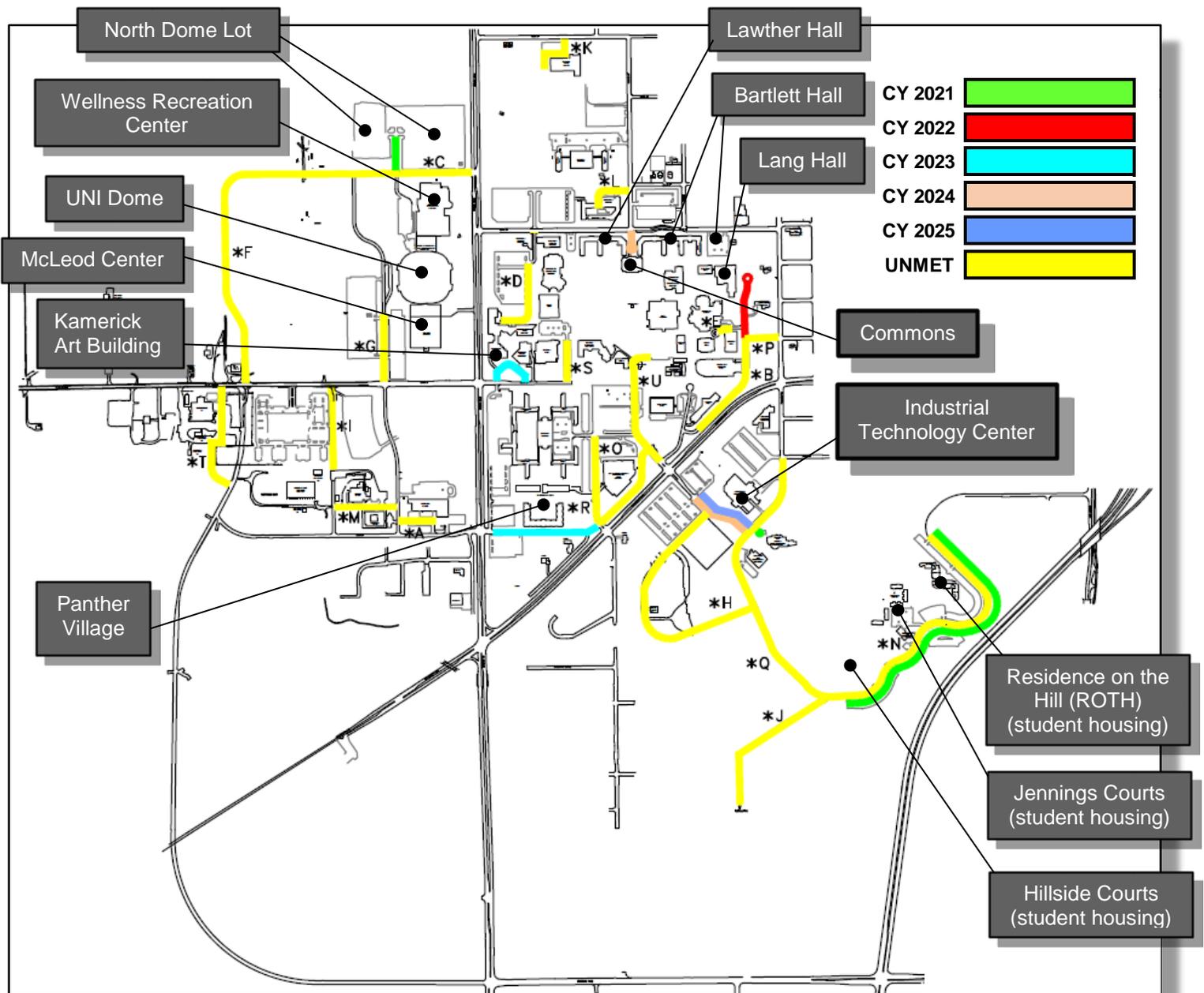
b. Iowa State University: Planned for CY 2021- CY 2025



Iowa State University campus



c. University of Northern Iowa: planned for CY 2021- CY 2025



University of Northern Iowa campus



End of
Section B

(page intentionally left blank)

Section C

FACILITIES GOVERNANCE REPORT

Executive Summary: The annual Facilities Governance Report for FY 2020, required by the Board's *Policy Manual*, is intended to provide the Board with an overview the size, age, value and general condition of the Board of Regents' facilities.

Combined with intellectual, financial and human resources, facilities are a primary asset of higher education institutions. Quality facilities help ensure excellent academic programs and the ability to attract and retain students, faculty and staff.

1. Key Facts

Size, Age and Value of Facilities

• Acres, total	= 5,120 acres*
• Square footage, total	= 41 million gsf
• Building age, average	= 42 years
• Replacement value, GEF facilities	= \$ 10 billion
• Replacement value, all facilities	= \$ 21 billion

All Funds Spent: projects over \$250,000

• FY 2020	= \$ 289 million
• Average over 11 years	= \$ 386 million
down 25% from average, difference	= (\$ 97 million)

Fire Safety: General Education Fund facilities only

• FY 2020, completed	= \$ 2.6 million
• Average completed over 28 years	= \$ 3.1 million
down 16% from average, difference	= (\$ 0.5 million)
• FY 2021, planned for correction	= \$ 2.8 million
• Outstanding Fire Safety, total	= \$ 9.2 million**

Deferred Maintenance: General Education Fund facilities only

• FY 2020, completed	= \$ 42 million
• Average completed over 28 years	= \$ 21 million
up 100% from average, difference	= \$ 21 million
• FY 2021, planned for correction	= \$ 32 million
• Outstanding Deferred Maintenance, total	= \$ 1.2 billion**

* Does not include ISU's 9,500 acres in agricultural research farms.

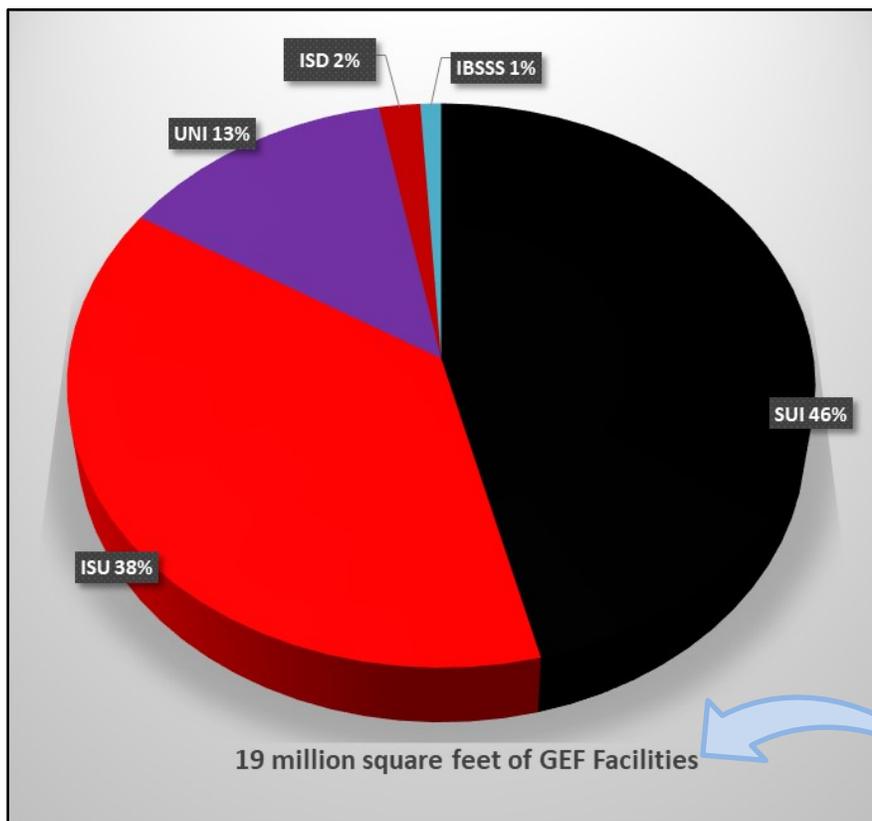
** \$30 million in State Funds has been requested to address outstanding deferred maintenance, fire & environmental safety, campus security, energy conservation and regulatory compliance in the "Six-Year Capital Plan for State Funds for FY 2022."

2. Size, Age and Value of Facilities

a. Regent acres:

- 4,596 = on-campus acres. Largest on-campus transaction was SUI's purchase of 22 acres in North Liberty for a future UIHC project.
- 524 = off-campus acres. Largest off-campus transaction was ISU's sale of the 45-acre Fick Observatory in Boone County. Please note that ISU's 9,500 acres of agricultural research farms are tracked separately and are not included in off-campus acres.
- 5,120 = total acres

b. Regent square footage: GEF, UIHC and all other



Regent Square Footage by Institution and Use

Gross Square Feet (GSF)	SUI	ISU	UNI	ISD	IBSSS	Total
Academic, Research, & Administration (GEF)	9,001,522	7,380,125	2,572,906	381,236	191,507	19,527,296
UIHC	4,172,242					4,172,242
All Other	8,126,939	7,588,497	2,141,686			17,857,122
	UIHC and All Other Subtotal =					22,029,364
Total	21,300,703	14,968,622	4,714,592	381,236	191,507	41,556,660

The Regents have a total of 41 million gross square feet. It has a replacement value of \$21 billion. Of that 41 million, 19 million square feet is for General Education Fund (GEF) facilities with a replacement value of \$10 billion.

Replacement values are based on the following set of \$/gross square foot values used by all Regent institutions.

Regent Facility Type	Replacement Value per GSF
academic classroom and offices	\$447
administrative offices	\$375
laboratory	\$533
laboratory service	\$331
library	\$415
parking garage	\$75
athletics, recreation, or general use	\$430
hospital	\$993
medical clinic	\$476
student union	\$386
museum	\$465
performing arts	\$613
shop or storage	\$318
residence or house	\$285
day care	\$323
animal facility	\$466

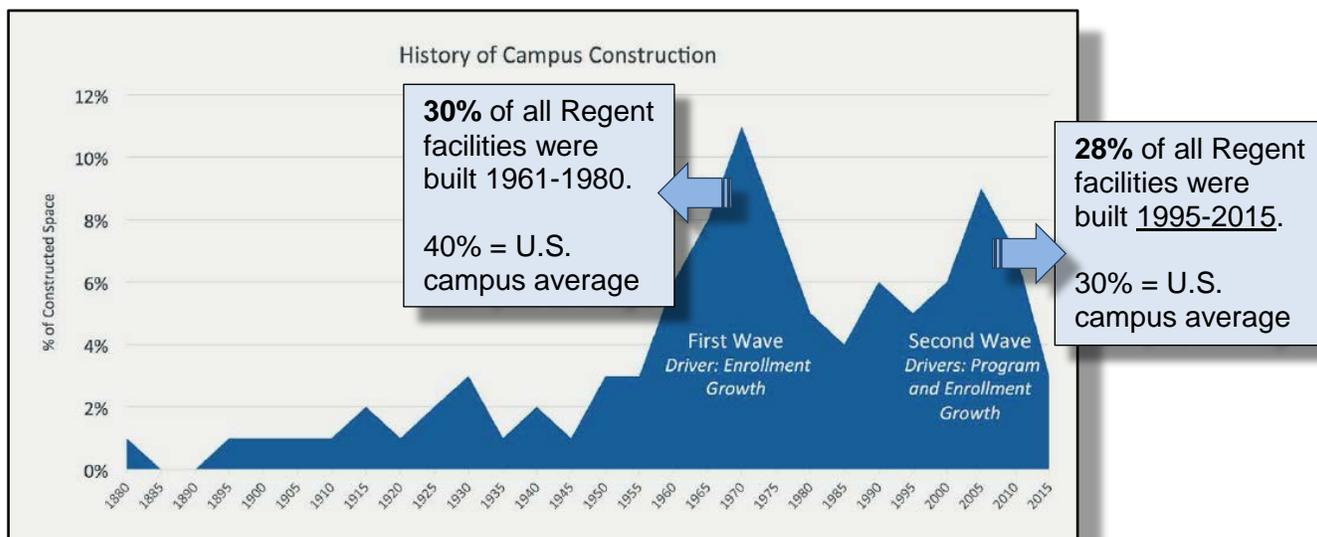
Regent Construction: mid 1800's to present

Gross Square Footage (GSF)	GEF (Academic, Research, Administrative, including SUI's Oakdale campus)		All Regent Facilities	
	GSF of original construction	% of Total	GSF of original construction	% of Total
Years				
mid 1800's-1930	3,696,371	19%	5,222,255	13%
1931-1950	767,506	4%	1,553,086	4%
1951-1960	654,800	3%	1,927,138	5%
1961-1970	2,782,691	14%	7,020,444	17%
1971-1980	3,294,840	17%	5,323,200	13%
1981-1990	1,574,463	8%	3,576,159	9%
1991-2000	2,079,924	11%	4,916,367	12%
2001-2010	2,421,330	12%	5,788,492	14%
2011-2020	2,255,371	12%	6,229,519	15%
Total =	19,527,296	100%	41,556,660	100%
				
GEF makes up 47% of all Regent square footage.				

First Wave of Construction (see chart below)

Second Wave of Construction (see chart below)

c. Age and Quality: Sightlines, a nationally known strategic planning and advisory firm specializing in higher education facilities, has consulted with all three of universities in the past, and tracks over 400 campuses in 44 states and four provinces in Canada. They report there have been two major waves of construction over the last 50 years, that stress all of higher education’s ability to care for their facilities, and contribute to 58% of the Regents’ deferred maintenance.



Sightlines: 2020 State of Facilities in Higher Education

The majority of U.S. campus buildings were constructed before 1975. The Regents’ average facility age is 42 years, up from 41 last year. In any facility, age and the quality of the original construction are the two of the biggest contributors to deferred maintenance and fire safety deficiencies.

➤ **First Wave of Construction**

The “First Wave” of construction in the 1960s and 1970s (see above) represents 40 percent of all campus construction in the United States (30 percent of Regent GEF facilities) today and was generated by the G.I. Bill of 1944 and the Baby Boomer Generation (persons born between 1946 and 1964). This construction wave is characterized by buildings that were built quickly, have poor construction and now represents one of the largest portion of the Regents’ growing backlog of deferred maintenance. Now 39 to 58 years old, most of these facilities have reached or would soon reach the end of their useful lives. These buildings must be repaired, renovated or replaced in order to maintain competitive programs on Regent campuses. This represents our need to “catch up” with deferred maintenance.

➤ **Second Wave of Construction**

The “Second Wave” from 1995 to 2015 represents another 30 percent of all campus construction in the United States (28 percent for Regent GEF facilities) today. It was largely generated by the increasing enrollment of millennials (persons born between 1981 and 1996), who had different higher education expectations, including a higher demand for collaboration and new technology. This wave produced buildings that met those needs, were much more energy efficient and were much more “higher tech.” However, these buildings require more routine maintenance to keep their more sophisticated systems operating at peak performance, and represent our need to “keep up” with deferred maintenance.

In summary, Regent “catch up” needs (30 percent-First Wave) and “keep up” needs (28 percent-Second Wave) make up 58 percent of all outstanding deferred maintenance.

d. Deferred Maintenance Budget Development

While 1.5% had been used in the past, the Board’s *Policy Manual* now states that institutions should budget a more conservative 1% of their facility’s replacement values annually to lower or eliminate the current \$1.2 billion in outstanding GEF deferred maintenance. Subsequently, 1.0% of the Regent GEF facilities’ \$10 billion replacement value results in an annual deferred maintenance budget of \$100 million for all Regent institutions, which is requested annually over multiple years.

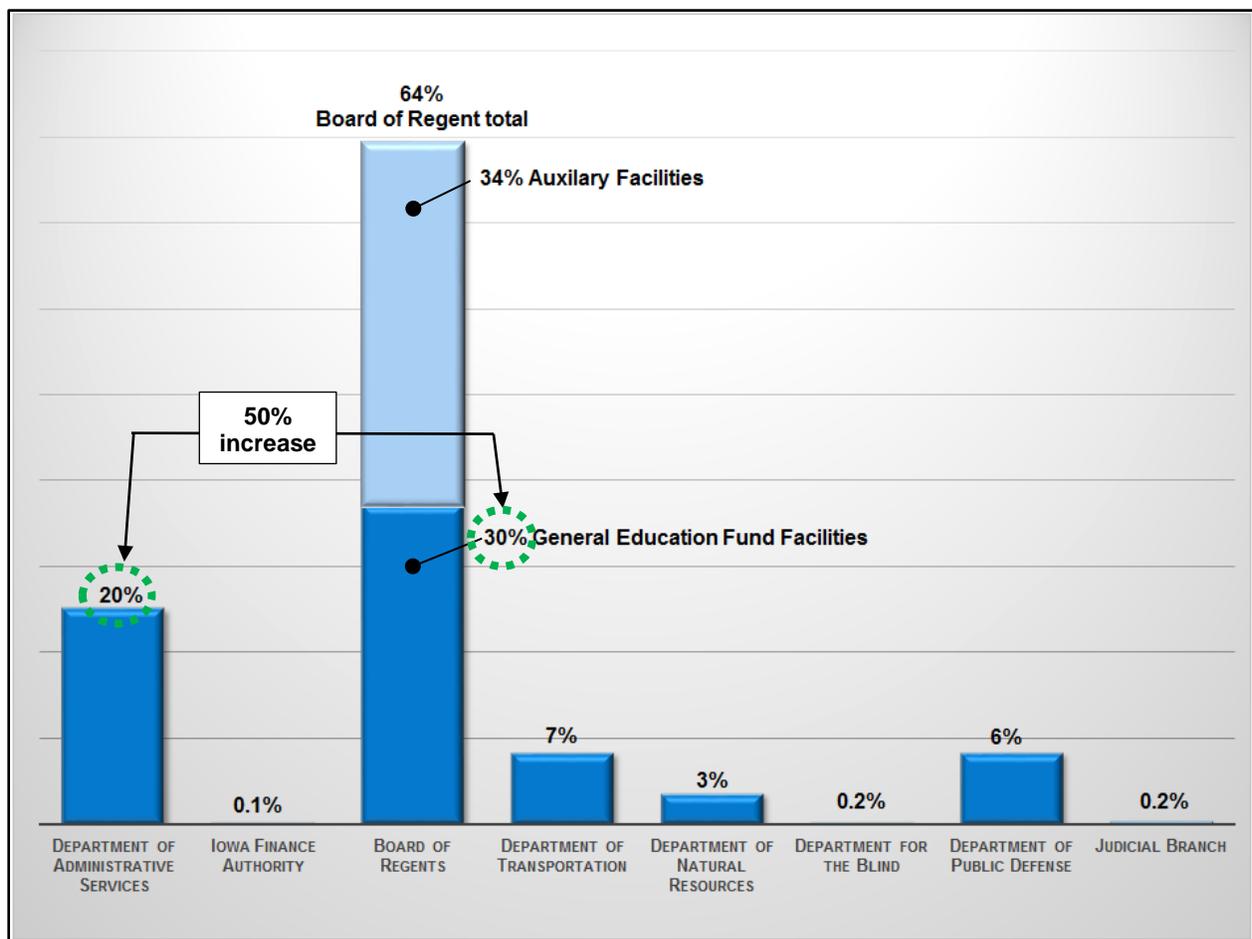
Over the last 28 years, the Regents spend an average of \$21 million per year on GEF deferred maintenance or roughly 1/5 of our \$100 million goal, hence the \$1.2 billion outstanding GEF deferred maintenance.

3. State-Funded Square Footage Comparison: Regents vs Other State Agencies

The following graph compares the amount of state-funded (appropriations and/or Academic Revenue Bonds (ABRs)) square footage of eight State of Iowa agencies. It does not include the Iowa Department of Education, whose facilities are not funded by appropriations or ABRs.

When adding the Regents' auxiliary facilities on top of the Regents' GEF square footage, the Board of Regents own, operate and maintain 64 percent of all square footage at these eight state agencies. Auxiliary facilities include the University of Iowa Hospitals and Clinics, utilities, athletic facilities, residence halls, recreation facilities, parking, student unions and Iowa State University Agricultural Experiment Station.

State-Funded Square Footage*



* April 2017, does not include the Department of Education

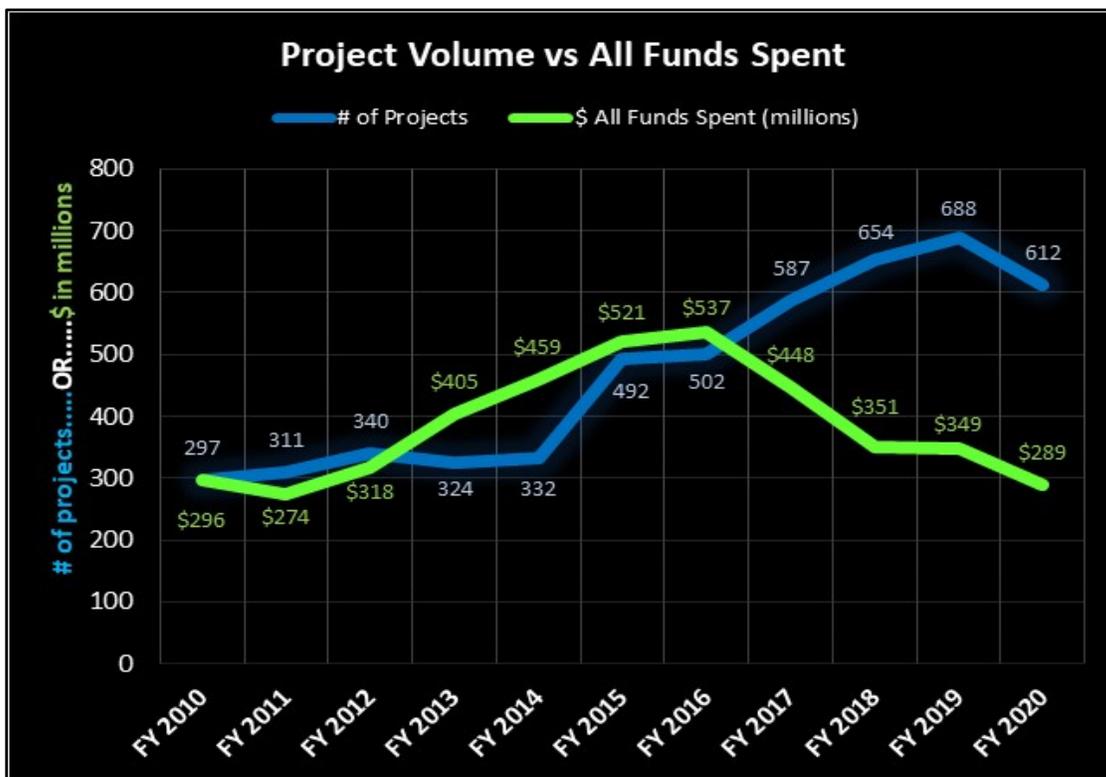
As shown above, the Regents' have 50% more state-funded facilities than the Iowa Department of Administrative Services (DAS).

4. All Funds Spent

Capital Projects over \$250,000, last 11 Years

For all Regent projects over \$250,000 over the last 11 years, Regent institutions together spent an average of \$386 million per year. They spent \$289 million in FY 2020. For the first seven years, project volume and funds spent increased together, until institutions started taking on smaller projects in FY 2016, decreasing the funds spent.

“All Funds” includes state appropriations, building renewal (repair) funds, institutional road funds (DOT), gifts and grants; Treasurer’s Temporary Investments (TTI) income, proceeds of academic building, dormitory, athletics, telecommunications, University of Iowa Hospitals and Clinics (UIHC) building usage funds and revenue bonds.



5. Space Utilization

In October 2015, Ad Astra, a classroom efficiency and scheduling consultant specializing in higher education, presented to the Board its analyses, recommendations and implementation strategies to improve the utilization of classrooms and laboratories at all three universities.

Ad Astra concluded that there was no need for additional classroom space. A number of factors including capacity, seating type and location, as well as the quality and condition of the space, can affect the utilization of a classroom or laboratory.

Space Utilization		University Classrooms			Laboratories		
		SUI	ISU	UNI	SUI	ISU	UNI
Rooms	# of Rooms	334	207	130	170	436	114
	Average Room Periods Used per Week	25.2	28.4	19.0	15.5	12.1	12.0
Seats	# of Seats	17,596	14,387	6,272	4,952	11,572	3,439
	Utilization of Seats when Room is Occupied	61.1%	61.5%	58.1%	60.5%	61.90%	55.1%

University of Iowa

Through renovations and room reassignments over the last year, the number of university classrooms decreased by one, while laboratories went up by one.

The Office of the Registrar, Classroom Scheduling continues to support the recommendations of the 2015 Ad Astra Study and the 2016 TIER (Transparent, Inclusive Efficiency Review). Classroom Scheduling, in partnership with Facilities Management, continues to follow the recommendations of centralized scheduling in assignment of campus classroom and laboratory instructional spaces, and continues to look for areas of continued efficiency improvements. Classroom Scheduling maintains prior policy to limit non-standard course offerings, where feasible. It provides ongoing training for the new academic schedulers and shares university classroom schedules, providing room availability transparency across campus.

The general condition of a classroom has an impact on the demand for it from students and faculty. Classroom environments that facilitate modern configurations offering audio/visual technology, lighting with scene controls, improved acoustics, and functional furniture are in highest demand. These are believed to contribute to an enhanced teaching and learning experience and offer a positive impact on student success and recruitment.

The less desirable classrooms have classroom sizes and furniture that do not adequately address today's teaching or enrollment needs. These spaces are reported to be cramped, offer poor sight lines, have limited writing surfaces to support instruction, do not provide adequate student spacing to induce collaboration, inadequate heating/cooling and poor lighting and acoustics. Currently, 25 percent of SUI's classrooms are inadequate due to poor conditions, poor locations or capability to support today's pedagogies.

Iowa State University

Through renovations and room reassignments over the last year, the number of university classrooms remained the same, while laboratories went up by 11.

➤ Optimal Utilization

Iowa State University has adopted policies, procedures and practices to provide for the optimal utilization of campus facilities. The primary responsibility for efficient use of space rests with the Facilities Planning and Management (FPM) Planning Services in support of University administration. FPM Planning Services is responsible for maintaining information about facilities availability and utilization, and using this information to provide analyses and advice to the University administration about how existing and new space could be used to solve University program space needs. FPM Planning Services is assisted by departments and colleges in the management of space within their control, and supports the University administration in the review and approval of project specific recommendations.

➤ Space Conversion

Advance notice and approval of facility conversion or renovation enhances the University's ability to manage space. The conversion or renovation of space from one function to another requires notification and prior approval of FPM Planning Services. Similarly, contracted space or commitments to new staff, which ultimately require additional space beyond that already assigned, needs prior approval of FPM Planning Services.

➤ Resource Management Model

The Resource Management Model assigns income and expenses to major organizational units of the University. One of the elements of the model is units pay for the operating costs of space used.

University of Northern Iowa

Through renovations and room reassignments over the last year, the number of university classrooms and laboratories both went down by two.

Information provided is based on the University's database as of June 1, 2020. In 2015, the University retained a consultant, Ayers Saint Gross (ASG) of Washington, D.C., to update the space database and verify utilization rates, number of rooms, number of stations and square footage calculations. ASG was subsequently retained to update the report this past year. Additionally, the University of Northern Iowa has created the office of Planning and Space Management to provide comprehensive facilities space planning, space allocation, and facility data information to ensure that University resources are planned, maintained, and managed in a way that contributes to its mission.

The University of Northern Iowa has established Principles and Procedures for Space Assignment. These state that building space on campus is University space and is to be utilized for the maximum benefit of the institution. Space is to be utilized so that it maximizes resources consistent with the University Strategic Plan. Due to the changing space needs relating to social distancing and the coronavirus, many spaces on campus are being reevaluated to provide the best opportunities for students, faculty and staff.

The assignment of instructional space rests with the Registrar's Office. While the Registrar may assign priority use of classrooms and labs to individual units, the space remains University space, and the Registrar retains the authority to schedule the space when not otherwise in use.

Assignment of academic space is the purview of the provost and non-instructional space is made by the division vice president to whom the space is assigned. Principles for non-instructional space state that landscape open office concepts will be utilized as much as possible for administrative functions and for adjunct faculty, graduate students, and emeritus faculty space. Assignment of emeritus and adjunct faculty office space is on a space-available, university-wide basis. The standard faculty office is 120 sq. ft.

The Facilities Planning Advisory Committee composed of members representing each University division, the Academic Affairs Council, the Council of Department Heads, the Faculty Senate, and the Northern Iowa Student Government consider capital project priorities and the assignment of space and forward recommendations to the President's Senior Leadership Team.

The Facilities Management office works with the Registrar's Office on all major capital projects to determine appropriate classroom and lab needs. Attention is given during planning to maximize usable space in facilities for a high net to gross square foot ratio. Energy use and sustainability are key planning elements in the facilities planning process.

Iowa School for the Deaf

There were no changes to ISD's classrooms.

- During FY 2020, ISD leased various spaces to five agencies: the Iowa Educational Services for the Blind and Visually Impaired, Children's Choice Country, FAMILY, Inc., Green Hills Area Education Agency and Promise Partners.

Iowa Braille and Sight Saving School

There were no changes to IBSSS's classrooms.

- November 2019 = Board authorized Executive Director Braun to take all actions necessary to sell IBSSS to the City of Vinton. The sale would maintain the AmeriCorps lease, started in 2008.
- August 27, 2020 = The Board of Regents closed on the sale of the IBSSS campus to the City of Vinton. AmeriCorps would continue to lease 60% of the campus from the City of Vinton through June of 2029.

6. Strategies for Optimal Utilization of Facilities*

1. 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.
2. 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.
3. 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.
4. 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 policy.
5. 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.
6. Each university should consider development of policies regarding office space for part-time employees, including adjunct faculty, graduate students and emeritus faculty.
7. Each university should keep and utilize project guidelines for the size of offices as each new construction or renovation project is carried out.
8. Each institution should submit with its request to lease space, an explanation of how campus spaces were first examined and what spaces were found unsuitable.
9. Classrooms, class laboratories and other facilities should be designed and scheduled for optimal utilization given program needs and student expectations.
10. 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.
11. Institutions should be as thorough and innovative as possible in their allocation and reallocation of space within their existing physical plants.
12. For those facilities thought to be obsolete, the institutions should, of course, assess the building's physical condition, but also its contribution to the university's mission, heritage and potential for reuse. Based upon this assessment, each university should determine whether it is prudent to retain such facilities or raze and recycle them.

* Adopted by the Board, May 2006

7. Interinstitutional Collaboration

- **Electronic bidding** system (Bid Express) = saves at least \$92,000 per year over paper bids through less administrative time, no paperwork, no mailings, virtually zero bidding errors and bidding disputes, and overall more complete bids.

Depending on the number of bids, contractors can save \$20,000 to \$40,000 per year.

- **Electronic signatures** (DocuSign) = saves the Regents at least \$28,000 per year over wet signatures through dramatically less document preparation by facility staff, no paperwork, no mailings and no missed signatures.
- **Electronic meetings** (Zoom) = saves the Regents at least \$12,700 per year by replacing three out of four quarterly Interinstitutional in-person meetings with Zoom meetings, leading to a 75% reduction in meeting time for facility staff and 75% reduction in travel costs.
 - Facility staff started using electronic meetings in 2017.
- In July 2020, ISU and UNI collaborated to replace their outdated facilities management software called FAMIS, software both institutions had used for the last 20 years.
- SUI and ISU continue the development of Miscanthus; a dedicated energy crop grown by local farmers and used as a biofuel replacement of coal at SUI's Power Plant.
 - Miscanthus grass was selected as a source of alternative energy for the University of Iowa in partnership with Iowa State University's Agronomy Department and AgGrow Tech. Since 2013, SUI has planted over 1,200 acres. One acre of Miscanthus grass displaces about 8,000 pounds of coal.
- With the sale of IBSSS to the City of Vinton on August 27, 2020, ISU will oversee only ISD's capital projects, deferred maintenance, fire safety corrections and the abatement of asbestos, lead paint and other hazards.
- SUI will continue to oversee Iowa Lakeside Laboratory's capital projects, deferred maintenance, fire safety corrections and the abatement of asbestos, lead paint and other hazards.
- Facility representatives of SUI, ISU, UNI and the Board Office meet bi-annually with Master Builders of Iowa (MBI) and many Iowa contractors to discuss Regent facility issues, alternative project delivery methods, construction market conditions and upcoming projects.
- Collaborating with the Board Office to ensure that the Board's *Policy Manual* reflects current design and construction practices, simplifying project processes.
- Sharing service contracts for water treatment, environmental emissions testing, hazardous waste disposal, electronic waste recycling, boiler water treatment and cleaning chemicals.
- Meeting annually with building maintenance, grounds and custodial staff to share planning strategies, information and best practices.

8. Fire and Environmental Safety

Fire and environmental safety standards are established by the *State of Iowa Building Code*, which is part of the *Iowa Code*. The State Fire Marshal's Office, a division of the Iowa Department of Public Safety, and the Iowa Occupational and Safety Act (IOSHA), a division of Iowa Workforce Development, implement those standards by teaming with Regent facilities personnel and local fire departments. Fire and environmental safety deficiencies are identified during scheduled site visits with one or more of these agencies.

Fire Safety: 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 as part of a renovation project.

Each institution systematically maintains and prioritizes a list of fire safety issues and updates it as issues are resolved or discovered. Additions to the list often occur when the use of a space changes; when, for example, an office changes to a wet lab.

Should the State Fire Marshal issue a fire safety citation, those can be classified as:

- User: housekeeping or procedural items such as use of a doorstep to prop open a door,
- Maintenance: items requiring no design and minimal expense, such as door repairs, or
- Other deficiencies: items for which the correction requires an outlay of funds beyond facility management maintenance funds; these items are documented and prioritized.

Environmental Safety: Environmental compliance at the institutions is overseen by IOSHA, Environmental Health and Safety (EH&S), Facilities Management personnel and the Office of Risk Management.

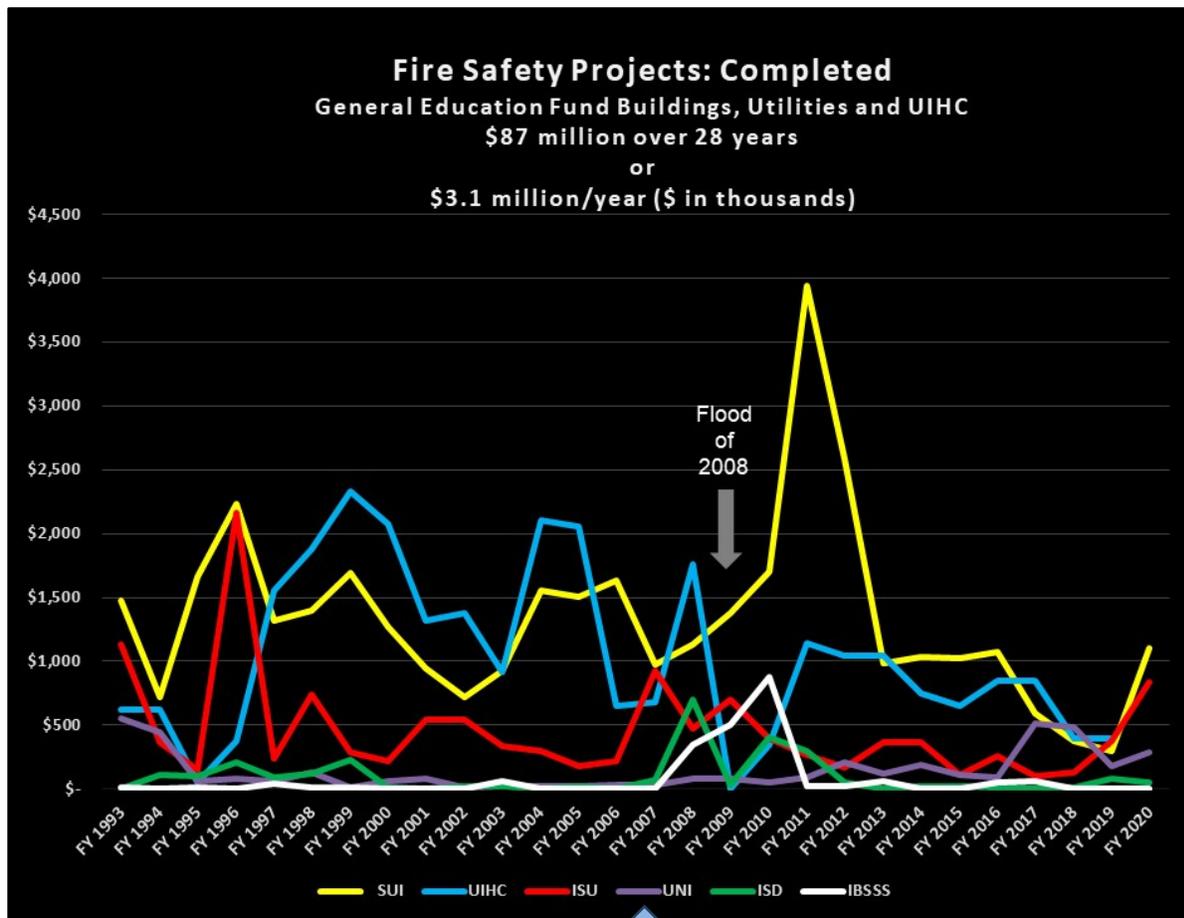
Many environmental safety issues come directly from facilities. Issues include asbestos, lead, Underground Storage Tanks (USTs), Spill Prevention, Control, & Countermeasure (SPCC) Plans, Storm Water Pollution Prevention Plans (SWPPP), Polychlorinated Biphenyls ((PCBs) banned in 1978 and found in fluorescent light ballasts, floor mastic and caulking in 1950-1970 buildings), mercury, the Clean Air Act and radioactive sites. Environmental safety deficiencies are identified by campus personnel and regulatory entities and corrected by the institutions as required.

Asbestos abatement continues to be one of the most common and costly environmental safety issues. For example in FY 2020, Iowa State University spent \$1.1 million at 104 locations to abate asbestos in General Education Fund facilities alone. ISU plans to spend another \$1.1 million in FY 2021.

a. Fire Safety Projects: Completed

The Regents completed over \$87 million in fire safety projects from FY 1993 through FY 2020 (28 years) in General Education Fund facilities, utilities and UIHC. That is an average of \$3.1 million per year.

In FY 2020, \$2.6 million was spent on fire safety projects. Over \$2.8 million is planned for FY 2021.



Source of Funds							
Fire Safety Projects: Completed *	SUI	UIHC	ISU	UNI	ISD	IBSSS	Total
Capital Appropriations	\$ 1,760	\$ -	\$ 1,437	\$ 175	\$ 935	\$ 362	\$ 4,669
Academic Building Revenue Bonds	3,150	-	2,994	826	-	-	6,971
Building Renewal / General University	20,968	-	7,404	2,939	1,008	1,687	34,006
University Services Overhead Use Fund	-	-	93	-	-	-	93
Treasurer's Temporary Investments (TTI)	10,821	-	543	175	-	-	11,538
UIHC Building Usage Funds	-	28,360	-	-	-	-	28,360
Other	564	-	396	1	793	61	1,815
Total	\$ 37,262.5	\$ 28,359.6	\$ 12,867.7	\$ 4,115.4	\$ 2,736.4	\$ 2,110.1	\$ 87,451.7
							annual average over 28 years = \$3,123.3

* Does not include fire safety improvements within major renovation projects.

b. Fire Safety Projects: Outstanding

Outstanding fire safety projects include items identified by the State Fire Marshal’s Office, Iowa City Fire Department, Environmental Health & Safety, Council Bluffs Fire Department’s Fire Inspector and institutional departments authorized by the State Fire Marshal’s Office to conduct fire inspections. It excludes work in buildings to be demolished, and buildings with waivers from the State Fire Marshal’s Office.

Latest Fire Safety Inspections	
Conducted by the State of Iowa's Fire Marshal's Office and/or university officials annually or biannually	
SUI	2019
¹ UIHC	2019
² ISU	2019
UNI	2018
ISD	2018
² IBSSS	2019
¹ The Joint Commission conducts an unannounced survey of UIHC's life safety systems approximately every three years.	
² In 2017, ISU's Environmental Health & Safety was authorized by the State of Iowa Fire Marshal's Office to conduct fire safety inspections for both ISU and IBSSS.	

Fire Safety Projects: Outstanding ¹						
General Fund Buildings and Utilities						
FY 2021						
(\$ in thousands)						
	SUI²	ISU	UNI	ISD	IBSSS³	Total
Fire Safety Projects	\$ 2,904	\$ 2,865	\$ 3,337	\$ 130	\$ -	\$ 9,235
¹ Includes items identified by State Fire Marshal's Office and University officials; excludes pending demolitions and special State Fire Marshal waivers.						
² Does not include UIHC.						
³ Fire safety projects are in the process of transferring to a new owner, the City of Vinton.						

This \$9.2 million in outstanding fire safety projects is a four percent decrease from last year’s \$9.6 million.

c. Fire Safety Projects: Comments from the Institutions

In addition to the \$87 million completed over the last 28 years, the following describes fire safety progress made by the institutions in FY 2020.

University of Iowa

Under the UI fire safety program, 95 buildings are continually inspected and evaluated on a bi-annual basis by inspectors from the State Fire Marshal's Office (SFMO) with assistance from the UI Fire Safety Coordinator. In addition to bi-annual inspections, pre-occupancy inspections are being conducted by the State Fire Marshal's Office and State Building Code Bureau with the assistance of the UI Fire Safety Coordinator. These inspections evaluate newly constructed or renovated buildings prior to its occupancy and will likely mitigate the possibility of finding major deficiencies during future inspections. The Iowa City Fire Department (ICFD) also conducts annual inspections in all University buildings focusing on the prevention of fire incidents, and familiarization of the UI buildings for emergency response purposes. The ICFD inspection reports are categorized and corrections made are made in 30 days after issuance to the user group or Facilities Management.

The University continues to provide maintenance and periodic replacement of building fire safety systems, including fire detection, sprinkler, and suppression systems, along with portable fire extinguishers. During the past two years, Facilities Management's Fire Safety Inspectors have identified minor fire code deficiencies during their normal monthly tours when checking fire equipment in GEF buildings. They bring the issues to the attention of the user group or make the necessary work orders upon completion of the building's inspection and these deficiencies are then corrected within a short timeframe.

The University is committed to correcting fire safety deficiencies in campus buildings via operating funds, academic bonds (if available) and treasurers' temporary investments. When necessary to prioritize its investments, the University of Iowa utilizes its Fire Safety Advisory Group (FSAG) to assess the fire correction efforts and make recommendations for improvements to the Senior Vice President and University Architect.

On a regular basis, a corrections report from the latest state fire inspection and updates from previous reports, are submitted to the State Fire Marshal's Office for approval. These plans are a continuation of the annual agreement between the University and the State Fire Marshal's Office, which identifies each deficiency from the inspection reports with corrections and timetables noted. The State Fire Marshal's latest was conducted in 2019. Inspections for 2020 are underway.

Significant progress towards a safer campus was achieved in FY 2020. The following is a brief synopsis of recent projects to improve the overall fire safety of the University of Iowa:

- With funds made available through the University's Senior Vice President and several University Colleges, the Department of Public Safety was able to complete a 2-year process to place an automated external defibrillator (AED) in every University building, bringing the total number of AEDs to 184. Also within this process, 55 existing AED under a manufacturer's voluntary recall were also replaced.
- Building and Landscape Services continues to take a pro-active role in providing an enhanced level of fire and life safety inspections than offered in the past. Beside handling the required fire protection and detection systems inspections and monthly fire extinguisher inspections,

fire safety inspectors conducted basic fire prevention style inspections looking for obvious deficiencies, including inoperative exit sign lights, emergency lighting units and fire door assemblies

- Network of the fire alarm systems – Facilities Management continued to add to the network of fire alarm systems in UI buildings. Currently 79 buildings are connected to the 5-loop network. The network provides actual building floor plans, showing each fire alarm device, and will provide the UI Police communications center with real time information on each networked building. If needed, the network can allow the UI Police to activate the building's severe weather alert and perform live voice announcements for other types of campus emergencies.
- Higher Education Opportunity Act (HEOA) Annual Fire Safety Report – The University of Iowa has completed the 2018 fire safety report, as required by the Federal Department of Education. This report provides a log of all fire incidents that occurred in on-campus student housing facilities during the past three academic years. 2019 report is due in October.

Iowa State University

Starting in 2017, Iowa State University's Environmental Health & Safety (EH&S) was authorized by the State Fire Marshal's Office to conduct ISU's fire inspections.

- *Process Used to Incorporate Fire Safety Deficiencies into Renovation Projects*

EH&S works to ensure compliance with fire safety codes in General Fund facilities. All plans and designs for new buildings and renovation projects are reviewed for code compliance and checked for outstanding fire safety deficiencies. Fire safety deficiencies needing to be incorporated into a project are formally communicated to the project designers and engineers. Project designers and engineers routinely consult with EH&S to resolve challenging fire safety deficiencies early in the planning stages.

- *Fire Safety Deficiencies*

During FY 2020, \$838,000 was expended for fire safety projects for General Fund facilities. In FY 2021, \$450,000 is planned to be expended for the same in General Fund facilities.

The most current estimate to correct remaining fire safety deficiencies identified by the State Fire Marshal in General Fund facilities is \$2,865,000. This estimate includes the cost of adding sprinkler systems to seven buildings to address fire corridor deficiencies cited in the 2017 fire safety inspection.

Funding for correcting fire safety deficiencies comes from ISU's overhead use facilities fund and the capital renewal fund and are specifically identified as the "Health and Life Safety Project" accounts.

- *Asbestos*

Asbestos removal is required when remodeling and renovation projects will disturb asbestos-containing material (ACM). Scheduling asbestos removal when buildings are being renovated has proven to be the most cost-effective and time-efficient method, as asbestos removal coincides well with other major disruptions in a building like construction.

During FY 2020, \$1.1 million was expended to remove asbestos from General Fund facilities. In FY 2021, another \$1.1 million is planned to be expended for the same. The present value cost to remove all asbestos from General Fund facilities is estimated to be \$6,100,000.

Asbestos removal not associated with a renovation is managed separately, under an operations and maintenance (O&M) program. Any asbestos needing repair is submitted to Facilities Planning and Management (FP&M), where funds are identified to either repair or remove it. These repairs are necessary to safely maintain the asbestos in place, until it can be completely removed through a future renovation project.

- *Underground Storage Tanks*

ISU's Transportation Services operates and maintains two regulated underground storage tanks to fuel ISU's vehicles. Incidentally, these two are the last remaining on ISU's property. These double-walled, fiberglass-reinforced plastic fuel tanks were installed in July 1988. In August 2010, the underground piping and distribution systems were completely replaced.

State and federal regulations require operator training, leak detection sensors, spill prevention equipment, monthly checks, annual certification, and biennial third-party inspections of the fuel storage and distribution systems. Because of these preventive measures, the University has operated incident-free for many years. No installations of additional underground storage tanks on University property is being considered.

- *Polychlorinated Biphenyls (PCBs)*

All large pieces of equipment containing PCBs have been removed from campus.

The last known PCB-containing transformer was removed in June 2014 at a cost of \$4,440. Small sources, such as light ballasts and capacitors, continue to be collected for proper disposal as they are removed from service. ISU routinely separates PCB-containing ballasts from non-PCB ballasts, significantly reducing disposal costs. Disposal costs associated with PCB-containing material for Fiscal Year 2020 was less than \$100. Any oil-filled equipment scheduled for decommissioning or disposal are regularly tested for PCBs, prior to removal.

University of Northern Iowa

In 2012, a team comprised of the University Fire and Safety Specialist, Facilities Management administrators and skilled staff in various trades was assembled to prioritize fire alarm upgrades/replacement. The team considered condition of the system, availability of replacement components and exposure to risk.

Correcting fire safety deficiencies is a high priority for the University. The University's Environmental Health and Safety Office's Fire and Safety Specialist continues to conduct fire safety inspections, the goal of which is inspecting each campus building at least once each year.

- To ensure fire safety deficiencies are included in various renovation projects, the Office of Risk Management and Environmental Health & Safety (EHS) collaborate with Facilities Management to confirm that fire safety deficiencies are included within the project. During the renovation process, EHS collaborates with Facilities Management, contractors and the State Fire Marshal's Office to make sure that fire safety deficiencies are addressed. At the conclusion of a renovation project, EHS participates in the final walk through to ensure all identified fire safety deficiencies have been addressed.

The University of Northern Iowa identifies and addresses environmental safety deficiencies through its Office of Risk Management and Environmental Health & Safety (EHS). EHS conducts regular inspections of the University's facilities and works with external entities inspecting campus

for deficiencies, e.g. Iowa Department of Public Health. EHS also provides training to University employees on how to safely identify environmental safety deficiencies and works to promote a safety culture that encourages members of the campus community to report any suspected safety deficiency observed on campus.

- *Asbestos*

The University has in place an Asbestos Management Plan that addresses any operation, including maintenance activities, involving the potential or actual disturbance of asbestos containing materials. This plan complies with all state and federal regulations, including those promulgated by the Iowa Occupational Safety and Health Administration, OSHA and the Environmental Protection Agency.

- *Underground Storage Tanks*

There are no underground storage tanks on the UNI campus.

- *Polychlorinated Biphenyls (PCBs)*

There are no pieces of large equipment containing PCBs on the UNI campus.

Iowa School for the Deaf

The State Fire Marshal's office conducted its most recent inspection of the Council Bluffs site facilities on November 10, 2018. The inspection is performed every two years, setting the next fire safety inspection for December 2020.

- For FY 2021, ISD plans to spend \$130,000 to replace the Elementary Building's fire panel.

In April of 2019, an environmental review was conducted at ISD by Iowa State University Environmental Health and Safety (EH&S) staff recommending \$24,600 in asbestos removal. ISD's environmental review is conducted every three years.

- For FY 2020, ISD spent \$6,500 to remove asbestos from Giangreco Hall.
- For FY 2021, ISD plans to spend \$45,000 for a security camera upgrade.

Iowa Braille and Sight Saving School

In 2011, ISU's EH&S was authorized by the State Fire Marshal's Office to do IBSSS's fire safety inspections, due to the closure of IBSSS's residential program. The last inspection was in December of 2019. All deficiencies were corrected.

In September of 2019, an environmental safety inspection was conducted at ISD by ISU's EH&S. The asbestos containing linoleum in Cottage Hall's elevator lobby was removed. All other deficiencies have been corrected.

All facilities staff attend an "Asbestos Awareness" refresher course each year.

On August 27, 2020, the Board of Regents closed on the sale of the IBSSS campus to the City of Vinton. AmeriCorps will continue to lease 60% of the campus from the City of Vinton through June of 2029.

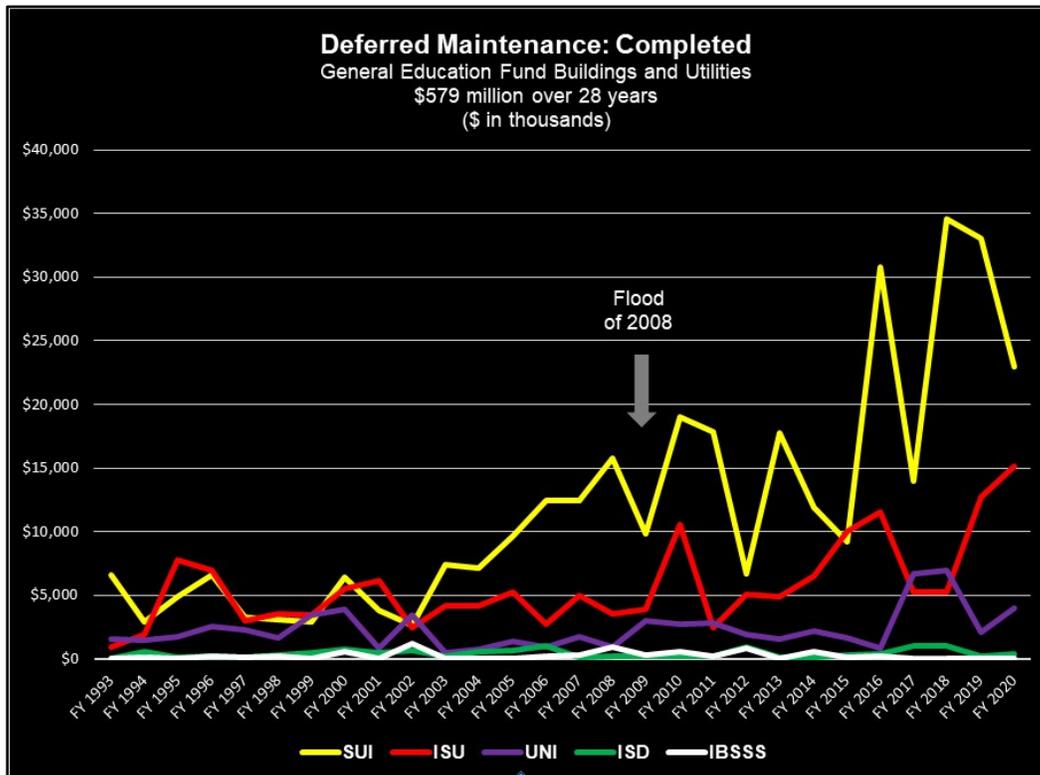
9. Deferred Maintenance

Deferred maintenance in higher education is a national problem. The institutions and the Board Office have focused on and defined deferred maintenance as:

“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.”

a. Deferred Maintenance: Completed

Regent institutions completed over \$579 million over 28 years in deferred maintenance projects from FY 1993 through FY 2020 in General Education Fund facilities or \$21 million per year.



Source of Funds (\$ in thousands) *	SUI	ISU	UNI	ISD	IBSS	Total
Capital Appropriations	\$525	\$8,762	\$1,389	\$3,755	\$2,491	\$16,923
Special Appropriations	1,450	25			60	1,535
Academic Building Revenue Bonds; Pre 1991, 1991, 1992, 1994, 1995, 2004, 2007, 2008	23,637	10,018	6,786			40,440
Building Renewal/Building Maintenance/General University	94,911	91,291	44,290	4,968	3,905	239,365
Building Renewal/Academic Building Revenue Bonds	340		84			424
Treasurer's Temporary Investment (TTI) Income	15,741	4,797	3,150			23,689
Gifts, Grants	865	4,464	1,872	224		7,425
Utility Renewal and Replacement and Revenue Bonds	182,631	26,180	2,591			211,402
Agriculture Experiment Station & Cooperative Extension		150				150
Facilities Overhead Use Allowance		6,912				6,912
Departmental Funds and combinations of above	15,452	7,159	5,312	2,686	501	31,110
Total =	\$335,552	\$159,758	\$65,474	\$11,633	\$6,957	\$579,374
Deferred Maintenance Completed per year, last 28 years = \$21,458						

* Does not include deferred maintenance in major renovations.

In FY 2020, the Regents spent \$42 million on deferred maintenance, down \$6 million from last year. For FY 2021, \$32 million is planned to tackle deferred maintenance, down \$46 million from last year.

b. Deferred Maintenance: Outstanding

Regent institutions report \$1.2 billion in outstanding deferred maintenance in General Education Fund buildings and utilities. This includes renovation projects with deferred maintenance in the Six-Year Capital Plan for State Funds for FY 2022-FY 2027.

Deferred Maintenance: Outstanding						
General Fund Buildings and Utilities						
Fall 2020						
(\$ in thousands)						
	SUI	ISU	UNI	ISD	IBSSS	Total
Individual						
Buildings ¹	\$423,648	\$481,699	\$161,861	\$875	\$1,133	\$1,069,216
Utilities		22,900	1,505	575	150	25,130
Subtotal	\$423,648	\$504,599	\$ 163,366	\$1,450	\$1,283	\$1,094,346
Included within Five Year Capital Plan (FY 2021 - FY 2025)						
Buildings ¹	\$89,964	\$9,122	\$37,553	\$0	\$0	\$136,639
Utilities		10,300	910	-	-	11,210
Subtotal	\$ 89,964	\$ 19,422	\$ 38,463	\$ -	\$ -	\$ 147,849
Grand Total						
Buildings ¹	\$513,612	\$490,821	\$199,414	\$875	\$1,133	\$1,205,855
Utilities	-	33,200	2,415	575	150	36,340
Total	\$513,612	\$524,021	\$201,829	\$1,450	\$1,283	\$1,242,195

¹ Includes site work.

This \$1.24 billion in outstanding deferred maintenance is a 6.8% increase over last year's \$1.16 billion.

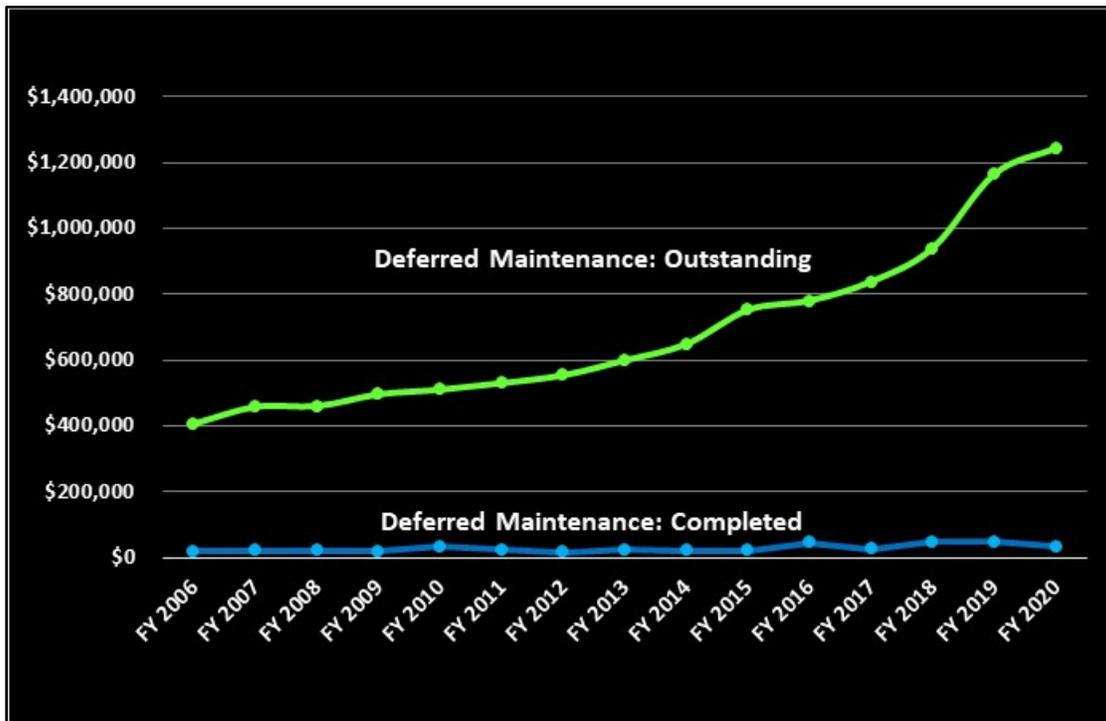
Deferred maintenance calculations start once a building component has outlived its useful life. For example, it starts once a 30-year roof warranty has expired. Those costs are then determined by utilizing construction industry standards such as cost per square foot information, consultation with Sightlines and comparisons to similar Regent projects. Sightlines is a higher education consultant, who specializes in facilities operations, costs and capital investments.

More specifically, the universities ascertain deferred maintenance costs through the assessment of nine different building systems, including building envelope, roof, window, HVAC, electrical, plumbing, interior, elevators and site. Replacement value of the building, the warranty of a specific building component and the condition of those components according to University maintenance staff is also taken into account.

As previously mentioned, 30 percent of Regent GEF facilities are reaching or have reached the end of their useful lives, due to their age dating back to the First Wave of construction in the 1960s and 70s.

c. Deferred Maintenance: Completed vs Outstanding

General Education Fund Facilities and Utilities
Fall 2020



d. Deferred Maintenance: Trends¹

There are three key conditions affecting higher education facilities and deferred maintenance.

- **A growing backlog of deferred maintenance** (see above): Facility funds are spread more thinly as the Regents continue to “catch up” and “keep up” with deferred maintenance.
- **Compounding Waves of Deferred Maintenance Needs:** From 2030-2045, the two previously mentioned waves of construction, 1961-1980 and 1995-2015, are projected to have overlapping deferred maintenance needs.
- **Fewer Students and Less Revenue:** For some time, it has been known that US birthrates declined in the wake of the Great Recession of 2009, raising the prospect of fewer young people moving through the educational system. In addition, state and institutional funds are scarce, particularly in the wake of the 2020 coronavirus.

¹ “State of Facilities in Higher Education: 2020

d. Deferred Maintenance: Institutional Comments

University of Iowa

General Education Fund Facilities

SUI had a 4.5% increase in outstanding deferred maintenance this year.

UI Facilities Management uses four basic facilities stewardship strategies to manage the condition of existing GEF facilities:

- Ongoing maintenance and operational care of existing facilities,
- Reinvestment in the renewal of long-term physical assets,
- Reduction of the backlog of deferred maintenance, and
- Decommission obsolescent facilities/ those with substantial deferred maintenance.

As it relates to deferred maintenance, the UI uses a total cost of ownership framework, when weighing alternatives that may include renovation, improvement or demolition. The total cost of ownership includes all stewardship costs, initial project cost, on-going care and utilities over the useful life of a facility. When investment would not result in useful space configurations or would prolong the inefficient use of existing land, the UI may consider razing the facility. In situations where razing is considered, historical value and heritage are carefully weighed.

Over the last two years, the University has transitioned from using new consulting firm that provides facilities condition assessments called Sightlines. Previous assessments primarily used asset age for data compilation, whereas Sightlines data uses age and input from frontline staff.

Regarding “keep up” versus “catch up,” the University uses a combination of annual stewardship and asset reinvestment to have an impact on the condition of the campus. “Keep up” (annual stewardship) is for the necessary repairs that keep the facilities functioning. “Catch up” (asset reinvestment) is to address the deferred maintenance. According to Sightlines, \$1 spent now in “keep up” avoids \$3 in “catch up.”

With the current level of funding, the UI no longer is positioned to “keep up” with the rate of building deterioration nor to “catch up” to the demands for program-related modernization. The gap between the available funding and need is significant, and not quickly resolvable. Consequently, the UI now is working closely with Sightlines and the UI Central Services Building and Grounds Advisory Committee to develop a strategy to address near-term funding decreases by offsetting higher funding levels in the back end of the plan.

To help prioritize deferred maintenance projects, the UI is developing an institutional-specific, project-scoring matrix to be used in conjunction with the facility condition assessment database for objective scoring and alignment with institutional priorities. This matrix would be agreed upon by the appropriate University staff.

➤ **University of Iowa Hospitals and Clinics**

As a self-supporting auxiliary unit, the University of Iowa Hospitals and Clinics funds its own deferred maintenance repairs.

Iowa State University

General Education Fund Facilities

ISU had a 6.5% increase in outstanding deferred maintenance this year.

The deferred maintenance backlog is based upon a systematic process for identifying the maintenance and repair requirements for General Education Funds (GEF) facilities. The methodology involves assessing GEF facilities in nine categories: building envelope, HVAC, roof, window, site, electrical, plumbing, interior and elevators. The assessment takes into account the building's replacement value and age, building system values and age and the overall condition of those buildings and systems. The area maintenance team assigned to each building provides a important condition assessment of each building system.

The University has a Maintenance and Improvement Committee including stakeholders from academics, research, student affairs, operations and finance, and facilities that meet regularly to review and prioritize deferred maintenance and capital renewal requirements and allocate the available resources. Requests are prioritized by the negative impact on teaching, research or outreach, situations that significantly compromise safety, or risk to the ability of the University to continue to provide services. This process assures the University addresses the most critical needs within the limited available resources.

Deferred maintenance in the utility auxiliary enterprise includes the central campus cogeneration plant, satellite heating and cooling plants, and underground utility distribution systems.

Utility Deferred Maintenance

Utility rates are developed to allow funds to be budgeted for maintenance and repairs. Routine maintenance is budgeted at \$3.5 million per year. Major repairs and overhauls are budgeted at \$3.0 million per year. Major repair funds are first allocated to perform scheduled overhauls of turbines, boilers, chillers, and associated auxiliaries as required by the University's insurance carrier and to ensure reliable utility production. These overhauls require \$500,000 to \$800,000 annually, depending upon which units are due for servicing. The remainder of the utility repair funds are used to address ongoing planned repairs, deferred maintenance, and for emergent repairs.

This approach has been successful in maintaining the critical utility systems serving the campus in good condition. The utility backlog is approximately \$33.2 million, relative to a replacement value over \$585 million. The University is in the process of a continuing assessment the condition of the underground distribution systems to update the deferred maintenance levels reflected in our database.

University of Northern Iowa

General Education Fund Facilities

UNI had a 17% increase in overall deferred maintenance this year.

The University continues to update its deferred maintenance information through building assessments. Information is obtained from users of the buildings, along with the maintenance personnel for the respective areas. When planning renovations, Facilities Management design and construction staff review the deferred maintenance deficiencies and address those as part of the project.

The University is striving to maintain its facilities on a building repairs budget of \$1,400,000. This is 0.12% of UNI's \$1.2 billion GEF replacement value. The Board's *Policy Manual* states that institutions should plan to budget 1% of replacement value or \$12 million. According to national standards, 1% is the minimum commitment to prevent future facilities deterioration. Operations and maintenance personnel focus their resources based on a priority system that addresses safety issues, educational support, and repair of facilities equipment to lengthen the assets life.

GEF deferred maintenance projects completed in FY 2020 totaled nearly \$4 million. For FY 2021, UNI has identified \$6.3 million in GEF deferred maintenance projects. Future projects will continue to be prioritized and selected from UNI's top 25 Deferred Maintenance list.

Iowa School for the Deaf

Deferred maintenance items are identified through inspection and reporting from ISU and ISD's facility staff and site users from the Council Bluffs area. Projected estimates have been further developed through ISU and an independent study by architects performed by Nielsen, Mayne Architecture, Incorporated in Omaha.

By Fall 2022, \$2.2 million in deferred maintenance will be eliminated from Long Hall, ISD's high school, through \$4.3 million in state appropriations.

Due to the age of the buildings, tuckpointing and foundation waterproofing is necessary on Giangreco Hall, their administration building. Interior renovations are needed in the bedrooms and common areas of the boys and girls dormitories. These projects have been incorporated into ISD's Five Year Capital Plan and would be completed as funds become available. ISU and ISD maintain a complete list of deferred maintenance items, helping in their process to prioritize projects.

Iowa Braille and Sight Saving School

On August 27, 2020, the Board of Regents closed on the sale of the IBSSS campus to the City of Vinton. AmeriCorps will continue to lease 60% of the campus from the City of Vinton through June of 2029.

For at least the last two years, deferred maintenance repairs were on hold due to the pending sale. A complete list of deferred maintenance items was provided to the City to better inform them about the property and aid in their decision-making process.

Over the years, ISU and IBSSS facility staff worked closely together to identify deferred maintenance items at IBSSS. Currently, 53% of IBSSS's deferred maintenance is in the Old Main building. The remaining 47% is distributed between Palmer Hall, Rice Hall, Cottage and the Recreation Building.

e. Deferred Maintenance Analysis

The sheer aging of facilities and budget challenges over the years have led to an increase in deferred maintenance issues, fire safety projects and environmental safety deficiencies, and have hindered the institution's abilities to correct them. Maintenance cycles and preventative maintenance activities have been delayed or eliminated, placing buildings and occupants more at risk for unanticipated outages. In general, delays in the maintenance of roofs, exterior building envelopes, windows, mechanical and electrical systems can cause further damage, increasing the overall deferred maintenance cost.

The institutions are moving forward and developing strategies to fund both "keep up" and "catch up" costs. In doing so, they set priorities based on a number of factors, including building condition and utilization, operational demands and program growth. From there, the universities track the performance of its mission critical buildings that currently face the highest risk of failure to determine the best course of action.

f. Deferred Maintenance Recommendations¹

- Plan where *not* to spend facility funds. Continue to make tough decisions about facilities that do not further the institution's mission, provide a competitive edge or warrant additional investment.
- Invest facility funds to maximize the utilization of existing space.
- Continue to target facilities where existing space can be made more efficient. Invest with space utilization in mind.
- Maximize the impact of each investment. Continue to connect deferred maintenance investment with student success, mission and priorities.

¹ "State of Facilities in Higher Education: 2017 Benchmarks, Best Practices & Trends

**End of
Section C**